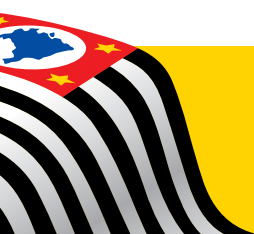


BALANÇO ENERGÉTICO DO ESTADO DE SÃO PAULO - 2015

ENERGY BALANCE OF THE STATE OF SAO PAULO - 2015



Ano Base - 2014
Year - 2014



Governo do Estado de São Paulo / *Government of the State of São Paulo*
Secretaria de Energia / *Energy State Secretariat*

Série Informações Energéticas, 002
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São Paulo
2015

GOVERNO DO ESTADO DE SÃO PAULO / *Government of the State of São Paulo*
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Apresentação

O Balanço Energético Estadual 2015, elaborado pela Secretaria de Energia, é a publicação do Governo do Estado que apresenta a oferta e a demanda dos energéticos utilizados pela economia paulista, com a correspondente participação dos setores envolvidos.

A política energética do Estado de São Paulo tem como objetivo estratégico a ampliação da oferta de energia junto aos centros de carga, segurança energética e ampliação da participação de fontes renováveis na matriz. Para que possa atingir esses objetivos é indispensável que conte com informações completas e confiáveis sobre a oferta e a demanda de energia. Estas informações são necessárias não somente à Secretaria de Energia, na formulação e execução dos programas estaduais, mas também aos municípios e regiões do Estado, para que possam formular e apresentar suas demandas com a maior clareza possível.

Trata-se, portanto, da produção de informações estratégicas para que os municípios paulistas em conjunto com o Governo do Estado planejem suas prioridades em energia e serviços.

A publicação é leitura essencial para todos que trabalham com estudos de planejamento energético, viabilização de tecnologias inovadoras, busca de eficiência energética e preservação do meio ambiente.

A evolução da matriz energética do Estado de São Paulo é um dos destaques do Balanço, mostrando uma maior participação da biomassa e do gás natural desde meados da década de 90.

A presente edição apresenta também informações sobre as emissões de CO₂ no Estado, séries históricas das safras do setor sucroalcooleiro paulista e um detalhamento da eletricidade e derivados de petróleo e gás.

Com isso, o Balanço Energético Estadual 2015 torna-se uma importante ferramenta voltada à aplicação de políticas públicas pertinentes ao setor de infraestrutura.

Presentation

The State Energy Report 2015 prepared by the Secretariat of Energy, is the publication of the State Government that shows the supply and demand of energy used by the state economy, with the corresponding participation of the sectors involved.

The energypolicy of the State of São Paulo's strategic objective of expanding the energy supply from the load centers, energy security and expanding the share of renewable sources in the matrix. In order to achieve these objectives it is essential that count on complete and reliable information on the supply and demand of energy. This information is needed not only to the Secretary of Energy, in the formulation and implementation of state programs, but the municipalities and regions of the state so that they can formulate and present their demands as clearly as possible.

It is therefore the production of strategic information to the counties together with the State Government to plan its priorities in energy and services.

The publication is essential reading for all who work with energy planning studies, feasibility of innovative technologies, search for energy efficiency and environmental protection.

The evolution of the energy matrix of the State of São Paulo is one of the Balance sheet highlights, showing a greater share of biomass and natural gas since the mid- 90s .

This issue also reports on CO₂ emissions in the state, historical data vintages of the São Paulo sugarcane sector and a breakdown of electricity and derived from oil and gas.

Thus, the State Energy Balance 2015 becomes an important tool aimed at implementation of public policies relevant to the infrastructure sector .

João Carlos de Souza Meirelles
Secretário de Energia / Secretary of Energy

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Capítulo 01

Sumário



Chapter 01

Summary

1.1. Sumário Executivo

O Balanço Energético do Estado de São Paulo (BEESP) reúne os principais dados estatísticos do setor em publicação da Secretaria de Energia. O objetivo é divulgar dados e informações a respeito de produção, transformação e consumo de energia no Estado. Com isso, o balanço torna-se uma ferramenta importante para análise da estrutura e evolução da Matriz Energética Paulista subsidiando estudos de planejamento e de política energética.

Os dados e as informações contidas neste balanço devem ser vistas como um instrumento que auxilia estudos, análises e discussões dos aspectos técnicos na área energética paulista, especialmente àqueles voltados a oferta e a demanda de energia.

Assim, o Balanço Energético do Estado de São Paulo – 2015, com base em dados referentes ao ano de 2014, apresenta as séries históricas do período de 2005 a 2014, discriminadas por insumos energéticos e por setores da economia. A consolidação desses dados é explicitada ano a ano em anexos no final deste documento, por meio dos quais se observam os fluxos de energia das diferentes fontes primárias e secundárias.

Alguns dados e informações contidas em anos anteriores foram revisados, justificando-se desta maneira, as eventuais diferenças com dados de balanços de edições antecedentes.

As estimativas das emissões de CO₂ foram calculadas segundo a metodologia mais utilizada internacionalmente, consolidada no âmbito do Greenhouse Gas Inventory - Reference Manual, com a participação do Intergovernmental Panel on Climate Change, International Energy Agency, Organization for Economic Cooperation and Development e United Nations Environment Programme.

1.1. Executive Summary

The Energy Balance for the State of Sao Paulo (BEESP) is a collection of statistic data on this sector published by Energy Secretariat . The purpose of this publication is to disclose data and information on the production transformation and consumption of energy in the state. As a result, this balance becomes a important tool for analyzing of the structure and evolution of the matrix energy in the state, providing the basis for energy policy and planning studies.

The data and information contained in this balance should be seen as an aid instrument for the studies, analysis and discussions of the technical aspects of the State of Sao Paulo's energy sector, particularly those involving energy supply and demand.

Thus the Energy Balance for the State of Sao Paulo for 2015, based on data for the year 2014, presents the historic series of the 2005 to 2014 period according to energy inputs per economic sector. This data consolidation is provided, year by year, at the end of this document. It shows the energy flows from the different primary and secondary sources.

Some of the data and information from previous years were revised. This explains possible differences with regard to data supplied in the balances of previous editions.

The estimates of CO₂ emissions were calculated according to the most used international methodology, consolidated in the Greenhouse Gas Inventory - Reference Manual, with the participation of the Intergovernmental Panel on Climate Change, International Energy Agency, Organization for Economic Cooperation and Development and the United Nations Environment Programme.

A unidade apresentada nos balanços consolidados é o toe (tonelada de óleo equivalente), em substituição à unidade tep (tonelada equivalente de petróleo) utilizada até a edição do ano base de 2005 do BEESP. Apesar desta distinção em relação aos consolidados do Balanço Energético Nacional (BEN), os quais são apresentados na unidade tep, seus valores são compatíveis entre si, uma vez que ambos adotam 10×10^9 cal como fator de conversão para tep ou toe.

This unit shows the consolidated balances is the toe unit (ton of oil equivalent), instead of the tep unit (ton of petroleum equivalent) used till the 2005 edition of the BEESP. Despite this distinction with regard to the consolidated data of the National Energy Balance (BEN), which shows the data in the tep unit, their values are mutually compatible since they both adopted 10×10^9 cal as the conversion factor for tep or toe.

1.2. Estado de São Paulo

1.2. The State of São Paulo

DADOS GERAIS	UNIDADE/UNIT	2014 ⁽³⁾	DATA
Área do Estado	km ²	248.600	State Area
População Total ⁽¹⁾	10 ³ hab. / 10 ³ inhab.	42.673	Total Population ⁽¹⁾
Densidade Demográfica	hab. / km ² / inhab / km ²	171,65	Demographic Density
Domicílios Totais ⁽²⁾	10 ³ moradias / 10 ³ homes	14.811	Households ⁽²⁾
Produto Interno Bruto - PIB ⁽¹⁾	10 ⁶ R\$ de 2005	962.479	Gross Domestic Product ⁽¹⁾
	Valores Correntes 10 ⁶ R\$ / Current values 10 ⁶ R\$	1.586.612	
Capacidade Nominal Instalada	MW	22.334	Rated Installed Capacity
Energia Gerada	GWh	54.558	Energy Produced
Energia Recebida	GWh	85.267	Energy Delivered
Energia Requerida	GWh	139.825	Energy Required
Consumo Final Energético	10 ³ toe	67.374	Energy Final Consumption
Intensidade Energética Total	toe/10 ³ R\$ de 2005	0,070	Total Energy Intensity
Consumo Final Energético per Capita	toe / hab. / toe / inhab.	1,579	Energy Final Consumption Per Capita
Oferta Interna Bruta	10 ³ toe	73.311	Gross Domestic Supply
Suficiência Energética	10 ³ toe	35.408 (48,3%)	Energy Sufficiency
Participação das Energias Renováveis	%	53,1	Renewable Energy Share
Emissões de CO ₂ por habitante	tCO ₂ /hab / tCO ₂ / inhab	2,0	CO ₂ emissions per capita

⁽¹⁾ Fundação Sistema Estadual de Análise de Dados - SEADE. / Data Analysis State System Foundation

⁽²⁾ PNAD - Pesquisa Nacional por Amostra de Domicílio - IBGE / National Inquiring by Household Sample

⁽³⁾ Tables and figures members follow brazilian standard, that is: point - thousand separation and comma decimal separation.

O ano de 2014 apresentou uma retração da capacidade produtiva do Estado em relação ao ano anterior, devido principalmente à redução da produtividade nos setores agrícola e industrial, com destaque negativo em produtos como o café, a cana-de-açúcar e veículos automotivos.

The year 2014 showed a decrease in the production capacity of the State in comparison to the previous year, mainly due to reduced productivity in the agricultural (e.g. coffee and sugarcane) and industrial (automotive vehicles) sectors.

Tal situação deveu-se basicamente aos baixos preços das commodities exportadas e a retração do consumo das famílias, causado em função das elevadas taxas de juros praticadas pelo mercado, resultando no desestímulo do consumo de bens e serviços.

This scenario was mainly due to the low prices of exported commodities and the decline in household consumption, caused by the high interest rates practiced in the market, thus resulting in a decline in the consumption of goods and services.

Segundo dados do IBGE, o PIB(Produto Interno Bruto) brasileiro em 2014 apresentou uma estagnação em relação ao ano anterior, ordem de +0,1%.

According to the IBGE, the Brazilian GDP(Gross Domestic Product) in 2014 showed a stagnation with regard previous year, with a growth rate of +0.1%.

Para o Estado de São Paulo, segundo dados preliminares da Fundação SEADE, o PIB paulista de 2014 apresentou uma retração de -1,9% em relação ao ano anterior, sendo de -6,3% do setor primário, -5,3% do setor secundário e -0,5% do setor terciário.

For the State of São Paulo, according to preliminary data from the SEADE Foundation, GDP São Paulo State to 2014 showed a decrease of -1.9% over the previous year, and of -6.3% in the primary sector, -5.3% of secondary sector and -0.5% of the tertiary sector.

Em termos energéticos os resultados obtidos pelo BEESP 2015 – ano base 2014 foram os seguintes:

In energy terms, the BEESP's results for 2015–base year 2014 were as follows:

A Oferta Total de Energia (produção + importações + variação de estoques) no Estado de São Paulo, em 2014, foi de 98.579×10^3 toe, significando um decréscimo de -3,2% em relação ao ano anterior (101.882×10^3 toe). Em termos de energia primária, os insumos energéticos que apresentaram crescimentos na oferta foram o petróleo com +0,76% (46.350×10^3 toe) e a lixívia com +5,0% (1.219×10^3 toe). Todos os demais insumos energéticos apresentaram decréscimo em relação ao ano anterior, a saber: carvão vapor com -16,7%, carvão metalúrgico com -13,2%, gás natural com -2,2%, energia hidráulica com -21,1%, lenha com -3,6%, caldo de cana com -7,5%, melão com -8,6%, bagaço com -8,0% e outras primárias com -2,8%. Em termos de energia secundária houve um acréscimo de +0,3% em relação ao ano de 2013.

The total supply of energy (production + imports + variation of stocks) in the State of São Paulo in 2014 was $98,579 \times 10^3$ toe, which is a -3,2% decrease with regard to the previous year ($101,882 \times 10^3$ toe). In terms of primary energy, the energy inputs that were experienced growth in supply petroleum with + 0.76% ($46,350 \times 10^3$ toe) and the black liquor with 5.0% ($1,219 \times 10^3$ toe). All the remaining energy inputs show drops with regard to the previous year, namely: steam coal with -16.7%, metallurgical coal with -13.2%, natural gas with -2.2, hydropower with -21.1%, firewood with -3.6%, sugarcane juice with -7.5%, molasse with -8.6%, sugarcane bagasse with -8.0% and other primary with -2.8%. In terms of secondary energy, there was a increase of +0,3% with regard to the year 2013.

A Oferta Interna Bruta de Energia – OIE (Oferta Total – Exportações) apresentou um decréscimo de -3,6% em relação ao ano anterior. A OIE de energia primária diminuiu -3,8% e a de energia secundária -5,1%. Os insumos energéticos que mais contribuíram para esse decréscimo foram o etanol hidratado com -630,0%, o coque de carvão mineral com -73,9% e o querosene com -47,6%.

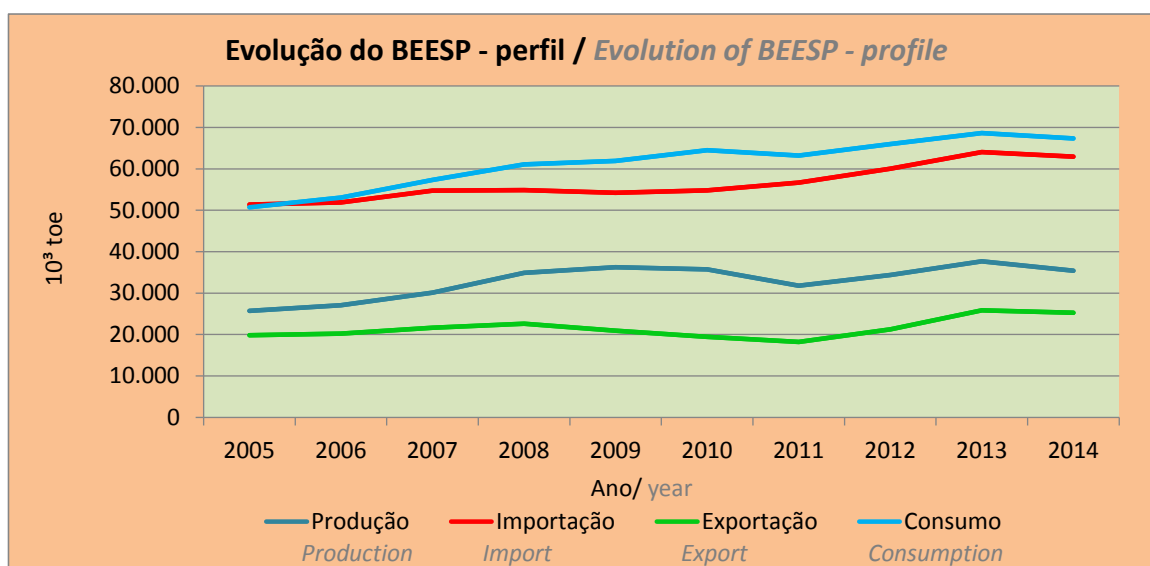
The Gross Domestic Supply of Energy – OIE (Total Supply – Exports) showed a decrease of -3.6% with regard to the previous year, in which the OIE of the primary energy decrease -3.8% and the secondary energy -5.1%. The energy inputs that contributed most to the decrease were hydrous ethanol -630.0%, the coal coke with -73.9% and the kerosene with -47.6%.

A participação das energias renováveis na Oferta Interna Bruta de Energia - OIE - foi de 53,1%, com destaque para os derivados da cana 31,4% e hidráulica e eletricidade com 18,0%. A participação das energias não renováveis na OIE foi de 46,9%, com destaque para petróleo e derivados com 38,3% e gás natural 6,9%.

Em termos gerais, o perfil de evolução dos principais indicadores do BEESP (produção, importação, exportação, e consumo final energético) entre 2005 e 2014 estão representados no gráfico a seguir:

The participation of renewable energies in the Gross Domestic Supply of Energy was 53.1%, the outstanding types being the sugar cane by-products 31.4% and hydraulic and electricity with 18.0%. The non-renewable energies in the Internal Supply of Energy had a 46.9% share, the outstanding types being petroleum and its by-products with 38.3% and natural gas 6.9%.

In general terms, the evolution profile for the BEESP's main indicators (production, imports, exports, and final energy consumption) from 2005 to 2014 is shown in the chart following:



Constata-se um crescimento na produção de energia primária próxima de 37,8% no período (2005-2014), passando de aproximadamente 25.702 x 10³ toe para 35.408 x 10³ toe, devido principalmente aos insumos primários renováveis (caldo de cana, melaço, bagaço e lixívia). O consumo também teve um crescimento da ordem de 32,7% no período. Já as importações de energia, constituídas em maioria por petróleo e seus derivados, registraram crescimento de 22,5% e as exportações registraram um crescimento de 27,6%.

The primary energy production growth shown is close to 37.8% in the period (2005-2014), increasing from approx. 25,702 x 10³ toe to 35,408 x 10³ toe, particularly because of renewable primary inputs (sugar cane juice, molasses, bagasse and black liquor). Consumption also has a growth of approximately 32.7% over the period. Imports of energy, consisting mainly from oil and its derivatives, grew by 22.5% and exports registering a growth of 27.6%.

Esses números demonstram a importância das matérias primas renováveis (produtos oriundos dos setores sucroalcooleiro e de papel & celulose) na evolução da produção e oferta de energia no Estado, reforçando assim, o perfil da matriz energética paulista como uma das mais limpas, sob o ponto de vista ambiental e, ao mesmo tempo, assegurando uma maior confiabilidade no suprimento de energia frente as suas necessidades.

A Suficiência de Energia em 2014 foi de 48,3% do uso total do Estado, inferior -1,3% em relação ao ano anterior. Entende-se suficiência de energia como sendo a operação algébrica entre a demanda por energia (consumo + transformação + perdas) menos importações mais variações de estoques menos exportações. O detalhamento desses números encontra-se na Tabela 5-01. Nos últimos dois anos, houve um decréscimo devido, principalmente, a redução da quantidade de cana-de-açúcar processada no Estado de São Paulo.

These values demonstrate the importance of renewable raw materials (products from sugarcane sector, paper and pulp industries) in the evolution of the energy production and supply in the state, thus reinforcing Sao Paulo's energy matrix profile, which became one of the cleanest from the environmental point of view. At the same time, this led to greater reliability in the energy supply to cope with the state requirements.

The energy sufficiency in 2014 was 48.3% of the state total use, -1.3% below than in the previous year. By energy sufficiency is meant the algebraic operation between by energy demand (consumption + transformation + losses) minus imports plus variation of stocks minus exports. These figures are shown in detail in Table 5-01. Over the past two years, there was a decrease, mainly due to reducing the amount of sugar cane processed in the State of São Paulo.

A seguir, é apresentado um quadro contendo a evolução da suficiência de energia:

The following table shows the evolution of energy sufficiency:

	2007	2008	2009	2010	2011	2012	2013	2014	
Suficiência (%)	47,7	52,0	52,3	50,5	45,4	47,3	49,6	48,3	Sufficiency (%)
Dependência (%)	52,3	48,0	47,7	49,5	54,6	52,7	50,4	51,7	Dependency (%)

O Total da Transformação (Centros de Transformação onde a energia primária é convertida em energia secundária) em 2014 no Estado de São Paulo apresentou um decréscimo de -2,8% devido principalmente à redução do volume de água necessária para a geração de eletricidade e o menor processamento das destilarias de cana-de-açúcar para a produção de etanol anidro. Como destaque positivo, ocorreu um maior processamento de nafta (16,1%) e querosene (13,6%) nas refinarias do Estado de São Paulo.

The Total Transformation (Centers for Transformation where the primary energy is converted into secondary energy) in 2014 in São Paulo decreased by -2.8% due mainly to the reduction of the required volume of water to generate electricity and less processing of sugarcane distilleries for the production of anhydrous ethanol. As a positive highlight, there was a higher naphtha processing (16.1%) and kerosene (13.6%) from the refineries of the State of São Paulo.

A Intensidade de Energética, compreendida como sendo a relação entre o consumo final de energia (10^3 toe) pelo PIB (10^6 R\$), representa a quantidade de energia necessária para a produção de uma unidade de produto expressa em toe/R\$. Ao analisarmos a tabela a seguir veremos uma certa estabilidade.

Esta estabilidade demonstra que mesmo em período de equilíbrio econômico, a busca por uma maior eficiência nos usos finais necessita de investimentos em inovação tecnológica, mudanças de hábitos e usos dos equipamentos.

The Energy Intensity, understood as the ratio between the final consumption of energy (10^3 toe) and the gross domestic product (10^6 R\$), represents the amount of energy required to produce a unit of product expressed in toe / R\$. Analyzing the table below we can see some constancy.

This constancy demonstrates that even in times of economic equilibrium, the search for greater efficiency in the final uses require investments in technological innovation, changes in habits and uses of equipment.

	2007	2008	2009	2010	2011	2012	2013	2014	
Intensidade Energética (10^3 toe/ 10^6 R\$)	0,071	0,072	0,073	0,070	0,067	0,068	0,070	0,070	Energy Intensity (10^3 toe/ 10^6 R\$)
Consumo "per capita" (10^3 toe/ 10^6 hab.)	1433	1511	1517	1566	1520	1574	1623	1579	Consumption per capita (10^3 toe/ 10^6 inhab.)

Já para o Consumo "per capita" de Energia, compreendido como sendo a relação entre o consumo final de energia (em 10^3 toe) pelo número de habitantes (10^6 hab.) constata-se que a participação "per capita" no consumo energético, aumentou gradativamente de 2007 a 2013, com uma pequena inflexão em 2011. Essa estabilidade demonstra o efeito de uma economia estável e consequente aumento do poder aquisitivo. Em 2014, entretanto, face ao desaquecimento geral da economia nacional, ocorre uma significativa retração dos valores apresentados, podendo ser facilmente observado por meio da queda da OIE.

As for the Consumption "per capita " Power, understood as the relationship between final energy consumption (in 10^3 toe) by the number of inhabitants (10^6 hab) It appears that participation "per capita " energy consumption , increased gradually from 2007 to 2013 , with a slight inflection in 2011. This stability demonstrates the effect of a stable and consequent increase in purchasing power economy. In 2014, however, due to the general slowdown of the national economy, there is a significant decrease from the amounts presented and can be easily observed by the OIE fall

O Consumo Final (Energético + Não Energético) em 2014 registrou um decréscimo de -1,88% em relação ao ano anterior (67.374×10^3 toe/ 68.668×10^3 toe), como resultado da diminuição de -2,02% nos usos Energéticos (63.698×10^3 toe / 65.014×10^3 toe) e do acréscimo de +0,60% nos usos Não Energéticos (3.676×10^3 toe/ 3.654×10^3 toe). O Consumo Final de Energia Primária e o de Energia Secundária apresentaram no mesmo período, decréscimo de -6,40% (19.682×10^3 toe/ 21.028×10^3 toe) e acréscimo de +0,11% (47.692×10^3 toe/ 47.640×10^3 toe), respectivamente.

The Final Consumption (Energy + Non Energy) in 2014 recorded a decrease of -1.88 % compared to the previous year ($67,374 \times 10^3$ toe/ 68.668×10^3 toe) as a result of decrease of -2.02 % in Energy uses ($63,698 \times 10^3$ toe / $65,014 \times 10^3$ toe) and + 0,60 % increase in the uses Non Energy ($3,676 \times 10^3$ toe/ $3,654 \times 10^3$ toe). The Final Consumption of Primary Energy and the Secondary Energy presented the same period, a decrease of -6.40 % ($19,682 \times 10^3$ toe/ $21,028 \times 10^3$ toe) and adding + 0.11 % ($47,692 \times 10^3$ toe / $47,640 \times 10^3$ toe), respectively.

Em relação à evolução do Consumo Final dos principais energéticos merecem destaque o aumento do consumo do etanol anidro (+3,62%) e dos não energéticos (+10,36). Houve redução do bagaço de cana (-8,03%), do gás natural (-4,0%), do óleo Diesel (-1,54%) e do do óleo combustível (-6,71%), quando comparados com o ano anterior.

1.3. Consumo e Produção de Energia Elétrica no Estado de São Paulo.

No ano de 2014 o consumo de energia elétrica, incluindo autoprodutores, foi de 150.723 GWh, apresentando um decréscimo de -1,58% em relação ao mesmo período do ano anterior (153.147 GWh). Esse decréscimo foi motivado, principalmente, pelo setor industrial com retração de -8,02% (62.410 GWh) em comparação com 2013. Houve crescimento nos demais setores, com destaque para o Setor comercial, com acréscimo de 8,62% (29.598 GWh) e Agropecuário com 7,01% (3.312 GWh), já o setor de transportes cresceu 1,5% em relação ao mesmo período do ano anterior.

Em dezembro de 2014, a capacidade instalada no Estado de São Paulo, por meio de suas usinas hidrelétricas e termelétricas, era de 22.333,6 MW, correspondente a aproximadamente 16,7% do total do mesmo perfil da capacidade instalada no Brasil.

Regarding the evolution of Final Consumption of primary energy worth mentioning the increase in anhydrous ethanol consumption (+3.62 %) and non-energy (+10.36 %). There was a reduction of sugarcane bagasse (-8.03 %), natural gas (-4.0 %), the diesel oil (-1.54 %) and fuel oil (-6.71 %) compared with the previous year.

1.3. Consumption and Production of Electric Energy in the State of Sao Paulo.

In 2014 the consumption of electricity, including self-producers, was 150,723 GWh, a decrease of -1.58% over the same period last year (153,147 GWh). This decrease was caused mainly by the industrial sector with a decrease of -8.02% (62,410 GWh) compared to 2013. There was growth in other sectors, especially the trade sector, an increase of 8.62% (29,598 GWh) and Agropecuário with 7.01% (3,312 GWh), since the transport sector grew 1.5% compared to the same period last year.

In December 2014, the installed capacity in the State of São Paulo, through its hydroelectric and thermoelectric plants, was 22,333.6MW corresponding to approximately 16.7% of the total capacity of the same profile installed in Brazil..

	Capacidade Nominal Instalada em São Paulo <i>Instaled Capacity in São Paulo</i>	Unidades / Units	MW
Hidroelétrica <i>Hydropower Plants</i>	UHE - Usinas Hidroelétrica/ <i>Hydropower Plants</i>	51	14.519,1
	PCH - Pequenas Centrais Hidroelétricas/ <i>Small Hydropower Plants</i>	48	336,4
	CGH - Centrais Geradora Hidroelétricas/ <i>Little Hydropower Plants</i>	28	17,5
Fotovoltaica/ <i>Solarpower Plants</i>		40	1,3
Eólica / <i>Wind Power Plants</i>		1	0,002
Termelétrica <i>Thermopower Plants</i>	Biomassa/ <i>Biomass Power Plants</i>	210	5.432,0
	Fóssil/ <i>Fossil-fuel Power Plants</i>	369	2.027,3
	Termonuclear/ <i>Nuclear Power Plants</i>	0	0

Capacidade Nominal Instalada <i>Instaled Capacity</i>	São Paulo / <i>Sao Paulo</i>		Brasil / <i>Brazil</i>		Participação / <i>Share</i>	
	Unidade / <i>Unit</i>	MW	Unidade / <i>Unit</i>	MW	Unidade / <i>Unit</i>	MW
Hidroelétrica / <i>Hydropower Plants</i>	127	14.872,9	1.159	89.225,5	10,9	16,7
Termelétrica / <i>Thermopower Plants</i>	579	7.459,3	1.890	37.801,1	30,6	19,7
Fotovoltaica/ <i>Solar Power Plants</i>	40	1,3	317	15,2	12,6	8,2
Eólica / <i>Wind Power Plants</i>	1	0,002	231	4.953,7	0,4	0
Nuclear / <i>Nuclear Power Plants</i>	0	0	2	1.990,0	0	0
Total / <i>Total</i>	747	22.333,6	3.559	133.985,5	21,0	16,7

Dentre as empresas geradoras de Energia Hidrelétrica do Estado, a Companhia Energética de São Paulo (CESP), com 6.649,8 MW é a que possui a maior capacidade nominal instalada. Ela é seguida pela AES-Tietê S/A com 2.658,4 MW, pela Duke Energy International, Geração Paranapanema S/A com 2.306,1 MW, pela Empresa Metropolitana de Águas e Energia S/A (EMAE) com 1.810,4 MW, enquanto as demais concessionárias totalizam 1.138 MW.

Segundo a Empresa de Pesquisa Energética (EPE), empresa pública vinculada ao Ministério de Minas e Energia (MME), no ano de 2014, o consumo de energia elétrica no país teve um crescimento de 2,9% (531.080 GWh) em relação a 2013 (516.174 GWh). Foi registrado no setor industrial um decréscimo de -2,01% (205.932 GWh), e acréscimo de 5,7% no setor residencial (132.049 GWh), de 7,4% no setor comercial (90.619 GWh) e de 5,9% nos demais setores (102.480 GWh).

1.4. Visão Geral da Matriz Energética do Estado de São Paulo.

A Figura 1.1 representa, de forma sintética, o Fluxo Global de Energia no Estado no ano de 2014, na unidade 10^3 toe. Observa-se que a Oferta Total atingiu 98.579×10^3 toe, composta em sua maior parte pelo Petróleo e Derivados (47,02%) e Cana-de-Açúcar (25,02%).

A Energia Hidráulica participou com 4,94%, o Gás Natural com 5,16%, o Carvão Mineral com 1,2% e os demais segmentos com 16,7%. Com relação à utilização da Oferta Total de Energia, mais da metade foi para os setores Industrial e de Transportes que consumiram 27,4% e 23,8%, respectivamente.

O restante foi utilizado: 29% para Exportação, Exportação Estadual, Transformação e Ajustes de Energia; 3,7% para Usos Não Energéticos; 5,2% para o Setor Residencial; 7,8 % para os Demais Setores e 2,7% para Perdas Diversas.

Among the generators of state Hydropower, Energy Company of São Paulo (CESP), with 6649.8 MW is the one with the largest installed rated capacity. It is followed by AES-Tietê S / A with 2658.4 MW, by Duke Energy International, Geração Paranapanema S / A with 2306.1 MW, the Empresa Metropolitana de Aguas e Energia S / A (EMAE) with 1810.4 MW while the other concessionaires totaling 1.138 MW.

According to the Energy Research Company (EPE), a public company under the Ministry of Mines and Energy (MME), the electric energy consumption in the country grew by 2.9% (531,080 GWh) in 2014 with regard to 2013 (516.174 GWh). The industrial sector consumption increased by -0.2% (205,932 GWh, while the residential sector consumption increased by 5,7% (132,049 GWh), the commercial sector by 7.4% (90,619 GWh) and the remaining sectors by 5.9% (102,480 GWh).

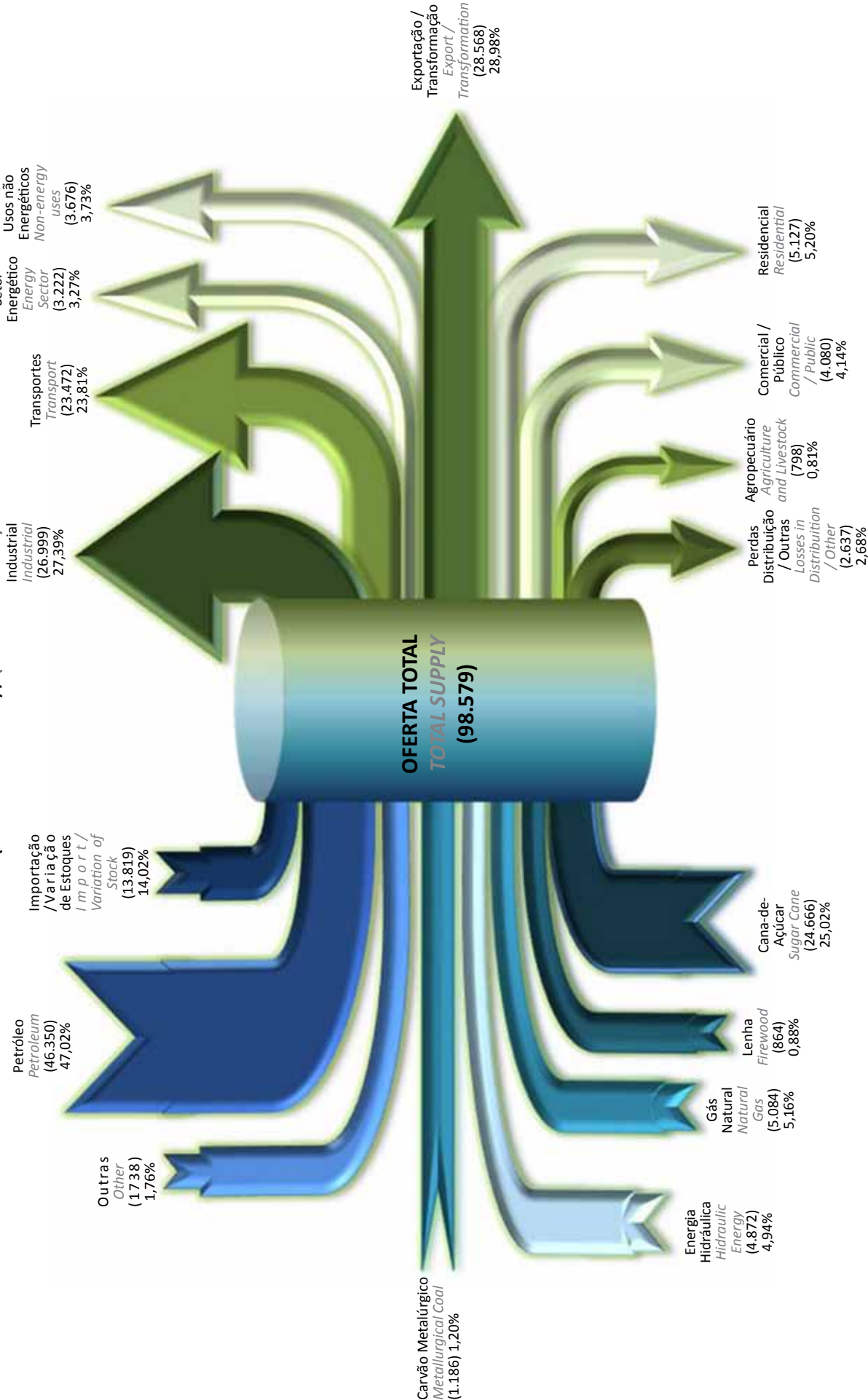
1.4. Overview of the Energy Matrix for the State Sao Paulo.

Figure 1.1 is, in summary form, the Global Energy Flow in the State in the year 2014 on the unit 10^3 toe. It is observed that the Total supply reached $98,579 \times 10^3$ toe, composed mostly by Oil and Oil (47.02%) and sugarcane (25.02%).

The Hydraulic Energy participated with 4.94% Natural Gas 5.16%, the Coal with 1.2% and the remaining segments with 16.7%. Regarding the use of Total Energy Supply, more than half went to the Industrial and Transport sectors that consumed 27.4% and 23.8%, respectively.

The rest was used: 29% for export, State Export, Transformation and Energy Adjustments; 3.7% for Energy Uses None; 5.2% for the Residential Sector, 7.8% for Other Sectors and 2.7% for miscellaneous losses.

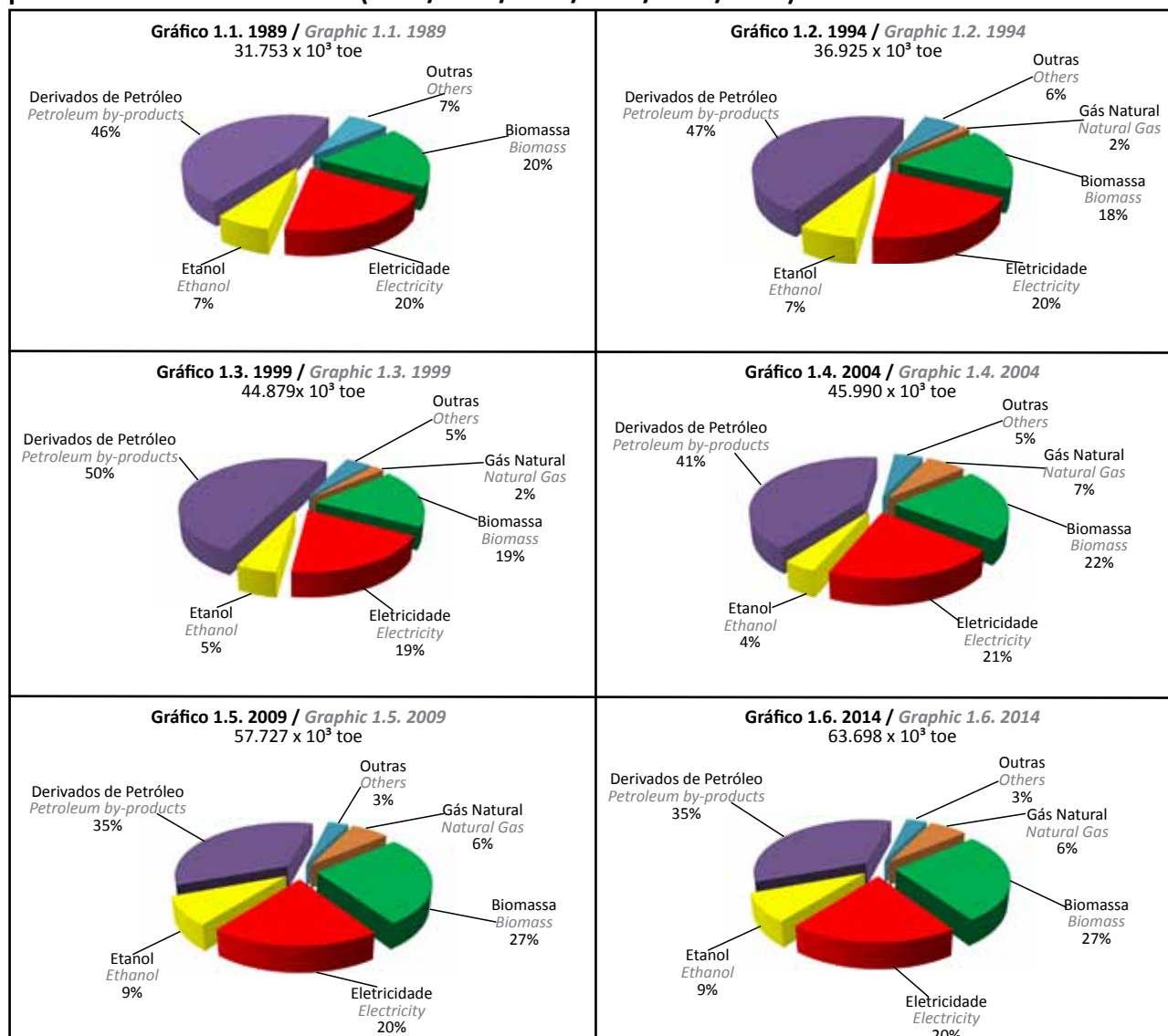
Figura 1.1 - FLUXO GLOBAL DE ENERGIA NO ESTADO DE SÃO PAULO - 2014 / Figure 1.1 – GLOBAL FLOW OF ENERGY IN THE STATE OF SAO PAULO - 2014
(Valores em 10³ toe) / (Values in 10³ toe)



1.5. Estrutura do Consumo Final Energético por Fonte

(1989/1994/1999/2004/2009/2014)

1.5. Final Energy Consumption by Source



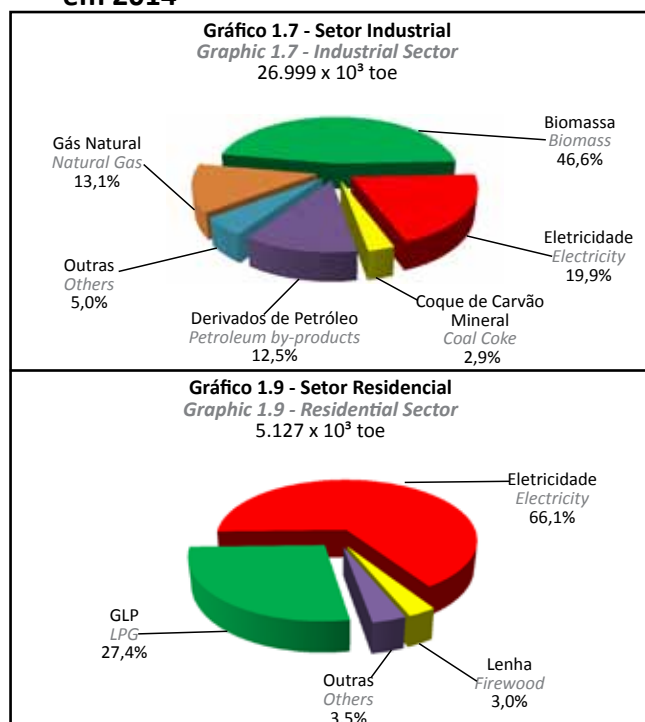
Os gráficos 1.1 a 1.6 representam a estrutura da participação das classes no Consumo Final Energético para os anos de 1989, 1994, 1999, 2004, 2009 e 2014. Nestes gráficos, destacam-se a predominância do consumo de derivados de petróleo às condições adversas impostas pelos sucessivos choques de preços do petróleo (1973 e 1979). Observa-se que em 1989, os Derivados de Petróleo, detinham uma participação de 46% do consumo final energético, a Biomassa 20%, a Eletricidade 20% e o restante dos energéticos 14%. Em 1994, a parcela relativa aos Derivados de Petróleo ficou em torno 47%. Volta a aumentar para 50% em 1999. Em 2004 o índice cai aos 41%. No anos de 2009 e 2014 há uma estabilidade do índice em torno de 35%

Graphs 1.1 to 1.6 represent the structure of the share classes in Final Energy Consumption for the years 1989, 1994, 1999, 2004, 2009 and 2014. In these graphs, it highlights the prevalence of consumption of petroleum products to the harsh conditions imposed by the successive shocks of oil prices (1973 and 1979). It is observed that in 1989, the Oil Products, held a 46% share of final energy consumption, biomass 20%, the Electricity 20% and the remaining 14% of energy. In 1994, the portion of oil derivatives was around 47%. Increases again to 50% in 1999. In 2004 the index falls to 41%. In the years 2009 and 2014 remains index stabilized around 35%

A Biomassa em 1994 teve uma participação de 18% no consumo final energético, mantém os 19% em 1999, aumentando para 22% em 2004 e chegando a 27% em 2009 e em 2014. A participação da eletricidade manteve-se estável entre 19% e 21% no período 1989 a 2014. O Etanol apresentou entre 1989 e 1994 uma participação de 7%, decaindo para 4% no intervalo entre 1999 e 2004 e voltando a aumentar em 2009, atingindo 9% a partir de então. A participação dos demais insumos no total do consumo final energético apresentou uma trajetória de quedas sucessivas a partir de 1989, quando chegou a representar 7%, caindo para 3% em 2014.

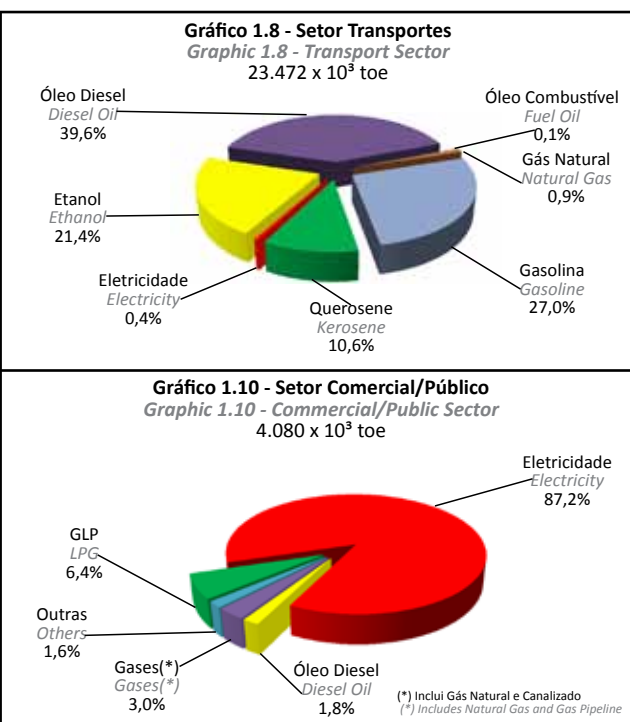
The Biomass in 1994 had a 18% stake in the energy final consumption, kept it 20% in 1999, rising to 22% in 2004 and reaching 27% in 2009 and 2014. The share of electricity remained stable between 19% and 21% in the period 1989 to 2014. Ethanol introduced between 1989 and 1994 a share of 7%, decreasing to 4% in the range between 1999 and 2004 and increased again in 2009, reaching 9% thereafter. The participation of other inputs in total energy final consumption showed a trend of successive declines since 1989, when it came to represent 7%, falling to 3% in 2014.

1.6. Estrutura do Consumo Final por Setores em 2014



O setor Industrial em 2014, gráfico 1.7, consumiu o equivalente a 26.999 X 10³ toe, sendo que a participação preponderante foi da Biomassa com 47% do total. A Eletricidade participou com 20%, o Gás Natural com 13%, os Derivados de Petróleo com 12% e os demais energéticos com 8%. Observa-se que gradualmente, o Gás Natural vem aumentando sua participação neste setor, principalmente em função da substituição do óleo combustível, caldeiras e fornos industriais.

1.6. Final Consumption by Setores in 2014



The Industrial sector in 2014, chart 1.7, consumed the equivalent of 26,999 X 10³ toe, and the major share was Biomass 47% of the total. Electricity participated with 20%, Natural Gas 13%, the Oil Products with 12% and other energy 8%. It is observed that gradually, the Natural Gas has increased its participation in this sector, mainly due to the replacement of fuel oil boilers and industrial furnaces.

No setor de Transportes, cuja participação predominante foi dos Derivados de Petróleo, destacaram-se: Óleo Diesel 40%; Etanol 21%; Gasolina 27%, e Querosene 11%, conforme pode ser observado no gráfico 1.8. Os demais energéticos apresentaram as seguintes participações: Óleo Combustível 0,1%, Gás Natural 1% e Eletricidade 0,4%. O Transporte Rodoviário foi responsável por cerca de 87,7% do total do consumo deste setor.

O setor Residencial (gráfico 1.9), continua apresentando um consumo predominante de Eletricidade para iluminação, refrigeração e aquecimento de água da ordem de 66% do total. A cocção de alimentos por meio de fogões a base de GLP significou 27%, de Lenha 3% e 4% correspondem a outros energéticos, entre os quais o Gás Natural, cuja participação neste setor ainda é bastante inexpressiva, correspondendo a 0,8 % do total.

Tanto o setor Comercial quanto o setor Público – (gráfico 1.10) apresentaram juntos um consumo de energia de 4.080×10^3 toe. A Eletricidade apresentou uma participação de 87,2% do total, o GLP 6,4% o Óleo Diesel 1,8% e os demais energéticos 4,6%. A Eletricidade é o insumo energético com maior participação nestes setores. Seus usos finais estão associados predominantemente a iluminação pública e privada, acionamentos elétricos e hidráulicos de elevadores, escadas rolantes e esteiras, além de condicionamento de ar em ambientes comerciais. O GLP e o Gás Natural são utilizados principalmente nas atividades correspondentes a cocção de alimentos, aquecimento de água, armazenamento de materiais perecíveis e sistemas de proteção e segurança.

Para completar esta visão global da estrutura do consumo final por setor no Estado de São Paulo em 2014, são apresentados dados referentes ao petróleo importado do exterior e processado nas refinarias instaladas em São Paulo.

A dependência de petróleo, definida como sendo a fração de petróleo importado do exterior em relação ao consumo final, descontadas as exportações, apresentou uma participação de 18% em 2014.

In the Transport sector, whose predominant participation was of Oil Products, included: Diesel oil 40%; ethanol 21%; 27% gasoline, kerosene and 11%, as can be seen in the graph 1.8. The remaining energy presented the following investments: Fuel Oil 0.1% Natural Gas 1% and Electricity 0.4%. The Road Transport accounted for approximately 87.7% of the total consumption of this sector.

The residential sector (Figure 1.9), continues to have a predominant consumption of electricity for lighting, refrigeration and heating water to 66% of the total order. The cook food using stoves LPG base meant 27% of firewood 3% and 4% correspond to other energy sources, including Natural Gas, whose participation in this sector is still quite insignificant, corresponding to 0.8% of the total.

Both the commercial sector and the public sector - (graph 1.10) performed together an energy consumption of $4,080 \times 10^3$ toe. Electricity had a share of 87.2% of the total LPG 6.4% 1.8% Diesel oil and other energy 4.6%. Electricity is the energy source with the highest participation in these sectors. Their end uses are predominantly associated with public and private lighting, electrical and hydraulic drives for elevators, escalators and conveyors, and air conditioning in commercial environments. LPG and natural gas are primarily used in the corresponding activities to cook food, water heating, perishable materials storage and safety and security systems.

To complete this overview of the structure of the final consumption by sector in São Paulo in 2014, are presented data on the oil imported from abroad and processed in refineries located in São Paulo.

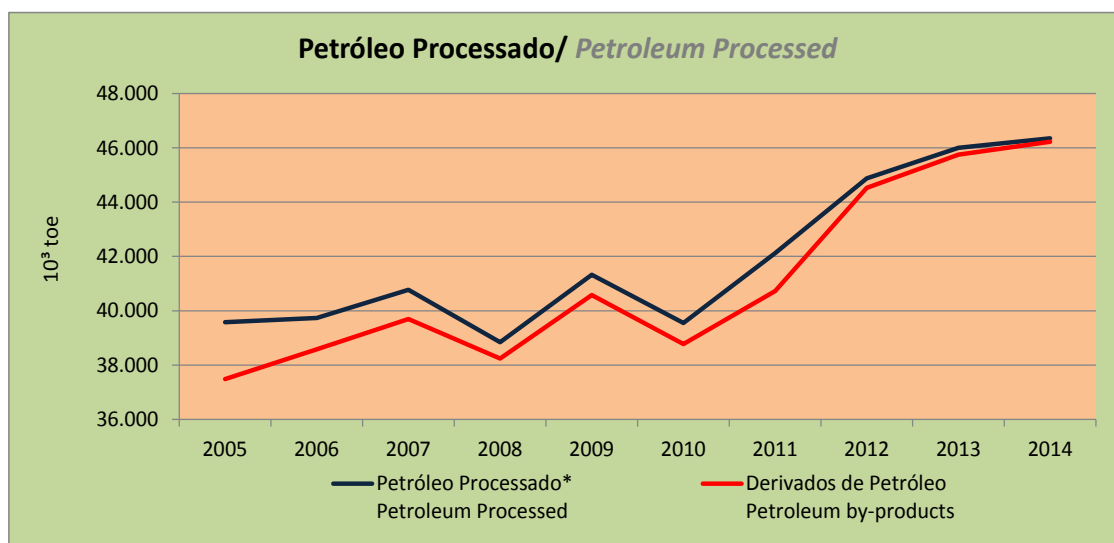
The petroleum dependence, defined as being the portion of oil imported from abroad with regard to the final consumption less exports has a share of 18% in 2014.

Em termos de carga processada, o petróleo refinado no Estado de São Paulo é todo transformado em derivados de petróleo, como pode ser visto na figura abaixo. Consta-se um crescimento expressivo nos volumes processados a partir de 2010 e, conseqüentemente, nas quantidades produzidas de derivados.

Esta estabilidade adquirida após o ano 2000 deveu-se sobretudo a um aumento da capacidade de refino das 5 refinarias do Estado, mais um forte incremento nas exportações de derivados de petróleo, além da redução do consumo interno de alguns combustíveis como óleo combustível e gasolina. Maiores detalhes podem ser encontrados no capítulo 3 – Oferta e Demanda de Energia por Fonte.

In terms of processed load, all the refined petroleum in the State of Sao Paulo is transformed in petroleum by-products as can be seen in the figure below. Starting in 2010, there has been an expressive growth in the volumes processed and, consequently, in the quantities of by-products produced.

The stability achieved after the year 2000 was the result of an increased refining capacity of the 5 refineries in the state plus an increase in the export of petroleum by-products, in addition to a reduction in the domestic consumption of products such as fuel oil and gasoline. Further information can be found in Chapter 3 - Supply and Demand of Energy per Source.



O setor sucroalcooleiro, descrito detalhadamente no Anexo 9.1, apresentou ao longo da safra 2014/2015 uma queda da cana processada de -8,04% em relação ao ano anterior (337.780×10^3t ante 367.325×10^3t). As porcentagens dos subprodutos resultantes em relação a safra anterior foram: -8,58% na produção de açúcar; -6,75% na produção de etanol anidro e +4,24% na produção de etanol hidratado.

The sugar and alcohol sector, described in detail in Annex 9.1, presented during the crop 2014/2015 a drop of sugarcane processed -8.04% over the previous year ($337,780 \times 10^3t$ against $367,325 \times 10^3t$). The percentages of by-products compared to the previous harvest were: -8.58% in sugar production; -6.75% in the production of anhydrous ethanol to + 4.24% in the production of hydrated ethanol.

O Balanço de Energia Útil – BEU, explicita as parcelas efetivas de energia disponíveis para uso, considerando estimativas de rendimentos energéticos de processos, nos diversos setores de atividades e dos principais usos finais adotados. O detalhamento e comparação com anos anteriores podem ser encontrados no Anexo 9.5.

Os resultados de 2014 indicam que o BEU correspondeu a aproximadamente 52,1% da energia final consumida pelo Estado de São Paulo (33.195×10^3 toe / 63.698×10^3 toe). A relação energia final/energia útil dos principais setores foi: 33,7% dos transportes; 64,1% da indústria; 59,6% do residencial e 54,7% do comercial.

As emissões de CO₂ ocorridas ao longo de 2014 no Estado de São Paulo encontram-se descritas detalhadamente no Anexo 9.6. Os coeficientes adotados para se calcular tais emissões foram aqueles utilizados pelo IPCC/OCDE - Painel Intergovernamental de Mudanças Climáticas - Intergovernmental Panel on Climate Change, de 1993, e submetidos as revisões de 2003 conforme recomendações da CETESB, Secretaria Estadual do Meio Ambiente.

Em função da retração do consumo energético ocorrido em 2014 em relação ao ano anterior, as emissões de CO₂ apresentaram um decréscimo da ordem de -1,49% ($84,1 \times 10^6$ tCO₂ / ano em 2014 ante $85,37 \times 10^6$ tCO₂ em 2013). Os setores que se destacaram por esse volume de emissões foram o transporte com $52,5 \times 10^6$ tCO₂ e o industrial com $21,4 \times 10^6$ tCO₂.

As **reservas provadas de Petróleo e Gás Natural**, segundo a ANP – Agência Nacional do Petróleo, Gás Natural e Biocombustíveis, sem incluir reservas do pré-sal indicaram um aréscimo nas quantidades de gás natural em relação 2013. Assim as reservas de GN caíram de 56.406 milhões de m³ em 2013 para 54.418 milhões de m³ em 2014. As reservas de petróleo, entretanto, caíram de 613,04 milhões de barris em 2013 para 605,88 milhões de barris em 2014.

The Useful Energy Balance – BEU describes the effective energy portions available for use considering the process energy efficiency estimates in the various sectors of activity and the main final uses adopted. The detailing and comparison with previous years can be found in Annex 9.5.

The 2014 results indicate that the BEU accounted for approximately 52.1% of the final energy consumed by the State of São Paulo ($33,195 \times 10^3$ toe / $63,698 \times 10^3$ toe). The relationship final energy / useful energy of the main sectors was: 33.7% of transport; 64.1% of the industry; 59.6% residential and 54.7% of the market.

The CO₂ emissions in 2014 in the State of Sao Paulo are described in detail in the Annex 9.6. The coefficients adopted to calculate such emissions were those used by the 1993 Intergovernmental Panel on Climate Change (IPCC/OECD) with the 2003 revisions according to the recommendations made by CETESB, Environment State Department.

Due to the energy consumption decrease in 2014 in relation to the previous year, the CO₂ emissions showed an decrease around -1.49% ($84,1 \times 10^6$ tCO₂ / year in 2014 against $85,12 \times 10^6$ tCO₂ in 2013). The sectors with the main contribution to the volume of emissions were transports with 52.5×10^6 tCO₂ and the industrial sector with 21.4×10^6 tCO₂.

The proven reserves of the petroleum and natural gas, according to the ANP (Petroleum, Natural Gas and Biofuels National Agency) not including Pre-sal sources, indicated an decrease in the quantities of natural gas to the 2013 figures. Thus, the NG reserves of 56,406 million m³ in 2013 decreased to 54,418 million m³ in 2014. The petroleum reserves, however, decreased from 613,04 million barrels in 2013 to 605.88 million barrels in 2014.

1.7. Conteúdo do Balanço Energético do Estado de São Paulo

1. SUMÁRIO

2. RESUMO DO PERÍODO EM ANÁLISE

Contém dados consolidados de produção, oferta interna de energia, consumo final energético por fonte, bem como a composição setorial do consumo das diferentes fontes de energia.

3. OFERTA E DEMANDA DE ENERGIA POR FONTE

Para cada fonte de energia primária e secundária apresenta-se a contabilização da produção, importação, exportação, variação de estoques, perdas, ajustes e consumo final, este último desagregado por setores da economia.

Especificamente para este capítulo é apresentado o conceito de “Oferta Bruta”, que corresponde a contabilização dos elementos que compõem a oferta de um insumo energético (produção, importação, exportação, variação de estoques – perdas), com aqueles necessários ao atendimento da demanda do energético envolvido.

4. CONSUMO DE ENERGIA POR SETOR

Para cada setor da economia é apresentado o consumo final energético discriminado por fonte de energia.

5. COMÉRCIO EXTERNO DE ENERGIA

Este capítulo contém as importações nacionais e internacionais, exportações e dependência externa de energia.

6. BALANÇOS DOS CENTROS DE TRANSFORMAÇÃO

Contém os balanços dos centros de transformação de energia, caracterizando os fluxos energéticos de cada centro, com as respectivas perdas de transformação.

1.7. Contents of the Energy Balance for the State of São Paulo

1. SUMMARY

2. SUMMARY OF THE ANALYSIS PERIOD

This summary contains consolidated data on production, domestic energy supply, final consumption of energy by source, as well as the sectorial composition of the consumption of the different sources of energy.

3. SUPPLY AND DEMAND OF ENERGY BY SOURCE

For each source of primary and secondary energy, figures on the production, import, export, variation of stocks, losses, adjustments and final consumption, the latter with separate information on each sector of the economy.

The gross supply concept is specifically covered by this chapter with accounting information on the items that make up the supply of an energy input (production, imports, exports, variation of stocks – losses), with those required to meet the demand for the energy type involved.

4. ENERGY CONSUMPTION BY SECTOR

For each economic sector, it is present on the final energy consumption according to the source of energy.

5. EXTERNAL TRADE OF ENERGY

This chapter covers the domestic and international imports, exports and the external dependence for energy.

6. BALANCES OF THE CENTERS OF TRANSFORMATION

It contains Balances of the energy transformation centers describing the energy flows of each center with their respective transformation losses.

7. ENERGIA E SÓCIO-ECONOMIA

Neste capítulo são apresentados alguns indicadores que relacionam energia, economia e demografia.

8. RECURSOS E RESERVAS ENERGÉTICAS

Este capítulo contém os recursos e reservas das fontes primárias de energia e as respectivas metodologias de apuração.

9. ANEXOS

9.1. Setor sucroalcooleiro

Contém dados e informações sobre produção de cana-de-açúcar moída, etanol e açúcar, por região administrativa e tipo de usina.

9.2. Eletricidade

Mostra as séries históricas de consumo de energia elétrica, e da capacidade instalada de geração elétrica.

9.3. Petróleo e Derivados

Apresenta tabelas contendo capacidade instalada das refinarias, séries históricas de consumo, quantidade de derivados produzidos, número de consumidores, gráficos e quadros no Estado de São Paulo.

9.4. Indicadores Sociais

Demonstra informações sobre intensidade energética, PIB, população, domicílios urbanos e rurais, entre outros.

9.5. Balanço de Energia Útil - BEU

Descreve as parcelas efetivas de energia disponíveis para uso, considerando estimativas de rendimentos energéticos de processos, nos diversos setores de atividades e dos principais usos finais adotados.

7. ENERGY AND SOCIO-ECONOMY

This chapter contains information on some of the energy, economic and demographic indicators.

8. RESOURCES AND ENERGY RESERVES

This chapter contains information on the resources and reserves of the primary energy sources and their respective survey methodologies.

9. ANNEXES

9.1. Sugar Cane Sector

It contains data and other information on the production of ground sugar cane, ethanol and sugar by administrative region and type of plant.

9.2. Electricity

It present information on the historic series of electricity consumption and installed capacity for electric generation plant.

9.3. Petroleum and By-Products

Presents tables containing installed capacity of refineries, historical series of consumption, the quantity of by-products produced, number of consumers, graphs and tables in the State of Sao Paulo.

9.4. Social Indicators

Shows information on energy intensity, GDP, population, urban and rural households, among others.

9.5. Useful Energy Balance – BEU

This balance describes the effective portions of the energy available for use considering the process energy efficiency estimates in the various sectors of the activities and the main end uses adopted.

9.6. Emissões de CO₂

Apresenta os valores correspondentes às emissões de CO₂ por fonte de energia e setores da economia no Estado de São Paulo.

10. Apêndices

10.1. Metodologia e Conceitos

Tanto a metodologia quanto os conceitos adotados no BEESP, expressam as estruturas de cálculo utilizados para descrever todas as etapas do processo energético: oferta, transformação e consumo; abertos por energia primária e secundária.

10.2. Tratamento das Informações

Apresenta as fontes de dados e informações do BEESP, os aspectos peculiares do tratamento destes dados e informações, bem como os esclarecimentos julgados necessários para dirimir dúvidas quanto a alterações em relação aos balanços anteriores.

10.3. Alterações Incorporadas ao BEESP 2011

Apresenta as alterações incorporadas ao BEESP a partir desta edição.

10.4. Unidades

Descreve como o BEESP usa, uniformiza as unidades envolvendo diferentes formas energéticas e qualidades associadas, bem como as dificuldades dessa realização.

10.5. Poderes Caloríficos

Explicita os critérios de contabilização de fontes de energia e equivalência de eletricidade utilizados no BEESP.

10.6. Fatores de Conversão

Exibe as densidades e os fatores de conversão para **toe** das fontes primárias e secundárias de energia, assim como os poderes caloríficos superiores e inferiores utilizados.

9.6. CO₂ Emissions

Present the values corresponding to CO₂ emissions by source of energy and sectors of the economy in the State of São Paulo.

10. Appendixes

10.1. Methodology and Concepts

Both the methodology as the concepts adopted in BEESP, express the structures of calculation used to describe all the stages of the energy process: energy supply, processing and consumption; opened by primary and secondary energy.

10.2. Information Processing

Present source data and BEESP's information, peculiar aspects of the data and information processing, as well as further details required for clarifying doubts about the changes with regard to previous balances.

10.3. Amendments to Corporate the BEESP 2011

Presents the amendments incorporated the BEESP from this edition

10.4. Units

Describes as the use, standardises BEESP units involving different forms of energy and qualities associated, as well as the difficulties that achievement.

10.5. Heating Values

Sets out the criteria of accounting for energy sources and equivalence of electricity used in BEESP.

10.6. Conversion Factors

*Present densities and conversion factors for the **toe** of primary and secondary sources of energy, as well as the higher and lower heat values used.*

10.7. Balanços Energéticos Consolidados

Apresenta as matrizes anuais onde são consolidados todos os fluxos energéticos das diferentes fontes primárias e secundárias de energia.

1.8. METODOLOGIA

1.8.1. Descrição Geral

A metodologia utilizada na elaboração do BEESP encontra-se aderente as estruturas, premissas e critérios de cálculos adotados pelo BEN (Balanço Energético Nacional).

Ambos usam a metodologia desenvolvida pela Organização Latino Americana de Energia (OLADE) que busca consolidar uma matriz energética abrangente e detalhada, permitindo a identificação dos valores relativos às Energias Primária e Secundária bem como as linhas de origem e destino da energia.

1.8.2. Estrutura

Conforme figura abaixo, a estrutura geral do balanço é composta de quatro partes: Energia Primária, Transformação, Energia Secundária e Consumo Final Total.

10.7. Consolidated Energy Balance Sheets

Present annual matrixes used to consolidate all the energy flows from the different primary and secondary sources of energy.

1.8. METHODOLOGY

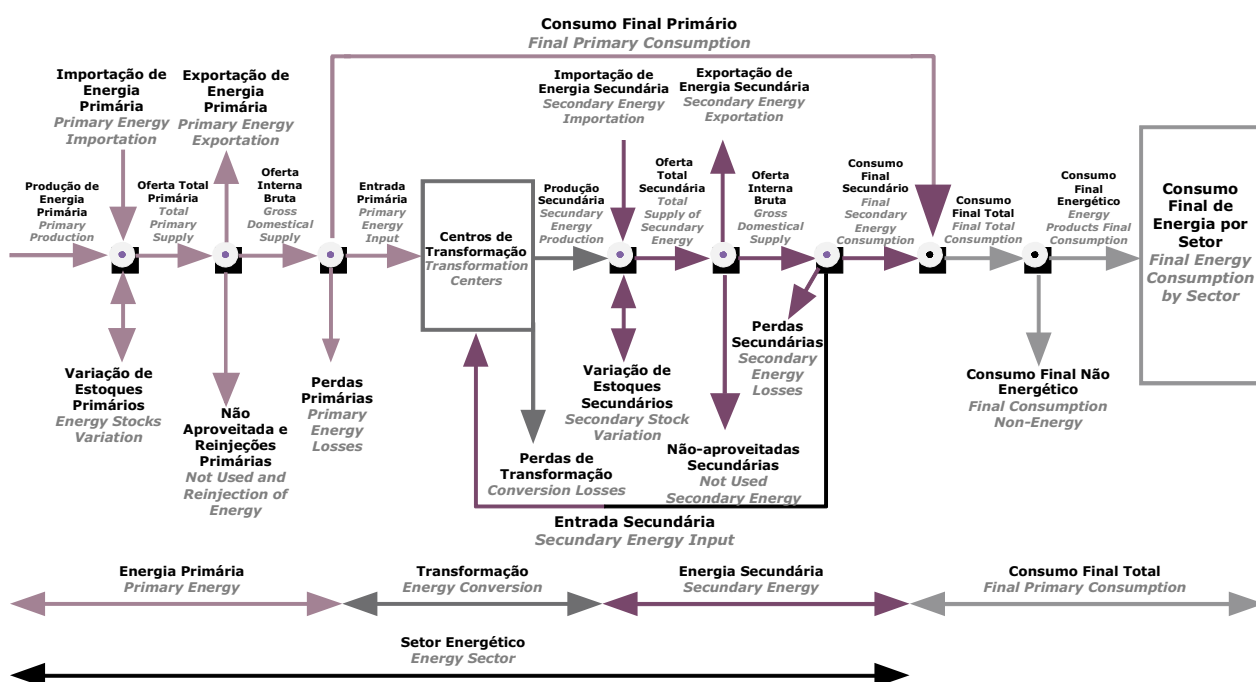
1.8.1. General Description

The methodology used to prepare the BEESP complies with the structures, assumptions and calculation criteria adopted for the National Energy Balance (BEN).

Both use the methodology developed by the Latin American Energy Organization (OLADE) that attempts to consolidate a comprehensive and detailed energy matrix, which allows for the identification of the values related to the primary and secondary energies, as well as the energy source and destination lines.

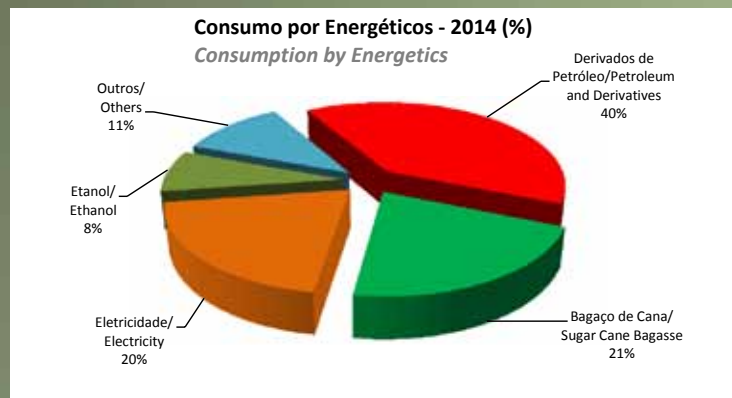
1.8.2. Structure

As shown by the figure below, the general balance structure is made up of the four following parts: Primary Energy, Transformation, Secondary Energy and Total Final Consumption.



Capítulo 02

Resumo do Período em Análise



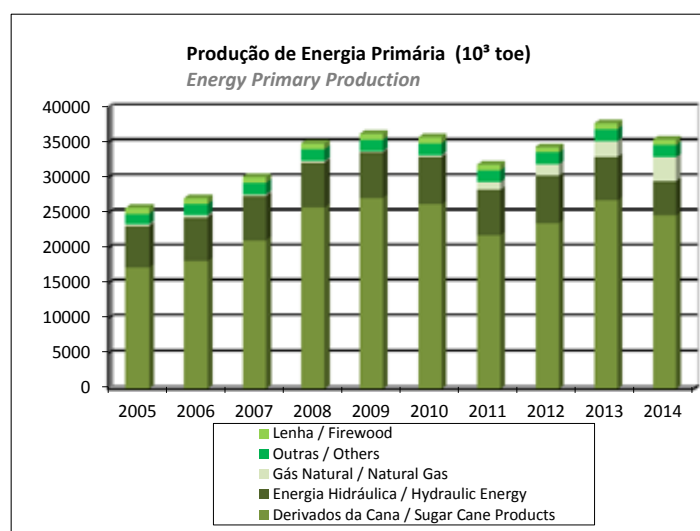
Chapter 02

Summary of the Analysis Period

Tabela 2.01. Evolução da Produção de Energia Primária
Table 2.01. Primary Energy Production Evolution

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ENERGÉTICOS	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	ENERGY
En. Prim. Não Renovável	308	290	263	196	177	277	1059	1616	2261	3377	Prim. En. Non-Renewable
Gás Natural	308	290	263	196	177	277	1059	1616	2261	3377	Natural Gas
Energia Prim. Renovável	25394	26787	29873	34709	36054	35450	30764	32771	35431	32031	Primary Energy Renewable
Energia Hidráulica	5878	6228	6259	6398	6475	6729	6465	6750	6171	4872	Hydraulic Energy
Lenha	828	854	866	883	836	818	794	816	791	760	Firewood
Caldo de Cana	5154	5174	6759	8823	9120	8108	6435	6824	8280	7661	Sugar Cane
Melaço	1069	1244	1219	1255	1325	1496	1344	1486	1529	1398	Molasses
Bagaço	11003	11743	13164	15692	16691	16610	14056	15243	16970	15607	Bagasse
Outras	1462	1544	1606	1658	1607	1689	1670	1652	1690	1733	Other
Total	25702	27077	30136	34905	36231	35727	31823	34387	37692	35408	Total


Tabela 2.02. Participação da Produção de Energia Primária
Table 2.02. Primary Energy Production Participation

%

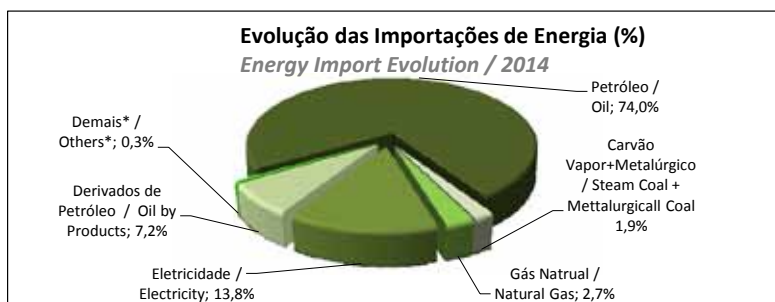
ENERGÉTICOS	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	ENERGY
En. Prim. Não Renovável	1,2	1,0	0,8	0,6	0,5	0,8	3,3	4,7	6,0	9,5	En. Prim. Non-Renewable
Gás Natural	1,2	1,0	0,8	0,6	0,5	0,8	3,3	4,7	6,0	9,5	Natural Gas
Energia Prim. Renovável	98,8	99,0	99,2	99,4	99,5	99,2	96,7	95,3	94,0	90,5	Primary Energy Renewable
Energia Hidráulica	22,9	23,0	20,8	18,3	17,9	18,8	20,3	19,6	16,4	13,8	Hydraulic Energy
Lenha	3,2	3,2	2,9	2,5	2,3	2,3	2,5	2,4	2,1	2,1	Firewood
Outras Prim. Renováveis	72,7	72,8	75,5	78,6	79,3	78,1	73,9	73,3	75,5	74,6	Other Primary Renewables
Total de Energia Primária	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	Total Primary Energy

Tabela 2.03. Evolução das Importações de Energia
Table 2.03. Energy Import Evolution

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ENERGÉTICOS	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	ENERGY
Petróleo	39582	39736	40770	38837	41327	39545	42123	44881	46002	46350	Petroleum
Carvão Vapor+Metalúrgico	1588	1685	1609	1632	1327	1621	1816	1465	1397	1197	Steam Coal + Metall. Coal
Gás Natural	3537	4010	4333	4678	3856	4400	3665	3280	2938	1707	Natural Gas
Eletricidade	5377	5620	6186	6092	6044	6948	7506	7225	7816	8663	Electricity
Derivados de Petróleo	948	586	1442	3388	1437	2094	1326	2883	5623	4541	Petroleum by Products
Demais*	353	257	408	248	233	205	283	292	271	199	Others*
Total	51385	51894	54748	54875	54224	54813	56719	60026	64047	62657	Total

(*) Demais = Lenha + Coque de Carvão Mineral + Carvão Vegetal
Others = Firewood + Coal Coke + Charcoal


Tabela 2.04. Evolução das Exportações de Energia
Table 2.04. Energy Export Evolution

10³ toe

ENERGÉTICOS	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	ENERGY
Óleo Diesel	8571	8478	8977	9623	9864	7603	8316	10074	13313	13004	Diesel Oil
Óleo Combustível	3454	3571	3920	3490	4098	3931	3083	3223	3390	3458	Fuel Oil
Gasolina	3086	3794	3914	3899	3705	3728	3204	3845	4853	4420	Gasoline
Etanol	2866	2577	2785	3624	2030	2395	1633	1803	2151	1880	Ethanol
Eletricidade	602	637	567	477	486	954	650	458	405	309	Electricity
Demais*	1228	1141	1495	1468	716	801	1315	1833	1725	2197	Others*
Total	19807	20198	21658	22581	20899	19412	18201	21236	25837	25268	Total

(*) Demais = GLP + Querosene + Prod. Não Energ. + Out. Sec. Pet.
Others = LPG + Kerosene + Non Energy Products. + Others Sec. Energy

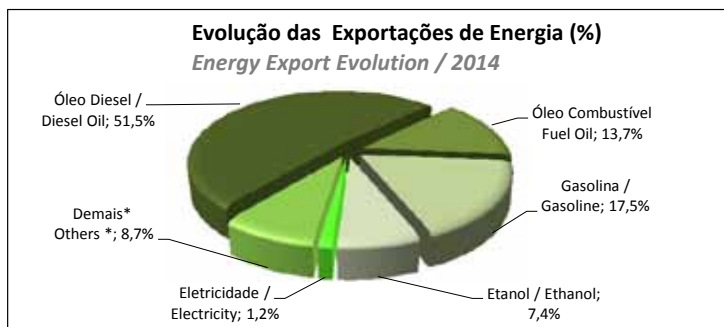


Tabela 2.05. Evolução do Consumo Final de Fontes Primárias (*)
Table 2.05. Final Consumption of Primary Sources Evolution (*)
10³ toe

ENERGÉTICOS	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	ENERGY
En. Prim. Não Renovável	3594	4103	4395	4378	3750	4148	4282	4196	4207	4038	Prim. En. Non-Renewable
Carvão Vapor	33	24	22	22	18	7	6	5	6	5	Steam Coal
Gás Natural	3561	4079	4373	4356	3732	4141	4276	4191	4201	4033	Natural Gas
Energia Primária Renovável	11408	12121	13419	15688	16510	16485	14208	15281	16821	15644	Primary Energy Renewable
Lenha	854	870	879	895	853	807	783	814	781	756	Firewood
Outras Prim. Renováveis	841	888	924	961	939	1031	1030	1024	1075	1125	Other Primary Renewables
Derivados da Cana	9713	10363	11616	13832	14718	14647	12395	13443	14965	13763	Sugar Cane Products
Total	15002	16224	17814	20066	20260	20633	18490	19477	21028	19682	Total

(*) Consumo Total = Oferta Interna Bruta + Perdas + Ajustes
Total Consumption = Gross Domestic Supply + Losses + Adjustments

Tabela 2.06. Participação do Consumo Final de Fontes Primárias (*)
Table 2.06. Final Consumption of Primary Sources Participation (*)
%

ENERGÉTICOS	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	ENERGY
En. Prim. Não Renovável	23,9	25,2	24,6	21,8	18,5	20,1	23,1	21,5	20,0	20,5	Prim. En. Non-Renewable
Carvão Vapor	0,2	0,1	0,1	0,1	0,1	0,0	0,0	0,0	0,0	0,0	Steam Coal
Gás Natural	23,7	25,1	24,5	21,7	18,4	20,1	23,1	21,5	20,0	20,5	Natural Gas
Energia Prim. Renovável	76,1	74,8	75,4	78,2	81,5	79,9	76,9	78,5	80,0	79,5	Primary Energy Renewable
Lenha	5,7	5,4	4,9	4,5	4,2	3,9	4,2	4,2	3,7	3,8	Firewood
Outras Prim. Renováveis	5,7	5,5	5,3	4,8	4,7	5,0	5,7	5,3	5,1	5,7	Other Primary Renewables
Derivados da Cana	64,7	63,9	65,2	68,9	72,6	71,0	67,0	69,0	71,2	69,9	Sugar Cane Products
Total	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	Total

(*) Consumo Total = Oferta Interna Bruta + Perdas + Ajustes
Total Consumption = Gross Domestic Supply + Losses + Adjustments

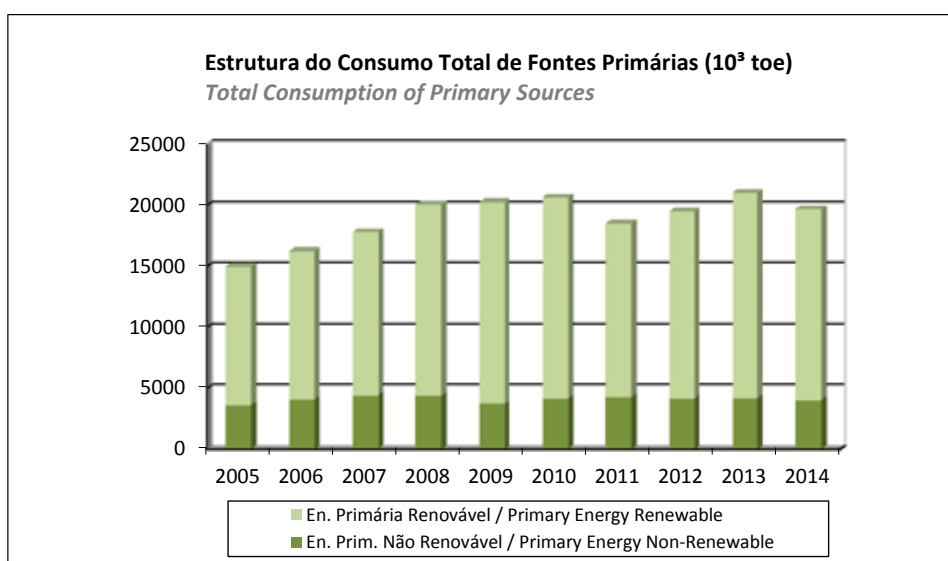


Tabela 2.07. Evolução da Oferta Interna Bruta de Energia (*)

Table 2.07. Energy Gross Domestic Supply (*)

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ENERGÉTICOS	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	ENERGY
Energia Não Renovável	29967	29188	30348	30184	29477	31501	33634	34769	35265	34388	Non-Renewable Energy
Petróleo e Derivados	24402	23132	24029	23726	24104	25247	27118	28407	28529	28070	Petroleum and Products
Gás Natural	3845	4300	4596	4874	4033	4677	4724	4896	5199	5084	Natural Gas
Carvão Miner. e Derivados	1720	1756	1723	1584	1340	1577	1792	1466	1537	1234	Coal and Products
Energia Renovável	27541	29295	32845	36894	39762	39208	36541	37860	40780	38923	Renewable Energy
Hidráulica e Eletricidade	10653	11211	11878	12013	12033	12723	13321	13517	13582	13226	Hydraulic and Electricity
Lenha e Carvão Vegetal	1084	1080	1113	1129	1065	1003	972	1006	965	933	Firewood and Charcoal
Out. Fontes Prim. Renováveis**	1462	1544	1606	1658	1607	1689	1670	1652	1690	1733	Others Prim. Renewable **
Deriv. Cana + Etanol Etílico	14342	15460	18248	22094	25057	23793	20578	21685	24543	23031	Sugar Cane Prod./Ethil Ethanol
Total	57508	58483	63193	67078	69239	70709	70175	72629	76045	73311	Total

(*) Oferta Interna Bruta de Energia = Produção + Importação - Exportação + Variação de Estoque
Energy Gross Domestic = Production + Import - Export + Stock Variation

(**) Out. Fontes Prim. Renováveis = Palha de Arroz + Borra de Café + Resíduos de Vegetação
Others Prim. Renewable Flow = Rice straw + Coffee dregs + Vegetation Residues

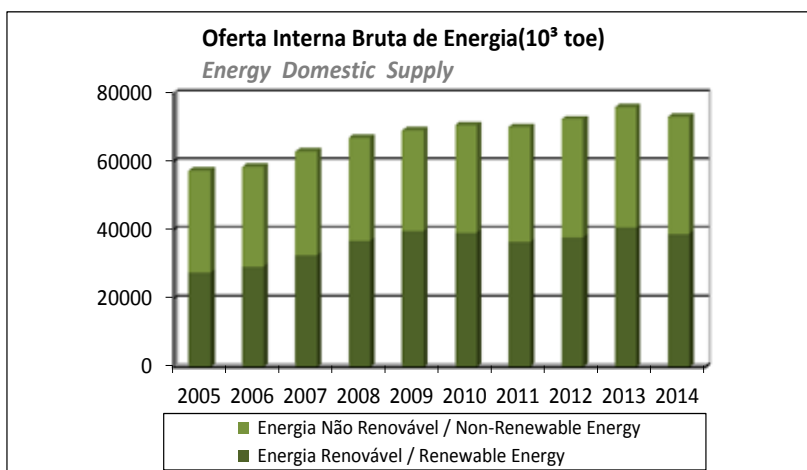


Tabela 2.08. Participação da Oferta Interna Bruta de Energia (*)

Table 2.08. Energy Gross Domestic Supply Participation (*)

%

ENERGÉTICOS	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	ENERGY
Energia Não Renovável	52,2	50,0	48,0	45,0	42,6	44,6	47,9	47,8	46,3	46,9	Non-Renewable Energy
Petróleo e Derivados	42,5	39,6	38,0	35,3	34,9	35,8	38,6	39,1	37,5	38,3	Petroleum and Products
Gás Natural	6,7	7,4	7,3	7,3	5,8	6,6	6,7	6,7	6,8	6,9	Natural Gas
Carvão Min. e Derivados	3,0	3,0	2,7	2,4	1,9	2,2	2,6	2,0	2,0	1,7	Coal and Products
Energia Renovável	47,8	50,0	52,0	55,0	57,4	55,4	52,1	52,2	53,7	53,1	Renewable Energy
Hidráulica e Eletricidade	18,5	19,2	18,8	17,9	17,4	18,0	19,0	18,6	17,9	18,0	Hydraulic and Electricity
Lenha e Carvão Vegetal	1,9	1,8	1,8	1,7	1,5	1,4	1,4	1,4	1,3	1,3	Firewood and Charcoal
Deriv. Cana + Etanol Etílico	24,9	26,4	28,9	32,9	36,2	33,6	29,3	29,9	32,3	31,4	Sugar Cane Prod./ Ethanol
Out. Fontes Prim. Renováveis**	2,5	2,6	2,5	2,5	2,3	2,4	2,4	2,3	2,2	2,4	Others Prim. Renewable **
Total	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	Total

(*) Oferta Interna Bruta de Energia = Produção + Importação - Exportação + Variação de Estoque
Energy Gross Domestic = Production + Import - Export + Stock Variation

(**) Out. Fontes Prim. Renováveis = Palha de Arroz + Borra de Café + Resíduos de Vegetação
Others Prim. Renewable Flow = Rice straw + Coffee dregs + Vegetation Residues

Tabela 2.09. Evolução do Consumo Final

Table 2.09 . Final Consumption Evolution

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ENERGÉTICOS	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	ENERGY
Gás Natural	3561	4079	4373	4356	3732	4141	4276	4191	4201	4033	Natural Gas
Carvão Vapor	33	24	22	22	18	7	6	5	6	5	Steam Coal
Lenha	854	870	879	895	853	807	783	814	781	756	Firewood
Outras Fontes Primárias	841	888	924	961	939	1031	1030	1024	1075	1125	Others Primary Sources
Gás de Coqueria	259	248	256	264	246	283	270	259	254	233	Gas Coke
Coque de Carvão Mineral	1110	1106	1171	1036	837	982	885	943	877	789	Coal Coke
Eletricidade	10031	10582	11207	11643	11594	12171	12546	12930	13172	12963	Electricity
Carvão Vegetal	125	125	127	125	106	99	94	92	90	90	Charcoal
Etanol Etílico	1983	2641	3607	4435	5077	5054	4402	3922	4599	5103	Ethanol
Bagaço de Cana	9713	10363	11616	13832	14718	14647	12395	13443	14965	13763	Sugar Cane Bagasse
Derivados de Petróleo	22245	22142	23151	23491	23795	25322	26503	28406	28648	28514	Petroleum by-Products
Óleo Diesel	8045	7974	8482	9148	9010	9908	10312	10864	11289	11115	Diesel Oil
Óleo Combustível	1151	785	725	625	666	546	500	431	343	320	Fuel Oil
Gasolina	4165	4183	4244	4165	3923	4357	5528	6438	6127	6350	Gasoline
GLP	1948	1959	1965	2035	1991	2039	1943	2037	2083	2049	LPG
Nafta	1727	1950	2037	1648	2067	2250	1860	1944	2046	1954	Naphtha
Querosene	1720	1637	1750	1891	1865	2102	2278	2326	2347	2485	Kerosene
Gás Canalizado	0	0	0	0	0	0	0	0	0	0	Pipelined Gas
Gás de Refinaria	929	994	994	978	984	1115	1203	1244	1289	1293	Refinery Gas
Prod. Não Energ. do Petróleo	1412	1258	1487	1470	1648	1434	1163	1153	1110	1225	Non-Energy Petrol. Products
Outras Sec. de Petróleo	1148	1402	1467	1531	1641	1571	1716	1969	2014	1723	Other Secondary of Oil
Total	50755	53068	57333	61060	61915	64544	63190	66029	68668	67374	Total

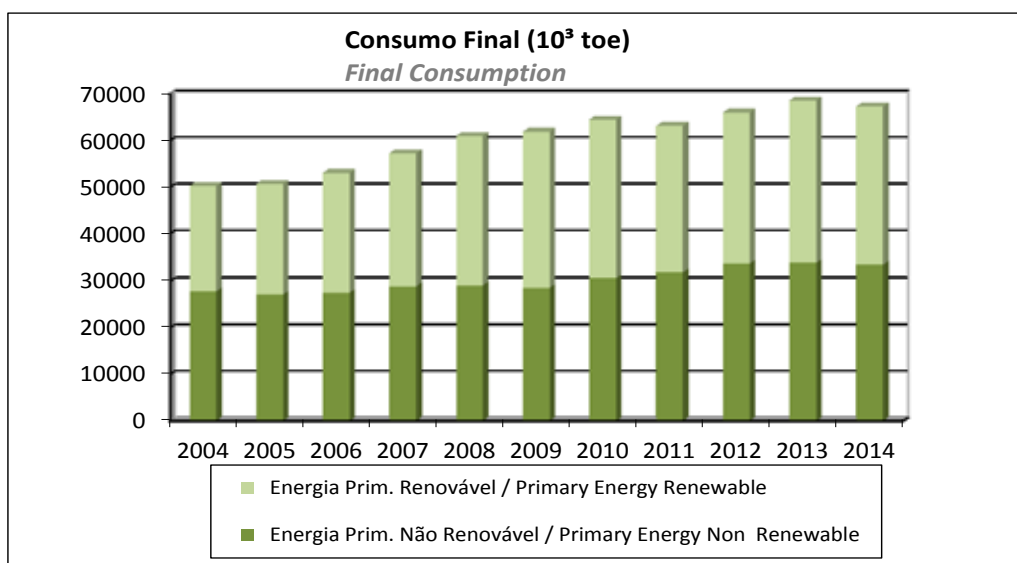


Tabela 2.10. Participação do Consumo Final

Table 2.10. Final Consumption Participation

%

ENERGÉTICOS	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	ENERGY
Gás Natural	7,0	7,7	7,6	7,1	6,0	6,4	6,8	6,3	6,1	6,0	Natural Gas
Carvão Vapor	0,1	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	Steam Coal
Lenha	1,7	1,6	1,5	1,5	1,4	1,3	1,2	1,2	1,1	1,1	Firewood
Outras Fontes Primárias	1,7	1,7	1,6	1,6	1,5	1,6	1,6	1,6	1,6	1,7	Others Primary Sources
Gás de Coqueria	0,5	0,5	0,4	0,4	0,4	0,4	0,4	0,4	0,4	0,3	Gas Coke
Coque de Carvão Mineral	2,2	2,1	2,0	1,7	1,4	1,5	1,4	1,4	1,3	1,2	Coal Coke
Eletricidade	19,8	20,0	19,7	19,0	18,7	18,9	20,0	19,7	19,2	19,3	Electricity
Carvão Vegetal	0,2	0,2	0,2	0,2	0,2	0,2	0,1	0,1	0,1	0,1	Charcoal
Etanol Etílico	3,9	5,0	6,3	7,3	8,2	7,8	7,0	5,9	6,7	7,6	Ethanol
Bagaço de Cana	19,1	19,5	20,3	22,7	23,8	22,7	19,6	20,4	21,8	20,4	Sugar Cane Bagasse
Derivados de Petróleo	43,80	41,7	40,4	38,5	38,4	39,2	41,9	43,0	41,7	42,3	Petroleum by-Products
Óleo Diesel	15,9	15,0	14,8	15,0	14,6	15,4	16,3	16,5	16,4	16,5	Diesel Oil
Óleo Combustível	2,3	1,5	1,3	1,0	1,1	0,8	0,8	0,7	0,5	0,5	Fuel Oil
Gasolina	8,2	7,9	7,4	6,8	6,3	6,8	8,7	9,8	8,9	9,4	Gasoline
GLP	3,8	3,7	3,4	3,3	3,2	3,2	3,1	3,1	3,0	3,0	LPG
Nafta	3,4	3,7	3,6	2,7	3,3	3,5	2,9	2,9	3,0	2,9	Naphtha
Querosene	3,4	3,1	3,1	3,1	3,0	3,3	3,6	3,5	3,4	3,7	Kerosene
Gás Canalizado	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	Pipelined Gas
Gás de Refinaria	1,8	1,9	1,7	1,6	1,6	1,7	1,9	1,9	1,9	1,9	Refinery Gas
Outras Sec. de Petróleo	2,3	2,6	2,6	2,5	2,7	2,4	2,7	3,0	2,9	2,6	Others Secondary Petroleum
Não Energ. do Petróleo	2,8	2,4	2,6	2,4	2,7	2,2	1,8	1,7	1,6	1,8	Non Energy of Petroleum
Total	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	Total

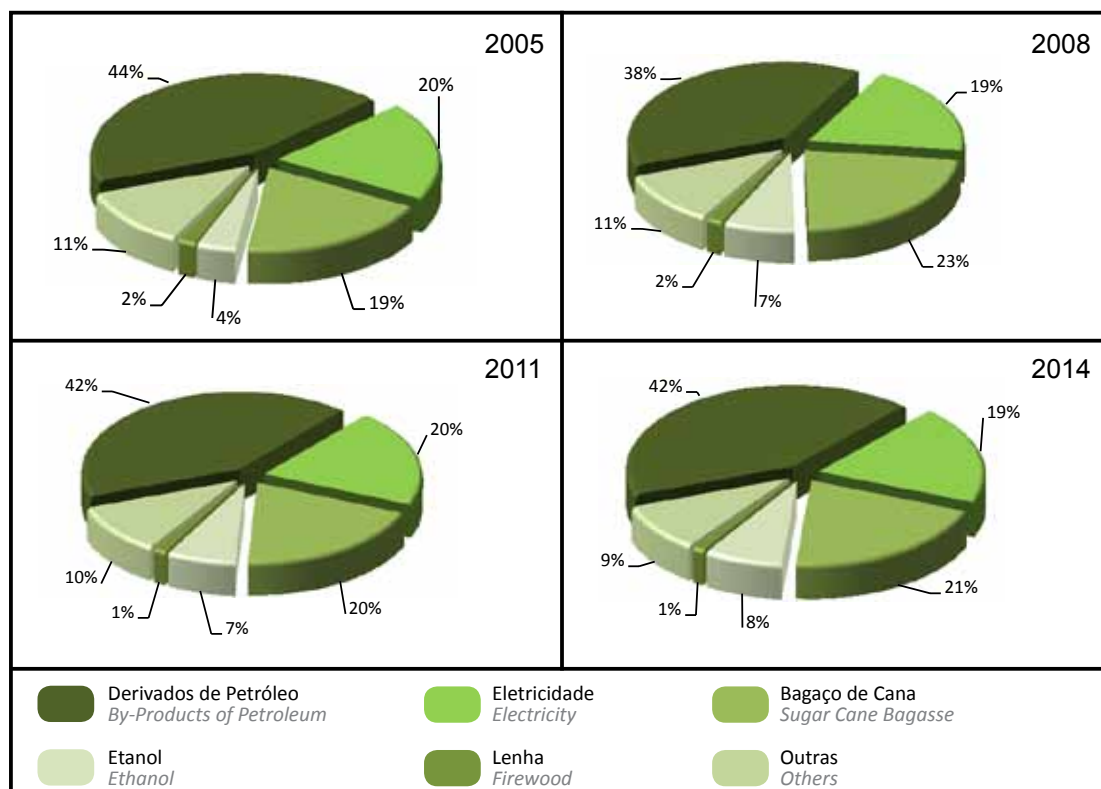


Tabela 2.11. Evolução do Consumo Final por Setor
Table 2.11. Final Consumption by Sector Evolution
10³ toe

ENERGÉTICOS	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	ENERGY
Consumo Final	50755	53068	57333	61060	61915	64544	63190	66029	68668	67374	Final Consumption
Cons. Final Não Energético	3493	3593	3952	3587	4188	4181	3487	3572	3654	3676	Non-Energy Fin. Consump.
Cons. Final Energético	47262	49475	53381	57473	57727	60363	59703	62457	65014	63698	Final Energy Consumption
Setor Energético	1929	2053	2165	3119	3232	2427	2298	2609	3528	3222	Energy Sector
Residencial	3964	4073	4235	4464	4597	4739	4831	5057	5181	5127	Residential
Comercial	1859	1957	2050	2124	2197	2330	2398	2579	2717	2941	Commercial
Público	962	975	1001	1052	1052	1090	1087	1116	1117	1139	Public
Agropecuário	1013	1084	1146	1089	938	963	938	922	799	798	Agriculture and Livestock
Transportes	15075	15423	17045	18452	18714	20001	21071	22016	22676	23472	Transportation
Rodoviário	12875	13408	14931	16182	16458	17541	18427	19273	19938	20581	Highways
Ferroviário	190	192	198	222	237	234	299	351	325	342	Railroads
Aéreo	1712	1635	1755	1896	1873	2112	2289	2339	2358	2495	Airways
Hidroviário	298	188	161	152	146	114	56	53	55	54	Hidroways
Industrial	22460	23910	25739	27173	26997	28813	27080	28158	28996	26999	Industrial
Cimento	572	601	607	635	627	610	673	701	727	727	Cement
Ferro Gusa e Aço	2272	2358	2414	2335	2105	2413	2230	2261	2174	2008	Pig-Iron and Steel
Ferro Ligas	78	86	88	84	82	87	88	88	92	87	Iron Alloys
Mineração e Pelotização	150	101	112	118	125	138	138	135	146	154	Mining/Pelletization
Não Ferr. /Out. Metálicos	1314	1452	1488	1501	1544	1574	1610	1597	1616	1460	Non-Ferrous/Oth. Metallurg.
Química	1894	1943	2070	2059	1883	1974	1904	1961	1924	1749	Chemical
Alimentos e Bebidas	9952	10581	11786	13120	13765	14729	12865	13703	14760	13736	Foods and Beverages
Têxtil	499	534	532	541	493	519	496	483	467	437	Textiles
Papel e Celulose	2265	2356	2464	2505	2257	2565	2491	2512	2563	2529	Paper and Pulp
Cerâmica	913	948	1002	1034	918	1025	1044	1033	1021	1003	Ceramics
Outros	2551	2950	3176	3241	3198	3179	3541	3684	3506	3109	Others

Tabela 2.12. Participação do Consumo Final por Setor
Table 2.12. Final Consumption by Sector Participation

%

ENERGÉTICOS	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	ENERGY
Consumo Final	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	Final Consumption
Cons. Final Não Energético	6,9	6,8	6,9	5,9	6,8	6,5	5,5	5,4	5,3	5,5	Non-Energy Fin. Consump.
Cons. Final Energético	93,1	93,2	93,1	94,1	93,2	93,5	94,5	94,6	94,7	94,5	Final Energy Consumption
Setor Energético	3,8	3,9	3,8	5,1	5,2	3,8	3,6	4,0	5,1	4,8	Energy Sector
Residencial	7,8	7,7	7,4	7,3	7,4	7,3	7,6	7,7	7,5	7,6	Residential
Comercial	3,7	3,7	3,6	3,5	3,5	3,6	3,8	3,9	4,0	4,4	Commercial
Público	1,9	1,8	1,7	1,7	1,7	1,7	1,7	1,7	1,6	1,7	Public
Agropecuário	2,0	2,0	2,0	1,8	1,5	1,5	1,5	1,4	1,2	1,2	Agriculture and Livestock
Transportes	29,6	29,1	29,7	30,2	30,4	31,1	33,5	33,2	33,0	34,7	Transportation
Rodoviário	25,2	25,2	26,0	26,5	26,8	27,2	29,3	29,1	29,0	30,4	Highways
Ferrovário	0,4	0,4	0,3	0,4	0,4	0,4	0,5	0,5	0,5	0,5	Railroads
Aéreo	3,4	3,1	3,1	3,1	3,0	3,3	3,6	3,5	3,4	3,7	Airways
Hidroviário	0,6	0,4	0,3	0,2	0,2	0,2	0,1	0,1	0,1	0,1	Hydroways
Industrial	44,3	45,0	44,9	44,5	43,5	44,5	42,8	42,7	42,3	40,1	Industrial
Cimento	1,1	1,1	1,1	1,0	1,0	0,9	1,1	1,1	1,1	1,1	Cement
Ferro Gusa e Aço	4,5	4,4	4,2	3,8	3,4	3,7	3,5	3,4	3,2	3,0	Pig-Iron and Steel
Ferro Ligas	0,2	0,2	0,2	0,1	0,1	0,1	0,1	0,1	0,1	0,1	Iron Alloys
Mineração e Pelotização	0,3	0,2	0,2	0,2	0,2	0,2	0,2	0,2	0,2	0,2	Mining/Pelletization
Não Ferr. /Out. Metálicos	2,6	2,7	2,6	2,5	2,5	2,4	2,5	2,4	2,4	2,2	Non-Ferrous/Oth. Metallurg.
Química	3,7	3,7	3,6	3,4	3,0	3,1	3,0	3,0	2,8	2,6	Chemical
Alimentos e Bebidas	19,6	19,9	20,6	21,5	22,2	22,8	20,4	20,8	21,5	20,4	Foods and Beverages
Têxtil	1,0	1,0	0,9	0,9	0,8	0,8	0,8	0,7	0,7	0,6	Textiles
Papel e Celulose	4,5	4,4	4,3	4,1	3,6	4,0	3,9	3,8	3,7	3,8	Paper and Pulp
Cerâmica	1,8	1,8	1,7	1,7	1,5	1,6	1,7	1,6	1,5	1,5	Ceramics
Outros	5,0	5,6	5,5	5,3	5,2	4,9	5,6	5,6	5,1	4,6	Others

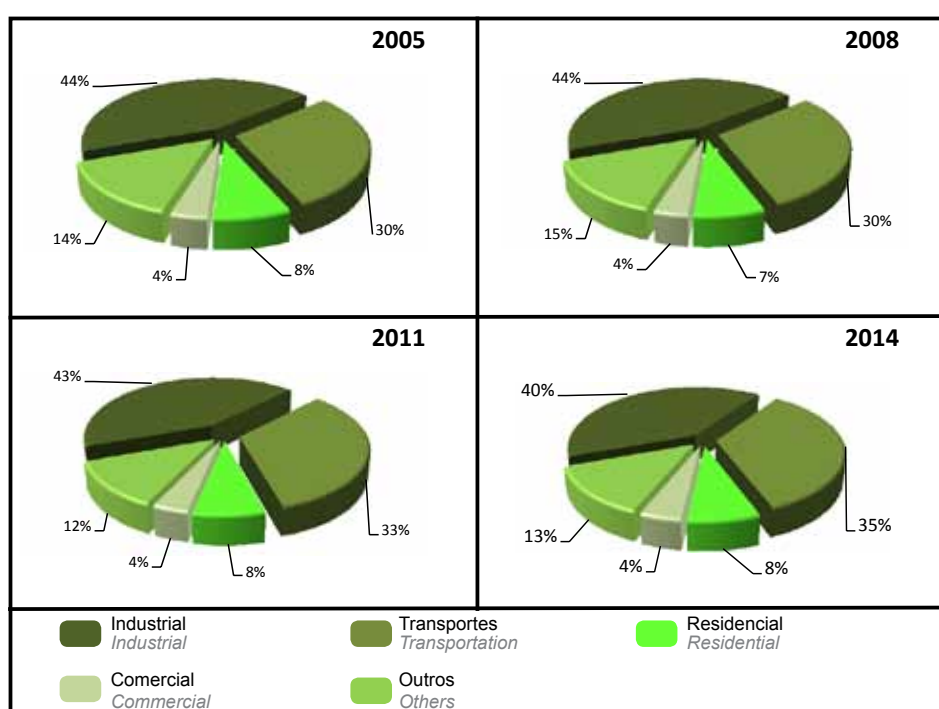


Tabela 2.13. Evolução do Consumo Final Energético por Fonte
Table 2.13. Final Energy Consumption by Source Evolution
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ENERGÉTICOS	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	ENERGY
Gás Natural	3561	4079	4373	4356	3732	4141	4276	4191	4201	4033	Natural Gas
Carvão Vapor	33	24	22	22	18	7	6	5	6	5	Steam Coal
Lenha	854	870	879	895	853	807	783	814	781	756	Firewood
Outras Fontes Primárias	841	888	924	961	939	1031	1030	1024	1075	1125	Others Primary Sources
Gás de Coqueria	259	248	256	264	246	283	270	259	254	233	Gas Coke
Coque de Carvão Mineral	1110	1106	1171	1036	837	982	885	943	877	789	Coal Coke
Eletricidade	10031	10582	11207	11643	11594	12171	12546	12930	13172	12963	Electricity
Carvão Vegetal	123	123	125	123	105	98	93	91	89	89	Charcoal
Etanol Etílico	1953	2595	3538	4344	4992	4972	4321	3852	4530	5021	Ethanol
Bagaço de Cana	9503	10145	11378	13573	14449	14367	12157	13188	14692	13504	Sugar Cane Bagasse
Derivados de Petróleo	18994	18815	19508	20256	19962	21504	23336	25160	25337	25180	Petroleum By-Products
Óleo Diesel	8045	7974	8482	9148	9010	9908	10312	10864	11289	11115	Diesel Oil
Óleo Combustível	1151	785	725	625	666	546	500	431	343	320	Fuel Oil
Gasolina	4165	4183	4244	4165	3923	4357	5528	6438	6127	6350	Gasoline
GLP	1948	1959	1965	2035	1991	2039	1943	2037	2083	2049	LPG
Nafta	0	0	0	0	0	0	0	0	0	0	Naphtha
Querosene	1720	1637	1750	1891	1865	2102	2278	2326	2347	2485	Kerosene
Gás Canalizado	0	0	0	0	0	0	0	0	0	0	Pipelined Gas
Gás de Refinaria	817	875	875	861	866	981	1059	1095	1134	1138	Refinery Gas
Outras Secundárias	1148	1402	1467	1531	1641	1571	1716	1969	2014	1723	Other Secondary
Total	47262	49475	53381	57473	57727	60363	59703	62457	65014	63698	Total

Tabela 2.14. Evolução do Consumo Final Não Energético por Fonte
Table 2.14. Final Non-Energy Consumption by Source Evolution
10³ toe

ENERGÉTICOS	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	ENERGY
Derivados de Petróleo	3251	3327	3643	3235	3833	3818	3167	3246	3311	3334	Petroleum By-Products
Nafta	1727	1950	2037	1648	2067	2250	1860	1944	2046	1954	Naphtha
Gás de Refinaria	112	119	119	117	118	134	144	149	155	155	Refinery Gas
Não Energét. de Petróleo	1412	1258	1487	1470	1648	1434	1163	1153	1110	1225	Petroleum Non-Energy
Biomassa	242	266	309	352	355	363	320	326	343	342	Biomass
Bagaço de Cana	210	218	238	259	269	280	238	255	273	259	Sugar Cane Bagasse
Etanol Etílico	30	46	69	91	85	82	81	70	69	82	Ethanol
Carvão Vegetal	2	2	2	2	1	1	1	1	1	1	Charcoal
Total	3493	3593	3952	3587	4188	4181	3487	3572	3654	3676	Total

Tabela 2.15. Evolução e Participação da Suficiência e Dependência Energética (*)
Table 2.15. Sufficiency and Dependence of Energy Evolution and Participation (*)
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ENERGÉTICOS	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	ENERGY
Demanda Total **	57497	58486	63194	67075	69237	70716	70181	72626	76051	73311	Total Demand
(%)	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	(%)
Suficiencia Total	25691	27080	30137	34902	36229	35734	31829	34384	37698	35408	Total Sufficiency
(%)	44,7	46,3	47,7	52	52,3	50,5	45,4	47,3	49,6	48,3	(%)
Dependência Total	31806	31406	33057	32173	33008	34982	38352	38242	38353	37903	Total Dependence
(%)	55,3	53,7	52,3	48	47,7	49,5	54,6	52,7	50,4	51,7	(%)

(*) A suficiência e a dependência energética são detalhadas no capítulo 5.

The sufficiency and the dependence Energies are detailed in the chapter 5.

(**) Demanda Total = Oferta Interna Bruta + Ajustes

Total Demand = Gross Domestic Supply + Adjustments

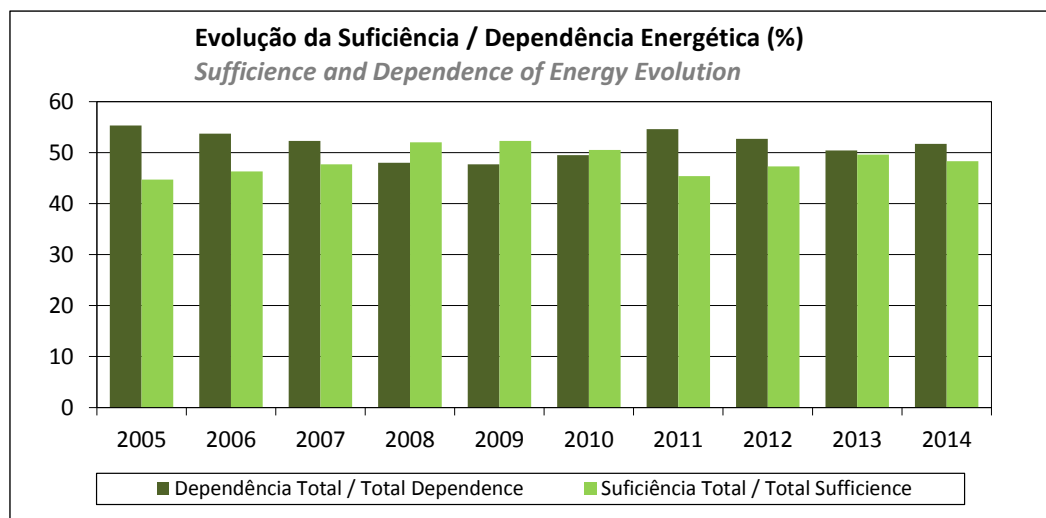


Tabela 2.16. Participação Setorial do Consumo dos Derivados de Petróleo e Gás Natural
Table 2.16. Consumption of Petroleum By Products and Natural Gas by Sector Participation

%

ENERGÉTICOS	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	ENERGY
Consumo das Cent. de Transformação	1,6	1,0	1,0	1,3	1,2	2,3	2,1	0,9	0,9	1,6	Total Cent. Tran. Consumption
Usinas de Gaseificação	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	Gasification Plants
Centrais Elétricas de Serviço Público	1,0	0,4	0,3	0,4	0,4	0,3	0,3	0,3	0,3	0,3	Public Utility Power Plants
Centrais Elétricas de Auto Produção	0,4	0,3	0,3	0,2	0,3	0,2	0,2	0,2	0,2	0,1	Self-Producers Power Plants
Outras Transformações	0,1	0,3	0,4	0,7	0,5	1,7	1,5	0,4	0,4	1,2	Other Transformations
Consumo Final	98,5	99,0	99,1	98,7	98,8	97,8	98,0	99,1	99,1	98,4	Final Consumption
Consumo Não Energético	14,4	14,9	15,6	13,6	15,9	14,7	11,7	11,3	11,5	11,5	Final Non-Ener. Consumption
Consumo Energético	84,1	84,1	83,5	85,1	82,9	83,1	86,3	87,8	87,6	86,9	Final Energy Consumption
Setor Energético	4,0	4,1	3,9	3,7	3,6	3,7	4,0	3,9	4,8	4,8	Energy Sector
Residencial	6,5	6,4	6,2	6,3	6,1	5,8	5,3	5,2	5,2	4,9	Residential
Comercial	0,8	0,8	0,8	0,8	0,8	0,8	0,6	0,7	0,7	0,8	Commercial
Público	0,6	0,6	0,6	0,7	0,6	0,6	0,4	0,4	0,3	0,4	Public
Agropecuário	3,5	3,8	3,8	3,6	3,0	2,7	2,5	2,4	1,8	1,7	Agriculture and Livestock
Transportes	56,1	55,0	55,3	56,9	55,3	56,7	60,7	62,2	61,7	62,7	Transportation
Industrial	12,6	13,4	12,9	13,1	13,5	12,8	12,8	13,0	13,1	11,6	Industrial
Total	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	Total

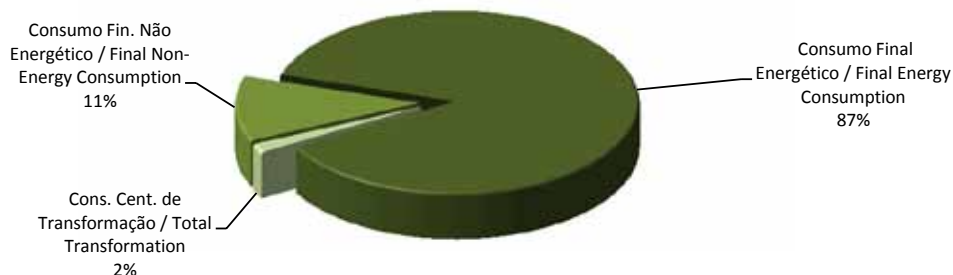
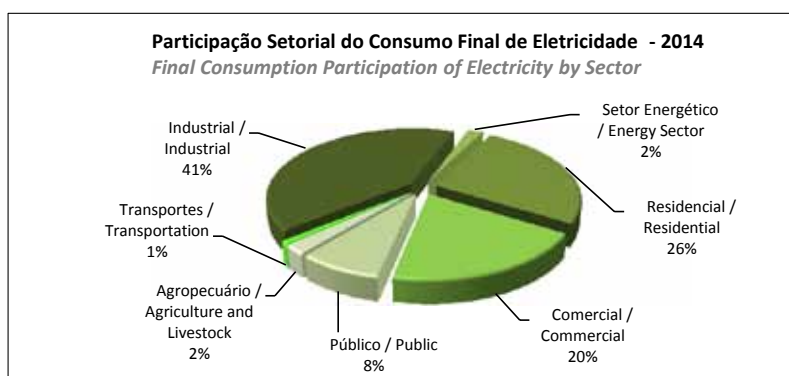
Participação Setorial do Consumo dos Derivados de Petróleo e Gás Natural - 2014
Consumption of Petroleum By Products and Natural Gas by Sector Participation


Tabela 2.17 Participação Setorial do Consumo Final de Eletricidade
Table 2.17. Final Consumption of Electricity by Sector Participation

%

ENERGÉTICOS	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	ENERGY
Setor Energético	2,3	2,4	2,3	2,5	2,6	2,5	2,2	2,3	2,3	2,0	Energy Sector
Residencial	22,4	22,5	22,5	23,1	24,4	24,2	24,6	25,1	25,3	26,2	Residential
Comercial	15,3	15,3	15,3	15,3	16,1	16,2	16,6	17,2	17,8	19,6	Commercial
Público	8,0	7,8	7,6	7,5	7,7	7,5	7,6	7,7	7,6	7,8	Public
Agropecuário	2,2	2,1	2,1	1,9	1,8	2,0	1,9	1,8	2,0	2,2	Agriculture and Livestock
Transportes	0,6	0,6	0,7	0,7	0,7	0,7	0,8	0,8	0,7	0,8	Transportation
Industrial	49,2	49,3	49,5	49,0	46,7	46,9	46,3	45,1	44,3	41,4	Industrial
Consumo Final	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	Final Consumption

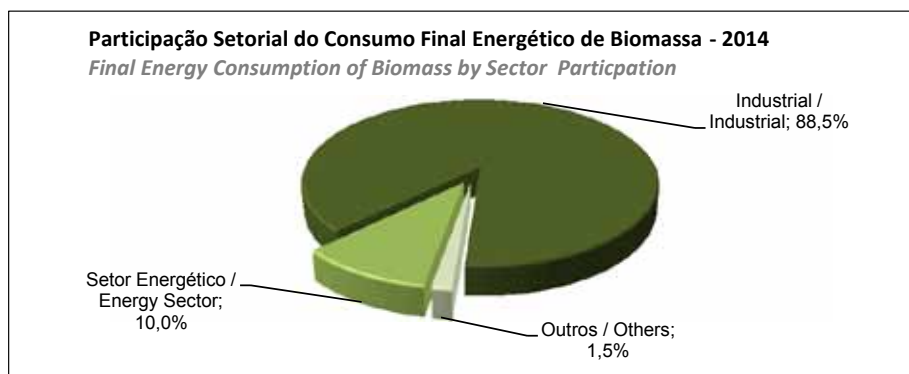

Tabela 2.18. Participação Setorial do Consumo Final de Carvão Mineral e Derivados
Table 2.18. Final Consumption of Coal and By Products by Sector Participation

%

ENERGÉTICOS	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	ENERGY
Industrial	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	Industrial
Cimento	3,9	2,5	1,4	1,5	1,6	0,6	0,5	0,4	0,5	0,5	Cement
Ferro Gusa e Aço	96,0	97,4	98,5	98,3	98,4	99,4	99,5	99,6	99,5	99,5	Pig-Iron and Steel
Outros	0,1	0,1	0,1	0,2	0,0	0,0	0,0	0,0	0,0	0,0	Others
Consumo Final	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	Final Consumption

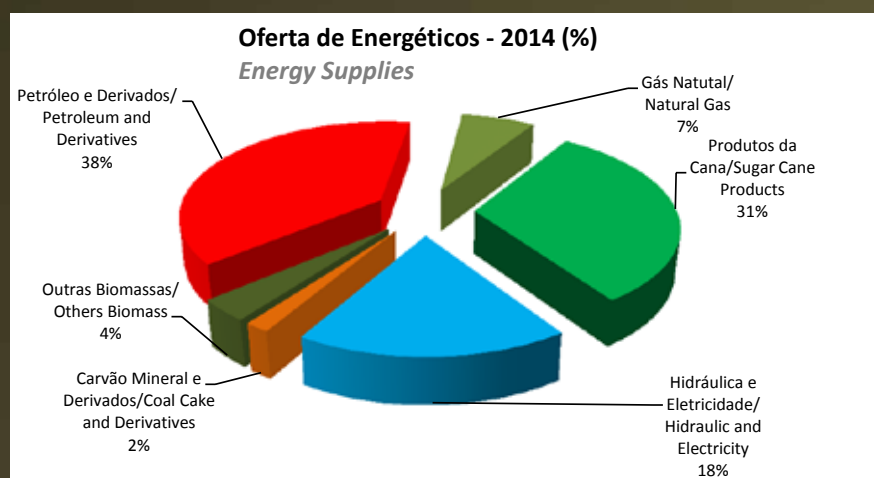
Tabela 2.19. Participação Setorial do Consumo Final Energético de Biomassa (*)
Table 2.19. Final Energy Consumption of Biomass by Sector Participation (*)
%

ENERGÉTICOS	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	ENERGY
Setor Energético	7,0	7,3	7,5	12,4	12,6	7,2	6,7	7,8	11,1	10,0	Energy Sector
Residencial	1,4	1,4	1,2	1,1	1,0	1,0	1,1	1,0	0,9	1,0	Residential
Comercial	0,6	0,5	0,5	0,4	0,4	0,4	0,4	0,4	0,3	0,4	Commercial
Público	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	Public
Agropecuário	0,1	0,1	0,1	0,1	0,1	0,1	0,1	0,1	0,1	0,1	Agriculture and Livestock
Industrial	90,9	90,7	90,7	86,0	85,9	91,3	91,7	90,7	87,6	88,5	Industrial
Cimento	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	Cement
Ferro Gusa e Aço	0,8	0,8	0,7	0,6	0,5	0,4	0,5	0,5	0,4	0,5	Pig-Iron and Steel
Ferro Ligas	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	Iron Alloys
Química	0,2	0,2	0,2	0,1	0,1	0,1	0,1	0,1	0,1	0,1	Chemical
Alimentos e Bebidas	77,9	77,9	78,7	75,5	76,3	81,3	80,3	79,9	77,7	77,5	Foods and Beverages
Têxtil	0,2	0,2	0,2	0,2	0,2	0,2	0,2	0,2	0,2	0,2	Textiles
Papel e Celulose	10,7	10,5	9,9	8,8	8,1	8,6	9,8	9,2	8,6	9,4	Paper and Pulp
Cerâmica	0,9	0,9	0,8	0,7	0,6	0,6	0,6	0,6	0,5	0,6	Ceramics
Outros	0,2	0,2	0,2	0,1	0,1	0,1	0,2	0,2	0,1	0,2	Others
Consumo Final Energético	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	Final Energy Consumption

(*) Exclusive Etanol
Exclusive Ethanol


Capítulo 03

Oferta e Demanda de Energia por Fonte



Chapter 03

Supply and Demand of Energy by Source

Tabela 3.01. Energia Primária
Table 3.01. Primary Energy
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	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	
Produção	25702	27077	30136	34905	36231	35727	31823	34387	37692	35408	Production
Importação	44859	45581	46861	45298	46655	45675	47710	49746	50442	49358	Import
Var. Est.+Perdas+Ajustes	4	-2	-29	-26	5	-41	-117	-50	-136	-66	Var. of Stocks+losses+adjusm.
Oferta Bruta	70565	72656	76968	80177	82891	81361	79416	84083	87998	84700	Gross Supply
Total da Transformação	65276	66795	70770	73943	77349	75375	73321	78049	81935	78781	Total of Transformation
Consumo Final	5289	5861	6198	6234	5542	5986	6095	6034	6063	5919	Final Consumption
Residencial	247	260	266	282	288	290	302	322	343	327	Residential
Comercial	136	140	139	141	138	139	142	147	153	155	Commercial
Público	17	19	19	20	17	18	19	16	21	18	Public
Agropecuário	12	12	13	13	11	10	10	10	9	9	Agriculture and Livestock
Transportes	389	463	500	458	324	281	255	227	220	196	Transportation
Rodoviário	389	463	500	458	324	281	255	227	220	196	Highways
Industrial	4488	4967	5261	5320	4764	5248	5367	5312	5317	5214	Industrial
Cimento	31	22	20	20	18	7	6	5	6	5	Cement
Ferro Gusa e Aço	385	454	420	449	478	604	490	482	476	440	Pig-Iron and Steel
Não Ferr./Out. Metalicas	0	0	0	0	0	0	0	0	0	0	Non-Ferr/Others Metallurgical
Química	720	739	818	805	685	716	671	639	639	610	Chemical
Alimentos e Bebidas	368	420	479	500	398	477	485	469	499	497	Foods and Beverages
Têxtil	153	183	172	174	148	165	140	133	123	114	Textiles
Papel e Celulose	1541	1642	1742	1813	1592	1829	1735	1720	1775	1773	Paper and Pulp
Cerâmica	561	578	624	675	579	685	706	704	721	709	Ceramics
Outros	729	929	986	884	866	765	1134	1160	1078	1066	Others

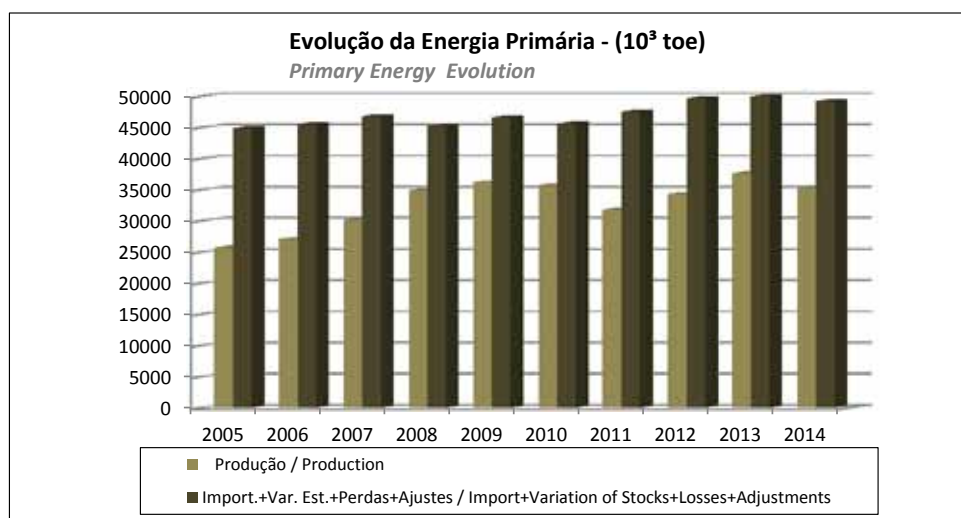


Tabela 3.02. Petróleo

Table 3.02. Petroleum

10³ m³

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	
Importação	5380	6865	8217	6759	7214	5717	6439	7683	9543	9659	Import
Importação Estadual	39378	38068	37884	37158	39517	39000	41194	43067	42476	42753	State Import
Oferta Bruta	44758	44933	46102	43917	46731	44717	47632	50750	52019	52412	Gross Supply
Total da Transformação	44758	44933	46102	43917	46731	44717	47632	50750	52019	52412	Total of Transformation

Obs.: O Total da Transformação do Petróleo inclui reprocessamento de cargas provenientes de refinarias de outros Estados.

Obs.: The total of transformation of petroleum includes re-processing of coming loads of refineries of Others States.

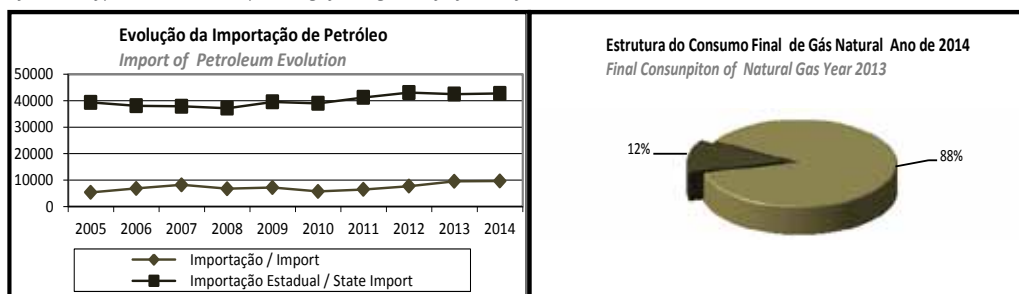


Tabela 3.03. Gás Natural

Table 3.03. Natural Gas

10⁶ m³

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	
Produção	380	357	324	242	218	342	1306	1992	2788	4163	Production
Importação Estadual	4361	4944	5342	5767	4754	5425	4519	4044	3622	2104	State Import
Perdas Distr. Armazenagem	-1	-2	-3	-1	-3	-38	-155	-66	-136	-75	Losses in distrib. and storage
Oferta Bruta	4740	5299	5663	6008	4970	5729	5669	5970	6274	6192	Gross Supply
Total da Transformação	350	272	270	636	370	624	398	804	1094	1221	Total of Transformation
Centrais Elét. Serviço Público	148	64	51	327	58	283	81	443	769	922	Public Utility Power Plants
Centrais Elétr. Autoprodução	202	208	219	309	312	341	317	361	325	299	Self-Producers Power Plants
Consumo Final	4390	5027	5393	5372	4600	5105	5271	5166	5180	4971	Final Consumption
Residencial	110	119	124	141	149	168	187	204	230	217	Residential
Comercial	98	102	101	104	101	107	114	117	125	128	Commercial
Público	21	23	24	25	21	22	23	20	26	22	Public
Transportes	479	571	617	565	399	346	315	280	271	242	Transportation
Rodoviário	479	571	617	565	399	346	315	280	271	242	Highways
Industrial	3682	4212	4527	4537	3930	4462	4632	4545	4528	4362	Industrial
Cimento	0	0	0	0	0	0	0	0	0	0	Cement
Ferro Gusa e Aço	472	558	516	552	588	744	603	593	586	541	Pig-Iron and Steel
Química	880	904	1001	985	838	876	821	782	782	747	Chemical
Alimentos e Bebidas	276	337	406	427	313	421	440	410	454	457	Foods and Beverages
Têxtil	165	201	188	190	159	180	150	140	130	119	Textiles
Papel e Celulose	453	515	585	612	392	597	489	467	494	446	Paper and Pulp
Cerâmica	563	583	645	706	594	731	759	753	779	768	Ceramics
Outros (*)	873	1114	1186	1065	1046	913	1370	1400	1303	1284	Others (*)

(*) Inclui o consumo das indústrias de vidro, centrais elétricas e demais segmentos da indústria.

It includes the consumption of the glass industries, central electric and other segments of the industry.

Tabela 3.04. Carvão Vapor
Table 3.04. Steam Coal

10³ t

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	
Importação Estadual	98	50	51	50	40	17	15	12	14	12	State Import
Variação de Est+ Perdas + Ajustes	-15	8	3	5	4	0	0	0	0	0	Var. of Stocks+ Losses+Adjustment
Oferta Bruta	83	58	54	55	44	17	15	12	14	12	Gross Supply
Consumo Final	83	58	54	55	44	17	15	12	14	12	Final Consumption
Industrial	83	58	54	55	44	17	15	12	14	12	Industrial
Cimento	78	54	50	51	44	17	15	12	14	12	Cement
Outros	5	4	4	4	0	0	0	0	0	0	Others

Tabela 3.05. Carvão Metalúrgico
Table 3.05. Metallurgical Coal

10³ t

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	
Importação Estadual	2086	2242	2139	2171	1765	2174	2438	1966	1873	1605	State Import
Variação de Est+ Perdas + Ajustes	15	-7	-36	-36	8	-17	9	6	-34	-8	Var. of Stocks+ Losses+Adjustment
Oferta Bruta	2101	2235	2104	2135	1773	2157	2447	1972	1839	1597	Gross Supply
Total da Transformação	2101	2235	2104	2135	1773	2157	2447	1972	1839	1597	Total of Transformation

Tabela 3.06. Energia Hidráulica
Table 3.06. Hydraulic Energy

GWh

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	
Produção	68348	72420	72778	74396	75296	78248	75179	78494	71759	56646	Production
Oferta Bruta	68348	72420	72778	74396	75296	78248	75179	78494	71759	56646	Gross Supply
Total da Transformação	68348	72420	72778	74396	75296	78248	75179	78494	71759	56646	Total of Transformation
Cent.Elétr.Serv.Público	64400	68020	67840	69172	70162	73481	70079	74018	67675	54558	Public Utility Power Plants
Cent.Elét.Serv.Autoprodutores	3948	4400	4938	5224	5134	4767	5100	4476	4084	2088	Self-Producers Power Plants

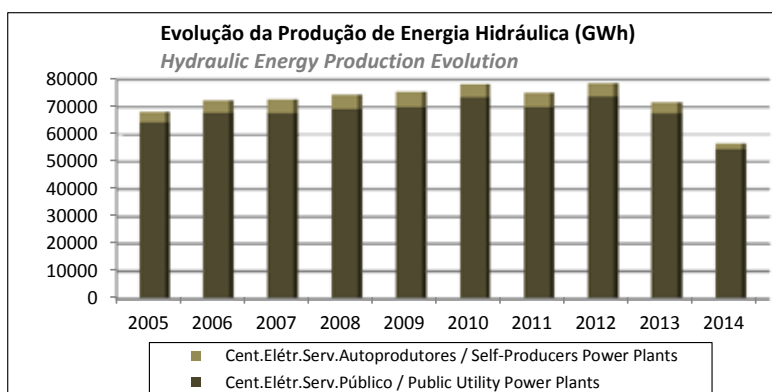


Tabela 3.07. Lenha
Table 3.07. Firewood
10³ m³

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	
Produção	8390	8650	8775	8950	8470	8290	8040	8267	8018	7697	Production
Importação Estadual	1540	1520	1513	1532	1466	1100	1074	1213	1061	1058	State Import
Total da Transformação	-1272	-1361	-1387	-1415	-1291	-1221	-1190	-1234	-1163	-1096	Total of Transformation
Oferta Bruta	8658	8809	8901	9067	8645	8169	7924	8246	7916	7659	Gross Supply
Cons. Final	8658	8809	8901	9067	8645	8169	7924	8246	7916	7659	Final Consumption
Residencial	1599	1652	1671	1705	1690	1565	1518	1591	1578	1531	Residential
Comercial	582	576	582	580	566	522	505	531	525	515	Commercial
Público	0	0	0	0	0	0	0	0	0	0	Public
Agropecuário	123	126	128	128	115	100	97	104	94	89	Agriculture and Livestock
Industrial	6354	6455	6520	6654	6274	5982	5804	6020	5719	5524	Industrial
Química	63	60	61	60	55	51	50	52	47	44	Chemical
Alimentos e Bebidas	1381	1400	1418	1450	1363	1288	1210	1287	1238	1188	Foods and Beverages
Têxtil	193	200	202	205	197	188	182	189	180	171	Textiles
Papel e Celulose	3590	3635	3744	3826	3595	3465	3393	3484	3306	3174	Paper and Pulp
Cerâmica	989	1000	953	980	946	888	870	901	865	830	Ceramics
Outros	138	160	142	133	118	102	99	107	83	117	Others

Tabela 3.08. Cana-de-Açúcar
Table 3.08. Sugar Cane
10³ t

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	
Produção	83134	83449	109010	142311	147095	130779	103783	110065	133556	123567	Production
Oferta Bruta	83134	83449	109010	142311	147095	130779	103783	110065	133556	123567	Gross Supply
Total da Transformação	83134	83449	109010	142311	147095	130779	103783	110065	133556	123567	Total of Transformation

Tabela 3.09. Outras Fontes Primárias
Table 3.09. Others Primary Flow
10³ toe

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	
Produção	1462	1544	1606	1658	1607	1689	1670	1652	1690	1733	Production
Oferta Bruta	1462	1544	1606	1658	1607	1689	1670	1652	1690	1733	Gross Supply
Total da Transformação	621	655	681	696	667	658	640	627	616	608	Total of Transformation
Consumo Final	841	888	924	961	939	1031	1030	1024	1075	1125	Final Consumption
Industrial	841	888	924	961	939	1031	1030	1024	1075	1125	Industrial
Papel e Celulose	820	865	898	939	919	1003	1003	997	1048	1098	Paper and Pulp
Outros	21	23	26	22	20	28	27	27	27	27	Others

Tabela 3.10. Óleo Diesel

Table 3.10. Diesel Oil

10³ m³

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	
Produção	18431	19103	19563	19816	21090	19071	20413	22828	24127	24733	Production
Diesel	18431	19082	19526	19630	20854	18744	20118	22669	23963	24563	Diesel
Biodiesel - B5	0	21	37	186	236	327	295	159	164	170	Biodiesel - B5
Importação	673	83	713	1892	705	1165	990	1469	3933	3019	Import
Var. de Estoques + Ajustes	108	-155	-81	0	30	10	126	-102	362	115	Var. of Stocks + Adjustments
Exportação	-40	-77	-104	-122	-130	-138	-246	-52	-57	-55	Export
Exportação Estadual	-9853	-9709	-10258	-10986	-11256	-8638	-9354	-11577	-15311	-14955	State Export
Oferta Bruta	9319	9245	9833	10600	10439	11470	11929	12566	13054	12857	Gross Supply
Transformação (*)	34	40	43	43	40	32	27	27	27	27	Transformation (*)
Consumo Final	9285	9205	9790	10557	10399	11438	11902	12539	13027	12830	Final Consumption
Setor Energético	32	35	37	39	29	42	65	70	325	299	Energy Sector
Comercial	31	30	32	33	30	38	33	38	43	40	Commercial
Público	84	84	85	109	100	115	62	56	48	41	Public
Agropecuário	824	950	1010	965	799	816	787	779	602	578	Agriculture and Livestock
Transportes	7678	7378	7924	8603	8626	9407	9868	10432	10760	10725	Transportation
Rodoviário	7360	7129	7680	8333	8340	9167	9620	10121	10471	10415	Highways
Ferroviário	150	149	150	172	187	173	235	293	264	283	Railroads
Hidroviário	168	100	94	98	99	67	13	18	25	27	Hidroways
Industrial	636	728	702	808	815	1020	1087	1164	1249	1147	Industrial

(*) Refere-se a geração de Eletricidade das Centrais Elétricas Autoprodutoras.
Refers the generation of Electricity of Self-Producers Power Plants.

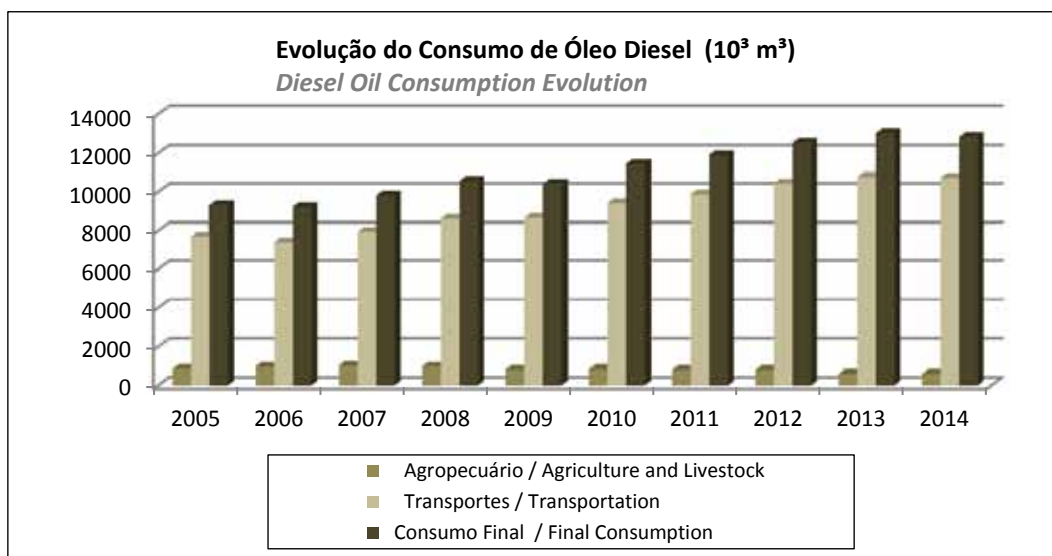


Tabela 3.11. Óleo Combustível
Table 3.11. Fuel Oil
10³ m³

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	
Produção	5016	4773	4943	4246	5166	4692	3831	3920	3895	3867	Production
Importação	27	12	0	154	16	143	40	90	24	140	Import
Exportação	-3622	-3745	-4111	-3660	-4297	-4122	-3233	-3380	-3555	-3625	Export
Var. de Estoques + Ajustes	100	-86	42	37	-60	-22	-16	-65	101	56	Var. of Stocks + Adjustments
Oferta Bruta	1521	954	874	777	825	691	622	566	465	438	Gross Supply
Transformação (*)	315	130	112	123	127	120	100	115	105	103	Transformation (*)
Cons. Final	1206	824	762	654	698	571	522	451	360	335	Final Consumption
Setor Energético	85	56	37	19	10	5	3	4	1	3	Energy Sector
Outros Setores	93	41	39	36	37	12	6	8	4	10	Others Sectors
Transportes	159	106	84	70	63	59	47	39	35	32	Transportation
Industrial	869	621	602	529	588	495	466	400	320	290	Industrial
Cimento	12	7	8	8	9	2	2	2	2	2	Cement
Ferro Gusa e Aço	43	35	34	26	31	26	31	31	13	10	Pig-Iron and Steel
Mineração e Pelotização	12	12	11	10	13	6	7	4	4	9	Mining/Pelletization
Não Ferr./Out.Metálicos	108	84	84	72	78	66	71	61	49	35	Non-Ferrous/Others Metals
Química	182	96	89	83	85	97	84	59	46	41	Chemical
Alimentos e Bebidas	218	154	151	153	167	101	111	97	67	61	Foods and Beverages
Têxtil	50	27	26	27	28	27	22	16	17	12	Textiles
Papel e Celulose	177	148	146	99	110	140	131	124	119	119	Paper and Pulp
Cerâmica	43	38	34	31	33	27	4	3	3	1	Ceramics
Outros	24	20	19	20	34	3	3	3	0	0	Others

(*) Refere-se a geração de Eletricidade das Centrais Elétricas Autoprodutoras.
Refers the generation of Electricity of Self-Producers Power Plants.

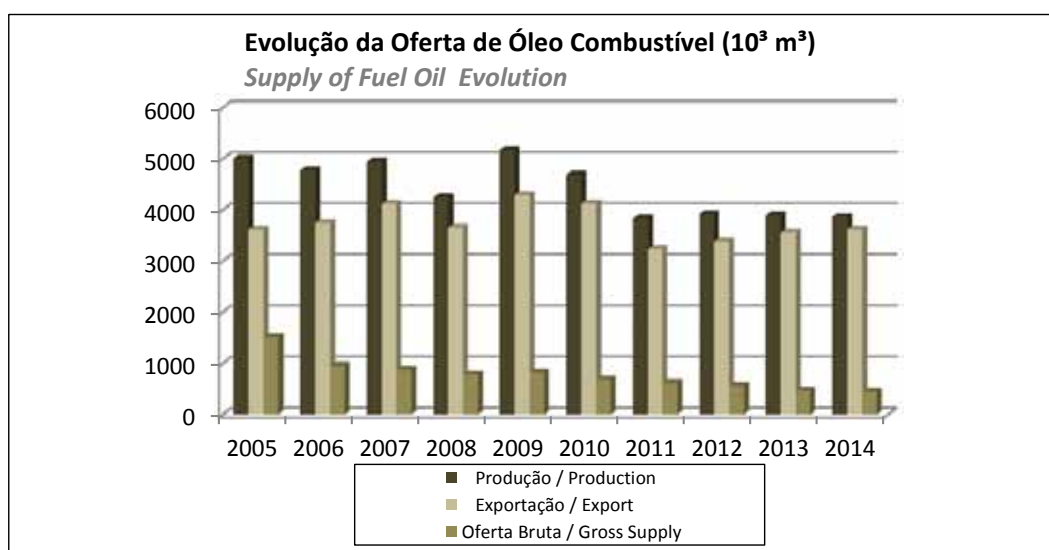
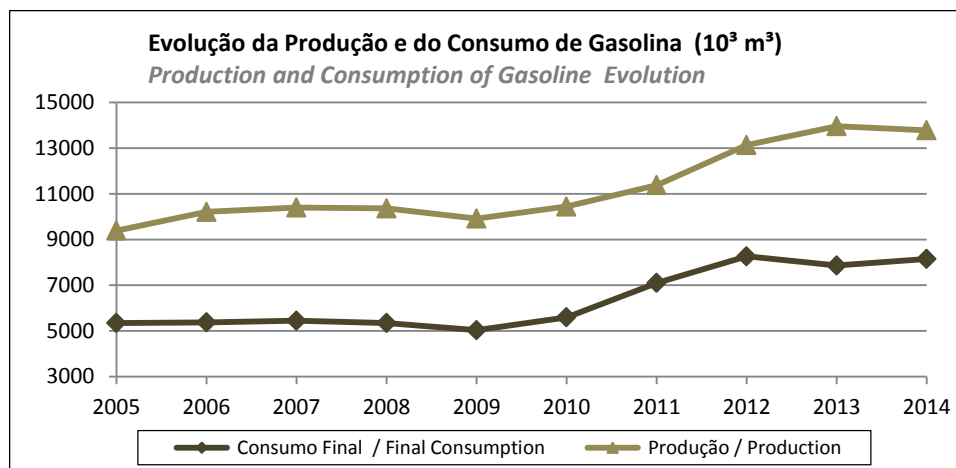


Tabela 3.12. Derivados de Petróleo e Gás Natural
Table 3.12. Products of Petroleum and Natural Gas
10³ toe

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	
Produção	37788	38870	39954	38437	40755	39051	41786	46148	48007	49602	Production
Importação	4485	4596	5775	8066	5293	6494	4991	6163	8561	6248	Import
Exportação	-16339	-16984	-18306	-18480	-18383	-16063	-15918	-18975	-23281	-23079	Export
Var. de Est.+ Ajustes+Perdas	-74	-407	-68	-373	-373	-583	-601	-951	-667	-642	Var. of Stocks + Adjustment + Losses
Oferta Bruta	25860	26075	27355	27650	27292	28899	30258	32385	32620	32129	Gross Supply
Total da Transformação	54	-146	-169	-197	-235	-564	-521	-212	-229	-418	Total of Transformation
Consumo Final	25806	26221	27524	27847	27527	29463	30779	32597	32849	32547	Final Consumption
Cons. Final não Energético	3251	3327	3643	3235	3833	3818	3167	3246	3311	3334	Final Non-Energy Consumption
Consumo Final Energético	22555	22894	23881	24612	23694	25645	27612	29351	29538	29213	Final Energy Consumption
Setor Energético	896	924	908	885	871	946	1078	1126	1379	1405	Energy Sector
Residencial	1560	1529	1544	1603	1601	1641	1590	1657	1691	1582	Residential
Comercial	257	268	268	272	263	304	256	296	315	339	Commercial
Público	163	151	152	175	162	172	130	126	121	125	Public
Agropecuário	785	845	895	856	714	712	684	677	524	504	Agriculture and Livestock
Transportes	13057	12760	13434	14030	13644	14943	16653	18065	18048	18352	Transportation
Rodoviário	10917	10808	11388	11833	11463	12567	14104	15419	15406	15558	Highways
Ouros	2140	1952	2046	2197	2181	2376	2549	2646	2642	2794	Others
Industrial	5837	6417	6680	6791	6439	6927	7221	7404	7460	6906	Industrial
Cimento	395	415	420	453	453	436	504	533	559	566	Cement
Ferro Gusa e Aço	485	560	517	553	582	701	582	569	540	509	Pig-Iron and Steel
Mineração e Pelotização	55	55	54	63	78	89	91	89	99	110	Mining/Pelletization
Não Ferr./Out.Metálicos	726	787	738	766	826	823	873	865	869	761	Non-Ferrous/Other Metals
Química	1185	1231	1315	1295	1145	1210	1129	1152	1102	983	Chemical
Alimentos e Bebidas	664	709	765	836	761	891	936	943	1135	1058	Foods and Beverages
Têxtil	188	195	183	187	163	180	151	138	139	129	Textiles
Papel e Celulose	541	567	621	600	437	637	531	526	537	503	Paper and Pulp
Cerâmica	563	585	631	680	586	692	709	700	705	699	Ceramics
Outros	1035	1313	1436	1358	1408	1268	1715	1889	1775	1588	Others

Tabela 3.13. Gasolina
Table 3.13. Gasoline
10³ m³

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	
Produção	9388	10211	10402	10361	9914	10445	11375	13135	13957	13779	Production
Importação	0	0	0	0	0	0	0	0	0	0	Import
Exportação	-3962	-4870	-5024	-5005	-4756	-4786	-4113	-4936	-6229	-5674	Export
Variação de Estoques	-79	29	69	-10	-122	-67	-166	65	137	46	Variation of Stocks
Oferta Bruta	5347	5370	5447	5346	5036	5592	7096	8264	7865	8151	Gross Supply
Consumo Final	5347	5370	5447	5346	5036	5592	7096	8264	7865	8151	Final Consumption
Agropecuário	0	0	0	0	0	0	0	0	0	0	Agriculture and Livestock
Transportes	5347	5370	5447	5346	5036	5592	7096	8264	7865	8151	Transportation
Rodoviário	5330	5352	5436	5335	5024	5577	7079	8246	7849	8137	Highways
Aéreo	17	18	11	11	12	15	17	18	16	14	Airways


Tabela 3.14. GLP
Table 3.14. LPG
10³ m³

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	
Produção	4009	3657	3874	3651	3168	3069	3268	3548	3315	3086	Production
Importação	456	650	871	1242	723	462	200	857	807	326	Import
Exportação	-1258	-1089	-1494	-1561	-604	-143	-245	-1049	-703	-53	Export
Variação de Estoques	-4	1	-21	14	-15	-38	-30	-6	2	7	Variation of Stocks
Oferta Bruta	3203	3219	3230	3346	3272	3350	3193	3350	3421	3366	Gross Supply
Consumo Final	3203	3219	3230	3346	3272	3350	3193	3350	3421	3366	Final Consumption
Residencial	2404	2343	2368	2444	2430	2470	2359	2450	2469	2309	Residential
Outros	359	356	355	367	353	411	333	394	400	455	Others
Industrial	440	520	507	535	489	469	501	506	552	602	Industrial

Tabela 3.15. Nafta

Table 3.15. Naphtha

10³ m³

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	
Produção	2294	2471	2497	1851	2578	2119	1752	1308	714	566	Production
Importação	34	70	120	165	70	282	270	1139	1914	1638	Import
Exportação	0	0	0	0	0	0	0	0	0	0	Export
Variação de Estoques	-25	12	33	10	-6	46	-64	18	-21	-13	Variation of Stocks
Oferta Bruta	2303	2553	2650	2026	2642	2447	1958	2465	2607	2191	Gross Supply
Transformação	-42	-94	-116	-211	-164	-608	-568	-174	-171	-462	Transformation
Consumo Final	2345	2647	2766	2237	2806	3055	2526	2639	2778	2653	Final Consumption
Cons. Final Não Energético	2345	2647	2766	2237	2806	3055	2526	2639	2778	2653	Fin.Non-Energy Consumption
Cons. Final Energético	0	0	0	0	0	0	0	0	0	0	Final Energy Consumption
Industrial	0	0	0	0	0	0	0	0	0	0	Industrial

Tabela 3.16. Querosene

Table 3.16. Kerosene

10³ m³

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	
Produção	2238	2054	2174	1763	2140	2205	2785	2705	2505	2847	Production
Importação	2	57	215	834	366	530	115	187	357	474	Import
Exportação	-169	-90	-232	-330	-188	-152	-81	-14	-63	-364	Export
Variação de Estoques	32	-21	-18	43	-39	-15	-35	-35	69	80	Variation of Stocks
Oferta Bruta	2103	2000	2139	2310	2279	2568	2784	2843	2868	3037	Gross Supply
Consumo Final	2103	2000	2139	2310	2279	2568	2784	2843	2868	3037	Final Consumption
Residencial	10	7	3	2	1	2	2	1	1	1	Residential
Comercial	0	0	0	0	0	0	0	0	0	0	Commercial
Outros	0	0	0	0	0	0	0	0	0	0	Others
Transportes	2077	1981	2134	2306	2278	2566	2782	2842	2867	3036	Transportation
Aéreo	2077	1981	2134	2306	2278	2566	2782	2842	2867	3036	Airways
Industrial Total	16	12	2	2	0	0	0	0	0	0	Industrial Total
Ferro Gusa e Aço	0	0	0	0	0	0	0	0	0	0	Pig-Iron and Steel
Outros	16	12	2	2	0	0	0	0	0	0	Others

Tabela 3.17. Gás de Refinaria

Table 3.17. Refinery Gas

10⁶ m³

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	
Produção	1439	1541	1540	1516	1526	1727	1865	1929	1998	2006	Production
Não Aproveitada	0	0	0	0	0	0	0	0	0	0	Non-utilized
Oferta Bruta	1439	1541	1540	1516	1526	1727	1865	1929	1998	2006	Gross Supply
Consumo Final	1439	1541	1540	1516	1526	1727	1865	1929	1998	2006	Final Consumption
Cons. Final Não Energético	173	185	185	182	183	207	223	231	240	241	Fin.Non-Energy Consumption
Cons. Final Energético	1266	1356	1355	1334	1343	1520	1642	1698	1758	1765	Final Energy Consumption
Setor Energético	1201	1279	1278	1264	1271	1375	1558	1620	1683	1752	Energy Sector
Industrial	65	77	77	70	72	145	84	78	75	13	Industrial
Química	65	77	77	70	72	145	84	78	75	13	Chemical

Tabela 3.18. Gás de Coqueria
Table 3.18. Coking Gas
10⁶ m³

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	
Produção	597	567	588	613	575	683	645	591	599	538	Production
Não Aprov. + Ajuste + Perdas	-8	-4	-6	-13	-16	-41	-32	-3	-22	-10	Non-utilized+Adjustm.+Losses
Oferta Bruta	589	563	582	600	559	642	613	588	577	528	Gross Supply
Consumo Final	589	563	582	600	559	642	613	588	577	528	Final Consumption
Cons. Final Energético	589	563	582	600	559	642	613	588	577	528	Final Energy Consumption
Setor Energético	7	7	6	8	6	8	8	7	7	6	Energy Sector
Industrial	582	556	576	592	553	634	605	581	570	522	Industrial
Ferro Gusa e Aço	582	556	576	592	553	634	605	581	570	522	Pig-Iron and Steel

Tabela 3.19. Coque de Carvão Mineral
Table 3.19. Coal Coke
10³ t

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	
Produção	1427	1499	1496	1537	1205	1469	1328	1371	1031	1082	Production
Importação	140	45	233	3	6	29	152	148	141	37	Import
Não Aprov. + Ajustes + Perdas	41	59	-32	-38	2	-75	-197	-153	99	25	Non-utilized+Adjustments+ Losses
Oferta Bruta	1608	1603	1697	1502	1213	1423	1283	1366	1271	1144	Gross Supply
Consumo Final	1608	1603	1697	1502	1213	1423	1283	1366	1271	1144	Final Consumption
Cons. Final Não Energético	0	0	0	0	0	0	0	0	0	0	Final Non-Energy Consumption
Cons. Final Energético	1608	1603	1697	1502	1213	1423	1283	1366	1271	1144	Final Energy Consumption
Industrial	1608	1603	1697	1502	1213	1423	1283	1366	1271	1144	Industrial
Cimento	33	18	0	0	0	0	0	0	0	0	Cement
Ferro Gusa e Aço	1575	1585	1697	1502	1213	1423	1283	1366	1271	1144	Pig-Iron and Steel

Tabela 3.20. Eletricidade (*)
Table 3.20. Electricity (*)
GWh

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	
Produção	73818	78661	79170	81337	82498	85367	81725	86389	80091	64758	Production
Cent. Elét. Serv. Público	64400	68020	67840	69172	70162	73481	70079	74018	67675	54558	Public utilities
Centr. Elét. Autoprod.	9418	10641	11330	12165	12336	11886	11646	12371	12416	10200	Self-production Power Plants
Importação	62528	65349	71929	70840	70284	80796	87283	84017	90885	100731	Import
Exportação	-7005	-7405	-6597	-5543	-5650	-11098	-7560	-5323	-4708	-3589	Export
Perd. Dist. e Armazen.+ Perdas	-12726	-13558	-14201	-11224	-12312	-13572	-15561	-14730	-13121	-11177	Losses in Distr. and Storage+Losses
Oferta Bruta	116615	123047	130301	135410	134820	141493	145887	150353	153147	150723	Gross Supply
Consumo Final	116615	123047	130301	135412	134820	141509	145881	150353	153147	150723	Final Consumption
Cons. Final Energético	116615	123047	130301	135412	134820	141509	145881	150353	153147	150723	Final Energy Consumption
Setor Energético	2715	2904	3044	3417	3515	3590	3235	3459	3482	3011	Energy Sector
Residencial	26099	27679	29361	31308	32878	34221	35931	37694	38752	39450	Residential
Comercial	17867	18879	19957	20783	21753	22870	24261	25874	27251	29598	Commercial
Público	9290	9585	9868	10196	10354	10670	11130	11506	11581	11790	Public
Agropecuário	2517	2639	2763	2561	2479	2806	2836	2730	3095	3312	Agriculture and Livestock
Transportes	745	789	851	904	906	1000	1121	1151	1135	1152	Transportation
Industrial	57382	60572	64457	66243	62935	66352	67367	67939	67851	62410	Industrial
Cimento	1374	1698	1870	1819	1753	1879	1835	1840	1832	1785	Cement
Ferro Gusa e Aço	4054	4251	4406	4557	4225	4401	4970	4927	5089	4768	Pig-Iron and Steel
Ferro Ligas	844	946	968	933	919	961	982	993	1018	966	Iron Alloys
Mineração e Pelotização	1110	534	673	644	549	565	547	538	543	509	Mining/Pelletization
Não Ferr./Outros Met.	6835	7730	8720	8550	8352	8733	8575	8510	8685	8126	Non-Ferrous/Others Metals
Química	7961	8028	8516	8621	8308	8600	8764	9158	9296	8663	Chemical
Alimentos e Bebidas	5743	5951	6320	6459	6201	6658	7462	7947	8346	7789	Foods and Beverages
Têxtil	3297	3604	3719	3778	3518	3627	3723	3700	3528	3308	Textiles
Papel e Celulose	5939	6090	6186	6302	5776	6175	6704	6945	6989	6566	Paper and Pulp
Cerâmica	2847	2993	3124	2919	2724	2806	2844	2790	2645	2536	Ceramics
Outros	17380	18746	19954	21660	20610	21946	20961	20591	19880	17394	Others

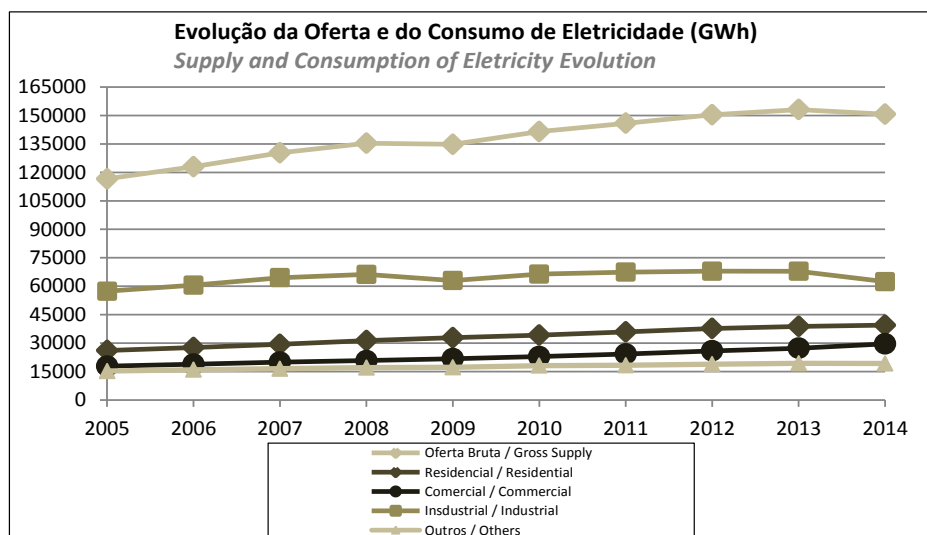
(*) Inclusive Autoprodutores
Include Self-Producers


Tabela 3.21. Carvão Vegetal

Table 3.21. Charcoal

10³ m³ st

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	
Produção	140	323	190	200	150	135	140	142	137	137	Production
Importação	678	499	642	624	552	500	471	461	453	449	Import
Oferta Bruta	818	822	832	824	702	635	611	603	590	586	Gross Supply
Consumo Final	818	822	832	824	702	635	611	603	590	586	Final Consumption
Cons. Final Não Energético	10	10	10	10	8	7	6	8	6	6	Fin. Non-Energy Consumption
Cons. Final Energético	808	812	822	814	694	628	605	595	584	580	Final Energy Consumption
Residencial	8	8	8	8	7	5	5	5	5	5	Residential
Comercial	53	55	56	53	47	43	40	42	40	38	Commercial
Industrial	747	749	758	753	640	580	560	548	539	537	Industrial
Ferro Gusa e Aço	608	605	610	607	516	468	450	444	437	449	Pig-Iron and Steel
Ferro Ligas	32	32	32	29	22	26	26	20	26	29	Iron Alloys
Outros	107	112	116	117	102	86	84	84	76	59	Others

Tabela 3.22. Etanol Total*

*Table 3.22. Total Ethanol**

10³ toe

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	
Produção	4922	5404	6547	8200	7283	7519	5701	5837	6883	6787	Production
Exportação	-2866	-2577	-2785	-3624	-2030	-2395	-1633	-1803	-2151	-1880	Export
Variação de Est. + Perdas de Distr. e Armaz.-Ajustes	-73	-186	-155	-141	-176	-70	334	-112	-133	-118	Variation of Stocks + Losses in Dist. and Stor. - Adjustments
Oferta Bruta	1983	2641	3607	4435	5077	5054	4402	3922	4599	4789	Gross Supply
Consumo Final	1983	2641	3607	4435	5077	5054	4402	3922	4599	5103	Final Consumption
Cons. Final Não Energético	30	46	69	91	85	82	81	70	69	82	Fin. Non-Energy Consumption
Cons. Final Energético	1953	2595	3538	4344	4992	4972	4321	3852	4530	5021	Final Energy Consumption
Setor Energético	0	0	0	0	0	0	0	0	0	0	Energy Sector
Transportes	1953	2595	3538	4344	4992	4972	4321	3852	4530	5021	Transportation
Rodoviário	1953	2595	3538	4344	4992	4972	4321	3852	4530	5021	Highways

*Etanol Total = Anidro + Hidratado

Total Ethanol = Anhydrous Ethanol + Hydrated Ethanol

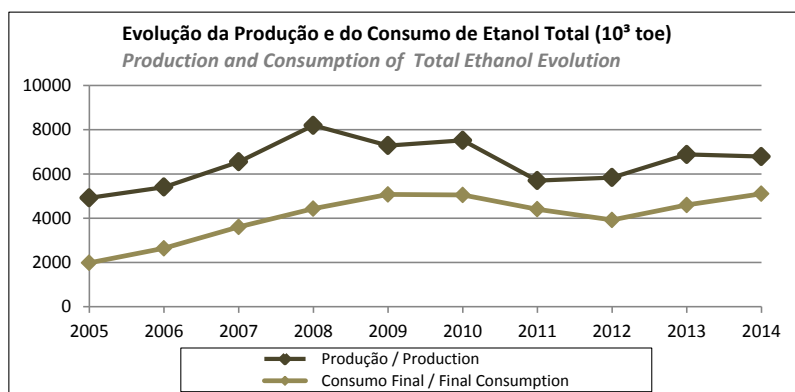


Tabela 3.23. Etanol Anidro
Table 3.23. Anhydrous Ethanol
10³ m³

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	
Produção	5423	5275	4946	6007	4222	5119	4755	5601	6958	6488	Production
Exportação	-3709	-3382	-3101	-4183	-2396	-3210	-2747	-3430	-4194	-3680	Export
Var. de Est. + Perdas + Ajustes	-50	-203	-128	-139	-152	-50	357	-110	-147	-95	Variation of Stocks + Losses + Adjust.
Oferta Bruta	1664	1690	1717	1685	1674	1859	2365	2061	2617	2713	Gross Supply
Consumo Final	1664	1690	1717	1685	1674	1859	2365	2062	2617	2713	Final Consumption
Cons. Final Energético	1664	1690	1717	1685	1674	1859	2365	2062	2617	2713	Final Energy Consumption
Transportes	1664	1690	1717	1685	1674	1859	2365	2062	2617	2713	Transportation
Rodoviário	1664	1690	1717	1685	1674	1859	2365	2062	2617	2713	Highways

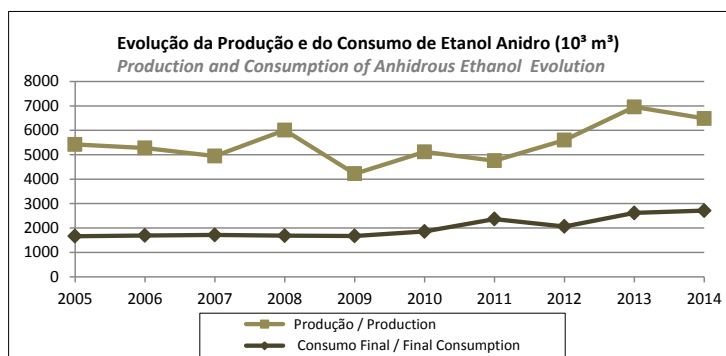


Tabela 3.24. Etanol Hidratado

Table 3.24. Hydrated Ethanol

10³ m³

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	
Produção	4522	5679	8399	10716	10690	10237	6842	6235	6981	7276	Production
Importação	0	0	0	0	0	0	0	0	0	652	Import
Exportação	-2053	-1798	-2524	-3131	-1701	-1599	-502	-140	-57	-34	Export
Variação de Estoques + Perdas + Ajustes	-52	-170	-186	-146	-203	-94	319	-116	-123	-147	Variation of Stocks+ Losses + Adjust.
Oferta Bruta	2417	3711	5689	7439	8786	8544	6659	5980	6801	7747	Gross Supply
Consumo Final	2371	3711	5689	7439	8786	8544	6659	5980	6801	7747	Final Consumption
Cons. Final Não Energético	63	96	144	188	176	170	169	146	144	170	Final Non-Energy Consumption
Cons. Final Energético	2308	3615	5545	7251	8610	8374	6490	5834	6657	7577	Final Energy Consumption
Transportes	2308	3615	5545	7251	8610	8374	6490	5834	6657	7577	Transportation
Rodoviário	2308	3615	5545	7251	8610	8374	6490	5834	6657	7577	Highways

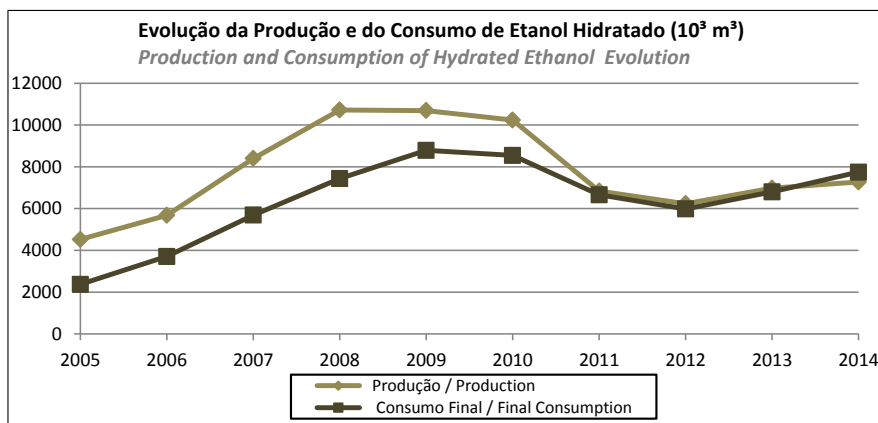


Tabela 3.25. Bagaço de Cana

Table 3.25. Sugar Cane Bagasse

10³t

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	
Produção	61921	66084	74079	88305	93928	93471	79100	85780	95498	87828	Production
Var. de Est. + Perdas + Ajustes	-6192	-6608	-7408	-8830	-9393	-9347	-7910	-8578	-9550	-8783	Variation of ks+Losses+Adjustments
Oferta Bruta	55729	59476	66671	79474	84535	84124	71190	77202	85948	79045	Gross Supply
Transformação (*)	1069	1164	1305	1634	1705	1696	1436	1557	1733	1594	Transformation (*)
Consumo Final	54660	58312	65366	77840	82830	82427	69754	75645	84215	77451	Final Consumption
Cons. Final Não Energético	1180	1227	1338	1458	1516	1577	1340	1434	1535	1458	Final Non-Energy Consumption
Cons. Final Energético	53480	57084	64028	76382	81314	80850	68414	74211	82680	75993	Final Energy Consumption
Setor Energético	4486	4927	5584	10892	11569	6573	5278	6656	10396	8753	Energy Sector
Industrial	48994	52157	58444	65490	69745	74277	63136	67555	72284	67240	Industrial
Alimentos e Bebidas	48680	51844	58112	65138	69372	73881	62799	67195	71898	66866	Foods and Beverages
Outros	314	313	332	352	373	396	337	360	386	374	Others

(*) Geração de energia elétrica nas Centrais Elétricas Autoprodutoras
Generation of electric energy in Central Electric Self-generators

Tabela 3.26. Outras Secundárias*

Table 3.26. Other Secondary*

10³ m³

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	
Produção	1666	2002	2063	2023	2108	2009	2661	2932	2982	2984	Production
Importação	0	0	0	0	0	0	0	0	0	0	Import
Exportação	-361	-453	-443	-275	-216	-205	-712	-713	-682	-1036	Export
Variação de Estoques	-7	36	39	-16	-37	-26	-9	8	-22	0	Variation of Stocks
Oferta Bruta	1298	1585	1659	1732	1855	1778	1940	2227	2278	1948	Gross Supply
Consumo Final	1298	1585	1659	1732	1855	1778	1940	2227	2278	1948	Final Consumption
Cons. Final Energético	1298	1585	1659	1732	1855	1778	1940	2227	2278	1948	Final Energy Consumption
Industrial	1298	1585	1659	1732	1855	1778	1940	2227	2278	1948	Industrial
Não Ferr./Outros Met.	704	799	744	788	850	860	910	913	930	823	Non-Ferrous/Others Metals
Outros**	594	786	915	944	1005	918	1030	1314	1348	1125	Others**

*Outras Secundárias = Coque de Petróleo

Other Secondary = Petroleum Coke

** Outros = Cimento + Química + Setores não Especificados

Others = Cement + Chemical + Non Specified Sectors

Tabela 3.27. Energia Secundária

Table 3.27. Secondary Energy

10³ toe

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	
Produção	49965	52245	54567	55156	56502	55817	55455	59377	60884	60151	Production
Importação	6526	6313	7887	9577	7569	9138	9009	10280	13605	13613	Import
Exportação	-19807	-20198	-21658	-22581	-20899	-19412	-18201	-21236	-25837	-25268	Export
Var. de Estoque-Ajustes+Perdas	-931	-1515	-1277	-1159	-1518	-1633	-1563	-1868	-1012	-804	Var.of Stocks-Adjustments+Losses
Oferta Bruta	35753	36845	39519	40993	41654	43910	44700	46553	47640	47692	Gross Supply
Consumo Final	35753	36844	39519	40994	41655	43911	44700	46552	47640	47692	Final Consumption
Cons. Final Não Energético	3283	3375	3714	3328	3919	3901	3249	3317	3381	3417	Fin. Non-Energy Consumption
Consumo Final Energético	32470	33469	35805	37666	37736	40010	41451	43235	44259	44275	Final Energy Consumption
Setor Energético	1132	1177	1173	1183	1176	1259	1360	1426	1681	1667	Energy Sector
Residencial	3717	3813	3969	4182	4309	4449	4529	4735	4838	4800	Residential
Comercial	1723	1817	1911	1983	2059	2191	2256	2432	2564	2786	Commercial
Público	945	956	982	1032	1035	1072	1068	1100	1096	1121	Public
Agropecuário	1001	1072	1133	1076	927	953	928	912	790	789	Agriculture and Livestock
Transporte	14686	14960	16545	17994	18390	19720	20816	21789	22456	23276	Transportation
Rodoviário	12486	12945	14431	15724	16134	17260	18172	19046	19718	20385	Highways
Ferroviário	190	192	198	222	237	234	299	351	325	342	Railroads
Aéreo	1712	1635	1755	1896	1873	2112	2289	2339	2358	2495	Airways
Hidroviário	298	188	161	152	146	114	56	53	55	54	Hidroways
Industrial	9266	9674	10092	10216	9840	10366	10494	10841	10834	9836	Industrial
Cimento	541	579	587	615	609	603	667	696	721	722	Cement
Ferro Gusa e Aço	1887	1904	1994	1886	1627	1809	1740	1779	1698	1568	Pig-Iron and Steel
Ferro Ligas	78	86	88	84	82	87	88	88	92	87	Iron Alloys
Mineração e Pletotização	150	101	112	118	125	138	138	135	146	154	Mining and Pelletization
Não Ferr. e Outros Metais	1314	1452	1488	1501	1544	1574	1610	1597	1616	1460	Non-Ferrous and Oth. Metals
Química	1157	1189	1236	1238	1181	1240	1218	1306	1267	1122	Chemical
Alimentos e Bebidas	934	948	980	1045	1040	1123	1221	1293	1485	1357	Foods and Beverages
Têxtil	346	351	360	367	345	354	356	350	344	323	Textiles
Papel e Celulose	685	673	679	646	616	684	711	744	737	706	Paper and Pulp
Cerâmica	352	370	378	359	339	340	338	329	300	294	Ceramics
Outros	1822	2021	2190	2357	2332	2414	2407	2524	2428	2043	Others

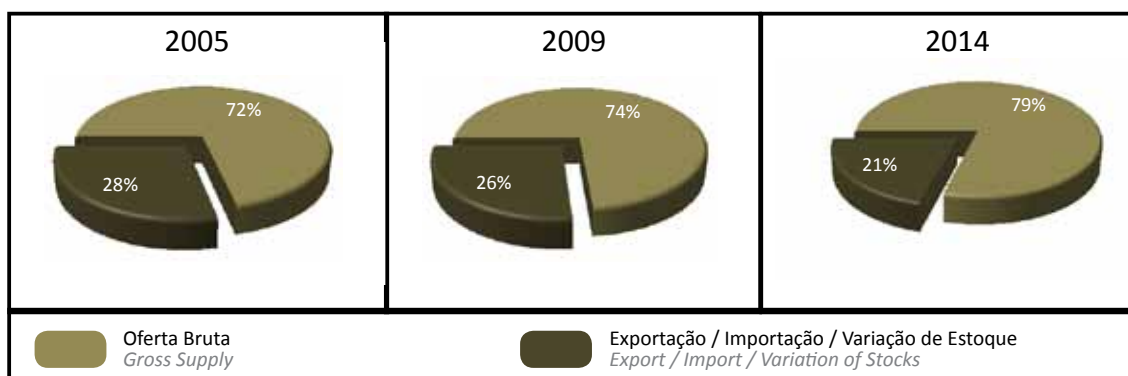
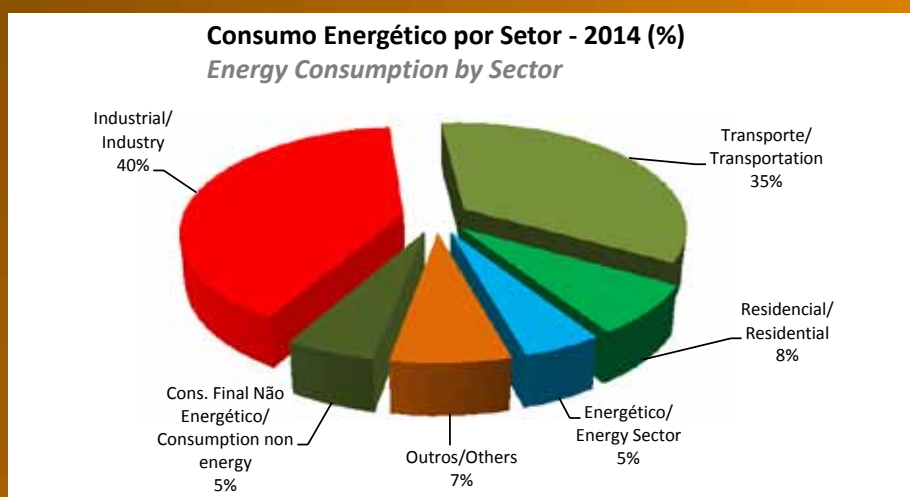


Tabela 3.28 - Não Energéticos de Petróleo
Table 3.28 - Non-Energy of Petroleum
10³ m³

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	
Produção	1469	1459	1575	1715	1929	2328	2140	2222	2382	2449	Production
Importação	39	9	34	47	23	29	17	11	0	0	Import
Exportação	-6	-3	-5	-6	-5	-463	-530	-624	-726	-1075	Export
Variação de Estoques	95	-43	78	-94	-83	-273	-312	-305	-401	11	Variation of Stocks
Oferta Bruta	1597	1422	1682	1662	1864	1621	1315	1304	1255	1385	Gross Supply
Consumo Final	1597	1422	1682	1662	1864	1621	1315	1304	1255	1385	Final Consumption
Cons. Final Não Energético	1597	1422	1682	1662	1864	1621	1315	1304	1255	1385	Final Non-Energy Consumption

Capítulo 04

Consumo de Energia por Setor



Chapter 04

Energy Consumption by Sector

Tabela 4.01. Consumo de Energia no Setor Energético
Table 4.01. Energy Consumption in Energy Sector

10³ toe

ENERGÉTICOS	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	ENERGY
Óleo Combustível	81	53	35	18	10	5	3	4	1	3	Fuel Oil
GLP	12	16	16	17	16	18	14	16	10	13	LPG
Gás de Refinaria	775	825	825	816	820	887	1005	1045	1086	1130	Refinery Gas
Gás de Coqueria	3	3	3	4	3	4	4	3	3	3	Coking Gas
Eletricidade	233	250	262	294	302	309	278	297	299	259	Electricity
Bagaço de Cana	797	876	992	1936	2056	1168	938	1183	1847	1555	Sugar Cane Bagasse
Outros	28	30	32	34	25	36	56	61	282	259	Others
Total	1929	2053	2165	3119	3232	2427	2298	2609	3528	3222	Total

Tabela 4.02. Participação do Consumo de Energia no Setor Energético
Table 4.02. Energy Consumption in Energy Sector Participation

%

ENERGÉTICOS	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	ENERGY
Óleo Combustível	4,2	2,6	1,6	0,6	0,3	0,2	0,1	0,2	0,0	0,1	Fuel Oil
GLP	0,6	0,8	0,7	0,5	0,5	0,7	0,6	0,6	0,3	0,4	LPG
Gás de Refinaria	40,2	40,2	38,1	26,2	25,4	36,5	43,7	40,1	30,8	35,1	Refinery Gas
Gás de Coqueria	0,2	0,1	0,1	0,1	0,1	0,2	0,2	0,1	0,1	0,1	Coking Gas
Eletricidade	12,1	12,2	12,1	9,4	9,3	12,7	12,1	11,4	8,5	8,0	Electricity
Bagaço de Cana	41,2	42,6	45,9	62,1	63,6	48,2	40,9	45,3	52,3	48,3	Sugar Cane Bagasse
Outros	1,5	1,5	1,5	1,1	0,8	1,5	2,4	2,3	8,0	8,0	Others
Total	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	Total

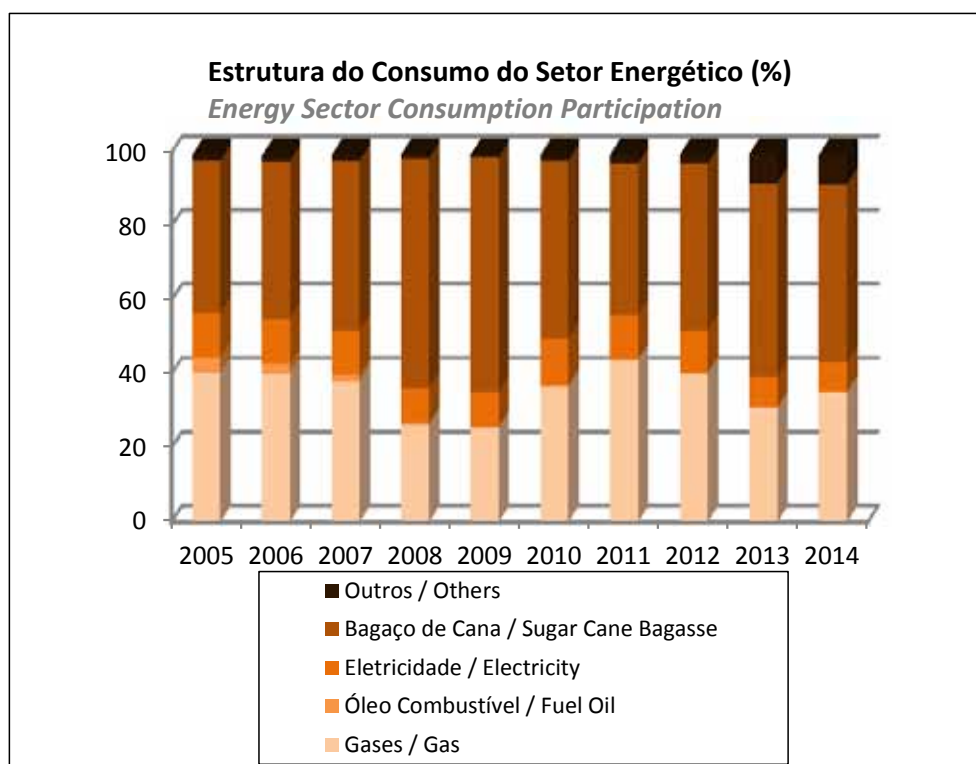


Tabela 4.03. Evolução do Setor Comercial
Table 4.03. Commercial Sector Evolution

10³ toe

ENERGÉTICOS	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	ENERGY
Óleo Diesel	27	26	28	29	26	33	29	33	37	35	Diesel Oil
Óleo Combustível	18	14	13	10	10	11	6	8	4	10	Fuel Oil
GLP	133	145	145	149	145	173	129	160	173	190	LPG
Querosene	0	0	0	0	0	0	0	0	0	0	Kerosene
Gases(*)	79	83	82	84	82	87	92	95	101	104	Gas(*)
Eleticidade	1537	1624	1716	1787	1871	1967	2086	2225	2344	2545	Electricity
Lenha	57	57	57	57	56	52	50	52	52	51	Firewood
Carvão Vegetal	8	8	9	8	7	7	6	6	6	6	Charcoal
Total	1859	1957	2050	2124	2197	2330	2398	2579	2717	2941	Total

(*) Inclui Gás Natural e Gás Canalizado
Include Natural Gas and Pipelined Gas

Tabela 4.04. Participação do Setor Comercial
Table 4.04. Commercial Sector Participation

%

ENERGÉTICOS	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	ENERGY
Óleo Diesel	1,5	1,3	1,4	1,4	1,2	1,4	1,2	1,3	1,4	1,2	Diesel Oil
Óleo Combustível	1,0	0,7	0,6	0,5	0,5	0,5	0,3	0,3	0,1	0,3	Fuel Oil
GLP	7,2	7,4	7,1	7,0	6,6	7,4	5,4	6,2	6,4	6,5	LPG
Querosene	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	Kerosene
Gases(*)	4,2	4,2	4,0	4,0	3,7	3,7	3,8	3,7	3,7	3,5	Gas(*)
Eleticidade	82,6	83,1	83,7	84,0	85,2	84,5	86,9	86,3	86,3	86,6	Electricity
Lenha	3,1	2,9	2,8	2,7	2,5	2,2	2,1	2,0	1,9	1,7	Firewood
Carvão Vegetal	0,4	0,4	0,4	0,4	0,3	0,3	0,3	0,2	0,2	0,2	Charcoal
Total	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	Total

(*) Inclui Gás Natural e Gás Canalizado
Include Natural Gas and Pipelined Gas

Tabela 4.05. Evolução do Setor Público
Table 4.05. Public Sector Evolution

10³ toe

ENERGÉTICOS	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	ENERGY
Óleo Diesel	73	73	74	94	87	100	54	49	42	36	Diesel Oil
Óleo Combustível	6	9	9	10	9	0	0	0	0	0	Fuel Oil
GLP	67	50	50	51	49	54	57	61	58	71	LPG
Querosene	0	0	0	0	0	0	0	0	0	0	Kerosene
Gases(*)	17	19	19	20	17	18	19	16	21	18	Gas(*)
Eleticidade	799	824	849	877	890	918	957	990	996	1014	Electricity
Lenha	0	0	0	0	0	0	0	0	0	0	Firewood
Total	962	975	1001	1052	1052	1090	1087	1116	1117	1139	Total

(*) Inclui Gás Natural e Gás Canalizado
Include Natural Gas and Pipelined Gas

Tabela 4.06. Participação do Setor Público
Table 4.06. Public Sector Participation

%

ENERGÉTICOS	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	ENERGY
Óleo Diesel	7,6	7,5	7,4	8,9	8,3	9,2	5,0	4,4	3,8	3,2	Diesel Oil
Óleo Combustível	0,6	0,9	0,9	1,0	0,9	0,0	0,0	0,0	0,0	0,0	Fuel Oil
GLP	7,0	5,1	5,0	4,8	4,7	5,0	5,2	5,5	5,2	6,2	LPG
Querosene	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	Kerosene
Gases(*)	1,8	1,9	1,9	1,9	1,6	1,7	1,7	1,4	1,9	1,6	Gas(*)
Eleticidade	83,0	84,6	84,8	83,4	84,5	84,1	88,1	88,7	89,1	89,0	Electricity
Lenha	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	Firewood
Total	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	Total

(*) Inclui Gás Natural e Gás Canalizado
Include Natural Gas and Pipelined Gas

Tabela 4.07. Evolução do Setor Residencial

Table 4.07. Residential Sector Evolution

10³ toe

ENERGÉTICOS	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	ENERGY
Lenha	158	163	165	168	167	154	150	157	156	151	Firewood
GLP	1.463	1.426	1.441	1.487	1.479	1.503	1.436	1.491	1.503	1.405	LPG
Querosene	8	6	2	2	1	2	2	1	1	1	Kerosene
Gases(*)	89	97	101	114	121	136	152	165	187	176	Gas(*)
Eletricidade	2.245	2.380	2.525	2.692	2.828	2.943	3.090	3.242	3.333	3.393	Electricity
Carvão Vegetal	1	1	1	1	1	1	1	1	1	1	Charcoal
Total	3.964	4.073	4.235	4.464	4.597	4.739	4.831	5.057	5.181	5.127	Total

(*) Inclui Gás Natural e Gás Canalizado
Include Natural Gas and Pipelined Gas

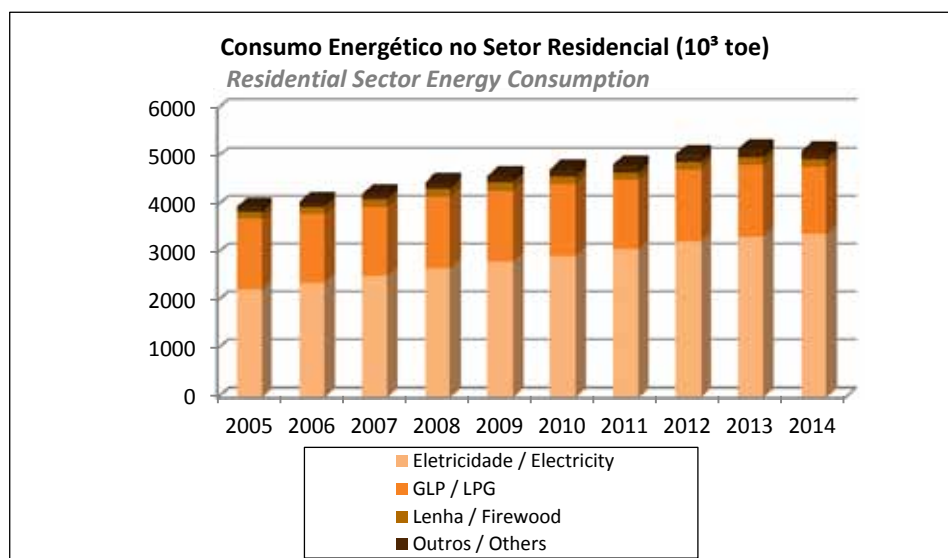


Tabela 4.08. Participação do Setor Residencial

Table 4.08. Residential Sector Participation

%

ENERGÉTICOS	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	ENERGY
Lenha	4,0	4,0	3,9	3,8	3,6	3,2	3,1	3,1	3,0	2,9	Firewood
GLP	36,9	35,0	34,0	33,3	32,2	31,7	29,7	29,5	29,0	27,4	LPG
Querosene	0,2	0,1	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	Kerosene
Gases(*)	2,2	2,4	2,4	2,6	2,6	2,9	3,1	3,3	3,6	3,4	Gas(*)
Eletricidade	56,7	58,5	59,7	60,3	61,6	62,2	64,1	64,1	64,4	66,3	Electricity
Carvão Vegetal	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	Charcoal
Total	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	Total

(*) Inclui Gás Natural e Gás Canalizado
Include Natural Gas and Pipelined Gas

Tabela 4.09 - Evolução do Setor Agropecuário
Table 4.09 - Agriculture and Livestock Sector Evolution
10³ toe

ENERGÉTICOS	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	ENERGY
Lenha	12	12	13	13	11	10	10	10	9	9	Firewood
Óleo Diesel	714	823	875	836	692	707	682	675	522	501	Diesel Oil
Óleo Combustível	65	16	15	14	17	0	0	0	0	0	Fuel Oil
Elettricidade	216	227	238	220	213	241	244	235	266	285	Electricity
Outros	6	6	5	6	5	5	2	2	2	3	Others
Total	1013	1084	1146	1089	938	963	938	922	799	798	Total

Tabela 4.10 - Participação do Setor Agropecuário
Table 4.10 - Agriculture and Livestock Sector Participation
%

ENERGÉTICOS	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	ENERGY
Lenha	1,2	1,1	1,1	1,2	1,2	1,0	1,1	1,1	1,1	1,1	Firewood
Óleo Diesel	70,5	75,9	76,4	76,7	73,8	73,5	72,7	73,2	65,3	62,8	Diesel Oil
Óleo Combustível	6,4	1,5	1,3	1,3	1,8	0,0	0,0	0,0	0,0	0,0	Fuel Oil
Elettricidade	21,3	20,9	20,8	20,2	22,7	25,0	26,0	25,5	33,3	35,7	Electricity
Outros	0,6	0,6	0,4	0,6	0,5	0,5	0,2	0,2	0,3	0,4	Others
Total	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	Total

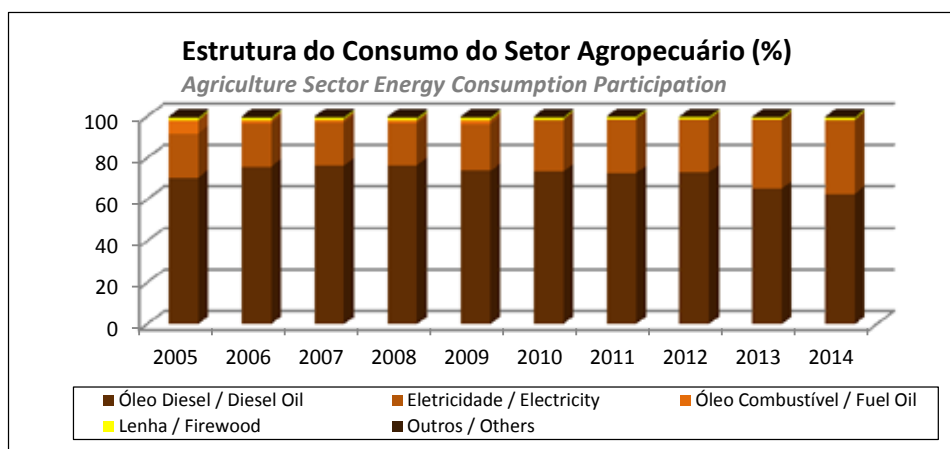


Tabela 4.11. Evolução do Setor de Transportes
Table 4.11. Transportation Sector Evolution

10³ toe

ENERGÉTICOS	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	ENERGY
Gás Natural	389	463	500	458	324	281	255	227	220	196	Natural Gas
Óleo Diesel	6652	6392	6864	7453	7473	8149	8549	9038	9322	9291	Diesel Oil
Óleo Combustível	152	101	80	67	60	56	45	37	33	31	Fuel Oil
Gasolina	4165	4183	4244	4165	3923	4357	5528	6438	6127	6350	Gasoline
Querosene	1699	1621	1746	1887	1864	2100	2276	2325	2346	2484	Kerosene
Eletricidade	65	68	73	78	78	86	97	99	98	99	Electricity
Etanol Total	1953	2595	3538	4344	4992	4972	4321	3852	4530	5021	Total Ethanol
Etanol Anidro	842	855	869	853	847	941	1197	1044	1325	1373	Anhydrous Ethanol
Etanol Hidratado	1111	1740	2669	3491	4145	4031	3124	2808	3205	3648	Hydrated Ethanol
Total	15075	15423	17045	18452	18714	20001	21071	22016	22676	23472	Total

Tabela 4.12. Participação do Setor de Transportes
Table 4.12. Transportation Sector Participation

%

ENERGÉTICOS	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	ENERGY
Gás Natural	2,6	3,0	2,9	2,5	1,7	1,4	1,2	1,0	1,0	0,8	Natural Gas
Óleo Diesel	44,1	41,5	40,3	40,4	39,9	40,7	40,6	41,1	41,2	39,6	Diesel Oil
Óleo Combustível	1,0	0,7	0,5	0,4	0,3	0,3	0,2	0,2	0,1	0,1	Fuel Oil
Gasolina	27,6	27,1	24,9	22,6	21,0	21,8	26,2	29,2	27,0	27,1	Gasoline
Querosene	11,3	10,5	10,2	10,2	10,0	10,5	10,8	10,6	10,3	10,6	Kerosene
Eletricidade	0,4	0,4	0,4	0,4	0,4	0,4	0,5	0,4	0,4	0,4	Electricity
Etanol Total	13,0	16,8	20,8	23,5	26,7	24,9	20,5	17,5	20,0	21,4	Total Ethanol
Etanol Anidro	5,6	5,5	5,1	4,6	4,5	4,7	5,7	4,7	5,8	5,8	Anhydrous Ethanol
Etanol Hidratado	7,4	11,3	15,7	18,9	22,2	20,2	14,8	12,8	14,2	15,6	Hydrated Ethanol
Total	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	Total

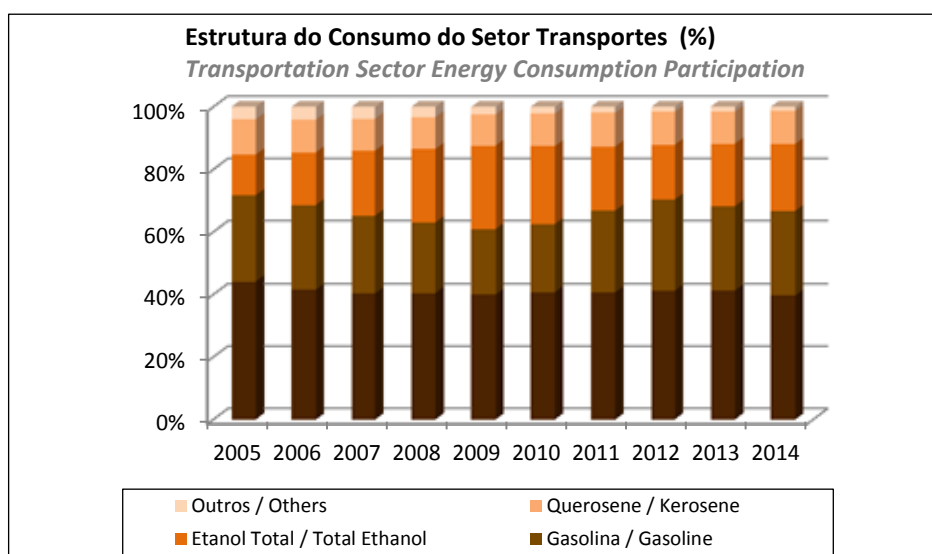


Tabela 4.13. Evolução do Segmento Rodoviário
Table 4.13. Highways Subsector Evolution

10³ toe

ENERGÉTICOS	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	ENERGY
Gás Natural	389	463	500	458	324	281	255	227	220	196	Natural Gas
Óleo Diesel	6376	6176	6653	7219	7225	7941	8334	8768	9071	9023	Diesel Oil
Gasolina	4152	4169	4235	4156	3914	4345	5515	6424	6115	6339	Gasoline
Eletricidade	5	5	5	5	3	2	2	2	2	2	Electricity
Etanol Anidro	842	855	869	853	847	941	1197	1044	1325	1373	Anhydrous Ethanol
Etanol Hidratado	1111	1740	2669	3491	4145	4031	3124	2808	3205	3648	Hydrated Ethanol
Total	12875	13408	14931	16182	16458	17541	18427	19273	19938	20581	Total

Tabela 4.14. Participação do Segmento Rodoviário
Table 4.14. Highways Subsector Participation

%

ENERGÉTICOS	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	ENERGY
Gás Natural	3,0	3,5	3,3	2,8	2,0	1,6	1,4	1,2	1,1	1,0	Natural Gas
Óleo Diesel	49,7	46,0	44,6	44,6	43,9	45,2	45,2	45,5	45,5	43,8	Diesel Oil
Gasolina	32,2	31,1	28,4	25,7	23,8	24,8	29,9	33,3	30,7	30,8	Gasoline
Eletricidade	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	Electricity
Etanol Anidro	6,5	6,4	5,8	5,3	5,1	5,4	6,5	5,4	6,6	6,7	Anhydrous Ethanol
Etanol Hidratado	8,6	13,0	17,9	21,6	25,2	23,0	17,0	14,6	16,1	17,7	Hydrated Ethanol
Total	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	Total

Tabela 4.15. Evolução do Segmento Ferroviário
Table 4.15. Railroads Subsector Evolution

10³ toe

ENERGÉTICOS	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	ENERGY
Óleo Diesel	130	129	130	149	162	150	204	254	229	245	Diesel Oil
Óleo Combustível	0	0	0	0	0	0	0	0	0	0	Fuel Oil
Eletricidade	60	63	68	73	75	84	95	97	96	97	Electricity
Total	190	192	198	222	237	234	299	351	325	342	Total

Tabela 4.16. Evolução do Segmento Aéreo
Table 4.16. Airways Subsector Evolution

10³ toe

ENERGÉTICOS	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	ENERGY
Gasolina	13	14	9	9	9	12	13	14	12	11	Gasoline
Querosene	1699	1621	1746	1887	1864	2100	2276	2325	2346	2484	Kerosene
Total	1712	1635	1755	1896	1873	2112	2289	2339	2358	2495	Total

Tabela 4.17. Evolução do Segmento Hidroviário
Table 4.17. Hydroways Subsector Evolution

10³ toe

ENERGÉTICOS	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	ENERGY
Óleo Diesel	146	87	81	85	86	58	11	16	22	23	Diesel Oil
Óleo Combustível	152	101	80	67	60	56	45	37	33	31	Fuel Oil
Total	298	188	161	152	146	114	56	53	55	54	Total

Tabela 4.18. Evolução do Setor Industrial

Table 4.18. Industrial Sector Evolution

10³ toe

ENERGÉTICOS	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	ENERGY
Gás Natural	2987	3417	3671	3680	3188	3619	3758	3688	3672	3539	Natural Gas
Carvão Vapor	33	24	22	22	18	7	6	5	6	5	Steam Coal
Lenha	627	638	644	657	619	591	573	595	564	545	Firewood
Outras Primárias	841	888	924	961	939	1031	1030	1024	1075	1125	Other Primary
Óleo Diesel	551	630	609	702	707	883	942	1008	1084	993	Diesel Oil
Óleo Combustível	829	592	573	506	560	474	446	382	305	276	Fuel Oil
GLP	267	316	308	325	297	286	305	307	337	367	LPG
Nafta	0	0	0	0	0	0	0	0	0	0	Naphtha
Querosene	13	10	2	2	0	0	0	0	0	0	Kerosene
Gás Canalizado	0	0	0	0	0	0	0	0	0	0	Pipelined Gas
Gás de Refinaria	42	50	50	45	46	94	54	50	48	8	Refinery Gas
Gás de Coqueria	256	245	253	260	243	279	266	256	251	230	Coking Gas
Coque Carvão Mineral	1110	1106	1171	1036	837	982	885	943	877	789	Coal Coke
Eletricidade	4936	5209	5544	5695	5412	5707	5794	5842	5836	5368	Electricity
Carvão Vegetal	114	114	115	114	97	90	86	84	82	82	Charcoal
Bagaço de Cana	8706	9269	10386	11637	12393	13199	11219	12005	12845	11949	Sugar Cane Bagasse
Outras Sec. Petróleo	1148	1402	1467	1531	1641	1571	1716	1969	2014	1723	Oth. Secondary of Petroleum
Total	22460	23910	25739	27173	26997	28813	27080	28158	28996	26999	Total

Tabela 4.19. Participação do Setor Industrial

Table 4.19. Industrial Sector Participation

%

ENERGÉTICOS	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	ENERGY
Gás Natural	13,3	14,3	14,3	13,5	11,8	12,6	13,9	13,1	12,7	13,1	Natural Gas
Carvão Vapor	0,1	0,1	0,1	0,1	0,1	0,0	0,0	0,0	0,0	0,0	Steam Coal
Lenha	2,8	2,7	2,5	2,4	2,3	2,1	2,1	2,1	1,9	2,0	Firewood
Outras Primárias	3,7	3,7	3,6	3,5	3,5	3,6	3,8	3,6	3,7	4,2	Other Primary
Óleo Diesel	2,5	2,6	2,4	2,6	2,6	3,1	3,5	3,6	3,7	3,7	Diesel Oil
Óleo Combustível	3,7	2,5	2,2	1,9	2,1	1,6	1,6	1,4	1,1	1,0	Fuel Oil
GLP	1,2	1,3	1,2	1,2	1,1	1,0	1,1	1,1	1,2	1,4	LPG
Nafta	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	Naphtha
Querosene	0,1	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	Kerosene
Gás Canalizado	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	Pipelined Gas
Gás de Refinaria	0,2	0,2	0,2	0,2	0,2	0,3	0,2	0,2	0,2	0,0	Refinery Gas
Gás de Coqueria	1,1	1,0	1,0	1,0	0,9	1,0	1,0	0,9	0,9	0,9	Coking Gas
Coque Carvão Mineral	4,9	4,6	4,5	3,8	3,1	3,4	3,3	3,3	3,0	2,9	Coal Coke
Eletricidade	22,0	21,8	21,5	21,0	20,0	19,8	21,4	20,7	20,1	19,9	Electricity
Carvão Vegetal	0,5	0,5	0,4	0,4	0,4	0,3	0,3	0,3	0,3	0,3	Charcoal
Bagaço de Cana	38,8	38,8	40,4	42,8	45,8	45,7	41,5	42,7	44,3	44,2	Sugar Cane Bagasse
Outras Secund. de Petróleo	5,1	5,9	5,7	5,6	6,1	5,5	6,3	7,0	6,9	6,4	Oth. Secondary of Petroleum
Total	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	Total

Tabela 4.20. Evolução do Consumo Industrial por Segmentos

Table 4.20. Industrial Consumption by Subsectors Evolution

10³ toe

ENERGÉTICOS	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	ENERGY
Cimento	572	601	607	635	627	610	673	701	727	727	Cement
Ferro Gusa e Aço	2272	2358	2414	2335	2105	2413	2230	2261	2174	2008	Pig-Iron and Steel
Ferro Ligas	78	86	88	84	82	87	88	88	92	87	Iron Alloys
Mineração e Pelotização	150	101	112	118	125	138	138	135	146	154	Mining/Pelletization
Não Ferr./Outros Metal.	1314	1452	1488	1501	1544	1574	1610	1597	1616	1460	Non-Ferrous and Oth. Metals
Químico	1894	1943	2070	2059	1883	1974	1904	1961	1924	1749	Chemical
Alimentos e Bebidas	9951	10580	11785	13119	13765	14729	12865	13703	14760	13736	Foods and Beverages
Têxtil	499	534	532	541	493	519	496	483	467	437	Textiles
Papel e Celulose	2265	2356	2464	2505	2257	2565	2491	2512	2563	2529	Paper and Pulp
Cerâmico	912	947	1001	1033	918	1025	1044	1033	1021	1003	Ceramics
Outros	2551	2950	3176	3241	3198	3179	3541	3684	3506	3109	Others
Total	22458	23908	25737	27171	26997	28813	27080	28158	28996	26999	Total

Tabela 4.21. Participação do Consumo Industrial por Segmentos

Table 4.21. Industrial Consumption by Subsectors Participation

%

ENERGÉTICOS	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	ENERGY
Cimento	2,5	2,5	2,4	2,3	2,3	2,1	2,5	2,5	2,5	2,7	Cement
Ferro Gusa e Aço	10,1	9,9	9,4	8,6	7,8	8,4	8,2	8,0	7,5	7,4	Pig-Iron and Steel
Ferro Ligas	0,3	0,4	0,3	0,3	0,3	0,3	0,3	0,3	0,3	0,3	Iron Alloys
Mineração e Pelotização	0,7	0,4	0,4	0,4	0,5	0,5	0,5	0,5	0,5	0,6	Mining/Pelletization
Não Ferrosos/Outros Metal.	5,9	6,1	5,8	5,5	5,7	5,5	5,9	5,7	5,6	5,4	Non-Ferrous and Oth. Metals
Químico	8,4	8,1	8,0	7,6	7,0	6,9	7,0	7,0	6,6	6,5	Chemical
Alimentos e Bebidas	44,3	44,2	45,8	48,4	51,0	51,0	47,6	48,6	51,0	50,9	Foods and Beverages
Têxtil	2,2	2,2	2,1	2,0	1,8	1,8	1,8	1,7	1,6	1,6	Textiles
Papel e Celulose	10,1	9,9	9,6	9,2	8,4	8,9	9,2	8,9	8,8	9,4	Paper and Pulp
Cerâmico	4,1	4,0	3,9	3,8	3,4	3,6	3,9	3,7	3,5	3,7	Ceramics
Outros	11,4	12,3	12,3	11,9	11,8	11,0	13,1	13,1	12,1	11,5	Others
Total	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	Total

Tabela 4.22. Evolução do Segmento Cimento

Table 4.22. Cement Subsector Evolution

10³ toe

ENERGÉTICOS	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	ENERGY
Coque de Petróleo	368	392	396	426	422	403	468	501	526	535	Petroleum Coke
Carvão Vapor	31	22	20	20	18	7	6	5	6	5	Steam Coal
Óleo Combustível	11	7	8	8	9	2	2	2	2	2	Fuel Oil
Eletricidade	118	146	161	156	151	162	158	158	158	154	Electricity
Outros	44	34	22	25	27	36	39	35	35	31	Others
Total	572	601	607	635	627	610	673	701	727	727	Total

Tabela 4.23. Participação do Segmento Cimento

Table 4.23. Cement Subsector Participation

ENERGÉTICOS	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	% ENERGY
Coque de Petróleo	64,4	65,1	65,3	67,1	67,3	66,1	69,5	71,5	72,4	73,5	Petroleum Coke
Carvão Vapor	5,4	3,7	3,3	3,1	2,9	1,1	0,9	0,7	0,8	0,7	Steam Coal
Óleo Combustível	1,9	1,2	1,3	1,3	1,4	0,3	0,3	0,3	0,3	0,3	Fuel Oil
Elettricidade	20,6	24,3	26,5	24,6	24,1	26,6	23,5	22,5	21,7	21,2	Electricity
Outros	7,7	5,7	3,6	3,9	4,3	5,9	5,8	5,0	4,8	4,3	Others
Total	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	Total

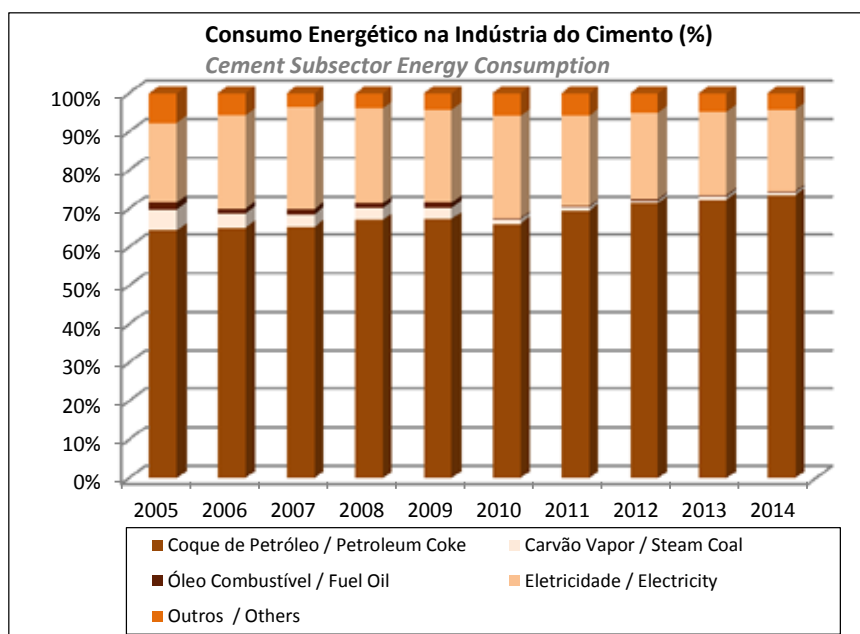


Tabela 4.24. Evolução do Segmento Ferro-Gusa e Aço

Table 4.24. Pig-Iron and Steel Subsector Evolution

ENERGÉTICOS	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	10 ³ toe ENERGY
Carvão Vapor	0	0	0	0	0	0	0	0	0	0	Steam Coal
Gás Natural	383	453	419	448	477	603	489	481	475	439	Natural Gas
Lenha	2	1	1	1	1	1	1	1	1	1	Firewood
Outras Primárias	0	0	0	0	0	0	0	0	0	0	Others Primaries
Óleo Diesel	18	18	18	23	21	24	19	11	10	9	Diesel Oil
Óleo Combustível	41	33	32	25	30	25	30	30	12	10	Fuel Oil
GLP	43	56	48	57	54	49	44	47	43	51	LPG
Querosene	0	0	0	0	0	0	0	0	0	0	Kerosene
Gás de Coqueria	256	245	253	260	243	279	266	256	251	230	Coking Gas
Coque Carvão Mineral	1087	1094	1171	1036	837	982	885	943	877	789	Coal Coke
Elettricidade	349	366	379	392	363	378	427	424	438	410	Electricity
Carvão Vegetal	93	92	93	93	79	72	69	68	67	69	Charcoal
Total	2272	2358	2414	2335	2105	2413	2230	2261	2174	2008	Total

Tabela 4.25. Participação do Segmento Ferro-Gusa e Aço

Table 4.25. Pig-Iron and Steel Subsector Participation

%

ENERGÉTICOS	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	ENERGY
Óleo Combustível	1,8	1,4	1,3	1,1	1,4	1,0	1,3	1,3	0,6	0,5	Fuel Oil
Gás de Coqueria	11,3	10,4	10,5	11,1	11,5	11,6	11,9	11,3	11,5	11,5	Coking Gas
Coque Carvão Mineral	47,8	46,4	48,5	44,4	39,8	40,7	39,7	41,7	40,3	39,3	Coal Coke
Eletricidade	15,4	15,5	15,7	16,8	17,2	15,7	19,1	18,8	20,1	20,4	Electricity
Gás Natural	16,9	19,2	17,4	19,2	22,7	25,0	21,9	21,3	21,8	21,9	Natural Gas
Outros	6,8	7,1	6,6	7,4	7,4	6,0	6,1	5,6	5,7	6,4	Others
Total	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	Total

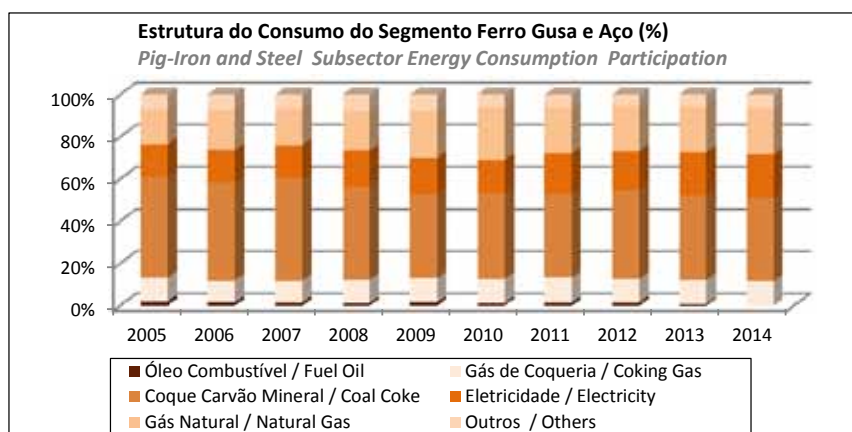


Tabela 4.26. Evolução do Segmento Ferro Ligas

Table 4.26. Iron Alloys Subsector Evolution

10³ toe

ENERGÉTICOS	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	ENERGY
Eletricidade	73	81	83	80	79	83	84	85	88	83	Electricity
Carvão Vegetal	5	5	5	4	3	4	4	3	4	4	Charcoal
Total	78	86	88	84	82	87	88	88	92	87	Total

Tabela 4.27. Participação do Segmento Ferro Ligas

Table 4.27. Iron Alloys Subsector Participation

%

ENERGÉTICOS	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	ENERGY
Eletricidade	93,6	94,2	94,3	95,2	96,3	95,4	95,5	96,6	95,7	95,4	Electricity
Carvão Vegetal	6,4	5,8	5,7	4,8	3,7	4,6	4,5	3,4	4,3	4,6	Charcoal
Total	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	Total

Tabela 4.28 - Evolução do Segmento Mineração e Pelotização
Table 4.28. Mining and Pelletization Subsector Evolution

10³ toe

ENERGÉTICOS	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	ENERGY
Óleo Diesel	44	44	44	53	66	83	84	85	95	101	Diesel Oil
Óleo Combustível	11	11	10	10	12	6	7	4	4	9	Fuel Oil
Querosene	0	0	0	0	0	0	0	0	0	0	Kerosene
Eletricidade	95	46	58	55	47	49	47	46	47	44	Electricity
Total	150	101	112	118	125	138	138	135	146	154	Total

Tabela 4.29. Participação do Segmento Mineração e Pelotização
Table 4.29. Mining and Pelletization Subsector Participation

%

ENERGÉTICOS	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	ENERGY
Óleo Diesel	29,3	43,6	39,3	44,9	52,8	60,1	60,9	63,0	65,1	65,6	Diesel Oil
Óleo Combustível	7,3	10,9	8,9	8,5	9,6	4,3	5,1	3,0	2,7	5,8	Fuel Oil
Querosene	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	Kerosene
Eletricidade	63,4	45,5	51,8	46,6	37,6	35,6	34,0	34,0	32,2	28,6	Electricity
Total	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	Total

Tabela 4.30. Evolução do Segmento Químico
Table 4.30. Chemical Subsector Evolution

10³ toe

ENERGÉTICOS	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	ENERGY
Gás Natural	714	733	812	799	680	711	666	634	634	606	Natural Gas
Lenha	6	6	6	6	5	5	5	5	5	4	Firewood
Óleo Diesel	134	141	87	55	24	20	25	27	22	19	Diesel Oil
Óleo Combustível	174	92	85	79	81	93	80	56	44	39	Fuel Oil
GLP	12	48	48	50	47	43	38	38	41	44	LPG
Nafta	0	0	0	0	0	0	0	0	0	0	Naphtha
Querosene	2	1	1	0	0	0	0	0	0	0	Kerosene
Gás Canalizado	0	0	0	0	0	0	0	0	0	0	Pipelined Gas
Gás de Refinaria	42	50	50	45	46	94	54	50	48	8	Refinery Gas
Eletricidade	685	690	732	741	715	740	754	788	799	745	Electricity
Carvão Vegetal	1	1	1	1	1	1	1	0	0	0	Charcoal
Bagaço de Cana	17	15	16	16	17	18	15	16	18	17	Sugar Cane Bagasse
Outros Secundários	107	166	232	267	267	249	266	347	313	267	Other Secondary
Total	1894	1943	2070	2059	1883	1974	1904	1961	1924	1749	Total

Tabela 4.31. Participação do Segmento Químico

Table 4.31. Chemical Subsector Participation

ENERGÉTICOS	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	%
ENERGY											
Gás Natural	37,7	37,7	39,2	38,8	36,1	36,0	35,0	32,3	33,0	34,6	Natural Gas
Óleo Combustível	9,2	4,7	4,1	3,8	4,3	4,7	4,2	2,9	2,3	2,2	Fuel Oil
GLP	0,6	2,5	2,3	2,4	2,5	2,2	2,0	1,9	2,1	2,5	LPG
Gás de Refinaria	2,2	2,6	2,4	2,2	2,4	4,8	2,8	2,5	2,5	0,5	Refinery Gas
Eletricidade	36,2	35,5	35,4	36,0	38,0	37,5	39,6	40,2	41,5	42,6	Electricity
Outros	14,1	17,0	16,6	16,8	16,7	14,8	16,4	20,2	18,6	17,6	Others
Total	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	Total

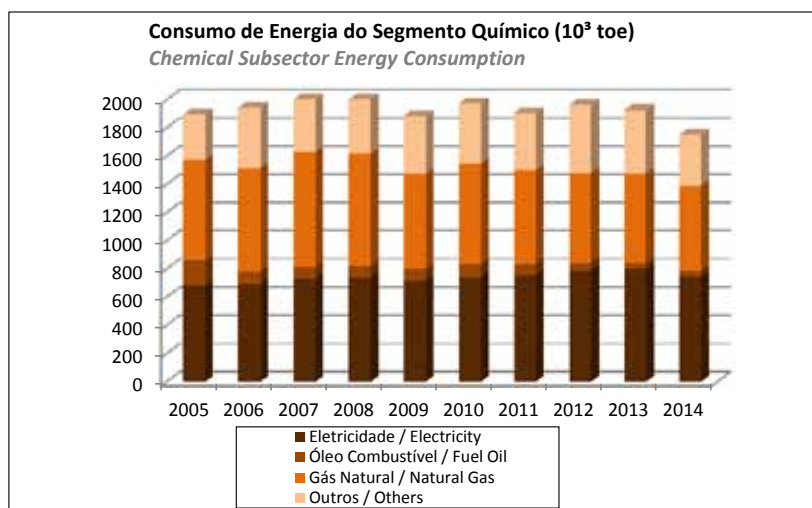


Tabela 4.32. Evolução do Segmento Não-Ferrosos e Outros da Metalurgia

Table 4.32. Non-Ferrous and Others Metals Subsector Evolution

ENERGÉTICOS	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	10 ³ toe
ENERGY											
Óleo Combustível	103	80	80	69	74	63	68	58	47	33	Fuel Oil
Querosene	0	0	0	0	0	0	0	0	0	0	Kerosene
Gás Canalizado	0	0	0	0	0	0	0	0	0	0	Pipelined Gas
Eletricidade	588	665	750	735	718	751	737	732	747	699	Electricity
Outras Secundárias	623	707	658	697	752	760	805	807	822	728	Other Secondary
Total	1314	1452	1488	1501	1544	1574	1610	1597	1616	1460	Total

Tabela 4.33. Participação do Segmento Não-Ferrosos e Outros da Metalurgia*Table 4.33. Non-Ferrous and Others Metals Subsector Participation*

%

ENERGÉTICOS	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	ENERGY
Óleo Combustível	7,8	5,5	5,4	4,6	4,8	4,0	4,2	3,6	2,9	2,3	Fuel Oil
Querosene	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	Kerosene
Gás Canalizado	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	Pipelined Gas
Eletricidade	44,7	45,8	50,4	49,0	46,5	47,7	45,8	45,8	46,2	47,9	Electricity
Outras Secundárias	47,5	48,7	44,2	46,4	48,7	48,3	50,0	50,6	50,9	49,8	Other Secondary
Total	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	Total

Tabela 4.34. Consumo do Segmento Têxtil*Table 4.34. Textiles Subsector Consumption*10³ toe

ENERGÉTICOS	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	ENERGY
Carvão Vapor	0	0	0	0	0	0	0	0	0	0	Steam Coal
Gás Natural	134	163	152	154	129	146	122	114	105	97	Natural Gas
Lenha	19	20	20	20	19	19	18	19	18	17	Firewood
Óleo Diesel	1	1	1	2	2	1	1	1	1	1	Diesel Oil
Óleo Combustível	48	26	25	26	27	26	21	15	16	11	Fuel Oil
GLP	5	5	5	5	5	7	7	8	17	20	LPG
Querosene	0	0	0	0	0	0	0	0	0	0	Kerosene
Gás Canalizado	0	0	0	0	0	0	0	0	0	0	Pipelined Gas
Eletricidade	283	310	320	325	303	312	320	318	303	284	Electricity
Carvão Vegetal	9	9	9	9	8	8	7	8	7	7	Charcoal
Total	499	534	532	541	493	519	496	483	467	437	Total

Tabela 4.35. Participação do Segmento Têxtil*Table 4.35. Textiles Subsector Participation*

%

ENERGÉTICOS	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	ENERGY
Gás Natural	26,9	30,5	28,6	28,5	26,2	28,1	24,6	23,6	22,5	22,2	Natural Gas
Óleo Combustível	9,6	4,9	4,7	4,8	5,5	5,0	4,2	3,1	3,4	2,5	Fuel Oil
Eletricidade	56,7	58,0	60,1	60,0	61,4	60,2	64,5	65,8	64,9	65,0	Electricity
Outros	6,8	6,6	6,6	6,7	6,9	6,7	6,7	7,5	9,2	10,3	Others
Total	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	Total

Tabela 4.36. Evolução do Segmento Alimentos e Bebidas
Table 4.36. Foods and Beverages Subsector Evolution

10³ toe

ENERGÉTICOS	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	ENERGY
Carvão Vapor	1	1	1	1	0	0	0	0	0	0	Steam Coal
Gás Natural	224	273	329	346	254	341	357	333	368	371	Natural Gas
Lenha	136	138	140	143	135	127	119	127	122	117	Firewood
Outras Primárias	7	8	9	10	9	9	9	9	9	9	Other Primary
Óleo Diesel	197	253	256	307	315	410	442	472	651	570	Diesel Oil
Óleo Combustível	208	147	144	146	159	96	106	93	64	58	Fuel Oil
GLP	35	36	36	37	33	44	31	45	52	59	LPG
Querosene	0	0	0	0	0	0	0	0	0	0	Kerosene
Gás Canalizado	0	0	0	0	0	0	0	0	0	0	Pipelined Gas
Eletricidade	494	512	544	555	533	573	642	683	718	670	Electricity
Bagaço de Cana	8650	9213	10327	11575	12327	13129	11159	11941	12776	11882	Sugar Cane Bagasse
Total	9952	10581	11786	13120	13765	14729	12865	13703	14760	13736	Total

Tabela 4.37. Participação do Segmento Alimentos e Bebidas
Table 4.37. Foods and Beverages Subsector Participation

%

ENERGÉTICOS	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	ENERGY
Gás Natural	2,3	2,6	2,8	2,6	1,8	2,3	2,8	2,4	2,5	2,7	Natural Gas
Lenha	1,4	1,3	1,2	1,1	1,0	0,9	0,9	0,9	0,8	0,9	Firewood
Óleo Combustível	2,1	1,4	1,2	1,1	1,2	0,7	0,8	0,7	0,4	0,4	Fuel Oil
Eletricidade	5,0	4,8	4,6	4,2	3,9	3,9	5,0	5,0	4,9	4,9	Electricity
Bagaço de Cana	86,8	87,1	87,6	88,3	89,5	89,1	86,8	87,2	86,6	86,5	Sugar Cane Bagasse
Outros	2,4	2,8	2,6	2,7	2,6	3,1	3,7	3,8	4,8	4,6	Others
Total	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	Total

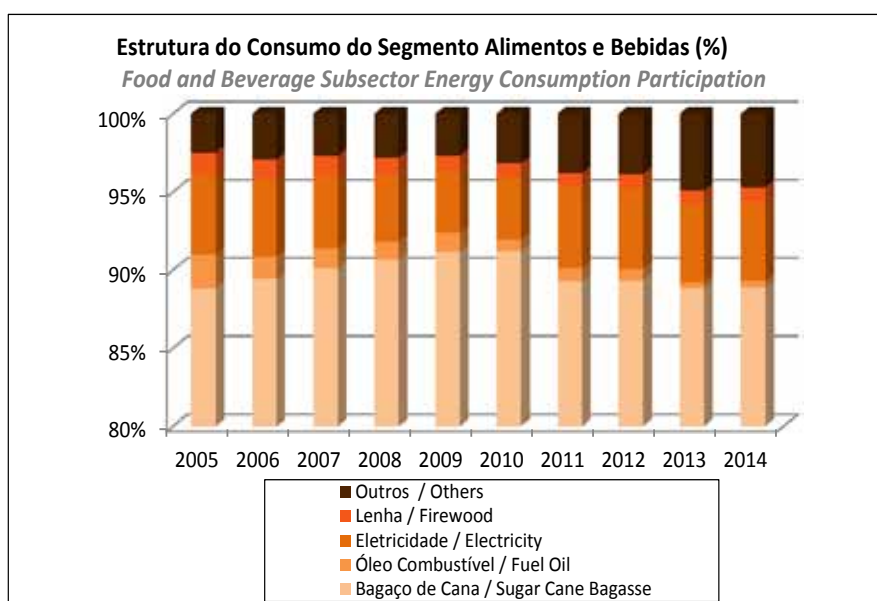


Tabela 4.38. Evolução do Segmento Papel e Celulose
Table 4.38. Paper and Pulp Subsector Evolution

10³ toe

ENERGÉTICOS	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	ENERGY
Gás Natural	367	418	474	496	318	484	397	379	401	362	Natural Gas
Lenha	354	359	370	378	355	342	335	344	326	313	Firewood
Lixívia + Outras Primárias	820	865	898	939	919	1003	1003	997	1048	1098	Black Liquor + Other Primary
Óleo Diesel	5	8	8	10	14	19	9	29	23	28	Diesel Oil
Óleo Combustível	169	141	139	94	105	134	125	118	113	113	Fuel Oil
Eletricidade	511	524	532	542	497	531	577	597	601	565	Electricity
Bag. de Cana + Outras Secundárias	39	41	43	46	49	52	45	48	51	50	Sugar Cane Bagasse + Other Secondary
Total	2265	2356	2464	2505	2257	2565	2491	2512	2563	2529	Total

Tabela 4.39. Participação do Segmento Papel e Celulose
Table 4.39. Paper and Pulp Subsector Participation

%

ENERGÉTICOS	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	ENERGY
Gás Natural	16,2	17,7	19,2	19,8	14,1	18,9	15,9	15,1	15,6	14,3	Natural Gas
Lenha	15,6	15,2	15,0	15,1	15,7	13,3	13,4	13,7	12,7	12,4	Firewood
Lixívia + Outras Primárias	36,2	36,9	36,6	37,5	40,7	39,2	40,3	39,6	41,0	43,4	Black Liquor + Other Primary
Óleo Diesel	0,2	0,3	0,3	0,4	0,6	0,7	0,4	1,2	0,9	1,1	Diesel Oil
Óleo Combustível	7,5	6,0	5,6	3,8	4,7	5,2	5,0	4,7	4,4	4,5	Fuel Oil
Eletricidade	22,6	22,2	21,6	21,6	22,0	20,7	23,2	23,8	23,4	22,3	Electricity
Bag. de Cana + Outras Secundárias	1,7	1,7	1,7	1,8	2,2	2,0	1,8	1,9	2,0	2,0	Sugar Cane Bag. + Other Secondary
Total	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	Total

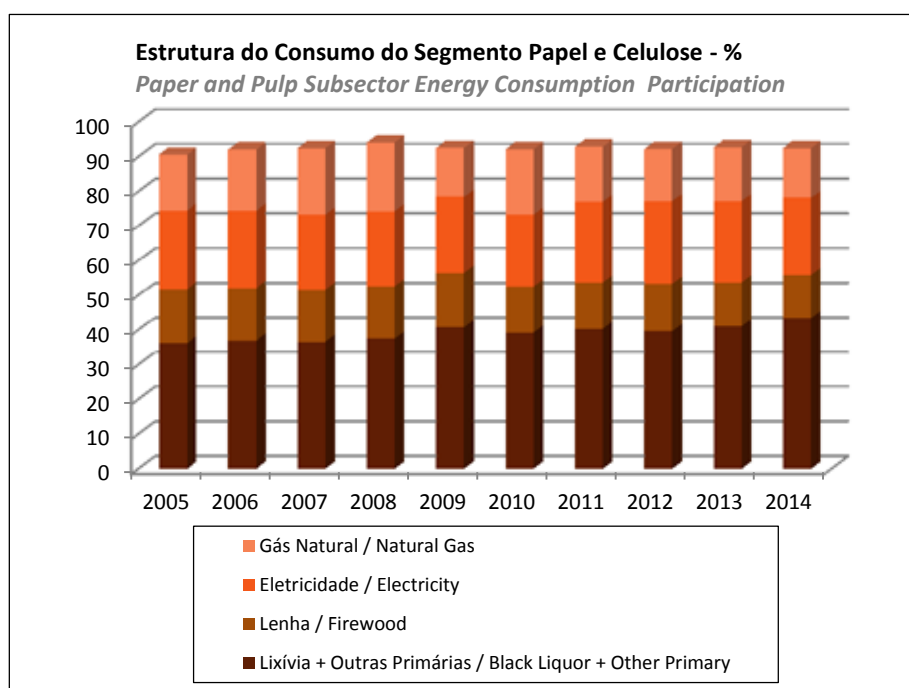


Tabela 4.40. Evolução do Segmento Cerâmico
Table 4.40. Ceramics Subsector Evolution

10³ toe

ENERGÉTICOS	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	ENERGY
Carvão Vapor	1	1	1	1	0	0	0	0	0	0	Steam Coal
Gás Natural	457	473	523	573	482	593	616	611	632	623	Natural Gas
Lenha	98	99	94	97	93	88	86	89	85	82	Firewood
Óleo Diesel	2	2	2	3	3	3	13	11	10	10	Diesel Oil
Óleo Combustível	41	36	32	30	31	26	4	3	3	1	Fuel Oil
GLP	63	74	74	74	70	70	76	75	60	65	LPG
Eleticidade	245	257	269	251	234	241	245	240	227	218	Electricity
Outros	5	5	6	4	5	4	4	4	4	4	Others*
Total	912	947	1001	1033	918	1025	1044	1033	1021	1003	Total

Tabela 4.41. Participação do Segmento Cerâmico
Table 4.41. Ceramics Subsector Participation

%

ENERGÉTICOS	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	ENERGY
Carvão Vapor	0,1	0,1	0,1	0,1	0,0	0,0	0,0	0,0	0,0	0,0	Steam Coal
Gás Natural	50,1	49,9	52,2	55,5	52,5	57,9	59,0	59,1	61,9	62,1	Natural Gas
Lenha	10,7	10,5	9,4	9,4	10,1	8,6	8,2	8,6	8,3	8,2	Firewood
Óleo Diesel	0,2	0,2	0,2	0,3	0,3	0,3	1,2	1,1	1,0	1,0	Diesel Oil
Óleo Combustível	4,6	3,9	3,2	2,8	3,5	2,5	0,4	0,3	0,3	0,1	Fuel Oil
GLP	6,9	7,8	7,4	7,2	7,6	6,8	7,3	7,3	5,9	6,5	LPG
Eleticidade	26,9	27,1	26,9	24,3	25,5	23,5	23,5	23,2	22,2	21,7	Electricity
Outros *	0,5	0,5	0,6	0,4	0,5	0,4	0,4	0,4	0,4	0,4	Others*
Total	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	Total

(*) Inclui Carvão Vapor, Outras Fontes Primárias, Óleo Diesel, Querosene, Gás Canalizado e Carvão Vegetal
Include Steam Coal, Other Primary, Diesel Oil, Kerosene, Pipelined Gas and Charcoal

Tabela 4.42. Evolução de Outros Segmentos
Table 4.42. Others Subsector Evolution

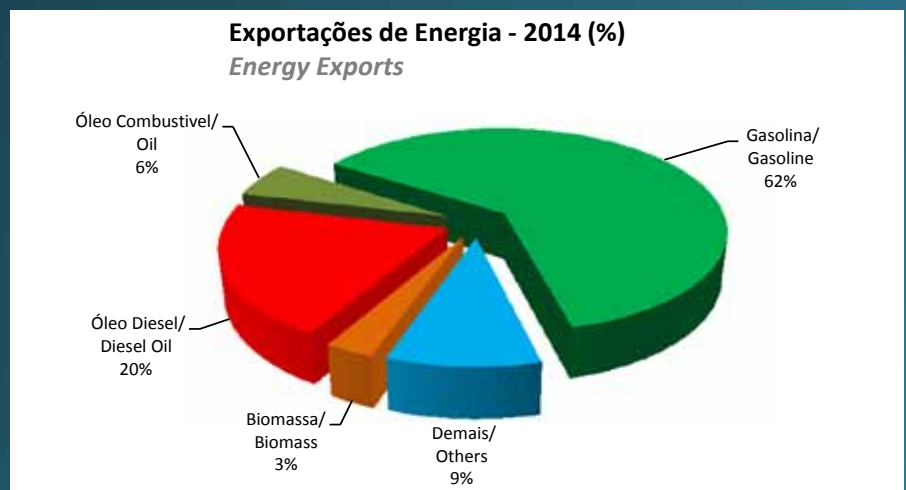
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ENERGÉTICOS	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	ENERGY
Gás Natural	708	904	962	864	848	741	1111	1136	1057	1041	Natural Gas
Lenha	12	15	13	12	11	9	9	10	7	11	Firewood
Óleo Diesel	134	147	177	230	240	292	315	342	241	226	Diesel Oil
Óleo Combustível	23	19	18	19	32	3	3	3	0	0	Fuel Oil
GLP	109	97	97	102	88	73	109	94	124	128	LPG
Querosene	11	9	1	2	0	0	0	0	0	0	Kerosene
Gás Canalizado	0	0	0	0	0	0	0	0	0	0	Pipelined Gas
Eleticidade	1495	1612	1716	1863	1772	1887	1803	1771	1710	1496	Electricity
Outros *	59	147	192	149	207	174	191	328	367	207	Others*
Total	2551	2950	3176	3241	3198	3179	3541	3684	3506	3109	Total

(*) Outros = Outras Primárias + Outros Energéticos de Petróleo
Others = Other Primary + Others Energy of Petroleum

Capítulo 05

Comércio Externo de Energia



Chapter 05

External Trade of Energy

Tabela 5.01. Evolução da Suficiência de Energia
Table 5.01. Energy Sufficiency Evolution

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FLUXO	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	FLUXO
Demanda de Energia (A) (*)	57497	58486	63194	67075	69237	70716	70181	72626	76051	73311	Energy Consumption (A)(*)
Consumo Final	50755	53068	57333	61060	61915	64544	63190	66029	68668	67374	Final Consumption
Diferenças	6742	5418	5861	6015	7322	6172	6991	6597	7383	5937	Differences
Importação Líquida (B)	31578	31696	33090	32294	33325	35401	38518	38790	38210	37703	Net Import (B)
Var. de Estoques (C)	228	-290	-33	-121	-317	-419	-166	-548	143	200	Variation of Stocks (C)
Suficiência A-(B+C)	25691	27080	30137	34902	36229	35734	31829	34384	37698	35408	Sufficiency A-(B+C)
Suficiência (%)	44,7	46,3	47,7	52,0	52,3	50,5	45,4	47,3	49,6	48,3	Sufficiency (%)
Dependência (%)	55,3	53,7	52,3	48,0	47,7	49,5	54,6	52,7	50,4	51,7	Dependence (%)

(*) Demanda = Oferta Interna Bruta + Ajustes

Energy Consumption = Gross Supply + Adjustments

Oferta Interna Bruta = Produção + Importação - Exportação + Variação de Estoques

Gross Domestic Supply = Production + Imports - Exports + Changes in Stocks

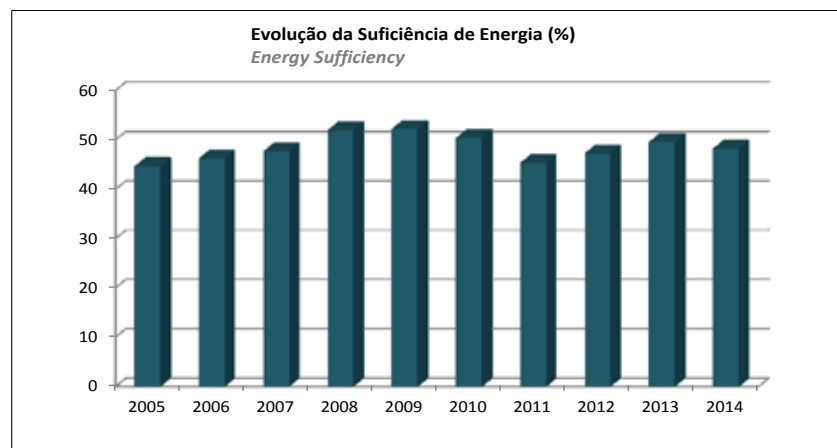
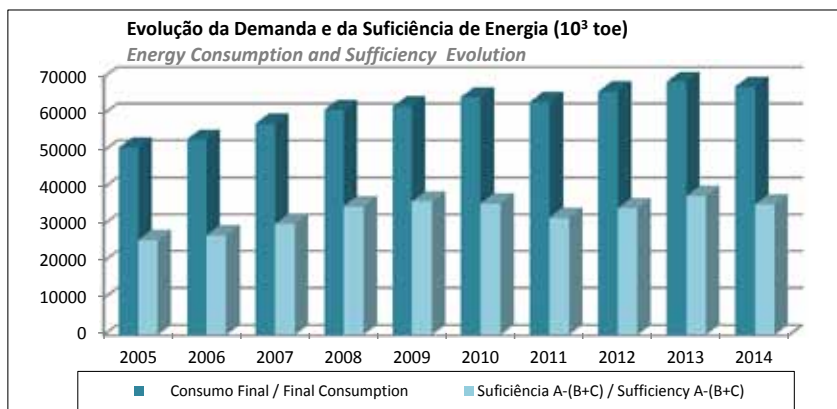


Tabela 5.02. Evolução da Suficiência de Energia Primária
Table 5.02. Primary Energy Sufficiency Evolution

10³ toe

FLUXO	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	SOURCES
Demanda de Energia (A)	70568	72657	76972	80179	82894	81390	79540	84138	88109	84760	Energy Consumption (A)
Consumo Final	15002	16224	17814	20066	20260	20633	18490	19477	21028	19682	Final Consumption
Diferenças (*)	55566	56433	59158	60113	62634	60757	61050	64661	67081	65078	Differences (*)
Produção (B)	25702	27077	30136	34905	36231	35727	31823	34387	37692	35408	Production (B)
Variação de Estoques (C)	7	-1	-25	-24	8	-12	7	5	-25	-6	Variation of Stocks (C)
Dependência A-(B+C)	44859	45581	46861	45298	46655	45675	47710	49746	50442	49358	Dependence A-(B+C)
Suficiência (%)	36,4	37,3	39,1	43,5	43,7	43,9	40,0	40,9	42,8	41,8	Sufficiency (%)
Dependência (%)	63,6	62,7	60,9	56,5	56,3	56,1	60,0	59,1	57,2	58,2	Dependence (%)

(*) Total da Transformação, Perdas na Distribuição/Armazenagem, Energia não Aproveitada e Ajustes.
Total of Transformation, Losses in Distribution and Storage, Non-utilized Energy and Adjustments.

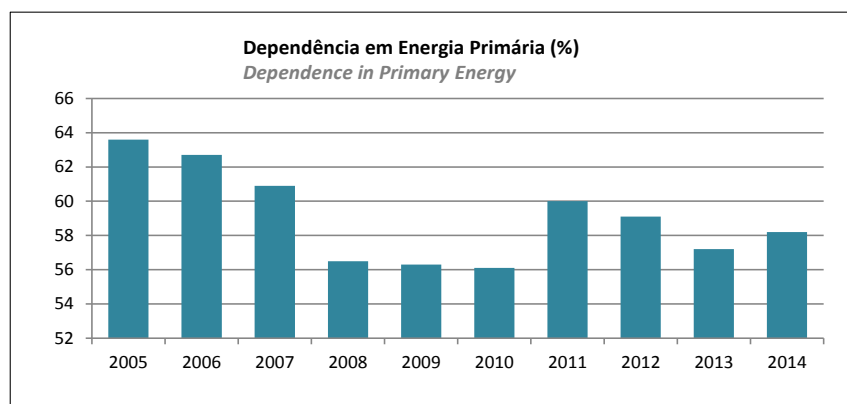
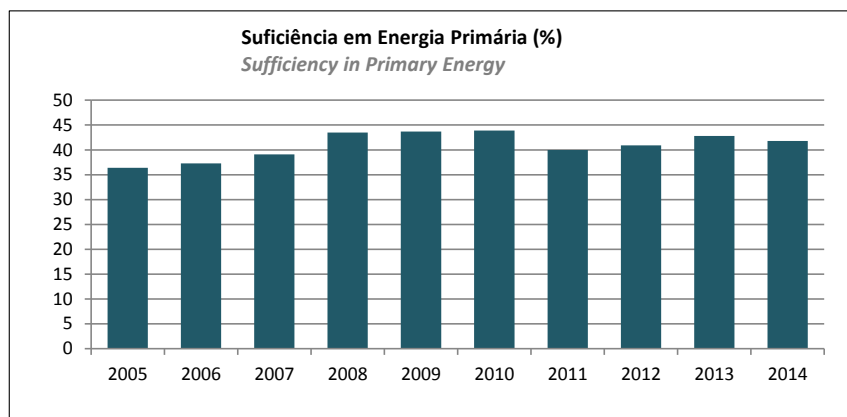


Tabela 5.03. Evolução das Importações de Energia
Table 5.03. Import of Energy Evolution

10³ toe

FLUXO	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	FLUXO
Energia Primária	44859	45581	46861	45298	46655	45675	47710	49746	50442	49358	Primary Energy
Energia Prim. Não Renovável	44707	45431	46712	45147	46510	45566	47604	49626	50337	49254	Primary Energy Non-Renewable
Petróleo	39582	39736	40770	38837	41327	39545	42123	44881	46002	46350	Petroleum
Carvão Vapor	39	20	20	20	16	7	6	5	6	5	Steam Coal
Carvão Metalúrgico	1549	1665	1589	1612	1311	1614	1810	1460	1391	1192	Metallurgical Coal
Gás Natural	3537	4010	4333	4678	3856	4400	3665	3280	2938	1707	Natural Gas
Energia Prim. Renovável	152	150	149	151	145	109	106	120	105	104	Primary Energy Renewable
Lenha	152	150	149	151	145	109	106	120	105	104	Firewood
Energia Secundária	6526	6313	7887	9577	7569	9138	9009	10280	13605	13299	Secondary Energy
En. Sec. Combustíveis Fósseis	1011	609	1573	3348	1421	2088	1416	2975	5720	4567	Secondary Energy Fossil Fuels
Secundárias Petróleo	914	578	1412	3346	1417	2068	1311	2873	5623	4541	Secondary Petroleum
Óleo Diesel	583	72	618	1639	611	1009	858	1273	3407	2615	Diesel Oil
Óleo Combustível	26	11	0	147	15	136	38	86	23	134	Fuel Oil
Gasolina	0	0	0	0	0	0	0	0	0	0	Gasoline
GLP	278	396	530	756	440	281	122	522	491	198	LPG
Nafta	25	52	88	122	52	208	199	839	1410	1206	Naphtha
Querosene	2	47	176	682	299	434	94	153	292	388	Kerosene
Energ. Secundária do Carvão	97	31	161	2	4	20	105	102	97	26	Secondary Energy of Coal
Coque de Carvão Mineral	97	31	161	2	4	20	105	102	97	26	Coal Coke
Eletricidade	5377	5620	6186	6092	6044	6948	7506	7225	7816	8663	Electricity
En. Secundárias da Biomassa	104	76	98	95	84	76	72	70	69	69	Secondary Energy of Biomass
Carvão Vegetal	104	76	98	95	84	76	72	70	69	69	Charcoal
Outras Secundárias do Petróleo	0	0	0	0	0	0	0	0	0	0	Other Secondary of Petroleum
Não Energéticos	34	8	30	42	20	26	15	10	0	0	Non-Energy
Não Energético do Petróleo	34	8	30	42	20	26	15	10	0	0	Non-Energy of Petroleum
Total	51385	51894	54748	54875	54224	54813	56719	60026	64047	62657	Total

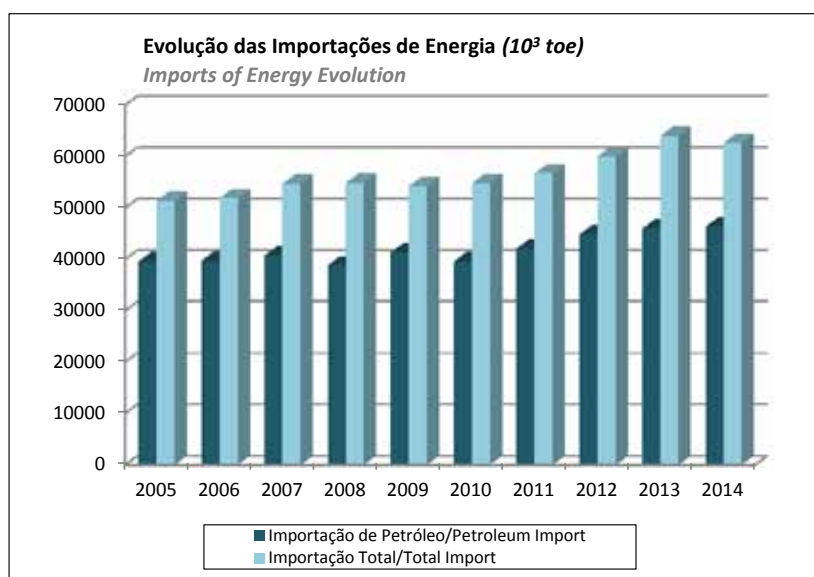


Tabela 5.04. Evolução das Exportações de Energia

Table 5.04. Export of Energy Evolution

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FLUXO	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	SOURCES
Energia Secundária	19807	20198	21658	22581	20899	19412	18201	21236	25837	25268	Secondary Energy
Energia Secundárias Comb. Fósseis	16334	16981	18302	18475	18379	15654	15449	18423	22639	22128	Secondary Energy Fossil Fuels
Secundárias de Petróleo	16334	16981	18302	18475	18379	15654	15449	18423	22639	22128	Secundaries of Petroleum
Óleo Diesel	8571	8478	8977	9623	9864	7603	8316	10074	13313	13004	Diesel Oil
Óleo Combustível	3454	3571	3920	3490	4098	3931	3083	3223	3390	3458	Fuel Oil
Gasolina	3086	3794	3914	3899	3705	3728	3204	3845	4853	4420	Gasoline
GLP	766	663	909	950	368	87	149	638	428	32	LPG
Nafta	0	0	0	0	0	0	0	0	0	0	Naphtha
Querosene	138	74	190	270	153	124	67	12	52	298	Kerosene
Outras Secundárias	319	401	392	243	191	181	630	631	603	916	Other Secondary
Eletricidade	602	637	567	477	486	954	650	458	405	309	Electricity
Secundárias Biomassa	2866	2577	2785	3624	2030	2395	1633	1803	2151	1880	Secondary Biomass
Etanol Total	2866	2577	2785	3624	2030	2395	1633	1803	2151	1880	Total Ethanol
Etanol Anidro	1878	1712	1570	2117	1212	1625	1391	1736	2123	1863	Anhydrous Ethanol
Etanol Hidratado	988	865	1215	1507	818	770	242	67	28	17	Ethanol Hidratado
Não Energéticos	5	3	4	5	4	409	469	552	642	951	Non-Energy
Não Energéticos do Petróleo	5	3	4	5	4	409	469	552	642	951	Non-Energy of Petroleum
Total	19807	20198	21658	22581	20899	19412	18201	21236	25837	25268	Total

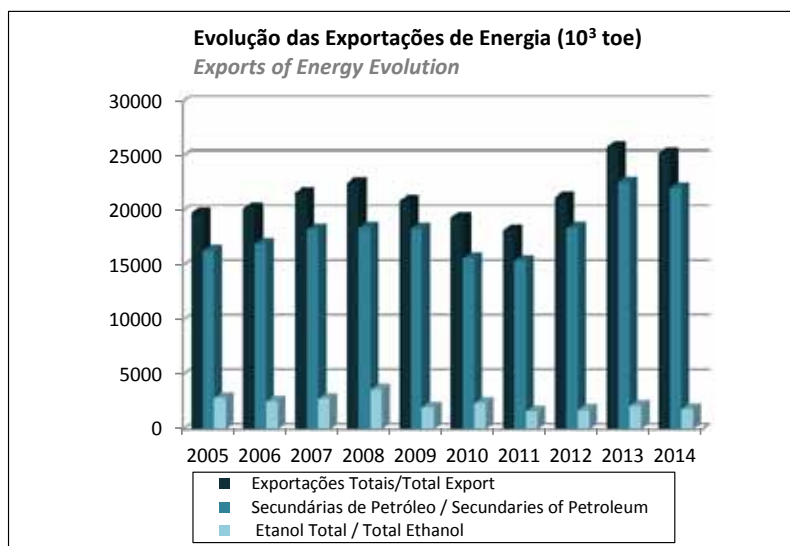
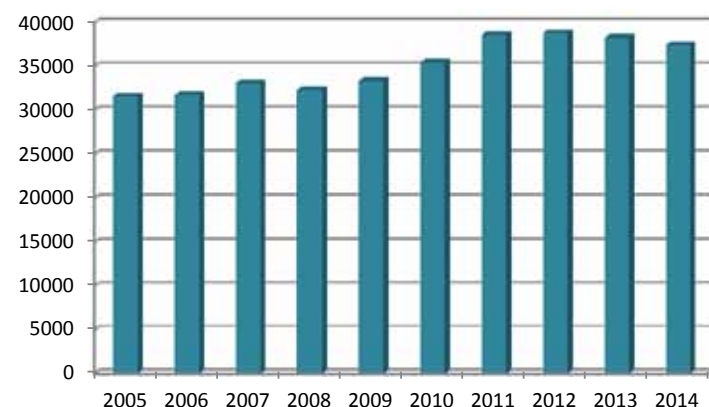


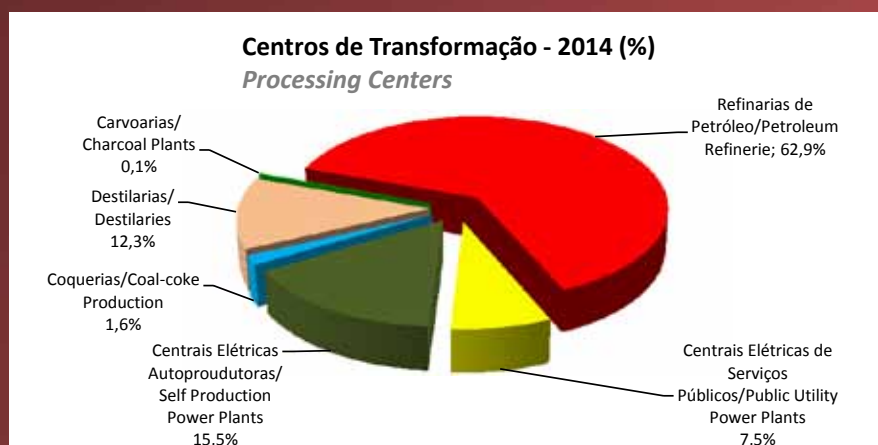
Tabela 5.05. Evolução do Balanço Líquido das Importações/Exportações
Table 5.05. Net Balance of Imports and Exports Evolution
10³ toe

FLUXO	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	SOURCES
Energia Primária	44859	45581	46861	45298	46655	45675	47710	49746	50442	49358	Primary Energy
Energia Primária Não Renovável	44707	45431	46712	45147	46510	45566	47604	49626	50337	49254	Non-Renewable Primary Energy
Petróleo	39582	39736	40770	38837	41327	39545	42123	44881	46002	46350	Petroleum
Carvão Vapor	39	20	20	20	16	7	6	5	6	5	Steam Coal
Carvão Metalúrgico	1549	1665	1589	1612	1311	1614	1810	1460	1391	1192	Metallurgical Coal
Gás Natural	3537	4010	4333	4678	3856	4400	3665	3280	2938	1707	Natural Gas
Energia Primária Renovável	152	150	149	151	145	109	106	120	105	104	Primary Energy Renewable
Lenha	152	150	149	151	145	109	106	120	105	104	Firewood
Energia Secundária	-13281	-13885	-13771	-13004	-13330	-10274	-9192	-10956	-12232	-11969	Secondary Energy
Energia Sec. Comb. Fósseis	-15323	-16372	-16729	-15127	-16958	-13566	-14033	-15448	-16919	-17561	Secondary Ener. of Fossil Fuel
Secundárias Petróleo	-15420	-16403	-16890	-15129	-16962	-13586	-14138	-15550	-17016	-17587	Secondaries Petroleum
Óleo Diesel	-7988	-8406	-8359	-7984	-9253	-6594	-7458	-8801	-9906	-10389	Diesel Oil
Óleo Combustível	-3428	-3560	-3920	-3343	-4083	-3795	-3045	-3137	-3367	-3324	Fuel Oil
Gasolina	-3086	-3794	-3914	-3899	-3705	-3728	-3204	-3845	-4853	-4420	Gasoline
GLP	-488	-267	-379	-194	72	194	-27	-116	63	166	LPG
Nafta	25	52	88	122	52	208	199	839	1410	1206	Naphtha
Querosene	-136	-27	-14	412	146	310	27	141	240	90	Kerosene
Outras Secundárias	-319	-401	-392	-243	-191	-181	-630	-631	-603	-916	Other Secondary
Energ. Secundária do Carvão	97	31	161	2	4	20	105	102	97	26	Secondary Energy of Coal
Coque de Carvão Mineral	97	31	161	2	4	20	105	102	97	26	Coal Coke
Eletricidade	4775	4983	5619	5615	5558	5994	6856	6767	7411	8354	Electricity
En. Secundárias da Biomassa	-2762	-2501	-2687	-3529	-1946	-2319	-1561	-1733	-2082	-1811	Secondary Energy of Biomass
Carvão Vegetal	104	76	98	95	84	76	72	70	69	69	Charcoal
Etanol Total	-2866	-2577	-2785	-3624	-2030	-2395	-1633	-1803	-2151	-1880	Total Ethanol
Etanol Anidro	-1878	-1712	-1570	-2117	-1212	-1625	-1391	-1736	-2123	-1863	Anhydrous Ethanol
Etanol Hidratado	-988	-865	-1215	-1507	-818	-770	-242	-67	-28	-17	Hydrated Ethanol
Não Energéticos	29	5	26	37	16	-383	-454	-542	-642	-951	Non-Energy
Não Energéticos do Petróleo	29	5	26	37	16	-383	-454	-542	-642	-951	Non-Energy of Petroleum
Balanço Líquido	31578	31696	33090	32294	33325	35401	38518	38790	38210	37389	Net Balance

Evolução do Balanço Líquido (Importações-Exportações) - 10³ toe
Net Balance of Imports and Exports Evolution


Capítulo 06

Balanço dos Centros de Transformação



Chapter 06

Balance of the Centers of Transformation

Tabela 6.01. Refinarias de Petróleo

Table 6.01. Petroleum Refineries

10³ toe

PRODUTO	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	PRODUCT
Petróleo Processado	39581	39736	40770	38837	41326	39545	42123	44880	46002	46350	Petroleum Processed
Produção de Derivados	37480	38580	39691	38241	40578	38774	40727	44532	45746	46225	Production of Petroleum By-Products
Óleo Diesel	15967	16530	16915	17006	18066	16238	17428	19638	20759	21279	Diesel Oil
Óleo Combustível	4784	4552	4714	4049	4926	4475	3653	3739	3715	3688	Fuel Oil
Gasolina	7138	7790	7933	7929	7522	7929	8677	10054	10682	10571	Gasoline
GLP	2370	2154	2300	2168	1859	1817	1952	2122	1982	1842	LPG
Nafta	1690	1820	1839	1363	1899	1561	1290	963	526	417	Naphtha
Querosene	1831	1680	1779	1442	1751	1804	2279	2213	2050	2329	Kerosene
Gás de Refinaria	928	994	994	978	985	1114	1203	1245	1289	1294	Refinery Gas
Outras	1473	1770	1824	1789	1864	1777	2353	2593	2637	2639	Others
Não Energético do Petróleo	1299	1290	1393	1517	1706	2059	1892	1965	2106	2166	Non-Energy of Petroleum
Diferença(*)	-2101	-1156	-1079	-596	-748	-771	-1396	-348	-256	-125	Difference (*)

(*) Os valores eventualmente positivos decorrem de dificuldades na contabilização das importações/exportações e retorno de alguns combustíveis às refinarias para reprocessamento. Segundo informações da própria Petrobrás existem cargas processadas provenientes de outros Estados que são reprocessadas nas refinarias do Estado de São Paulo e não são mensuradas. Portanto, ocorre a maior produção energética de derivados quando comparado ao petróleo bruto processado, implicando em uma diferença positiva.

(*) The values eventually positive they elapse of difficulties in the accountancy of the import/export and return of some fuels to the refineries for eprocessing. According to information of own Petrobrás coming processed loads of another States that are reprocessed in the refineries of the State of São Paulo exist and they are not measured. Therefore, it happens a larger energy production of having derived when compared to the processed gross petroleum, implying in a positive difference.

Tabela 6.02. Centrais Elétricas de Serviço Público

Table 6.02. Public Utility Power Plants

10³ toe

PRODUTO	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	PRODUCT
Consumo de Combustíveis Fósseis	354	147	117	356	141	320	140	445	703	826	Fossil Fuel Consumption
Óleo Combustível	234	95	76	91	94	90	74	86	79	78	Fuel Oil
Gás Natural	120	52	41	265	47	230	66	359	624	748	Natural Gas
Geração de Eletricidade	5538	5850	5834	5949	6034	6319	6027	6366	5820	4692	Electricity Generation
Térmica	0	0	0	0	0	0	0	0	0	0	Thermal
Hidrelétrica	5538	5850	5834	5949	6034	6319	6027	6366	5820	4692	Hydroelectric

Tabela 6.03. Centrais Elétricas Autoprodutoras

Table 6.03. Self Production Power Plants

10³ toe

PRODUTO	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	PRODUCT
Consumo de Combustíveis	1101	1127	1190	1333	1315	1316	1222	1272	1258	1202	Fuel Consumption
Lenha	30	32	31	32	30	27	26	28	26	25	Firewood
Outras Primárias	456	481	500	507	481	473	455	442	422	405	Other Primary
Óleo Diesel	29	35	37	37	35	28	23	23	23	23	Diesel Oil
Óleo Combustível	67	29	31	27	27	25	21	24	21	20	Fuel Oil
Bagaço de Cana	190	207	232	290	303	301	255	277	308	283	Sugar Cane Bagasse
Lixívia	165	174	181	189	186	185	185	185	194	203	Black Liquor
Gás Natural	164	169	178	251	253	277	257	293	264	243	Natural Gas

GWh

PRODUTO	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	PRODUCT
Geração de Eletricidade	9.418	10.641	11.330	12.324	12.336	11.886	11.646	12.371	12.416	10.201	Electricity Generation
Hidráulica	3.476	4.417	4.938	5.225	5.131	4.815	5.144	4.534	4.085	2.089	Hydraulic
Térmica	5.942	6.224	6.392	7.099	7.205	7.071	6.502	7.837	8.331	8.112	Thermal

Tabela 6.04. Coquerias

Table 6.04. Coal Coke Production

10³ toe

PRODUTO	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	PRODUCT
Carvão Metalúrgico Processado	1560	1659	1562	1586	1317	1602	1817	1464	1365	1186	Metallurgical Coal Coke Processed
Produção	1248	1283	1291	1331	1084	1315	1200	1206	975	984	Production
Gás de Coqueria	263	249	259	270	253	301	284	260	264	237	Coking Gas
Coque de Carvão.Min.	985	1034	1032	1061	831	1014	916	946	711	747	Coal Coke
Diferenças (*)	-312	-376	-271	-255	-233	-287	-617	-258	-390	-202	Differences (*)

(*) Corresponde a diferença entre a quantidade de energia primária ofertada (produção) e a energia secundária resultante (consumo).
It corresponds the difference among the amount of Primary Energy offered (Production) and Secondary Energy resultant (consumption).

Tabela 6.05. Destilarias

Table 6.05. Distilleries

10³ toe

PRODUTO	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	PRODUCT
Cana Processada	6223	6418	7978	10078	10445	9604	7779	8310	9809	9059	Sugar Cane Processed
Produção de Derivados da Cana	4922	5404	6547	8200	7283	7519	5701	5837	6883	6787	Production of Cane By-Products
EtanolAnidro	2745	2670	2504	3041	2137	2591	2407	2835	3522	3284	Anhydrous Ethanol
Etanol Hidratado	2177	2734	4043	5159	5146	4928	3294	3002	3361	3503	Hydrated Ethanol
Bagaço de Cana	0	0	0	0	0	0	0	0	0	0	Sugar Cane Bagasse
Diferenças (*)	-1301	-1014	-1431	-1878	-3162	-2085	-2078	-2473	-2926	-2272	Differences (*)

(*) Corresponde à diferença entre a quantidade de energia primária ofertada (cana processada) e a energia secundária resultante (produção de derivados da cana).
It corresponds to the difference among the amount of Primary Energy offered (processed cane) and Secondary Energy resultant (Production of Cane Products).

Tabela 6.06. Carvoarias

Table 6.06. Charcoal Plants

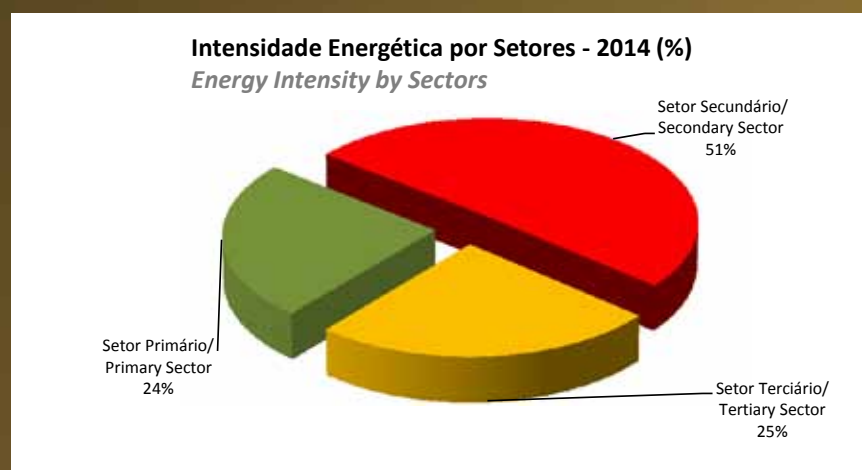
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PRODUTO	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	PRODUCT
Lenha Processada	96	103	106	108	97	93	91	94	88	83	Firewood Processed
Produção de Carvão Vegetal	21	49	29	31	23	21	21	22	21	21	Production of Charcoal
Diferenças (*)	-75	-54	-77	-77	-74	-72	-70	-72	-67	-62	Differences (*)

(*) Corresponde à diferença entre a quantidade de energia primária ofertada (lenha processada) e de energia secundária resultante (transformação em carvão vegetal).
It corresponds to the difference among the amount of energy primary offered (processed Firewood) and of Secondary Energy resultant transformation in Charcoal).

Capítulo 07

Energia e Sócio Economia



Chapter 07

Energy and Socio-Economy

Tabela 7.01. Evolução da Intensidade Energética e Consumo per Capita

Table 7.01. Evolution of the Energy Intensity Consumption per Capita

toe / 10³ R\$ de 2005

ESPECIFICAÇÃO	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	ESPECIFICATION
Consumo (1)	50755	53068	57333	61060	61915	64544	63190	66029	68668	67374	Consumption (1)
PIB-SP (2)	726984	755784	811760	859583	852892	920625	947825	964200	983086	962479	GDP-SP (2)
Setor Primário	11265	11525	11815	11902	11455	12020	12214	12448	12256	11673	Primary Sector
Setor Secundário	193955	197671	209823	219196	202364	221813	226129	219735	226818	218395	Secondary Sector
Setor Terciário	406680	424980	457829	485391	495657	526469	544352	560990	569901	562425	Tertiary Sector
População (3)	39	40	40	40	41	41	42	42	42	43	Population (3)
(1) / (2) (toe/10 ³ R\$)	0,070	0,070	0,071	0,071	0,073	0,070	0,067	0,068	0,070	0,070	(1) / (2) (toe/10 ³ R\$)
(1) / (3) (toe/10 ³ hab.)	1295	1339	1433	1511	1517	1566	1520	1574	1623	1579	(1) / (3) (toe/10 ³ hab.)

(1) Consumo Final Energético em 10³ toe. / Final Energy Consumption in 10³ toe.

(2) Produto Interno Bruto a preços de mercado em 10⁶ Reais de 2005. Fonte: Fundação Sistema Estadual de Análise de Dados - SEADE.

GDP (marked prices in 10⁶ Reais of 2005. Source: Fundação Sistema Estadual de Análise de Dados - SEADE.

(3) População = 10⁶ habitantes. Fonte: Fundação Sistema Estadual de Análise de Dados - SEADE.

Population = 10⁶ in habitants. Source: Fundação Sistema Estadual de Análise de Dados - SEADE.

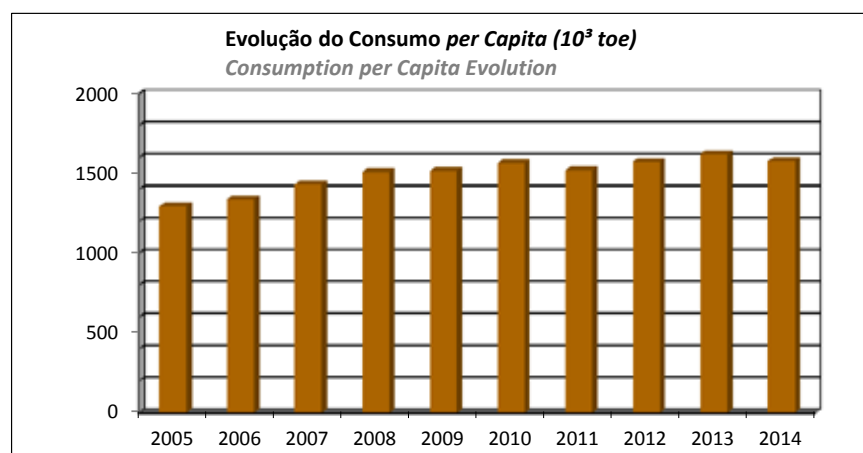
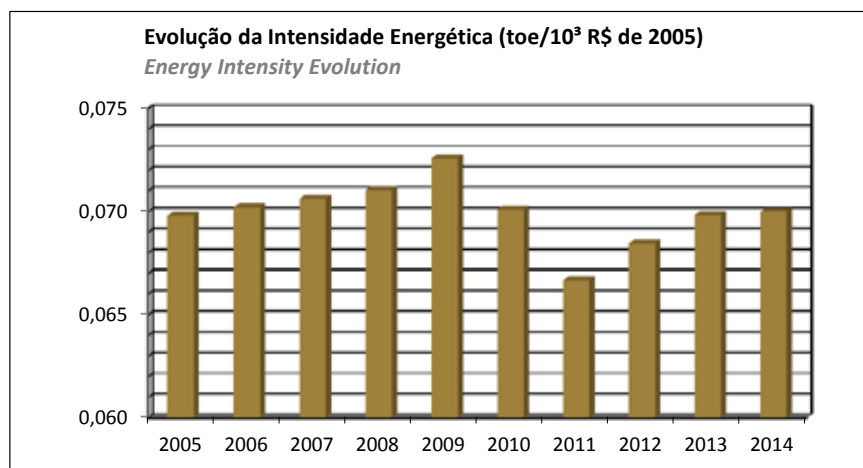


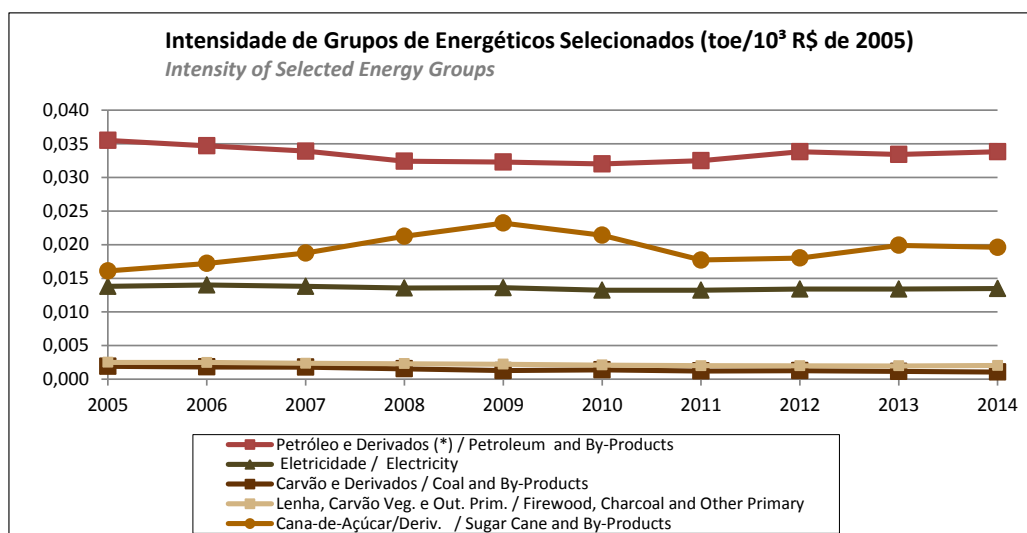
Tabela 7.02. Intensidade de Grupos de Energéticos Seleccionados

Table 7.02. Selected Groups of Intensity Energy

toe/10³ R\$ de 2005

ESPECIFICAÇÃO	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	ESPECIFICATION
Petróleo e Derivados (*)	0,035	0,035	0,034	0,032	0,032	0,032	0,032	0,034	0,033	0,034	Petroleum and Products (*)
Eletricidade	0,014	0,014	0,014	0,014	0,014	0,013	0,013	0,013	0,013	0,013	Electricity
Carvão e Derivados	0,002	0,002	0,002	0,002	0,001	0,001	0,001	0,001	0,001	0,001	Coal Products
Lenha, Carvão Vegetal e Outra Primárias	0,003	0,002	0,002	0,002	0,002	0,002	0,002	0,002	0,002	0,002	Firewood, Charcoal and Other Primary
Cana-de-Açúcar e Derivados	0,016	0,017	0,019	0,021	0,023	0,021	0,018	0,018	0,020	0,020	Sugar Cane and By-Products
Total	0,070	0,070	0,071	0,071	0,073	0,070	0,067	0,068	0,070	0,070	Total

(*) Inclusive Gás Natural.
Include Natural Gas.



(*) Inclusive Gás Natural.
Include Natural Gas.

Tabela 7.03. Intensidade Energética por Setores

Table 7.03. Energetic Intensity by Sector

toe/10³ R\$ de 2005

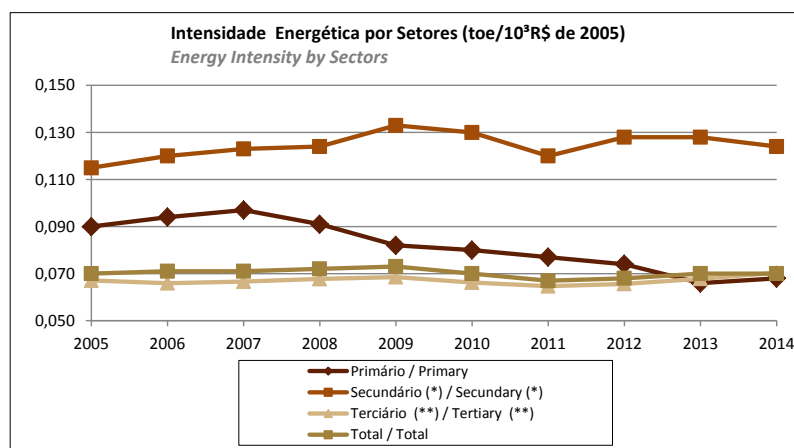
SETORES	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	FLOW
Primário	0,090	0,094	0,097	0,091	0,082	0,080	0,077	0,074	0,066	0,068	Primary
Secundário (*)	0,115	0,120	0,123	0,124	0,133	0,130	0,120	0,128	0,128	0,124	Secondary (*)
Terciário (**)	0,067	0,066	0,067	0,068	0,069	0,066	0,065	0,066	0,068	0,070	Tertiary (**)
Total	0,070	0,071	0,071	0,072	0,073	0,070	0,067	0,068	0,070	0,070	Total

(*) Não inclui o Setor Energético

Non Include Energy Sector

(**) Estão incluídos no consumo de energia os Setores Energético, Residencial, Comercial, Público e Transportes.

Are included in Energy Consumption the Energy Sector, Residential, Commercial, Public and Transportation.



(*) Não inclui o setor energético

Non include energy sector

(**) Estão incluídos no consumo de energia os Setores Energético, Residencial, Comercial, Público e Transportes

Are included in Energy Sector Consumption the Energy Sector, Residential, Commercial, Public and Transportation

Tabela 7.04. Intensidade Energética de Grupos de Energéticos

Table 7.04. Energetic Intensity by Energy Groups

toe/10³ R\$ de 2005

SETORES/ENERG.	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	FLOW
Primário											<i>Primary</i>
Combustíveis Fósseis	0,070	0,073	0,076	0,072	0,062	0,059	0,056	0,054	0,043	0,043	<i>Fuel Fossil</i>
Biomassa	0,001	0,001	0,001	0,001	0,001	0,001	0,001	0,001	0,001	0,001	<i>Biomass</i>
Elettricidade	0,019	0,020	0,020	0,018	0,019	0,020	0,020	0,019	0,022	0,024	<i>Electricity</i>
Total	0,090	0,094	0,097	0,091	0,082	0,080	0,077	0,074	0,066	0,068	Total
Secundário (*)											<i>Secondary (*)</i>
Combustíveis Fósseis	0,037	0,039	0,039	0,037	0,037	0,037	0,037	0,039	0,038	0,036	<i>Fuel Fossil</i>
Biomassa	0,053	0,055	0,058	0,061	0,069	0,067	0,057	0,062	0,064	0,063	<i>Biomass</i>
Elettricidade	0,025	0,026	0,026	0,026	0,027	0,026	0,026	0,027	0,026	0,025	<i>Electricity</i>
Total	0,115	0,120	0,123	0,124	0,133	0,130	0,120	0,128	0,128	0,124	Total
Terciário (**)											<i>Tertiary (**)</i>
Combustíveis Fósseis	0,047	0,045	0,044	0,042	0,041	0,041	0,042	0,044	0,044	0,045	<i>Fuel Fossil</i>
Biomassa	0,008	0,009	0,011	0,014	0,015	0,013	0,011	0,010	0,012	0,013	<i>Biomass</i>
Elettricidade	0,012	0,012	0,012	0,012	0,012	0,012	0,012	0,012	0,012	0,013	<i>Electricity</i>
Total	0,067	0,066	0,067	0,068	0,069	0,066	0,065	0,066	0,068	0,070	Total
Total											Total
Combustíveis Fósseis	0,037	0,037	0,036	0,034	0,034	0,033	0,034	0,035	0,035	0,035	<i>Fuel Fossil</i>
Biomassa	0,019	0,020	0,021	0,024	0,025	0,024	0,020	0,020	0,022	0,022	<i>Biomass</i>
Elettricidade	0,014	0,014	0,014	0,014	0,014	0,013	0,013	0,013	0,013	0,013	<i>Electricity</i>
Total	0,070	0,071	0,071	0,072	0,073	0,070	0,067	0,068	0,070	0,070	Total

Fonte: Fundação Sistema Estadual de Análise de Dados - SEADE

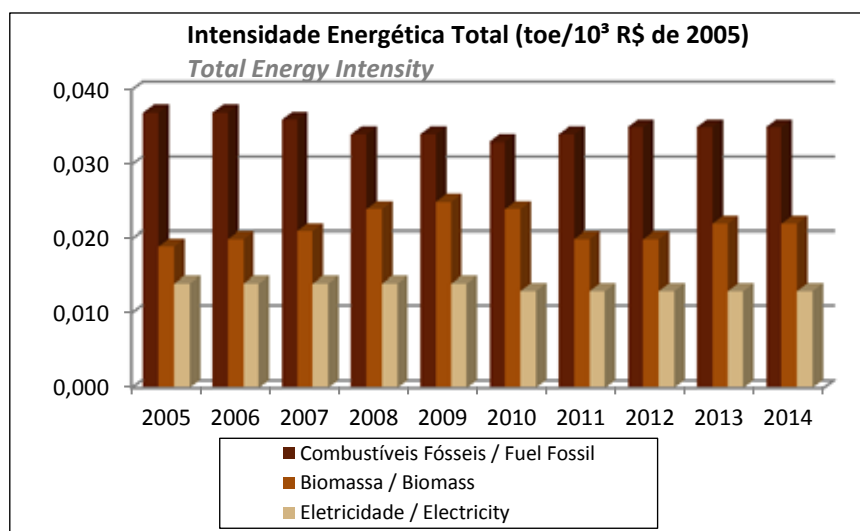
Source: Fundação Sistema Estadual de Análise de Dados - SEADE

(*) Não está incluído o Setor Energético (energia elétrica, abastecimento de água e gás, na classificação SEADE).

Non include the Energy Sector (Electricity, provisioning of water and gas, on SEADE classification).

(**) Estão incluídos no consumo de energia os Setores Energético, Residencial, Comercial, Público e Transportes.

Are include on Energy Consumption the Energy Sector, Residential, Commercial, Public e Transportation.



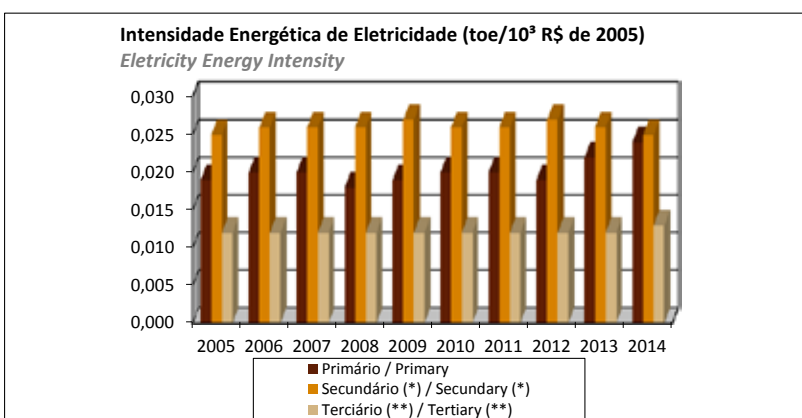
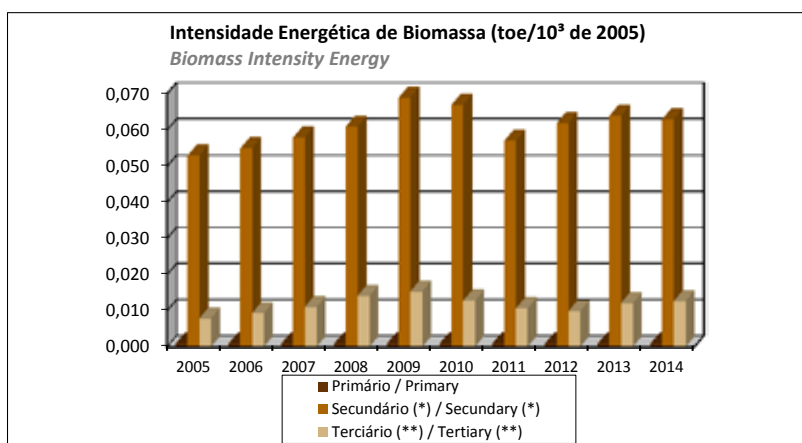
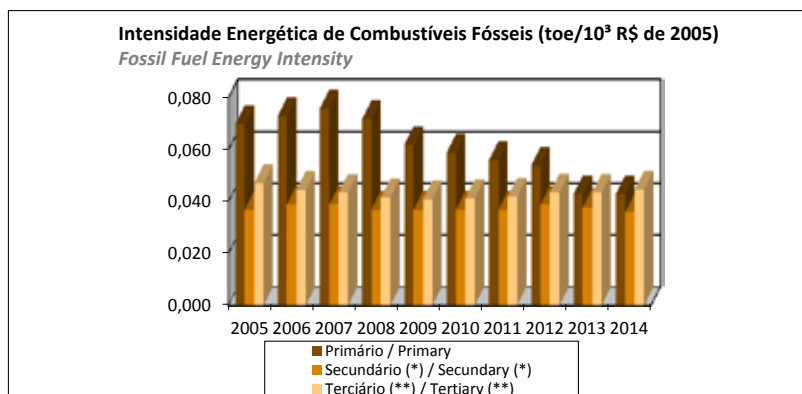


Tabela 7.05. Consumo per Capita de Energia no Setor Residencial

Table 7.05 .Consumption per Capita of Energy on Residential Sector

ESPECIFICAÇÃO	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	ESPECIFICATION
Consumo (1)	3964	4073	4235	4464	4597	4739	4831	5057	5181	5127	Consumption (1)
Eletricidade (2)	2245	2380	2525	2692	2828	2943	3090	3242	3333	3393	Electricity (2)
Outras Formas (3)	1719	1693	1710	1772	1769	1796	1741	1815	1848	1734	Others (3)
População (4)	39,2	39,6	40,0	40,4	40,8	41,2	41,6	41,9	42,3	42,7	Population (4)
(1) / (4) toe/ 10 ³ hab.	101,1	102,8	105,8	110,4	112,6	115,0	116,2	120,6	122,5	120,1	(1) / (4) toe/ 10 ³ inhab.
(2) / (4) toe/ 10 ³ hab.	57,3	60,1	63,1	66,6	69,3	71,4	74,3	77,3	78,8	79,5	(2) / (4) toe/ 10 ³ inhab.
(3) / (4) toe/ 10 ³ hab.	44	43	43	44	43	44	42	43	44	41	(3) / (4) toe/ 10 ³ inhab.

(1) Consumo Final Energético em 10³ toe.
Final Energy Consumption in 10³ toe.

(2) Eletricidade em 10³ toe.
Electricity in 10³ toe.

(3) Estão incluídos os consumos de GN, GLP, Gás Canalizado, Lenha, Carvão Vegetal e Querosene em 10³ toe.
Are include the GN, LPG, Pipelined Gas, Firewood, Charcoal and Kerosene consumption in 10³ toe.

(4) População = 10⁶ habitantes.
Population = 10⁶ in habitants.

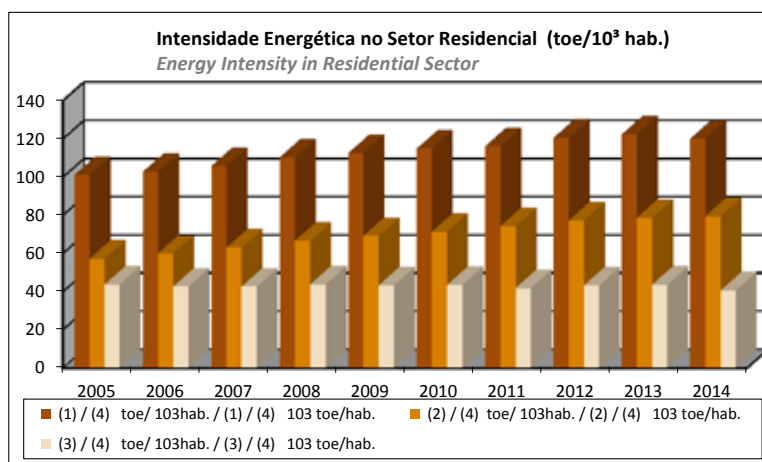
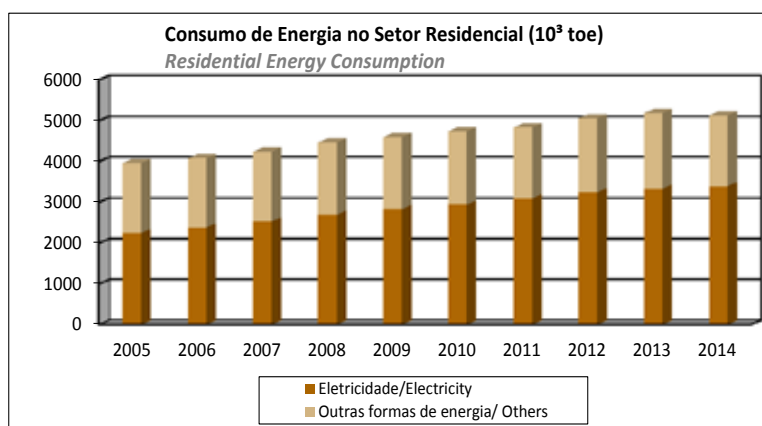


Tabela 7.06. Intensidade Energética no Setor de Transportes

Table 7.06. Energy Intensity on Transportation Sector

ESPECIFICAÇÃO	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	ESPECIFICATION
Consumo (1)	15075	15423	17045	18452	18714	20001	21071	22016	22676	23472	Consumption (1)
Óleo Diesel (2)	6652	6392	6864	7453	7473	8149	8549	9038	9322	9291	Diesel Oil (2)
Gasolina + Etanol(3)	6118	6778	7782	8509	8915	9329	9849	10290	10657	11371	Gasoline + Ethanol (3)
Outros (4)	2305	2253	2399	2490	2326	2523	2673	2688	2697	2810	Others (4)
PIB (5)	726984	755784	811760	859583	852892	920625	947825	964200	983086	962479	GDP (5)
(1) / (5) toe/10 ³ R\$	20,7	20,4	21,0	21,5	21,9	21,7	22,2	22,8	23,1	24,4	(1) / (5) toe/10 ³ R\$
(2) / (5) toe/10 ³ R\$	9,2	8,5	8,5	8,7	8,8	8,9	9,0	9,4	9,5	9,7	(2) / (5) toe/10 ³ R\$
(3) / (5) toe/10 ³ R\$	8,4	9,0	9,6	9,9	10,5	10,1	10,4	10,7	10,8	11,8	(3) / (5) toe/10 ³ R\$

(1) Consumo Final Energético em 10³ toe

(1) Final Energy Consumption in 10³ toe

(2) (3) e (4) Em 10³ toe

(2) (3) e (4) in 10³ toe

(5) Produto Interno Bruto a preços de mercado em 10⁶ Reais

(5) GDP by market prices in 10⁶ Reais

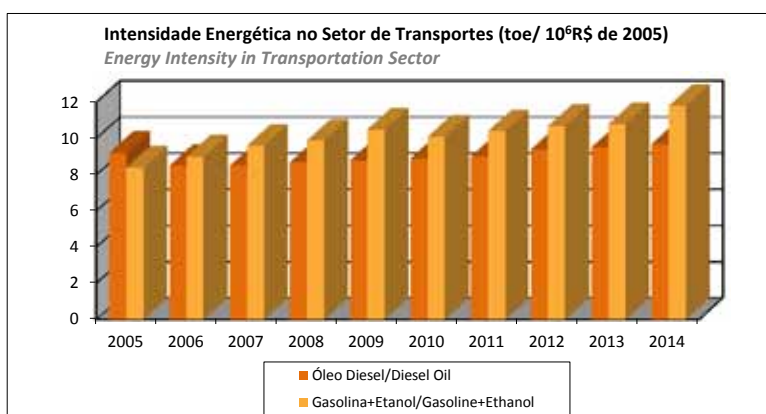
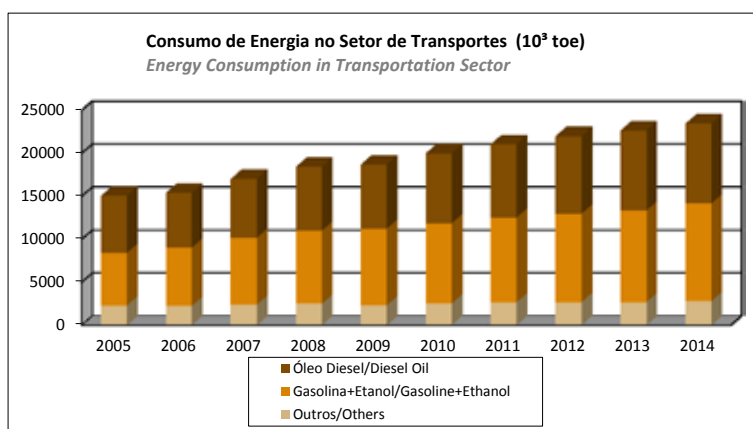


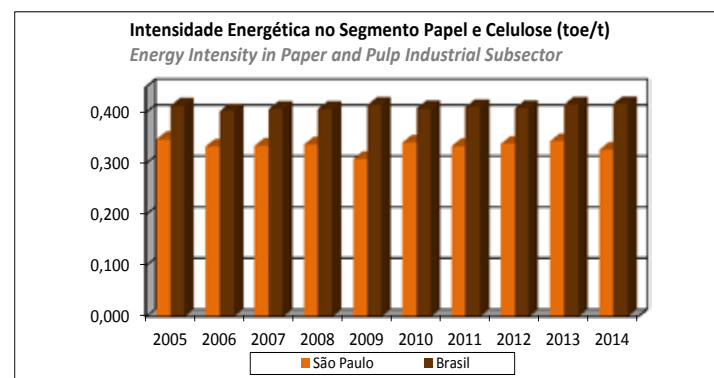
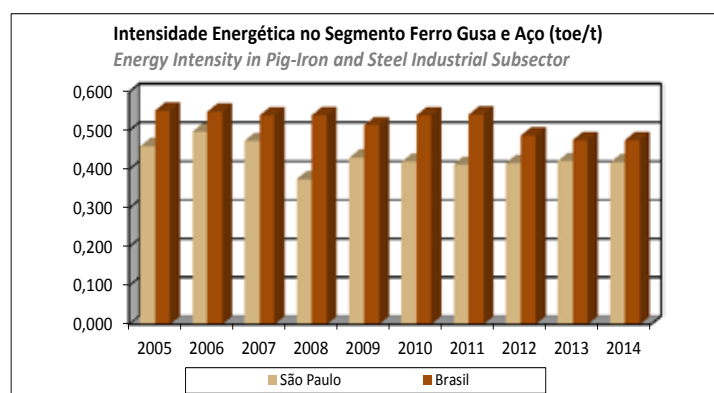
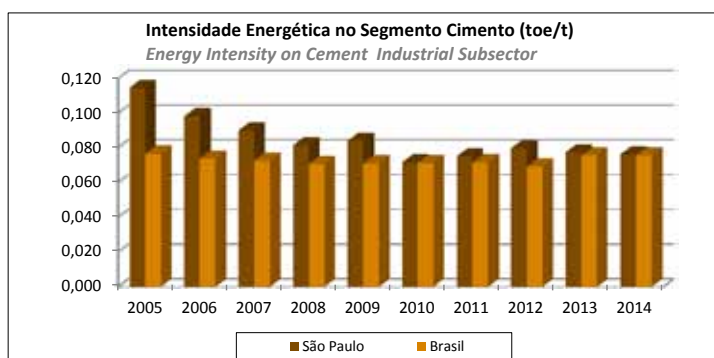
Tabela 7. 07. Consumo Específico em Segmentos Selecionados

Table 7.07. Specific Consumption in Selected Subsectors

toe/t

SEGMENTOS	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	SECTORS
SP Cimento	0,115	0,098	0,090	0,082	0,084	0,072	0,075	0,080	0,078	0,076	SP Cement
Br	0,077	0,074	0,073	0,071	0,071	0,071	0,072	0,069	0,076	0,076	Br
SP Papel e Celulose	0,348	0,334	0,335	0,337	0,309	0,342	0,334	0,339	0,344	0,327	SP Paper and Pulp
Br	0,413	0,403	0,407	0,407	0,415	0,408	0,411	0,409	0,416	0,417	Br
SP Ferro Gusa e Aço	0,460	0,498	0,475	0,376	0,431	0,420	0,413	0,417	0,423	0,418	SP Pig-Iron and Steel
Br	0,552	0,550	0,540	0,541	0,514	0,540	0,542	0,488	0,476	0,476	Br

(*) Não estão incluídos os produtos não energéticos
Not included Non-Energy Products



Capítulo 08

Recursos e Reservas Energéticas



Chapter 08
***Resources and Energy
Reserve***

8.1 INTRODUÇÃO

Os conceitos utilizados para o levantamento dos recursos e reservas de algumas fontes primárias de energia são essencialmente aqueles adotados pelo Código de Mineração Brasileiro, a saber:

Recursos - Uma concentração de materiais sólidos, líquidos ou gasosos que ocorre naturalmente no interior ou na superfície da crosta terrestre de tal forma que a extração econômica é usual ou potencialmente viável.

Reservas - A parte de um recurso identificado na qual uma matéria ou utilidade energética pode ser econômica e legalmente extraída na época de sua determinação.

As definições para os termos medida, indicada e inferida são aplicáveis tanto para Reservas quanto para Recursos, dependendo do grau de detalhamento dos trabalhos realizados:

Medida - Material para o qual as estimativas de quantidade e qualidade foram computadas com uma margem de erro menor que 20%, através de trabalhos geológicos detalhados, amostragem e análises sistemáticas e representativas.

Indicada - Material para o qual as estimativas de quantidade e qualidade foram computadas parcialmente através de trabalhos geológicos detalhados, amostragem e análises sistemáticas e representativas.

Inferida - Material para o qual as estimativas de quantidade e qualidade são baseadas apenas em algumas evidências e projeções geológicas.

8.1 INTRODUCTION

The concepts used in the survey of resources and reserves of some primary sources of energy are essentially those adopted by the Brazilian Mining Code, namely:

Resources - A concentration of solid, liquid or gaseous materials that naturally occurs inside or on the surface of the earth's crust so that the economic extraction is usual or potentially viable.

Reserves - The portion of an identified resource in which an energy matter or utility can be economically and legally extracted at the time of its determination.

The definitions of the terms measured, indicated and inferred are applicable to both Reserves and Resources, according to the degree of detailing of the works performed:

Measured - Material for which quality and quantity estimates were computed with an error margin of less than 20%, through detailed geological works, sampling, and systematic and representative analyses

Indicated - Material for which the quality and quantity estimates were partially computed through detailed geological works, sampling and systematic and representative analyses.

Inferred - Material for which the quality and quantity estimates are based on some evidences and geological projections only.

8.2. RECURSOS E RESERVAS DE ENERGIA DISTRIBUÍDOS PELO ESTADO DE SÃO PAULO

8.2.1. Hidroeletricidade

Entende-se por potencial hidrelétrico o potencial possível de ser aproveitado nas condições atuais da tecnologia.

O potencial hidrelétrico é medido em termos de energia firme, que é a geração máxima contínua na hipótese de repetição futura do período hidrológico crítico, ou da energia assegurada, definida a partir da garantia de suprimento estabelecido nos critérios de cálculo do setor elétrico.

8.2.2 Potencial Remanescente – PCHs

(Possibilidade de Novos Empreendimentos)

São consideradas Pequenas Centrais Hidrelétricas - PCHs, os empreendimentos hidroelétricos com potência superior a 1.000 kW e igual ou inferior a 30.000 kW e com área total de reservatório igual ou inferior a 3,0 km². O empreendimento que não atender a condição de área máxima inundada poderá, consideradas as especificidades regionais, ser também enquadrado na condição de Pequena Central Hidrelétrica com base em parecer técnico, que contemple, entre outros, aspectos os econômicos e socioambientais.

As usinas com potência instalada de até 1.000 kW são denominadas de Centrais Geradoras Hidrelétricas – CGHs e necessitam apenas de um simples registro para funcionar (as PCHs dependem de autorização da ANEEL).

O desenvolvimento deste trabalho foi baseado nas bacias hidrográficas encontradas no Estado (figura 1), onde foram identificadas e analisadas suas características geológicas e ambientais, os estágios de desenvolvimento dos empreendimentos já identificados (inventário / viabilidade / projeto básico) e determinadas as hipóteses de implantação para as 11 sub-bacias com potencial.

8.2. RESOURCES AND ENERGY RESERVES, DISTRIBUTED THROUGHOUT THE STATE OF SAO PAULO

8.2.1. Hydroelectricity

By hydroelectric potential is meant the potential that can be used according to the state of the art.

The hydroelectric potential is measured in terms of firm energy, which is the maximum continuous generation, in the event of a future repetition of the critical hydrological period, or the assured energy defined on the basis of the supply guarantee established according to the calculation criteria adopted by the electric sector.

8.2.2 Potential Remnant - PCH

(Possibility of New Ventures)

Are considered Small Hydropower - PCH, the hydroelectric projects with more than 1,000 kW and less than or equal to 30,000 kW and a reservoir area less than or equal to 3.0 km². The business that does not meet the condition of maximum flooded area may be considered regional specificities also be framed in Small Hydropower condition based on expert opinion involving, among others, economic and environmental aspects.

Plants with installed capacity of up to 1,000 kW are called Central Generating Plants - CGHs and require only a simple registry to function (SHPs depend authorization of ANEEL).

The development of this work was based on river basins found in the state (Figure 1), which were identified and analyzed its geological and environmental characteristics, developmental stages of projects already identified (inventory / viability / basic design) and certain assumptions deployment for the 11 sub-basins with potential.

Bacias Hidrográficas do Estado de São Paulo

Drainage Basin of State of São Paulo



Possibilidade de Novos Empreendimentos / Possibility of New Ventures

Sub-bacia - Alto Pardo e Baixo Pardo / Sub-basin - Alto Pardo and Baixo Pardo		
Rio Alto Pardo / River Alto Pardo		
	Número de Empreendimentos Number of enterprises	Potência (MW) Hydropower Potential (MW)
Inventário / Inventory	8	23,50
Viabilidade / Practicability	4	166,45
Projeto Básico / Basic Design	2	47,00
Sub-bacia - Alto Pardo e Baixo Pardo / Sub-basin - Alto Pardo and Baixo Pardo		
Rio Baixo Pardo / River Baixo Pardo		
	Número de Empreendimentos Number of enterprises	Potência (MW) Hydropower Potential (MW)
Inventário / Inventory	1	67,00
Viabilidade / Practicability	3	160,50
Projeto Básico / Basic Design	1	1,32
Sub-bacia - Turvo e Sapucaí / Sub-basin - Turvo and Sapucaí		
Rio do Turvo / River Turvo		
	Número de Empreendimentos Number of enterprises	Potência (MW) Hydropower Potential (MW)
Inventário / Inventory	-	-
Viabilidade / Practicability	2	28,00
Projeto Básico / Basic Design	-	-

Sub-bacia - Turvo e Sapucaí / <i>Sub-basin - Turvo and Sapucaí</i>		
Rio Sapucaí / <i>River Sapucaí</i>		
	Número de Empreendimentos <i>Number of enterprises</i>	Potência (MW) <i>Hydropower Potential (MW)</i>
Inventário / <i>Inventory</i>	-	-
Viabilidade / <i>Practicability</i>	6	129,17
Projeto Básico / <i>Basic Design</i>	2	38,68
Sub-bacia - Mogi Guaçu / <i>Sub-basin - Mogi Guaçu</i>		
	Número de Empreendimentos <i>Number of enterprises</i>	Potência (MW) <i>Hydropower Potential (MW)</i>
Inventário / <i>Inventory</i>	3	6,30
Viabilidade / <i>Practicability</i>	4	15,75
Projeto Básico / <i>Basic Design</i>	-	-
Sub-bacia - Jacaré Pepira e Sorocaba/Piracicaba / <i>Sub-basin - Jacaré Pepira e Sorocaba/Piracicaba</i>		
Rio Jacaré-Pepira / <i>River Jacaré Pepira</i>		
	Número de Empreendimentos <i>Number of enterprises</i>	Potência (MW) <i>Hydropower Potential (MW)</i>
Inventário / <i>Inventory</i>	5	1,20
Viabilidade / <i>Practicability</i>	-	-
Projeto Básico / <i>Basic Design</i>	-	-
Sub-bacia - Alto e Médio Paranapanema/ <i>Sub-basin - Alto e Médio Paranapanema</i>		
Rio Alto Paranapanema - Turvo / <i>River Alto Paranapanema - Turvo</i>		
	Número de Empreendimentos <i>Number of enterprises</i>	Potência (MW) <i>Hydropower Potential (MW)</i>
Inventário / <i>Inventory</i>	2	28,16
Viabilidade / <i>Practicability</i>	-	-
Projeto Básico / <i>Basic Design</i>	-	-
Sub-bacia - Alto e Médio Paranapanema/ <i>Sub-basin - Alto e Médio Paranapanema</i>		
Rio Médio Paranapanema - Pardo / <i>River Médio Paranapanema - Pardo</i>		
	Número de Empreendimentos <i>Number of enterprises</i>	Potência (MW) <i>Hydropower Potential (MW)</i>
Inventário / <i>Inventory</i>	8	132,34
Viabilidade / <i>Practicability</i>	-	-
Projeto Básico / <i>Basic Design</i>	-	-
Sub-bacia - Ribeira do Iguape / <i>Sub-basin - Ribeira do Iguape</i>		
	Número de Empreendimentos <i>Number of enterprises</i>	Potência (MW) <i>Hydropower Potential (MW)</i>
Inventário / <i>Inventory</i>	2	35,50
Viabilidade / <i>Practicability</i>	2	159,75
Projeto Básico / <i>Basic Design</i>	2	228,00

Sub-bacia - Paraíba do Sul / <i>Sub-basin - Paraíba do Sul</i>		
	Número de Empreendimentos <i>Number of enterprises</i>	Potência (MW) <i>Hydropower Potential (MW)</i>
Inventário / <i>Inventory</i>	17	262,57
Viabilidade / <i>Practicability</i>	1	7,00
Projeto Básico / <i>Basic Design</i>	2	57,93
Sub-bacia - Jacaré Pepira e Sorocaba/Piracicaba/ <i>Sub-basin - Jacaré Pepira and Sorocaba/Piracicaba</i>		
Rio Sorocaba-Piracicaba / <i>River Sorocaba-Piracicaba</i>		
	Número de Empreendimentos <i>Number of enterprises</i>	Potência (MW) <i>Hydropower Potential (MW)</i>
Inventário / <i>Inventory</i>	17	167,42
Viabilidade / <i>Practicability</i>	4	112,2
Projeto Básico / <i>Basic Design</i>	-	-

Fonte: SEE / Concremat

Total: 98 empreendimentos - 1800 MW / Total: 98 projects - 1800 MW

8.2.3. BIOMASSA FLORESTAL

Uma avaliação da disponibilidade desse insumo pode ser realizada através da quantidade de massa vegetal incorporada em média por ano. Daí originam-se as definições dos potenciais envolvidos, informados na tabela 8.2.3.1.

8.2.3. FOREST BIOMASS

An assessment of the availability of this energy input can be made by using the annual average volume of incorporated vegetal mass. This procedure will result in the definition of the potentials involved as shown in Table 8.2.3.1.

Tabela 8.2.3.1. Cobertura Vegetal

Tabela 8.2.3.1. Vegetal Coverage

VEGETAÇÃO / <i>VEGETATION</i>		ÁREA <i>AREA (ha)</i>
ÁREA DE PASTAGEM <i>PASTURE AREA</i>	PASTO NATURAL <i>NATURAL PASTURE LAND</i>	948.683
	PASTO CULTIVADO <i>CULTIVATED PASTURE LAND</i>	5.749.570
	CAPIM PARA SEMENTE <i>GRASS FOR SEEDS</i>	27.511
CERRADÃO / <i>CERRADÃO</i>		281.844,9
CERRADO / <i>CERRADO</i>		301.195,1
EUCALIPTUS / <i>EUCALYPTUS</i>		1.016.516,3
PINUS / <i>PINUS</i>		140.460,4
MATA NATURAL / <i>NATURAL FOREST</i>		2.725.025,7
OUTROS / <i>OTHERS</i>		0
CULTURAS PERENES / <i>PERENNIAL CULTURES</i>		957.166
CULTURAS SEMI-PERENES / <i>SEMIPERENNIAL CULTURES</i>		6.280.802
CULTURAS ANUAIS / <i>ANNUAL CULTURES</i>		2.087.739
TOTAL / <i>TOTAL</i>		20.516.513

Fonte: Instituto de Economia Agrícola / *Source: Instituto de Economia Agrícola*

8.2.4. Energia Eólica

A partir de estudo coordenado pela Secretaria de Energia do Estado de São Paulo, foi elaborado o Atlas Eólico do Estado de São Paulo – 2013, cujo potencial eólico total do estado, para uma altura de 100 m e velocidades de vento acima de 6,5 m/s, foi calculado em aproximadamente 4.734 MW, ocupando uma área de 1.134 Km², com uma estimativa de geração anual de quase 13.000 GWh e um fator de capacidade médio de 31,3%.

Caso o cálculo seja feito utilizando todas as áreas com velocidade igual ou superior a 6 m/s, o potencial eólico total do estado de São Paulo, a 100 m de altura, passa a ser de aproximadamente 30.891 MW, com uma estimativa de geração anual de 71.918 GW e um fator de capacidade médio de 26,6%.

A tabela abaixo apresenta o resultado do cálculo do potencial eólico de São Paulo para 100 m de altura.

8.2.4. Wind Power

From coordinated by the Department of Energy of the State of São Paulo study, the Wind Atlas of the State of São Paulo was established - in 2013, the total wind energy potential of the state, to a height of 100 m and wind speeds above 6.5 m / s, was estimated at approximately 4,734 MW, occupying an area of 1,134 km², with an estimated annual generation of nearly 13,000 GWh and average capacity factor of 31.3%.

If the calculation is made using all areas with speed equal to or greater than 6 m / s, the total wind energy potential of the state of São Paulo, 100 m in height, shall be approximately 30,891 MW, with an estimated annual generation of 71,918 GW and average capacity factor of 26.6%.

The table below shows the calculation result of the wind potential of São Paulo to 100 m high.

8.2.4.1. Potencial eólico total, considerando uma velocidade de vento mínima

8.2.4.1. The total wind potential, considering a minimum wind speed

Velocidade (V) do Vento Velocity(V) of Wind	Área (km ²) Area (km ²)	Potência Instalável (MW)	Energia Anual (GW) Annual Energy (GW)	Fator de Capacidade (%) Capacity Factor (%)
V ≤ 6,0	7.420	30.891	71.918	26,6
V ≤ 6,5	1.134	4.734	13.000	31,3
V ≤ 7,0	129	543	1.679	35,3
V ≤ 7,5	5	21	74	40

Fonte: Atlas Eólico do Estado de São Paulo
Source: Wind Atlas of the State of São Paulo

8.2.4.2. Potencial por faixa de velocidade

8.2.4.2. Potential for speed range

Velocidade (V) do Vento Velocity(V) of Wind	Área (km ²) Area (km ²)	Potência Instalável (MW)	Energia Anual (GW) Annual Energy (GW)	Fator de Capacidade (%) Capacity Factor (%)
6,0 V ≤ 6,5	6.286	26.157	58.918	30,8
6,5 V ≤ 7,0	1.000	4.170	11.247	30,8
7,0 V ≤ 7,5	129	543	1.679	35.3
V ≤ 7,5	5	21	74	40

ATLAS EÓLICO
DO ESTADO DE SÃO PAULO

POTENCIAL EÓLICO
VELOCIDADE DO VENTO
A 100m de ALTURA

Potencial eólico estimado a partir de 10 anos (2002-2011) de dados coletados com o objetivo de subsidiar a geração de energia. Os resultados foram obtidos com uma metodologia baseada na Lei de 2009 que estabelece a metodologia de avaliação do potencial eólico. Os dados foram obtidos a partir de dados coletados com o objetivo de subsidiar a geração de energia.

LEGENDA

- Aeroporto
- ▲ Torre Aeronométrica
- ▬ Rodovias
- ▬ Linha Ferroviária
- ▬ Linha Rodoviária
- ▬ Hidrografia
- ▬ Foz de Rio
- ▬ Barragem
- ▬ Estação de Tratamento de Água
- ▬ Estação de Tratamento de Esgoto
- ▬ Estação de Tratamento de Resíduos Sólidos

Linhas de Transmissão | Tensão

- ▬ 600 kV
- ▬ 500 kV
- ▬ 400 kV
- ▬ 300 kV
- ▬ 200 kV
- ▬ 150 kV
- ▬ 138 kV
- ▬ 110 kV
- ▬ 66 kV
- ▬ 33 kV
- ▬ 15 kV
- ▬ 10 kV
- ▬ 7,5 kV
- ▬ 4,4 kV
- ▬ 3,3 kV
- ▬ 2,2 kV
- ▬ 1,1 kV
- ▬ 0,6 kV
- ▬ 0,3 kV
- ▬ 0,15 kV
- ▬ 0,075 kV
- ▬ 0,0375 kV
- ▬ 0,01875 kV
- ▬ 0,009375 kV
- ▬ 0,0046875 kV
- ▬ 0,00234375 kV
- ▬ 0,001171875 kV
- ▬ 0,0005859375 kV
- ▬ 0,00029296875 kV
- ▬ 0,000146484375 kV
- ▬ 0,0000732421875 kV
- ▬ 0,00003662109375 kV
- ▬ 0,000018310546875 kV
- ▬ 0,0000091552734375 kV
- ▬ 0,00000457763671875 kV
- ▬ 0,000002288818359375 kV
- ▬ 0,0000011444091796875 kV
- ▬ 0,00000057220458984375 kV
- ▬ 0,000000286102294921875 kV
- ▬ 0,0000001430511474609375 kV
- ▬ 0,00000007152557373046875 kV
- ▬ 0,000000035762786865234375 kV
- ▬ 0,0000000178813934326171875 kV
- ▬ 0,00000000894069671630859375 kV
- ▬ 0,000000004470348358154296875 kV
- ▬ 0,0000000022351741790771484375 kV
- ▬ 0,00000000111758708953857421875 kV
- ▬ 0,000000000558793544769287109375 kV
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- ▬ 0,00000000013969838619232177734375 kV
- ▬ 0,000000000069849193096160888671875 kV
- ▬ 0,0000000000349245965480804443359375 kV
- ▬ 0,00000000001746229827404022216796875 kV
- ▬ 0,000000000008731149137020111083984375 kV
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- ▬ 0,00000000000218278728425502777099609375 kV
- ▬ 0,000000000001091393642127513885498046875 kV
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- ▬ 0,00000000000027284841053187834637451171875 kV
- ▬ 0,000000000000136424205265939173187255859375 kV
- ▬ 0,0000000000000682121026329695865936279296875 kV
- ▬ 0,00000000000003410605131648479329681396484375 kV
- ▬ 0,000000000000017053025658242396648406982421875 kV
- ▬ 0,00000000000000852651282912214832420349412109375 kV
- ▬ 0,0000000000000042632564145610741621017470609375 kV
- ▬ 0,00000000000000213162820728053708105087353046875 kV
- ▬ 0,000000000000001065814103640268540525386765234375 kV
- ▬ 0,0000000000000005329070518201342702626933826196875 kV
- ▬ 0,000000000000000266453525910067135131346691309375 kV
- ▬ 0,00000000000000013322676295503356756567334565234375 kV
- ▬ 0,000000000000000066613381477516783782836672826196875 kV
- ▬ 0,00000000000000003330669073875839189141833641309375 kV
- ▬ 0,000000000000000016653345369379195945709168206546875 kV
- ▬ 0,0000000000000000083266726846895979728545584102734375 kV
- ▬ 0,00000000000000000416333634234479898642727920513696875 kV
- ▬ 0,0000000000000000020816681711723994932136396025684375 kV
- ▬ 0,00000000000000000104083408558619974660681980128421875 kV
- ▬ 0,000000000000000000520417042793099873303409900642109375 kV
- ▬ 0,000000000000000000260208521396549936651704950321046875 kV
- ▬ 0,0000000000000000001301042606982749683258524751605234375 kV
- ▬ 0,00000000000000000006505213034913748416292623758026196875 kV
- ▬ 0,0000000000000000000325260651745687420814631187901309375 kV
- ▬ 0,00000000000000000001626303258728437104073155939506546875 kV
- ▬ 0,000000000000000000008131516293642185520365779697532734375 kV
- ▬ 0,0000000000000000000040657581468209277601828898487663696875 kV
- ▬ 0,000000000000000000002032879073410463880091444922438184375 kV
- ▬ 0,00000000000000000000101643953670523194004572246121909375 kV
- ▬ 0,000000000000000000000508219768352615970022861230609546875 kV
- ▬ 0,0000000000000000000002541098841763079850114306153047734375 kV
- ▬ 0,00000000000000000000012705494208815

Based on these considerations, we obtain the following table:

8.2.5.1. Viabilidade Técnica-Econômica

8.2.5.1. Technical and Economic Feasibility

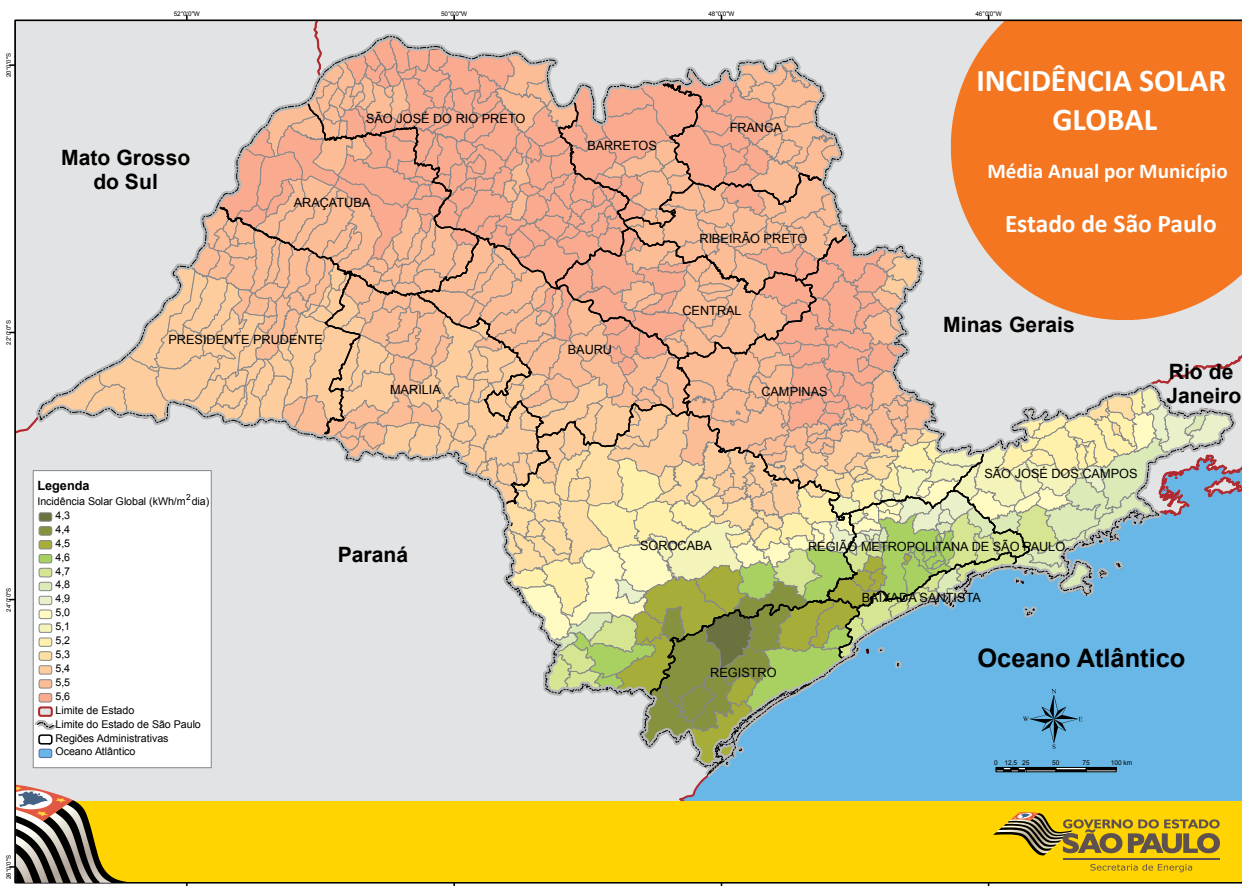
Potencial/ <i>Potential</i>	9.100 MWp
Área/ <i>Areas</i>	732 km ²
Energia/ <i>Energy</i>	12.085.166 MWh/ano / <i>year</i>

A seguir é apresentado o mapa de Incidência Global Média Anual – Municípios do Estado de São Paulo:

Following the map of Global Average Annual Incidence is presented - Municipalities of the State of São Paulo:

Incidência Solar Global - Média Anual

Global Solar Incidence



8.2.6. Gás Natural

As reservas provadas de Óleo e Gás Natural no Estado de São Paulo se restringem à Bacia de Santos, localizada entre o Arraial do Cabo (RJ) e Florianópolis (SC). A situação das mesmas apresenta a seguinte configuração:

8.2.6. Natural Gas

The proven reserves of oil and natural gas in the State of São Paulo are restricted to the Santos Basin, between Arraial do Cabo (RJ) and Florianópolis (SC). The configuration of these basins is as follows:

8.2.6.1. Reservas Provasdas**8.2.6.1. Proven Reserves**

		2013	2014
Petróleo <i>Petroleum</i>	(milhões de barris) <i>(million barrels)</i>	613,04	605,88
Gás Natural <i>Natural Gas</i>	(milhões de m ³) <i>(million m³)</i>	56.406,02	54.418,45

Fonte: Boletins Anuais da Superintendência de Desenvolvimento da Produção – SDP/ANP, conforme a Portaria ANP nº 9/00.

Source: Annual Bulletins of the Superintendência de Desenvolvimento da Produção – SDP/ANP, as per ANP's No. 9/00.

As reservas do campo de Sapinhoá estão apropriadas totalmente no Estado de São Paulo.

The reserves of the field Sapinhoá are totally appropriate in São Paulo.

Capítulo 09

Anexos



Chapter 09

Annexes

9.1. Setor Sucroalcoleiro

9.1. Sugar Cane Sector

Tabela 9.1.1. Produção de Cana-de-Açúcar Moída por Região Administrativa
Table 9.1.1. Production of Sugar Cane Ground by Administrative Region

10³ t

REGIÃO / Region	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Araçatuba	20103	21563	27530	37032	37327	37438	26589	29071	36799	34094
Baixada Santista	0	0	0	0	0	0	0	0	0	0
Barretos	20162	21917	23042	26419	27943	30812	26012	28252	30827	29154
Bauru	24834	26515	30307	36230	33853	32811	28223	29815	32772	31471
Campinas	31401	33527	38100	39146	36895	42288	31798	33591	39792	34953
Central	16448	16901	18180	18699	19600	16687	17752	19488	18680	15961
Franca	20387	20223	20849	23067	23296	24711	20506	22398	24894	24697
Marília	16362	19276	23932	24724	32591	31527	28290	27745	29297	25653
Presidente Prudente	7806	13236	11547	16269	20256	21431	19805	20040	22997	21555
Registro	0	0	0	0	0	0	0	0	0	0
Ribeirão Preto	52369	51024	53874	58909	56769	56616	44656	50171	54007	48682
São Paulo	0	0	0	0	0	0	0	0	0	0
São José dos Campos	0	0	0	0	0	0	0	0	0	0
São José do Rio Preto	27989	34783	40819	56183	60147	54491	47818	55550	64403	61266
Sorocaba	4967	5372	8133	9616	12585	12538	12782	13803	12857	10294
Total	242829	264337	296314	346293	361261	361350	304230	329923	367325	337780

Fonte: UNICA - União da Indústria Canavieira do Estado de São Paulo
Source: UNICA - Sugarcane Industry Association

Tabela 9.1.2. Produção de Etanol Anidro por Região Administrativa
Table 9.1.2. Production of Anhydrous Ethanol by Administrative Region

10³ m³

REGIÃO / Region	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Araçatuba	478	417	441	398	421	538	496	578	882	719
Baixada Santista	0	0	0	0	0	0	0	0	0	0
Barretos	440	334	257	261	182	271	216	233	381	336
Bauru	645	699	694	778	467	594	560	624	757	753
Campinas	547	560	581	588	357	478	400	470	524	438
Central	329	182	155	121	88	134	198	203	173	172
Franca	555	581	518	595	491	522	363	540	678	665
Marília	305	329	377	429	189	227	248	253	389	377
Presidente Prudente	97	261	200	261	183	241	245	306	451	439
Registro	0	0	0	0	0	0	0	0	0	0
Ribeirão Preto	1323	1237	1009	1323	1051	1189	844	1013	1209	1107
São Paulo	0	0	0	0	0	0	0	0	0	0
São José dos Campos	0	0	0	0	0	0	0	0	0	0
São José do Rio Preto	620	656	662	1158	747	838	1022	1196	1324	1334
Sorocaba	85	19	53	95	50	85	162	184	190	148
Total	5423	5275	4946	6007	4226	5117	4755	5601	6958	6488

Fonte: UNICA - União da Indústria Canavieira do Estado de São Paulo
Source: UNICA - Sugarcane Industry Association

Tabela 9.1.3. Produção de Etanol Hidratado por Região Administrativa
Table 9.1.3. Production of Hydrated Ethanol by Administrative Region

10³ m³

REGIÃO / Region	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Araçatuba	414	598	884	1661	1550	1450	772	757	899	1015
Baixada Santista	0	0	0	0	0	0	0	0	0	0
Barretos	267	417	600	762	789	826	572	581	564	714
Bauru	448	489	800	1130	1085	883	628	553	533	550
Campinas	451	500	762	877	816	843	455	411	621	642
Central	276	459	609	770	625	473	413	434	500	431
Franca	345	369	476	513	472	582	414	279	309	408
Marília	344	459	647	638	1118	1025	765	683	620	493
Presidente Prudente	304	369	450	673	847	975	861	596	583	571
Registro	0	0	0	0	0	0	0	0	0	0
Ribeirão Preto	916	962	1485	1494	1080	1115	758	702	803	836
São Paulo	0	0	0	0	0	0	0	0	0	0
São José dos Campos	0	0	0	0	0	0	0	0	0	0
São José do Rio Preto	638	819	1310	1799	1713	1512	846	879	1200	1330
Sorocaba	120	239	376	398	590	552	358	359	349	286
Total	4522	5679	8399	10716	10687	10237	6482	6235	6980	7276

Fonte: UNICA - União da Indústria Canavieira do Estado de São Paulo
Source: UNICA - Sugarcane Industry Association

Tabela 9.1.4. Produção de Açúcar por Região Administrativa
Table 9.1.4. Production of Sugar by Administrative Region

10³ Sac

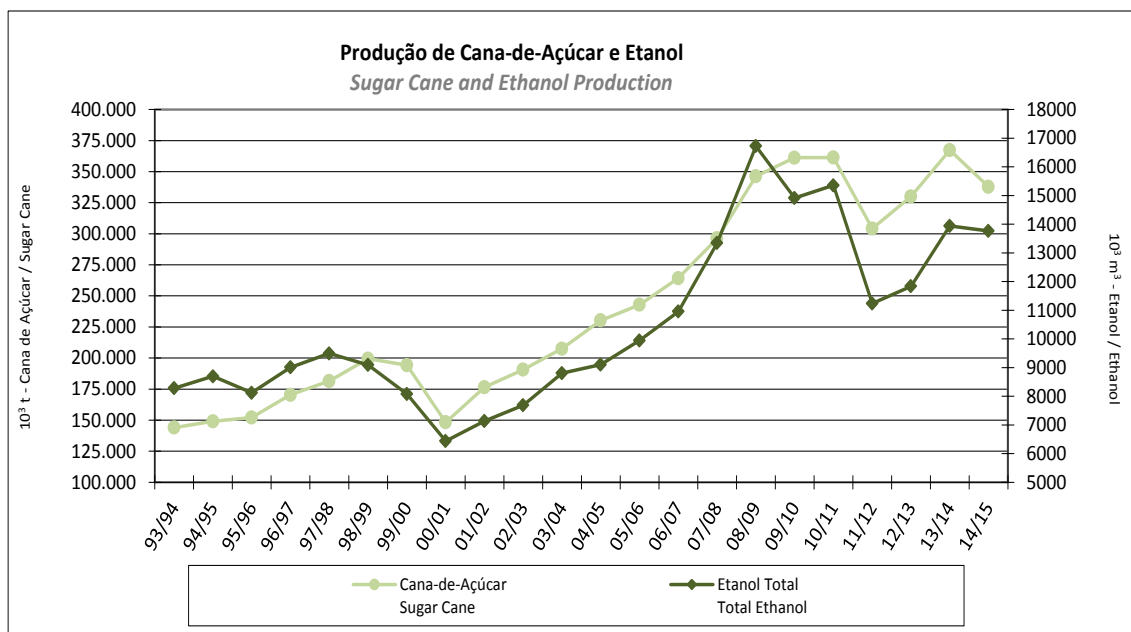
REGIÃO / Region	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Araçatuba	414	598	884	1661	1550	1450	772	757	n.d.	625
Baixada Santista	0	0	0	0	0	0	0	0	n.d.	0
Barretos	267	417	600	762	789	826	572	581	n.d.	917
Bauru	448	489	800	1130	1085	883	628	553	n.d.	799
Campinas	451	500	762	877	816	843	455	411	n.d.	1034
Central	276	459	609	770	625	473	413	434	n.d.	446
Franca	345	369	476	513	472	582	414	279	n.d.	629
Marília	344	459	647	638	1118	1025	765	683	n.d.	724
Presidente Prudente	304	369	450	673	847	975	861	596	n.d.	443
Registro	0	0	0	0	0	0	0	0	n.d.	0
Ribeirão Preto	916	962	1485	1494	1080	1115	758	702	n.d.	1400
São Paulo	0	0	0	0	0	0	0	0	n.d.	0
São José dos Campos	0	0	0	0	0	0	0	0	n.d.	0
São José do Rio Preto	638	819	1310	1799	1713	1512	846	879	n.d.	1518
Sorocaba	120	239	376	398	590	552	358	359	n.d.	229
Total	4522	5679	8399	10716	10687	10237	6482	6235	n.d.	8764

Fonte: UNICA - União da Indústria Canavieira do Estado de São Paulo
Source: UNICA - Sugarcane Industry Association

Tabela 9.1.4. Série Histórica - Produção de Cana-de-Açúcar e Derivados
Table 9.1.4. Historical Series - Sugar Cane and By-Products Production

	Cana-de-Açúcar Sugar Cane	Etanol Anidro Anydrous Ethanol	Etanol Hidratado Hydrated Ethanol	Etanol Total Total Ethanol	Açúcar Sugar
Safra / Harvest	(10 ³ t)	(10 ³ m ³)	(10 ³ m ³)	(10 ³ m ³)	(10 ³ Sacas / Sac)
90/91	130.657	941	6.977	7.918	69.460
91/92	137.281	1.526	7.013	8.539	91.297
92/93	136.592	1.714	6.213	7.927	98.817
93/94	143.995	2.157	6.122	8.279	111.948
94/95	149.113	2.311	6.386	8.697	134.115
95/96	152.097	2.248	5.875	8.123	144.882
96/97	170.424	3133	5.875	9.008	159.390
97/98	181.511	3.581	5.913	9.494	174.336
98/99	199.521	3.392	5.697	9.089	236.550
99/00	194.234	3.563	4.518	8.081	251.713
00/01	148.256	3.555	2.884	6.439	193.510
01/02	176.574	4.255	2.880	7.135	247.005
02/03	190.628	4.590	3.100	7.690	283.667
03/04	207.573	5.935	2.872	8.807	303.437
04/05	230.310	5321	3.783	9.104	330.327
05/06	242.829	5.423	4.522	9.945	335.268
06/07	264.337	5.275	5.679	10.954	390.061
07/08	296.314	4.946	8.399	13.345	382.158
08/09	346.293	6.007	10.716	16.723	393.256
09/10	361.261	4.226	10.687	14.913	414.587
10/11	361.350	5.117	10.237	15.354	422.884
11/12	304.230	4.755	6.482	11.237	421.359
12/13	329.923	5.601	6.235	11.836	465.787
13/14	367.325	6.958	6.980	13.938	479.300
14/15	337.780	6.488	7.276	13.764	438.183

Fonte: UNICA - União da Indústria Canavieira do Estado de São Paulo
Source: UNICA - Sugarcane Industry Association



9.2. Eletricidade

9.2. Electricity

Tabela 9.2.1. Balanço de Energia Elétrica do Estado
Table 9.2.1. Electric Energy Balance of the State
GWh

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	
Energia Gerada	64502	68140	67256	69172	70162	73481	70079	74018	67674	54558	Electrical Generation
Cesp (*)	37899	42896	41203	41139	39831	40947	41056	42353	35946	29471	Cesp (*)
AES Tietê (*)	12852	12475	13518	13236	14521	13978	13833	13948	13080	7667	AES Tietê (*)
Duke Energy (*)	11149	10101	9972	10974	12602	13471	12012	12470	12650	11195	Duke Energy (*)
Eletropaulo / EMAE (**)	1329	1385	1338	2391	1632	3479	1734	3801	4590	5157	Eletropaulo / EMAE (**)
CPFL	462	348	374	486	517	480	477	444	399	172	CPFL
Outras	811	935	851	946	1059	1126	967	1002	1009	896	Others
Energia Recebida	58342	61518	65759	64929	62995	67679	74250	69420	75468	85267	Import Energy
Disponível para consumo (***)	124699	131754	133015	134101	133157	141160	144329	143438	143.142	139.825	Availability for consumption(***)

(*) Em 1999, houve a cisão da CESP - Companhia Energética de São Paulo, resultando em 3 empresas de geração de energia elétrica, de acordo com a localização de suas usinas. A empresa com usinas no rio Paranapanema foi privatizada em 28/07/1999, passando a chamar-se Duke Energy. A empresa com usinas no rio Tietê, foi privatizada em 27/10/1999, passando a denominar-se AES Tietê. A empresa com usinas no rio Paraná continua com o seu nome de origem CESP.
In 1999, there was a division of CESP - Company Energy São Paulo, resulting in 3 companies for the generation of electric energy, in accordance with location of their plants. The company with plants in the Paranapanema river was privatised in 07-28-1999, from the draw-if Duke Energy. The company with plants in river tietê, was privatised in 10-27-1999, renamed-if AES tietê. The company with plants in Paraná river continues with its name of origin CESP.

(**) A partir de 1999, as usinas de geração de energia elétrica da ELETROPAULO passaram a ser patrimônio da EMAE.
From 1999, the plants of electricity generation of ELETROPAULO became the patrimony of EMAE.

(***) Energia Gerada + Energia Recebida / Electrical Generation + Import Energy

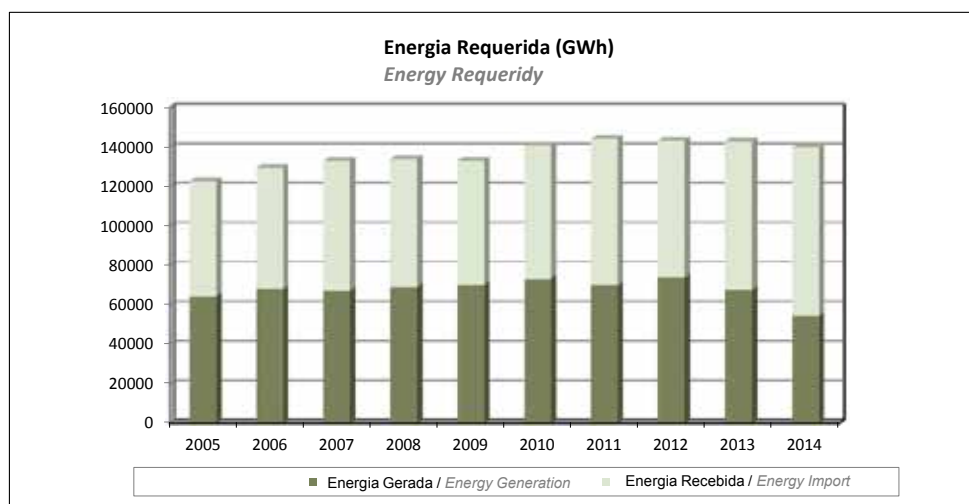


Tabela 9.2.2. Série Histórica - Consumo de Eletricidade (*)
Table 9.2.2. Historical Series - Electricity Consumption (*)
GWh

ANO YEAR	Residencial Residential	Industrial Industrial	Comercial Commercial	Outros Others	Total Total
1977	6.887	19.183	3.740	3.986	33.796
1978	7.535	21.320	4.007	4.696	37.558
1979	8.338	23.332	4.381	5.193	41.244
1980	9.030	25.308	4.717	5.713	44.768
1981	9.587	24.550	4.910	6.186	45.233
1982	10.174	25.194	5.188	6.532	47.088
1983	11.020	26.322	5.582	6.626	49.550
1984	11.291	32.033	5.937	7.053	56.314
1985	11.937	36.464	6.282	7.480	62.163
1986	12.862	36.705	6.593	7.852	64.012
1987	13.820	35.583	6.864	8.186	64.453
1988	14.493	37.840	7.183	8.650	68.166
1989	15.361	39.387	7.528	8.855	71.131
1990	16.537	36.843	8.028	8.941	70.349
1991	17.655	37.099	8.404	9.420	72.578
1992	18.003	36.627	8.894	9.513	73.037
1993	18.644	38.592	9.449	9.621	76.306
1994	19.510	39.794	9.974	9.942	79.220
1995	21.830	39.630	11.151	10.256	82.867
1996	23.685	38.373	12.068	10.540	84.666
1997	25.072	40.831	13.196	10.916	90.015
1998	26.262	40.227	14.356	11.147	91.992
1999	26.864	40.041	15.141	11.317	93.363
2000	27.536	42.590	16.774	11.425	98.325
2001	23.231	39.258	15.284	10.455	88.228
2002	22.757	40.682	15.345	10.710	89.494
2003	23.816	43.385	16.314	11.319	94.834
2004	24.799	46.762	17.012	11.358	99.931
2005	26.099	47.964	17.867	11.807	103.737
2006	27.679	49.931	18.879	12.224	108.713
2007	29.361	53.127	19.957	12.633	115.078
2008	31.308	54.077	20.783	12.756	118.924
2009	32.878	50.599	21.753	12.829	118.059
2010	34.221	54.466	22.870	13.485	125.042
2011	35.931	55.721	24.261	13.965	129.878
2012	37.694	55.568	25.874	14.386	133.522
2013	38.752	55.435	27.260	14.675	136.122
2014	39.450	52.210	29.598	15.101	136.359

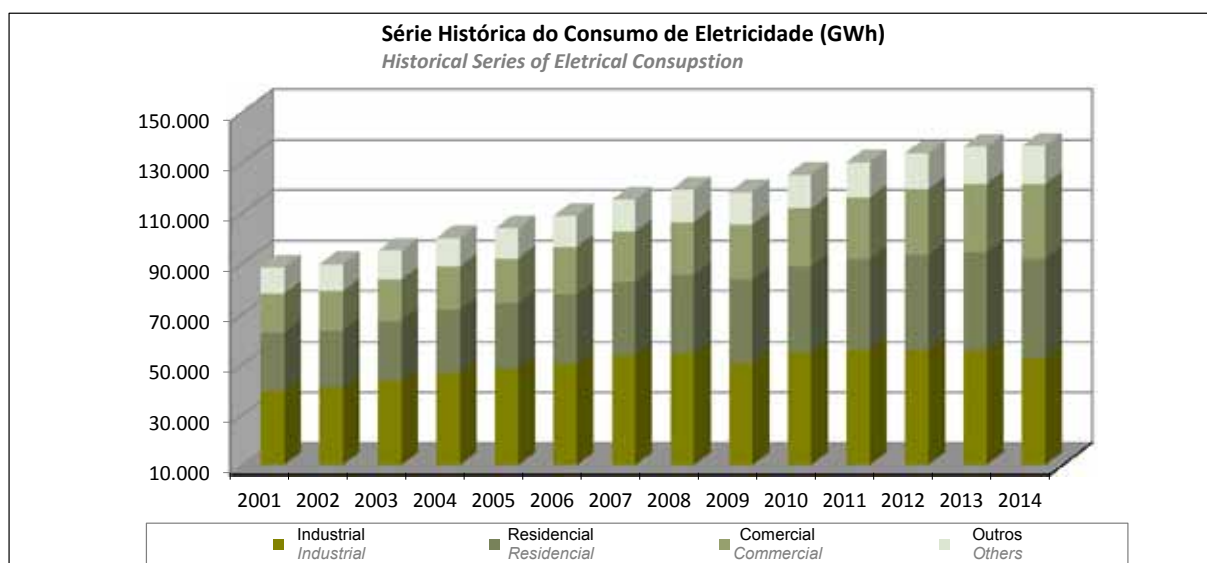
(*)Exclusive Autoprodutores
Out Self Producers


Tabela 9.2.3. Capacidade de Geração Instalada por Concessionária - Hidráulica
Table 9.2.3. Installed Generation Capacity by Concessionaire - Hydraulic
MW

Concessionárias Concessionaire	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Cesp	7.455	7.455	7.455	7.455	7455	7455	7455	7455	7457	6650
AES Tietê	2.651	2.651	2.651	2.651	2651	2651	2651	2658	2658	2658
Duke Energy	2.306	2.306	2.306	2.306	2306	2306	2306	2306	2306	2306
EMAE /Petrobras	1.810	1.810	1.810	1.810	1810	1810	1810	1810	1810	1810
Tijoa	0	0	0	0	0	0	0	0	0	808
CPFL	155	155	155	155	155	155	155	155	155	155
Outras	151	151	151	151	151	151	151	151	151	175
Total do Estado	14.528	14.528	14.528	14.528	14528	14528	14528	14535	14537	14562

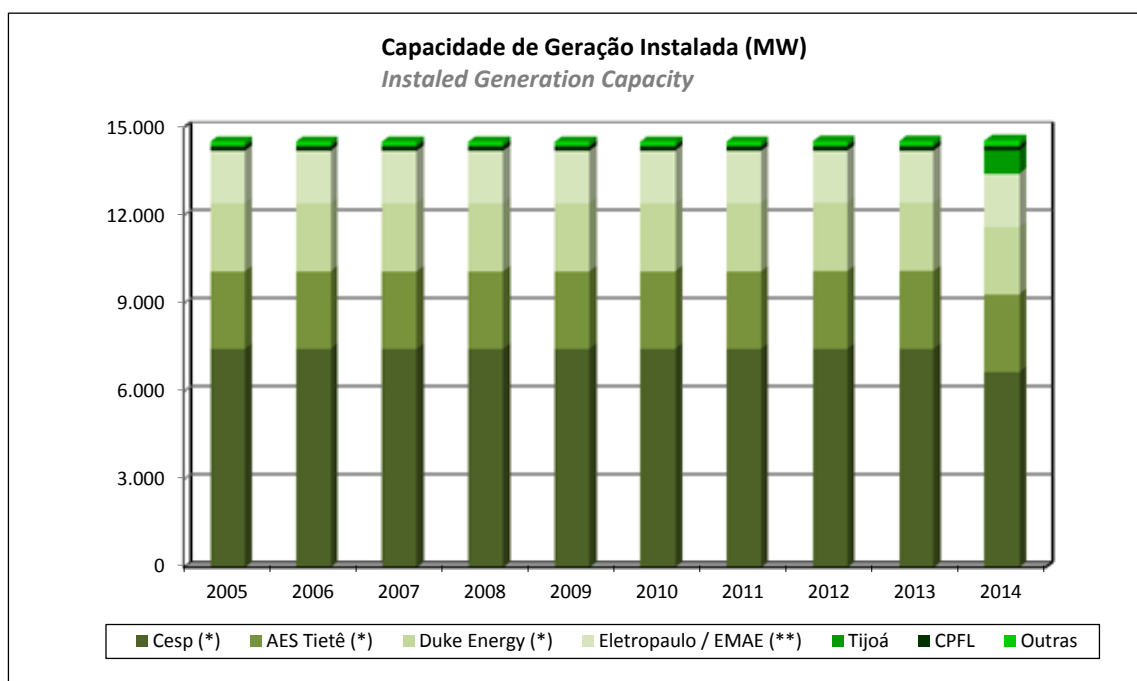


Tabela 9.2.4. Capacidade Instalada de Geração Elétrica de Auto Produtores - 2014
Table 9.2.4. Installed Capacity of Electric Generation Self Producers - 2014
São Paulo

	Energético <i>Energy</i>	Comercial <i>Commercial</i>	Público <i>Public</i>	Agropecuário <i>Agric. and Livestock</i>	Transporte <i>Transportation</i>	Industrial <i>Industrial</i>	Total <i>Total</i>
Hidro / <i>Hydro</i>	0,0	3,4	0,0	2,9	0,0	600,3	606,6
Termo / <i>Thermo</i>	225,3	269,7	36,7	1,1	0,0	6.017,3	6.550,1
Total / <i>Total</i>	225,3	273,1	36,7	4,0	0,0	6.617,6	7.156,7

Fonte: BEN / EPE
Source BEN / EPE

Industrial / Industrial (1)

	Cimento <i>Cement</i>	Ferro-Gusa e Aço <i>Pig Iron and Steel</i>	Ferroligas <i>Irons Alloys</i>	Mineração <i>Mining</i>	Não Ferrosos <i>Non-Ferrous</i>	Alumínio <i>Aluminum</i>	Química <i>Chemical</i>
Hidro / <i>Hydro</i>	11,2	18,8	8,0	46,2	25,1	478,3	0,0
Termo / <i>Thermo</i>	0,0	45,5	0,0	0,0	2,7	0,0	155,3
Total / <i>Total</i>	11,2	64,3	8,0	46,2	27,8	478,3	155,3

Fonte: BEN / EPE
Source BEN / EPE

Industrial / Industrial (2)

	Alimentose Bebidas <i>Food and Beverages</i>	Acúcar e Etanol <i>Sugar Cane and Ethanol</i>	Têxtil <i>Textiles</i>	Papel e Celulose <i>Paper and Pulp</i>	Cerâmica <i>Ceramics</i>	Outros <i>Others</i>	Total Industrial <i>Total</i>
Hidro / <i>Hydro</i>	0,6	4,6	0,0	6,1	0,0	1,4	600,3
Termo / <i>Thermo</i>	80,4	5.286,6	15,8	362,8	2,0	66,2	6.017,3
Total / <i>Total</i>	81,0	5.291,2	15,8	368,9	2,0	67,6	6.617,6

Fonte: BEN / EPE
Source BEN / EPE

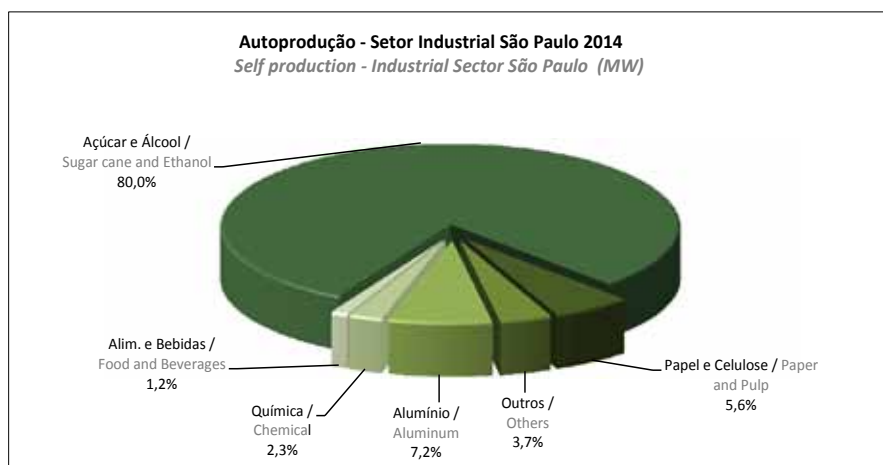


Tabela 9.2.5. Total por Classe - Consumo em GWh
Table 9.2.5. Total by class - Consumption in GWh

Discriminação <i>Discrimination</i>	Anos / Years					
	2009	2010	2011	2012	2013	2014
Residencial / <i>Residential</i>	32.878	34.221	35.931	37.694	38.752	39.450
Acréscimo / <i>Add</i>	1.570	1.343	1.710	1.763	1.058	698
Var. % / <i>Variation %</i>	5,0	4,1	5,0	4,9	2,8	1,8
Industrial / <i>Industrial</i>	50.599	54.466	55.721	55.568	55.435	52.210
A(De)créscimo / <i>Add/Decrease</i>	(3.478)	3.867	1.255	(153)	(133)	(3.225)
Var. % / <i>Variation %</i>	(6,4)	7,6	2,3	(0,3)	(0,2)	(5,8)
Comercial / <i>Commercial</i>	21.753	22.870	24.261	25.874	27.260	29.598
Acréscimo / <i>Add</i>	970	1.117	1.391	1.613	1.386	2.338
Var. % / <i>Variation %</i>	4,7	5,1	6,1	6,6	5,4	8,6
Demais / <i>Others</i>	12.829	13.485	13.965	14.386	14.675	15.101
Acréscimo / <i>Add</i>	73	656	480	421	289	426
Var. % / <i>Variation %</i>	0,6	5,1	3,6	3,0	2,0	2,9
Total / <i>Total</i>	118.059	125.042	129.878	133.522	136.122	136.359
A(De)créscimo / <i>Add/Decrease</i>	(865)	6.983	4.836	3.644	2.600	237
Var. % / <i>Variation %</i>	(0,7)	5,9	3,9	2,8	1,9	0,2

Tabela 9.2.6. Número de Consumidores
Table 9.2.6. Number of Consumers

Discriminação <i>Discrimination</i>	Anos / Years					
	2009	2010	2011	2012	2013	2014
Residencial / <i>Residential</i>	13.803.121	14.179.296	14.664.393	15.059.390	15.550.482	15.909.417
Industrial / <i>Industrial</i>	123.964	125.344	120.267	121.852	123.857	123.999
Comercial / <i>Commercial</i>	1.012.075	1.005.240	1.019.565	1.039.967	1.058.340	1.077.767
Demais / <i>Others</i>	356.072	362.709	371.886	379.725	385.814	390.844
Total / <i>Total</i>	15.295.232	15.672.589	16.176.111	16.600.934	17.118.493	17.502.027

Tabela 9.2.7. Consumo por Consumidor - Média Anual em kWh
Table 9.2.7. Consumption by Consumer - The Average Annual in kWh

Discriminação <i>Discrimination</i>	Anos / Years					
	2009	2010	2011	2012	2013	2014
Residencial / <i>Residential</i>	2.381,9	2.413,4	2.450,2	2.503,0	2.492,0	2.479,7
Industrial / <i>Industrial</i>	408.175,0	434.532,2	463.310,8	456.028,6	447.572,6	421.051,8
Comercial / <i>Commercial</i>	21.493,5	22.750,8	23.795,4	24.879,6	25.757,3	27.462,3
Demais / <i>Others</i>	36.029,2	37.178,6	37.551,8	37.885,3	38.036,5	38.636,9
Total / <i>Total</i>	7.718,7	7.978,4	8.029,0	8.043,0	7.951,8	7.791,0

Tabela 9.2.8. Consumo Mensal de Energia Elétrica - Mercado Total

Table 9.2.8. Monthly Electricity Consumption - Total Market

Mês / Ano Monthly / Year	Valores em GWh Values in GWh					Taxa de Crescimento (%) Growth Rates							
						Residencial Residential		Industrial Industrial		Comercial Commercial		Total Total	
	Residencial Residential	Industrial Industrial	Comercial Commercial	Demais Other	Total Total	Acumulado Accumulated	12 Meses 12 Monthly	Acumulado Accumulated	12 Meses 12 Monthly	Acumulado Accumulated	12 Meses 12 Monthly	Acumulado Accumulated	12 Meses 12 Monthly
jan/12	3.079	4.340	2.089	1.126	10.634	1,1	4,4	1,0	1,5	2,3	5,6	1,3	3,2
fev/12	3.053	4.561	2.127	1.138	10.879	2,2	4,1	1,2	1,4	1,0	4,7	1,6	2,9
mar/12	3.185	4.697	2.303	1.200	11.385	3,7	4,2	1,7	1,4	3,7	5,2	2,8	3,0
abr/12	3.240	4.838	2.307	1.249	11.634	5,4	5,1	1,9	1,5	5,2	5,6	3,8	3,4
mai/12	3.040	4.606	2.064	1.172	10.883	5,2	5,1	1,8	1,6	5,1	5,5	3,7	3,5
jun/12	3.165	4.670	2.062	1.169	11.065	5,7	5,4	1,5	1,4	5,8	5,8	3,8	3,5
jul/12	3.003	4.532	1.922	1.107	10.563	4,9	4,5	0,9	1,1	5,5	5,4	3,1	3,1
ago/12	3.098	4.677	2.004	1.173	10.952	4,6	4,6	0,6	0,9	5,3	5,4	2,8	3,0
set/12	3.218	4.756	2.178	1.305	11.457	4,4	4,3	0,4	0,6	5,5	5,3	2,7	2,7
out/12	3.143	4.688	2.156	1.263	11.251	4,3	4,2	0,2	0,3	5,6	5,2	2,6	2,6
nov/12	3.298	4.734	2.354	1.276	11.662	4,9	4,7	0,1	0,1	6,4	5,9	2,9	2,7
dez/12	3.172	4.469	2.309	1.208	11.157	4,9	4,9	(0,3)	(0,3)	6,7	6,7	2,8	2,8
jan/13	3.338	4.246	2.324	1.194	11.101	8,4	5,5	(2,2)	(0,5)	11,2	7,4	4,4	3,1
fev/13	3.293	4.619	2.292	1.149	11.352	8,1	5,9	(0,4)	(0,5)	9,5	8,1	4,4	3,3
mar/13	3.180	4.565	2.327	1.184	11.256	5,3	5,3	(1,2)	(1,0)	6,5	7,4	2,5	2,7
abr/13	3.225	4.697	2.276	1.208	11.407	3,8	4,4	(1,7)	(1,4)	4,4	6,3	1,3	2,0
mai/13	3.198	4.689	2.192	1.221	11.300	4,1	4,4	(1,0)	(1,4)	4,8	6,5	1,8	2,0
jun/13	3.213	4.605	2.122	1.197	11.138	3,7	3,9	(1,0)	(1,5)	4,5	6,0	1,6	1,7
jul/13	3.162	4.585	2.072	1.181	11.000	3,9	4,3	(0,7)	(1,2)	4,9	6,3	2,0	2,1
ago/13	3.219	4.681	2.068	1.235	11.204	3,9	4,4	(0,6)	(1,1)	4,7	6,2	2,0	2,3
set/13	3.224	4.666	2.231	1.328	11.448	3,5	4,2	(0,8)	(1,1)	4,4	5,8	1,8	2,1
out/13	3.234	4.720	2.331	1.265	11.550	3,4	4,1	(0,6)	(1,0)	4,8	6,0	1,9	2,2
nov/13	3.255	4.784	2.462	1.272	11.774	3,0	3,2	(0,5)	(0,8)	4,8	5,2	1,8	1,8
dez/13	3.211	4.576	2.563	1.241	11.591	2,8	2,8	(0,2)	(0,2)	5,4	5,4	1,9	1,9
jan/14	3.463	4.184	2.600	1.263	11.508	3,7	2,4	(1,5)	(0,2)	11,9	5,5	3,7	1,9
fev/14	3.498	4.544	2.766	1.317	12.125	5,0	2,3	(1,5)	(0,4)	16,2	6,6	5,3	2,1
mar/14	3.317	4.552	2.596	1.245	11.709	4,8	2,7	(1,1)	(0,2)	14,7	7,5	4,8	2,5
abr/14	3.227	4.533	2.527	1.252	11.539	3,6	2,7	(1,7)	(0,3)	13,8	8,6	3,9	2,8
mai/14	3.255	4.442	2.429	1.245	11.371	3,2	2,5	(2,5)	(0,9)	13,2	9,0	3,3	2,6
jun/14	3.058	4.271	2.204	1.197	10.729	1,9	1,9	(3,3)	(1,3)	11,7	9,1	2,1	2,2
jul/14	3.218	4.049	2.210	1.215	10.691	1,9	1,7	(4,5)	(2,4)	11,1	9,0	1,4	1,6
ago/14	3.222	4.302	2.274	1.243	11.042	1,7	1,3	(4,9)	(3,1)	10,9	9,5	1,1	1,3
set/14	3.169	4.257	2.334	1.275	11.035	1,3	1,2	(5,4)	(3,7)	10,2	9,6	0,5	1,0
out/14	3.336	4.228	2.490	1.316	11.371	1,5	1,2	(5,9)	(4,6)	9,9	9,5	0,3	0,7
nov/14	3.422	4.535	2.620	1.301	11.878	1,8	1,8	(5,8)	(5,2)	9,5	9,7	0,4	0,7
dez/14	3.266	4.314	2.548	1.234	11.361	1,8	1,8	(5,8)	(5,8)	8,6	8,6	0,2	0,2

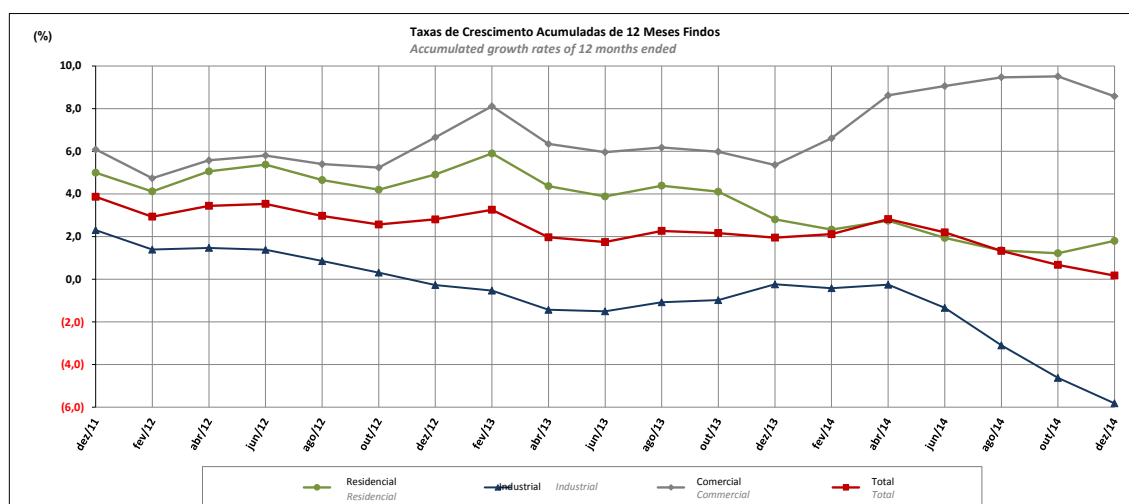
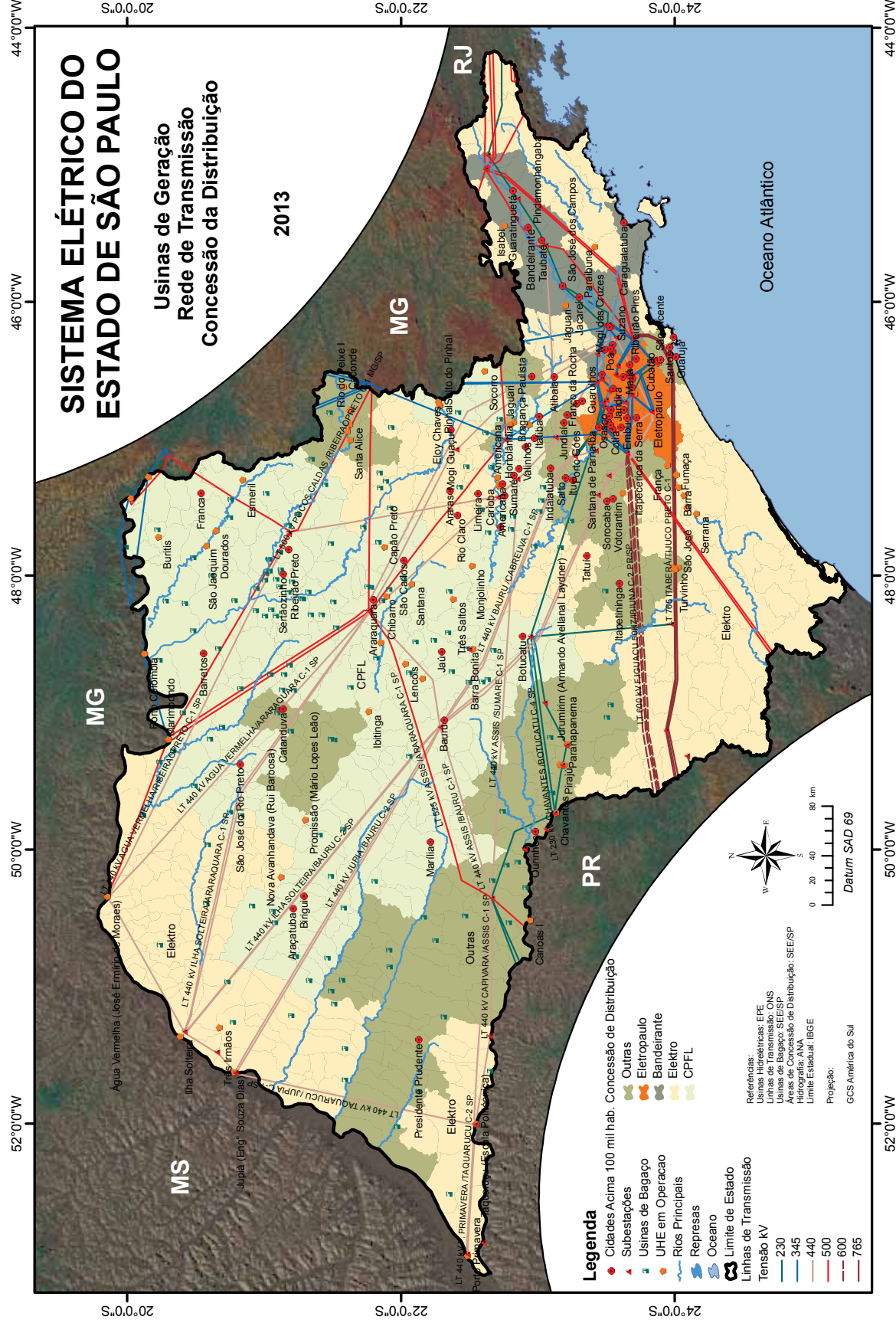


Tabela 9.2.9. Perfil das Concessionárias

Table 9.2.9. Profile of Concessionaries

Discriminação / <i>Discrimination</i>	Unidades / <i>Units</i>	Empresas / <i>Companies</i>							
		Bandeirantes	CPFL Piratininga	CPFL	Elektro (1)	Eletropaulo	Demais Empresas <i>Other Companies</i>	Consumidores Livres <i>Free Consumption</i>	Total / <i>Total</i>
Área de Concessão / <i>Concession Area</i>									
Área Abrangida / <i>Area Current</i>	km²	9.767	6.807	90.486	91.869	4.507	44.787	-	248.223
Municípios Atendidos / <i>Municipalities Treated</i>	no.	28	26	234	222	24	111	-	645
População Atendida / <i>Population Served</i>	hab. milhões	4,4	3,6	9,7	5,6	17,0	2,4	-	42,7
Densidade Populacional / <i>Population Density</i>	hab/km²	453,0	527,0	106,0	60,0	3.774,0	53,2	-	172
Energia Distribuída / <i>Distributed Energy</i>									
Ano 2014 / <i>Year 2014</i>									
Total / <i>Total</i>	GWh	9.639	9.532	22.853	12.591	37.865	5.306	38.574	136.359
Residencial / <i>Residential</i>	GWh	3.633	4.036	9.192	4.234	16.486	1.870	0	39.450
Industrial / <i>Industrial</i>	GWh	2.618	2.265	4.142	3.564	5.281	1.119	33.220	52.210
Comercial / <i>Commercial</i>	GWh	2.284	2.158	5.323	2.486	13.134	1.002	3.211	29.598
Demais / <i>Others</i>	GWh	1.105	1.073	4.196	2.307	2.964	1.315	2.142	15.102
Consumidores em Dezembro de 2014									
<i>Consumptions in December</i>									
Total/ <i>Total</i>	no. mil	1.725	1.592	4.078	2.376	6.745	985	1,561	17.502
Residencial/ <i>Residential</i>	no. mil	1.573	1.489	3.672	2.021	6.329	825	-	15.909
Indicadores/<i>Indicators</i>									
Densidade de Consumo - Anual <i>Density of Consumption - Annual</i>	MWh/km²	986,9	1.400,4	252,6	137,1	8.401,0	118,5	-	549,3
Consumo/Consumidor - Mensal <i>Consumer/ Consumer - Monthly</i>	kWh	465,6	499,0	467,0	441,6	467,8	449,0	2.059.237,6	649,3

Discriminação / <i>Discrimination</i>	Unidades / <i>Units</i>	Empresas / <i>Companies</i>									
		CSE	CLFM	CLFSC	CNEE	CPEE	EEB	EEVP	CJE	CSPE	Total
Área de Concessão / <i>Concession Area</i>											
Área Abrangida / <i>Area Current</i>	km²	9,6	4,6	1,1	11,5	10,4	2,6	0,3	3,8	0,9	44,8
Municípios Atendidos / <i>Municipalities Treated</i>	nº.	24,0	15,0	5,0	27,0	24,0	7,0	3,0	5,0	1,0	111,0
População Atendida / <i>Population Served</i>	hab. milhões	533,9	252,3	189,4	421,5	459,7	143,2	105,4	212,0	66,5	2.383,9
Densidade Populacional / <i>Population Density</i>	hab/km²	55,0	54,0	172,0	36,0	44,0	55,0	333,0	55,0	77,0	53,2
Energia Distribuída / <i>Distributed Energy</i>											
Ano 2014 / <i>Year 2014</i>											
Total / <i>Total</i>	GWh	1.128	567	419	874	995	296	502	382	143	5.306
Residencial / <i>Residential</i>	GWh	449	230	165	313	324	100	89	146	53	1.870
Industrial / <i>Industrial</i>	GWh	153	93	86	171	162	27	323	84	19	1.119
Comercial / <i>Commercial</i>	GWh	286	126	86	166	156	46	51	59	26	1.002
Demais / <i>Others</i>	GWh	240	118	81	223	353	122	39	93	45	1.315
Consumidores em Dezembro de 2014 <i>Consumptions in December</i>		233	111	83	175	180	55	38	81	27	985



9.3. Petróleo e Derivados

9.3. Petroleum and by-Products

Tabela 9.3.1. Capacidade das Principais Refinarias em São Paulo

Table 9.3.1. Capacity of the Main Refineries in São Paulo

m³/dia

Refinarias Refineries	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
RPBC	27.000	27.000	27.000	27.000	27.000	27.000	27.000	27.000	27.000	27.000
REPLAN	58.000	58.000	58.000	61.000	66.000	66.000	66.000	66.000	66.000	69.000
RECAP	8.500	8.500	8.500	8.500	8.500	8.500	8.500	8.500	8.500	8.500
REVAP	40.000	40.000	40.000	40.000	40.000	40.000	40.000	40.000	40.000	40.000
UNIVEN	-	-	1.100	1.100	1.100	1.100	1.100	1.100	1.100	1.456
TOTAL	133.500	133.500	134.600	137.600	142.600	142.600	142.600	142.600	142.600	145.956

Fonte: Petróleo Brasileiro S. A. (Petrobrás)

Source: Brazilian Petroleum S. A. (Petrobras)

Tabela 9.3.2. Série Histórica - Consumo Aparente de Derivados de Petróleo

Table 9.3.2. Historical Series - Apparent Consumption of Petroleum

10³ m³

ANO YEAR	Óleo Combustível Oil	Gasolina Automotiva Motor Gasoline	Gasolina de Aviação Aviation Gasoline	Querosene Iluminante Lighting Kerosene	Querosene de Aviação Jet Fuel	Óleo Diesel Diesel Oil	GLP LPG
1993	4.254	4.755	12	82	1.030	6.425	2.689
1994	4.422	5.256	13	74	1.194	6.693	2.739
1995	4.349	6.188	16	81	1.526	6.983	2.791
1996	4.739	7.121	20	43	1.852	7.672	3.212
1997	5.101	6.902	27	45	1.970	8.457	3.272
1998	5.052	7.399	27	49	2.286	8.565	3.356
1999	4.594	8.035	26	50	2.116	8.760	3.565
2000	3.597	7.428	26	50	1.987	8.491	3.717
2001	3.214	7.451	28	84	2.284	9.227	3.731
2002	2.456	7.165	18	99	2.005	9.364	3.524
2003	1.878	6.714	12	95	1.898	8.966	3.277
2004	1.541	6.697	13	42	1.976	9.299	3.286
2005	1.206	6.935	17	10	2.077	9.291	3.203
2006	824	7.042	18	6	1.981	9.205	3.219
2007	762	7.154	11	5	2.134	9.790	3.230
2008	654	7.020	11	5	2.306	10.557	3.346
2009	698	6.697	12	2	2.278	10.399	3.272
2010	571	7.436	15	2	2.566	11.438	3.350
2011	522	9.462	17	2	2.782	11.902	3.392
2012	451	10.306	18	1	2.842	12.539	3.345
2013	360	10.477	16	1	2.867	13.027	3.421
2014	335	10.850	14	1	3.036	12.830	3.366

Fonte: Petróleo Brasileiro S. A. (Petrobrás)

Source: Brazilian Petroleum S. A. (Petrobras)

Tabela 9.3.3. Total por Setor - Consumo em Mil m³ de Gás Natural
Table 9.3.3. Total by Sector - Consumption in Thousand m³ of Natural Gas

Discriminação <i>Discrimination</i>	Anos / <i>Years</i>					
	2009	2010	2011	2012	2013	2014
Residencial / <i>Residential</i>	149.398	167.657	187.213	203.572	229.582	216.609
Acréscimo / <i>Add</i>	8.250	18.259	19.556	16.359	26.010	(12.973)
Var. % / <i>Variation %</i>	5,8	12,2	11,7	8,7	12,8	(5,7)
Industrial / <i>Industrial</i>	3.930.146	4.461.948	4.655.131	4.544.591	4.554.465	4.384.134
A(De)créscimo / <i>Add/Decrease</i>	(633.926)	531.802	193.183	(110.540)	9.874	(170.331)
Var. % / <i>Variation %</i>	(13,9)	13,5	4,3	(2,4)	0,2	(3,7)
Comercial / <i>Commercial</i>	101.461	106.862	114.216	117.374	125.014	128.390
A(De)créscimo / <i>Add/Decrease</i>	(2.913)	5.401	7.354	3.158	7.640	3.376
Var. % / <i>Variation %</i>	(2,8)	5,3	6,9	2,8	6,5	2,7
Automotivo / <i>Automotive</i>	399.251	345.551	315.317	300.198	270.634	242.022
A(De)créscimo / <i>Add/Decrease</i>	(166.308)	(53.700)	(30.234)	(15.119)	(29.564)	(28.612)
Var. % / <i>Variation %</i>	(29,4)	(13,5)	(8,7)	(4,8)	(9,8)	(10,6)
Cogeração / <i>Cogeneration</i>	312.056	341.387	317.962	361.340	325.423	299.285
A(De)créscimo / <i>Add/Decrease</i>	3.397	29.331	(23.425)	43.378	(35.917)	(26.138)
Var. % / <i>Variation %</i>	1,1	9,4	(6,9)	13,6	(9,9)	(8,0)
Termogeração / <i>Thermoelectric Plants</i>	57.992	282.737	80.793	442.575	768.624	921.634
A(De)créscimo / <i>Add/Decrease</i>	(269.251)	224.745	(201.944)	361.782	326.049	153.010
Var. % / <i>Variation %</i>	(82,3)	387,5	(71,4)	447,8	73,7	19,9
TOTAL / <i>Total</i>	4.950.304	5.706.142	5.670.632	5.969.650	6.273.742	6.192.074
A(De)créscimo / <i>Add/Decrease</i>	(1.060.751)	755.838	(35.510)	299.018	304.092	(81.668)
Var. % / <i>Variation %</i>	(17,6)	15,3	(0,6)	5,3	5,1	(1,3)

Tabela 9.3.4. Número de Consumidores - Gás Natural
Table 9.3.4. Number of Consumers - Natural Gas

Discriminação <i>Discrimination</i>	Anos / <i>Years</i>					
	2009	2010	2011	2012	2013	2014
Residencial / <i>Residential</i>	701.026	800.030	874.573	939.938	1.012.847	1.094.218
Industrial / <i>Industrial</i>	1.289	1.317	1.374	1.423	1.403	1.425
Comercial / <i>Commercial</i>	10.550	11.381	12.090	13.060	14.050	15.892
Automotivo / <i>Automotive</i>	446	416	416	386	361	349
Co-geração / <i>Cogeneration</i>	24	26	28	28	26	25
Termogeração / <i>Thermoelectric Plants</i>	2	3	2	2	2	2
Total / <i>Total</i>	713.337	813.173	888.483	954.837	1.028.689	1.111.911

Tabela 9.3.5. Consumo por Consumidor - Média Anual de GN em m³
Table 9.3.5. Consumption by Consumer - The Average Annual NG in m³

Discriminação <i>Discrimination</i>	Anos / <i>Years</i>					
	2009	2010	2011	2012	2013	2014
Residencial / <i>Residential</i>	213,1	209,6	214,1	216,6	226,7	198,0
Industrial / <i>Industrial</i>	3.048.988,4	3.387.963,6	3.388.013,8	3.193.669,0	3.246.233,1	3.076.585,1
Comercial / <i>Commercial</i>	9.617,2	9.389,5	9.447,1	8.987,3	8.897,8	8.078,9
Automotivo / <i>Automotive</i>	895.181,6	830.651,4	757.973,6	777.715,0	749.678,7	693.473,5
Cogeração / <i>Cogeneration</i>	13.002.333,3	13.130.269,2	11.355.785,7	12.905.000,0	12.516.269,2	11.971.404,4
Termogeração / <i>Thermoelectric Plants</i>	28.996.000,0	94.245.666,7	40.396.500,0	221.287.500,0	384.312.000,0	460.816.865,7
Total / <i>Total</i>	6.939,6	7.017,1	6.382,4	6.252,0	6.098,8	5.568,9

Tabela 9.3.6. Consumo Mensal de Gás Canalizado

Table 9.3.6. Monthly Consumption of Pipelined Gas

Mês / Ano Monthly / Year	Valores em 10 ³ m ³ Values in 10 ³ m ³							Taxa de Crescimento (%) Growth Rates (%)							
	Residencial Residential	Industrial Industrial	Comercial Commercial	Automotivo Automotive	Cogeração Cogeneration	Termogeração Thermoelectric plants	Total Total	Residencial Residential		Industrial Industrial		Comercial Commercial		Total Total	
								Acumulado Accumulated	12 Meses 12 Monthly	Acumulado Accumulated	12 Meses 12 Monthly	Acumulado Accumulated	12 Meses 12 Monthly	Acumulado Accumulated	12 Meses 12 Monthly
jan/12	13.833	345.302	9.158	24.544	29.441	36	422.314	11,4	12,5	1,0	4,4	3,4	7,8	7,2	-1,3
fev/12	14.922	377.314	8.855	24.321	31.985	146	457.543	22,4	14,1	3,0	4,5	2,7	6,6	3,4	-1,4
mar/12	14.315	373.086	9.723	27.316	28.144	6.203	458.787	19,2	13,6	1,0	3,3	4,1	5,9	2,8	-3,0
abr/12	14.239	373.285	9.255	23.973	28.756	25.869	475.377	15,6	14,3	0,2	3,5	3,7	6,1	-0,4	-2,7
mai/12	16.681	371.855	9.669	27.655	29.007	80.647	535.514	14,2	13,7	0,1	3,5	4,2	5,8	0,2	-1,5
jun/12	19.768	386.239	10.677	25.202	31.810	59.011	532.707	14,1	13,8	-0,1	3,2	5,2	6,4	-0,6	-0,6
jul/12	19.279	376.038	9.915	23.995	27.860	22.991	480.078	11,4	11,5	-1,6	1,4	3,9	4,8	-0,6	-0,8
ago/12	19.562	391.299	10.034	26.437	31.462	544	479.338	12,5	13,1	-1,9	0,9	4,0	4,2	-2,0	-0,7
set/12	19.368	401.986	10.686	24.660	31.528	2.445	490.673	10,5	11,0	-2,0	-0,1	3,5	4,3	-3,4	-0,3
out/12	17.500	376.217	9.506	24.710	29.436	72.368	529.737	9,3	10,1	-2,7	-1,5	2,5	2,9	-3,6	1,3
nov/12	18.211	401.818	11.085	24.232	32.559	88.051	575.956	9,2	9,7	-2,0	-1,2	3,6	3,8	-3,9	4,2
dez/12	15.894	370.152	8.811	23.153	29.352	84.264	531.626	8,7	8,7	-2,4	-2,4	2,8	2,8	-4,8	5,3
jan/13	15.068	341.383	9.244	21.635	27.965	84.474	499.769	8,9	8,6	-1,1	-2,5	0,9	2,6	-11,9	7,0
fev/13	16.390	381.881	9.941	21.501	32.407	87.005	549.125	9,4	7,2	0,1	-2,8	6,5	3,4	-11,7	8,3
mar/13	13.006	350.408	8.425	21.971	26.891	71.464	492.165	3,2	5,6	-2,0	-3,1	-0,5	1,7	-14,5	9,5
abr/13	16.439	372.698	9.842	24.566	22.922	70.179	516.646	6,3	6,3	-1,5	-2,9	1,2	2,0	-10,5	10,1
mai/13	20.441	391.295	10.867	22.396	30.369	74.840	550.208	9,9	7,4	-0,2	-2,5	3,6	2,5	-12,3	8,9
jun/13	21.431	383.976	10.822	23.878	26.819	86.863	553.789	9,6	6,9	-0,2	-2,5	3,1	1,8	-11,2	8,1
jul/13	21.774	380.080	10.975	22.092	29.391	73.234	537.546	10,2	8,2	-0,1	-1,5	4,3	3,0	-10,7	9,2
ago/13	22.324	402.630	10.857	22.167	28.926	26.667	513.571	10,8	7,9	0,3	-0,9	4,8	3,3	-11,4	9,9
set/13	21.857	389.445	11.161	23.315	24.993	25.613	496.384	11,0	9,2	-0,1	-1,0	4,7	3,7	-10,8	10,0
out/13	20.933	396.861	10.737	23.609	23.847	33.232	509.219	11,9	11,0	0,5	0,2	5,5	5,3	-10,2	8,7
nov/13	21.861	398.243	11.306	22.072	25.528	59.653	538.663	12,7	12,0	0,3	-0,2	5,2	4,3	-10,0	6,3
dez/13	18.058	365.565	10.837	21.432	25.365	75.400	516.657	12,8	12,8	0,2	0,2	6,5	6,5	-9,8	5,1
jan/14	15.598	343.014	9.908	19.328	24.666	69.614	482.127	3,5	12,4	0,5	0,3	7,2	7,0	-10,7	3,5
fev/14	13.775	359.243	9.994	20.323	24.964	53.017	481.317	-6,6	10,3	-2,9	-0,3	3,7	6,1	-8,1	0,8
mar/14	14.147	359.685	11.441	20.517	23.507	67.467	496.764	-2,1	11,5	-1,1	0,4	13,5	9,8	-7,6	0,3
abr/14	16.641	357.395	8.934	20.637	26.229	86.449	516.286	-1,2	10,5	-1,9	0,1	7,5	8,5	-9,9	-0,3
mai/14	18.745	388.289	11.285	21.851	24.317	84.404	548.891	-3,0	7,7	-1,6	-0,4	6,7	7,7	-8,4	-0,6
jun/14	19.321	352.359	10.369	19.093	26.000	89.780	516.922	-4,4	5,9	-2,8	-1,0	4,7	7,2	-10,4	-1,5
jul/14	20.600	362.591	10.792	20.033	27.325	77.659	518.999	-4,6	4,1	-3,0	-1,5	3,7	6,1	-10,3	-2,7
ago/14	22.459	376.368	11.465	20.413	27.015	74.891	532.610	-3,8	2,8	-3,5	-2,3	4,0	5,9	-10,0	-2,9
set/14	21.528	364.577	11.445	20.591	24.630	64.936	507.707	-3,5	1,5	-3,8	-2,6	3,8	5,7	-10,2	-2,8
out/14	20.476	375.541	11.476	21.328	22.945	79.295	531.062	-3,4	-0,3	-4,0	-3,5	4,1	5,3	-10,1	-2,2
nov/14	17.548	386.803	10.870	18.840	24.539	88.493	547.093	-5,1	-3,7	-3,9	-3,7	3,3	4,7	-10,5	-1,5
dez/14	15.772	358.268	10.411	19.067	23.148	85.630	512.297	-5,7	-5,7	-3,7	-3,7	2,7	2,7	-10,6	-1,3

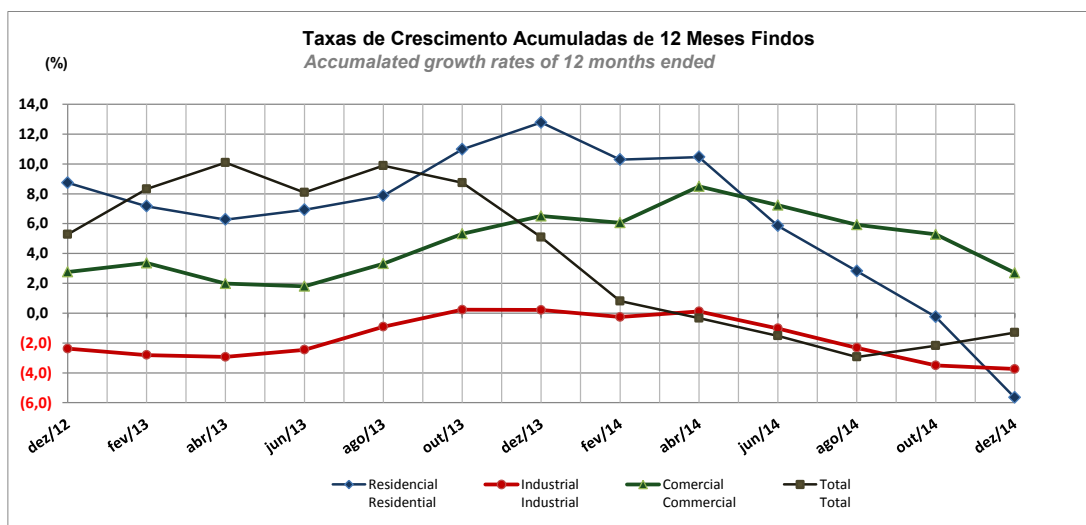


Tabela 9.3.7. Perfil das Áreas de Concessão para Distribuição de Gás no Estado de São Paulo
Table 9.3.7. Profile of the Areas of Concession for Distribution of Gas in the State of São Paulo

Área de Concessão <i>Areas of Concession</i> Regiões Administrativas <i>Administrative Regions</i>	População <i>Population</i>		Área <i>Area</i>		Densidade Demográfica <i>Density Population</i>	Municípios <i>Municipalities</i>	
	Habitantes <i>Habitant</i>	%	km²	%	Hab/km² <i>inhab/km²</i>	Nº	%
COMGÁS Metropolitana de São Paulo, Santos, Campinas e São José dos Campos	30.923.268	72,5	53.771	21,6	575,1	177	27,4
GÁS BRASILIANO Ribeirão Preto, Bauru, Marília, São José do Rio Preto, Araçatuba, Presidente Prudente, Central, Barretos e Franca.	8.569.604	20,1	141.623	57,0	60,5	375	58,1
GÁS NATURAL FENOSA Registro e Sorocaba	3.180.514	7,5	53.206	21,4	59,8	93	14,4
ESTADO DE SÃO PAULO <i>STATE OF SAO PAULO</i>	42.673.386	100,0	248.600	100,0	171,7	645	100,0

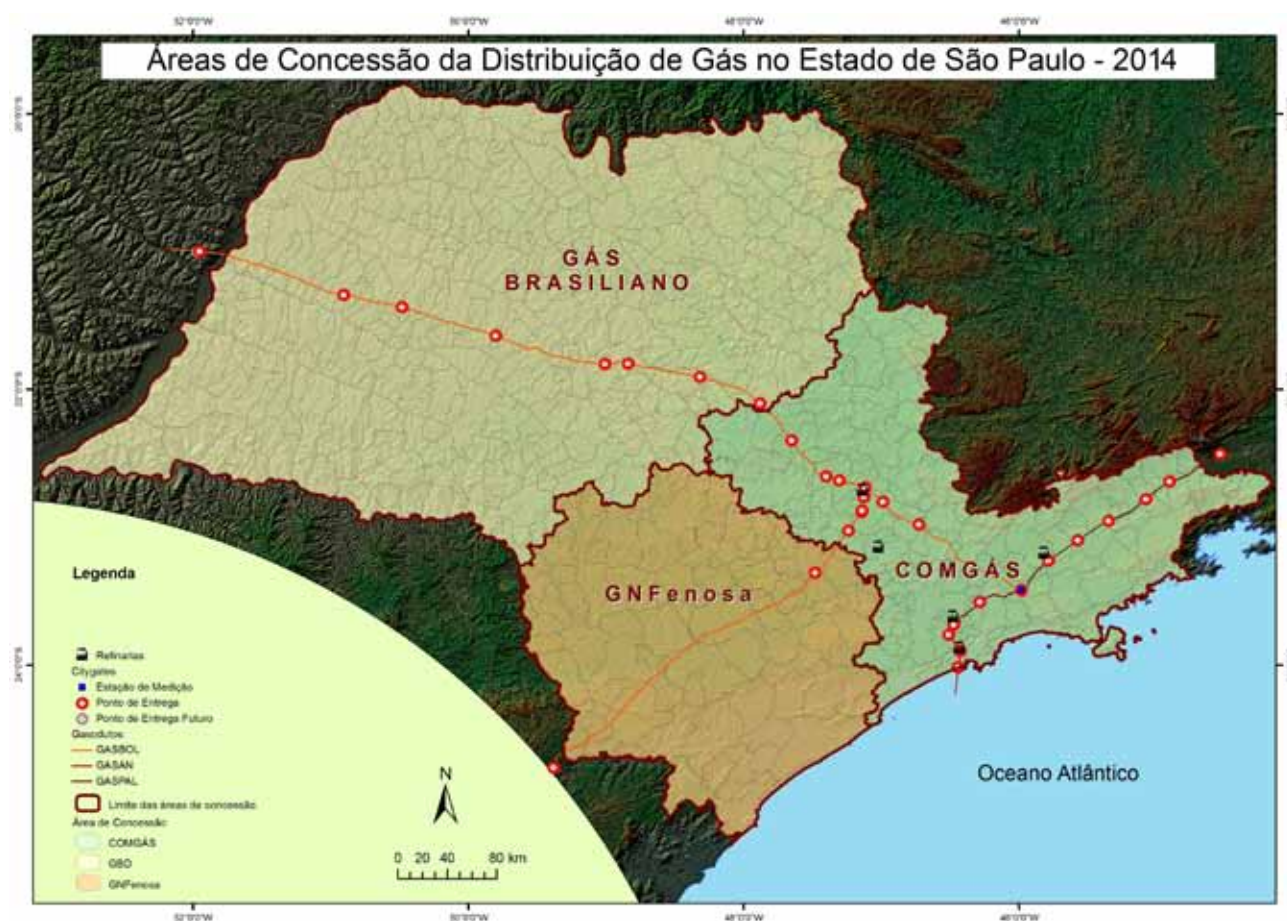


Tabela 9.3.8. Produção Mensal de Derivados de Petróleo

Table 9.3.8. Monthly Production Oil Derivatives

Mês / Ano Monthly / Year	Valores em m³ / Values in m³								
	Gasolina Gasoline	Óleo Diesel Diesel Oil	Óleo Combustível Fuel Oil	GLP LPG	Querosene de Aviação Jet Fuel	Coque Other(*)	Nafta Naphtha	Demais Other	Total Total
jan/12	1.057.203	1.778.376	393.038	299.202	246.660	212.055	144.238	158.799	4.289.571
fev/12	981.797	1.781.101	328.541	280.157	219.981	218.358	206.946	171.622	4.188.502
mar/12	1.097.345	1.835.435	324.688	278.572	259.961	252.931	149.159	202.388	4.400.479
abr/12	1.094.427	1.806.598	323.657	263.803	214.586	244.317	71.378	194.209	4.212.976
mai/12	1.041.931	1.805.022	302.870	325.238	219.269	243.365	46.882	107.158	4.091.736
jun/12	1.021.767	1.887.966	275.631	289.477	222.283	250.238	176.826	179.794	4.303.983
jul/12	1.040.909	1.931.100	295.186	306.403	236.800	254.333	181.200	195.244	4.441.175
ago/12	1.099.027	2.038.045	322.651	294.425	217.430	264.157	112.686	250.544	4.598.966
set/12	1.054.340	1.963.743	345.922	294.557	232.184	249.935	93.094	208.382	4.442.157
out/12	1.086.147	1.839.524	386.024	293.046	212.755	237.423	41.262	224.303	4.320.484
nov/12	1.096.272	2.016.180	239.265	271.693	211.742	242.012	20.920	202.047	4.300.132
dez/12	1.156.478	1.985.924	382.769	289.329	208.364	262.917	63.323	208.085	4.557.189
jan/13	1.146.385	2.012.739	451.362	284.040	212.689	251.989	109.228	177.250	4.645.682
fev/13	981.996	1.801.294	364.111	254.462	185.237	237.610	93.061	181.515	4.099.287
mar/13	1.061.917	2.104.350	378.742	277.095	241.777	262.737	129.523	202.674	4.658.815
abr/13	1.096.392	1.945.320	325.060	303.850	217.584	259.313	61.250	177.365	4.386.134
mai/13	1.192.146	2.069.131	282.505	314.482	235.963	252.857	59.626	206.810	4.613.521
jun/13	1.121.527	1.787.681	345.379	273.850	221.588	223.893	61.434	229.073	4.264.425
jul/13	1.217.812	2.005.480	377.582	290.961	203.684	243.449	25.224	178.052	4.542.244
ago/13	1.212.846	2.222.042	299.388	281.520	226.813	281.923	34.065	242.505	4.801.103
set/13	1.101.909	1.917.436	239.767	221.467	155.561	245.067	32.908	208.930	4.123.045
out/13	1.111.196	1.855.208	189.430	240.849	86.328	213.962	10.348	206.718	3.914.040
nov/13	1.150.734	2.104.202	332.361	253.243	260.839	253.793	55.442	229.109	4.639.723
dez/13	1.223.241	2.137.878	309.470	260.832	254.421	255.744	41.791	238.056	4.721.434
jan/14	1.039.420	1.793.412	248.348	229.726	205.384	239.939	61.920	182.597	4.000.746
fev/14	982.025	1.700.580	303.990	192.279	185.217	222.977	52.261	195.981	3.835.310
mar/14	1.155.548	2.079.553	375.881	266.894	260.691	257.653	42.971	211.705	4.650.895
abr/14	1.100.505	2.119.326	346.049	245.273	205.038	257.374	31.237	217.997	4.522.798
mai/14	1.149.414	2.173.442	326.754	271.837	267.290	266.815	39.499	179.557	4.674.609
jun/14	1.155.768	2.052.013	312.500	276.468	230.288	251.662	80.242	208.590	4.567.532
jul/14	1.179.023	2.203.732	271.621	264.595	263.963	249.535	54.761	209.628	4.696.859
ago/14	1.174.532	2.166.565	350.067	261.956	254.435	251.062	52.980	246.903	4.758.500
set/14	1.091.615	1.978.424	384.902	251.266	238.063	242.571	42.900	220.863	4.450.603
out/14	1.122.787	2.095.272	360.797	260.365	231.043	254.491	579	235.287	4.560.620
nov/14	1.180.767	2.101.155	281.647	244.850	254.038	242.928	20.643	227.769	4.553.798
dez/14	1.144.663	2.099.288	304.535	261.876	249.179	247.250	86.488	208.068	4.601.346

(*) Demais : asfalto, gasolina de aviação, querosene iluminante, óleo lubrificante, graxa, solventes, parafina e gases de refinaria.
Others: asphalt, petrol of aviation, kerosene illuminating, lubricating oil, graxa, solvents, paraffin and refinery gases.

Tabela 9.3.9. Produção Mensal de Derivados de Petróleo

Table 9.3.9. Monthly Production Oil Derivatives

Mês / Ano Monthly / Year	Taxa de Crescimento (%) / Growth Rates (%)																	
	Gasolina Gasoline		Óleo Diesel Diesel Oil		Óleo Combustível Fuel Oil		GLP LPG		Querosene de Aviação Jet Fuel		Coque Other(*)		Nafta Naphtha		Demais Other		Total Total	
	Acumulado Accumulated	12 Meses 12 Monthly	Acumulado Accumulated	12 Meses 12 Monthly	Acumulado Accumulated	12 Meses 12 Monthly	Acumulado Accumulated	12 Meses 12 Monthly	Acumulado Accumulated	12 Meses 12 Monthly	Acumulado Accumulated	12 Meses 12 Monthly	Acumulado Accumulated	12 Meses 12 Monthly	Acumulado Accumulated	12 Meses 12 Monthly	Acumulado Accumulated	12 Meses 12 Monthly
jan/12	11,0	(69,4)	12,8	(68,7)	24,1	(66,5)	13,2	(67,1)	11,7	(64,9)	(7,0)	(69,2)	31,7	(52,7)	(3,0)	(67,1)	11,9	(67,9)
fev/12	12,2	(69,1)	16,1	(68,2)	11,5	(66,5)	16,5	(66,6)	5,2	(64,9)	(1,9)	(69,1)	53,7	(50,3)	(6,5)	(67,3)	13,1	(67,6)
mar/12	10,6	(68,9)	10,3	(68,2)	7,0	(66,5)	12,0	(66,5)	6,2	(64,7)	1,1	(68,9)	12,2	(52,1)	(5,0)	(67,4)	8,8	(67,6)
abr/12	16,5	(68,1)	11,2	(67,9)	1,3	(67,0)	16,0	(65,9)	6,4	(64,5)	5,4	(68,4)	(0,9)	(53,7)	0,9	(66,9)	10,4	(67,2)
mai/12	12,7	(68,1)	9,4	(67,8)	0,7	(67,0)	15,5	(65,5)	2,7	(64,8)	6,0	(68,2)	(19,2)	(57,5)	(10,4)	(68,3)	7,2	(67,3)
jun/12	14,4	(67,6)	9,3	(67,6)	2,8	(66,7)	13,2	(65,4)	0,7	(65,1)	7,5	(67,8)	(14,6)	(57,2)	(6,0)	(67,9)	8,0	(67,0)
jul/12	12,4	(67,5)	8,7	(67,5)	7,6	(65,7)	12,5	(65,2)	(0,6)	(65,3)	8,7	(67,4)	(9,8)	(56,4)	(8,4)	(68,5)	7,6	(66,9)
ago/12	10,9	(67,5)	8,7	(67,2)	9,4	(65,2)	12,1	(64,9)	(2,3)	(65,7)	9,3	(67,0)	(8,6)	(56,3)	(7,2)	(68,6)	7,4	(66,7)
set/12	10,3	(67,3)	8,5	(67,0)	6,9	(65,5)	11,8	(64,7)	(1,2)	(65,5)	10,1	(66,6)	(13,4)	(58,4)	(7,6)	(68,9)	7,0	(66,6)
out/12	11,6	(66,8)	7,4	(67,1)	6,5	(65,4)	10,6	(64,6)	(0,1)	(65,2)	9,6	(66,5)	(19,2)	(61,3)	(5,7)	(68,6)	6,6	(66,5)
nov/12	12,0	(66,4)	8,4	(66,6)	2,6	(66,3)	8,6	(64,9)	(1,5)	(65,7)	9,8	(66,2)	(24,2)	(64,1)	(4,0)	(68,2)	6,5	(66,4)
dez/12	11,3	11,3	8,1	8,1	2,3	2,3	7,1	7,1	(2,8)	(2,8)	10,2	10,2	(25,3)	(25,3)	(2,3)	(2,3)	6,1	6,1
jan/13	8,4	11,1	13,2	8,1	14,8	1,8	(5,1)	5,5	(13,8)	(4,9)	18,8	12,4	(24,3)	(28,8)	11,6	(1,3)	8,3	5,9
fev/13	4,4	10,0	7,2	6,8	13,0	2,8	(7,1)	3,3	(14,7)	(6,1)	13,8	12,8	(42,4)	(38,2)	8,6	(0,1)	3,1	4,6
mar/13	1,7	9,0	9,7	8,0	14,1	4,3	(4,9)	2,9	(12,0)	(7,3)	10,1	12,5	(33,7)	(36,9)	5,4	0,2	4,1	5,0
abr/13	1,3	6,3	9,2	7,5	10,9	5,7	(0,2)	2,2	(8,9)	(7,7)	9,1	11,3	(31,2)	(35,4)	1,6	(2,0)	4,1	4,2
mai/13	3,9	7,6	10,3	8,5	7,7	5,4	(0,9)	0,7	(5,8)	(6,3)	8,0	10,9	(26,8)	(28,8)	13,4	6,9	5,8	5,6
jun/13	4,9	6,7	7,6	7,3	10,2	6,1	(1,7)	0,0	(4,9)	(5,6)	4,7	8,7	(35,4)	(36,5)	15,9	7,5	4,6	4,5
jul/13	6,6	8,0	7,0	7,1	12,5	5,3	(2,2)	(1,1)	(6,2)	(6,1)	3,4	6,9	(44,8)	(47,1)	11,9	9,0	4,3	4,2
ago/13	7,1	8,7	7,3	7,2	10,0	3,2	(2,4)	(2,2)	(5,0)	(4,6)	3,8	6,4	(47,4)	(52,0)	9,3	8,8	4,3	4,1
set/13	6,8	8,6	6,2	6,3	5,2	1,3	(4,9)	(5,0)	(8,1)	(8,0)	3,2	4,9	(48,7)	(53,4)	8,2	9,9	3,0	3,2
out/13	6,3	7,0	5,6	6,5	(1,4)	(3,9)	(6,2)	(6,5)	(12,9)	(13,4)	1,9	3,6	(49,6)	(52,1)	6,3	8,0	1,8	2,1
nov/13	6,2	6,1	5,5	5,4	1,4	1,2	(6,3)	(6,3)	(9,8)	(10,4)	2,2	3,1	(46,0)	(45,7)	6,9	7,9	2,3	2,3
dez/13	6,2	6,2	5,7	5,7	(0,6)	(0,6)	(6,6)	(6,6)	(7,4)	(7,4)	1,7	1,7	(45,4)	(45,4)	7,6	7,6	2,4	2,4
jan/14	(9,3)	4,6	(10,9)	3,7	(45,0)	(7,2)	(19,1)	(7,7)	(3,4)	(6,5)	(4,8)	(0,1)	(43,3)	(47,6)	3,0	7,0	(13,9)	0,5
fev/14	(5,0)	4,6	(8,4)	3,1	(32,3)	(9,5)	(21,6)	(8,9)	(1,8)	(5,2)	(5,5)	(1,2)	(43,6)	(46,0)	5,5	7,2	(10,4)	0,2
mar/14	(0,4)	5,6	(5,8)	1,8	(22,3)	(10,8)	(15,5)	(9,1)	1,8	(3,9)	(4,2)	(1,7)	(52,6)	(52,7)	5,1	7,5	(6,8)	(0,3)
abr/14	(0,2)	5,6	(2,2)	2,0	(16,1)	(10,3)	(16,6)	(11,8)	(0,1)	(4,5)	(3,3)	(2,2)	(52,1)	(54,9)	9,4	10,1	(4,4)	(0,4)
mai/14	(0,9)	4,1	(0,7)	1,3	(11,1)	(8,8)	(15,9)	(12,8)	2,8	(3,9)	(1,6)	(2,1)	(49,7)	(57,2)	4,5	4,4	(3,2)	(1,3)
jun/14	(0,3)	3,6	1,7	2,8	(10,9)	(11,1)	(13,2)	(12,3)	3,0	(3,5)	0,5	(0,3)	(40,1)	(50,5)	1,9	1,5	(1,6)	(0,6)
jul/14	(0,7)	1,9	2,9	3,3	(13,5)	(15,4)	(12,6)	(12,7)	6,5	0,0	0,8	0,3	(32,7)	(38,3)	3,9	3,5	(0,8)	(0,5)
ago/14	(1,0)	0,7	2,1	2,3	(10,2)	(13,7)	(11,9)	(12,9)	7,3	0,7	(0,8)	(1,3)	(27,5)	(29,8)	3,6	4,0	(0,8)	(1,0)
set/14	(1,0)	0,3	2,2	2,8	(4,7)	(7,9)	(9,7)	(10,1)	11,0	7,0	(0,9)	(1,3)	(24,3)	(22,6)	3,9	4,5	0,1	0,2
out/14	(0,8)	0,2	3,3	3,7	0,8	1,2	(8,1)	(8,1)	17,8	18,7	0,9	0,9	(25,5)	(20,6)	4,9	6,4	1,5	2,2
nov/14	(0,5)	0,0	2,9	3,3	(0,6)	(2,4)	(7,7)	(7,9)	15,5	16,0	0,4	0,1	(28,6)	(29,1)	4,3	5,2	1,2	1,4
dez/14	(1,0)	(1,0)	2,5	2,5	(0,7)	(0,7)	(7,0)	(7,0)	13,7	13,7	0,1	0,1	(20,6)	(20,6)	2,7	2,7	0,9	0,9

(*) Demais : asfalto, gasolina de aviação, querosene iluminante, óleo lubrificante, graxa, solventes, parafina e gases de refinaria.
Others: asphalt, petrol of aviation, kerosene illuminating, lubricating oil, graxa, solvents, paraffin and refinery gases.

Tabela 9.3.10. Consumo Mensal de Derivados de Petróleo

Table 9.3.10. Monthly Consumption of Oil Derivatives

Mês / Ano Monthly / Year	Valores em m³ / Values in m³						
	Gasolina Gasoline	Óleo Diesel Diesel Oil	Óleo Combustível Fuel Oil	GLP LPG	Querosene de Avião Jet Fuel	Demais Other	Total Total
jan/12	808.200	809.877	44.384	261.123	251.006	1.732	2.176.322
fev/12	809.679	903.311	40.120	257.521	226.274	1.747	2.238.653
mar/12	887.628	1.051.826	41.889	282.657	243.914	1.908	2.509.821
abr/12	838.506	946.269	32.724	259.534	238.038	1.550	2.316.622
mai/12	865.521	1.066.016	42.321	300.279	240.645	1.725	2.516.508
jun/12	844.648	1.006.902	39.156	287.447	230.867	1.427	2.410.447
jul/12	839.052	1.118.146	40.157	296.775	245.472	1.540	2.541.142
ago/12	889.791	1.240.226	37.860	303.730	237.646	1.619	2.710.871
set/12	826.753	1.106.656	31.062	267.780	232.836	1.276	2.466.364
out/12	897.377	1.211.489	34.472	289.873	235.085	1.533	2.669.829
nov/12	851.044	1.125.586	36.382	279.499	227.047	1.437	2.520.994
dez/12	947.645	952.832	30.036	258.403	233.293	1.527	2.423.735
jan/13	824.796	907.519	36.905	262.045	230.275	1.512	2.263.052
fev/13	755.869	878.946	30.292	249.669	202.268	1.290	2.118.334
mar/13	877.078	992.246	26.915	270.179	246.518	1.468	2.414.405
abr/13	898.024	1.104.194	28.201	291.711	230.595	1.608	2.554.334
mai/13	926.951	1.147.649	28.177	290.823	235.106	1.417	2.630.123
jun/13	838.939	1.075.781	28.111	285.080	230.863	1.296	2.460.070
jul/13	858.134	1.161.248	31.107	312.698	244.874	1.366	2.609.427
ago/13	911.362	1.272.781	31.217	312.295	249.366	1.624	2.778.646
set/13	840.782	1.155.116	30.283	283.861	237.718	1.128	2.548.889
out/13	906.213	1.233.312	30.334	308.292	250.118	1.413	2.729.682
nov/13	897.126	1.131.038	29.651	277.866	244.447	1.427	2.581.556
dez/13	941.548	967.017	28.677	276.143	264.479	1.348	2.479.212
jan/14	850.743	919.636	27.036	256.721	268.150	1.569	2.323.855
fev/14	855.295	959.603	25.784	245.648	235.011	1.345	2.322.686
mar/14	903.149	997.848	25.103	269.169	256.689	1.265	2.453.222
abr/14	956.775	1.056.620	23.322	276.039	249.301	1.512	2.563.569
mai/14	942.745	1.150.525	28.973	294.488	257.821	1.400	2.675.951
jun/14	852.596	1.062.005	26.521	281.536	242.698	1.001	2.466.357
jul/14	879.896	1.136.622	29.134	310.730	259.816	1.223	2.617.421
ago/14	913.080	1.182.354	29.802	301.178	254.099	1.258	2.681.771
set/14	913.585	1.152.055	29.491	291.479	244.233	1.296	2.632.140
out/14	965.120	1.241.558	30.741	290.690	253.245	1.171	2.782.526
nov/14	845.513	1.014.290	26.549	266.244	254.159	998	2.407.753
dez/14	971.289	957.037	32.695	281.607	260.667	1.044	2.504.339

(*) Demais: Etanol hidratado, gasolina de aviação e querosene iluminante.
Others: Ethanol, petrol of aviation and kerosene illuminating.

Tabela 9.3.11. Consumo Mensal de Derivados de Petróleo

Table 9.3.11. Monthly Consumption of Oil Derivatives

Mês / Ano Monthly / Year	Taxa de Crescimento (%) / Growth Rates (%)													
	Gasolina Gasoline		Óleo Diesel Diesel Oil		Óleo Combustível Fuel Oil		GLP LPG		Querosene de Avião Jet Fuel		Demais Other		Total Total	
	Acumulado Accumulated	12 Meses 12 Monthly	Acumulado Accumulated	12 Meses 12 Monthly	Acumulado Accumulated	12 Meses 12 Monthly	T Acumulado Accumulated	12 Meses 12 Monthly	Acumulado Accumulated	12 Meses 12 Monthly	Acumulado Accumulated	12 Meses 12 Monthly	Acumulado Accumulated	12 Meses 12 Monthly
jan/12	35,2	31,1	8,7	4,4	11,0	(7,1)	6,0	1,6	8,6	8,5	11,4	12,7	16,9	12,0
fev/12	30,9	33,7	8,3	4,5	11,1	(5,5)	4,7	1,5	9,5	8,5	12,0	13,8	15,3	12,8
mar/12	17,6	30,0	10,5	6,1	7,3	(3,9)	2,7	1,4	8,1	8,3	19,9	18,6	11,6	12,6
abr/12	8,0	22,6	8,1	6,3	1,6	(4,0)	1,1	1,3	7,8	7,8	12,5	15,6	7,1	10,6
mai/12	8,9	20,9	5,9	5,6	1,6	(2,7)	1,5	1,2	7,2	7,5	9,7	13,1	6,5	9,8
jun/12	10,9	21,0	3,9	4,8	(0,4)	(1,3)	0,7	0,9	6,7	7,3	6,9	11,9	6,1	9,5
jul/12	11,8	20,7	3,8	4,7	(0,5)	0,8	0,5	1,0	6,0	7,0	5,8	11,0	6,2	9,4
ago/12	12,2	19,3	4,4	4,5	(2,9)	0,9	(0,2)	0,1	5,4	6,6	4,6	9,7	6,4	8,8
set/12	10,8	16,1	3,7	3,4	(7,0)	(2,6)	(0,9)	(0,5)	4,8	5,7	1,5	6,3	5,4	7,1
out/12	10,9	14,5	5,0	4,7	(8,8)	(4,3)	(0,5)	(0,2)	4,0	4,7	1,3	5,8	5,9	7,1
nov/12	10,1	12,0	5,5	5,4	(11,4)	(9,7)	(0,6)	(0,5)	3,1	3,7	0,1	1,8	5,7	6,4
dez/12	8,9	8,9	5,4	5,4	(13,7)	(13,7)	(1,4)	(1,4)	2,2	2,2	(1,0)	(1,0)	5,1	5,1
jan/13	2,1	6,7	12,1	5,6	(16,9)	(15,9)	0,4	(1,8)	(8,3)	0,7	(12,7)	(3,0)	4,0	4,2
fev/13	(2,3)	4,3	4,3	4,8	(20,5)	(18,4)	(1,3)	(2,3)	(9,4)	(0,9)	(19,5)	(6,3)	(0,8)	2,8
mar/13	(1,9)	4,3	0,5	3,2	(25,5)	(21,2)	(2,4)	(2,6)	(5,8)	(1,3)	(20,7)	(10,9)	(1,9)	2,0
abr/13	0,4	6,3	4,6	4,4	(23,1)	(21,1)	1,2	(1,4)	(5,2)	(2,1)	(15,3)	(10,1)	1,2	3,2
mai/13	1,7	5,8	5,3	5,1	(25,3)	(23,9)	0,2	(1,9)	(4,6)	(2,7)	(15,8)	(11,6)	1,9	3,2
jun/13	1,3	4,2	5,6	6,1	(25,8)	(25,5)	0,1	(1,7)	(3,9)	(3,0)	(14,8)	(11,8)	1,9	3,0
jul/13	1,5	3,0	5,3	6,2	(25,3)	(27,1)	0,9	(1,2)	(3,3)	(3,2)	(14,4)	(12,6)	2,0	2,7
ago/13	1,6	2,1	4,9	5,7	(24,4)	(27,3)	1,1	(0,5)	(2,3)	(2,9)	(12,6)	(12,3)	2,1	2,3
set/13	1,6	2,2	4,8	6,2	(22,4)	(25,0)	1,6	0,5	(1,8)	(2,7)	(12,5)	(11,5)	2,2	2,7
out/13	1,5	1,4	4,5	4,9	(21,5)	(24,2)	2,1	0,8	(1,0)	(1,9)	(12,0)	(12,0)	2,2	2,1
nov/13	1,9	1,6	4,1	4,0	(21,2)	(22,8)	1,9	0,9	(0,3)	(0,9)	(11,1)	(11,2)	2,3	1,9
dez/13	1,7	1,7	3,9	3,9	(20,1)	(20,1)	2,3	2,3	0,9	0,9	(11,2)	(11,2)	2,3	2,3
jan/14	3,1	1,7	1,3	3,2	(26,7)	(21,0)	(2,0)	2,1	16,4	2,9	3,8	(9,8)	2,7	2,2
fev/14	7,9	3,2	5,2	4,0	(21,4)	(20,3)	(1,8)	2,2	16,3	5,0	4,0	(7,3)	6,1	3,3
mar/14	6,2	3,6	3,5	4,6	(17,2)	(17,8)	(1,3)	2,6	11,9	5,3	(2,2)	(6,1)	4,5	3,7
abr/14	6,3	3,6	1,3	2,9	(17,2)	(18,1)	(2,4)	1,1	10,9	6,2	(3,2)	(7,0)	3,3	2,9
mai/14	5,3	3,1	1,1	2,3	(13,5)	(15,0)	(1,6)	1,5	10,7	7,2	(2,8)	(5,4)	3,0	2,7
jun/14	4,7	3,3	0,7	1,6	(12,2)	(13,0)	(1,6)	1,5	9,7	7,7	(5,8)	(6,4)	2,5	2,6
jul/14	4,4	3,3	0,2	1,1	(11,4)	(11,5)	(1,4)	0,9	9,2	8,2	(6,5)	(6,3)	2,2	2,3
ago/14	3,8	3,1	(0,9)	0,1	(10,5)	(10,3)	(1,7)	0,3	8,2	7,9	(8,7)	(8,4)	1,4	1,8
set/14	4,3	3,7	(0,8)	(0,3)	(9,6)	(10,3)	(1,2)	0,1	7,6	8,0	(6,6)	(6,7)	1,6	1,8
out/14	4,6	4,2	(0,6)	(0,4)	(8,5)	(9,2)	(1,7)	(1,0)	6,9	7,5	(7,7)	(7,4)	1,6	1,8
nov/14	3,6	3,2	(1,5)	(1,3)	(8,7)	(8,3)	(1,9)	(1,3)	6,7	7,2	(9,7)	(9,9)	0,9	1,0
dez/14	3,6	3,6	(1,5)	(1,5)	(6,9)	(6,9)	(1,6)	(1,6)	5,9	5,9	(10,8)	(10,8)	0,9	0,9

(*) Demais: Etanol hidratado, gasolina de aviação e querosene iluminante.
Others: Ethanol, petrol of aviation and kerosene illuminating.

9.4. Indicadores Sociais

9.4. Social Indicators

Tabela 9.4.1. População e Número de Domicílios
Table 9.4.1. Population and Number of Household

10³

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	
População Total	39.201	39.620	40.022	40.420	40.815	41.224	41.580	41.940	42.305	42.673	Total Population
Domicílios Totais	11454	11830	12101	12336	12598	12824	13730	14124	14472	14811	Totals Household
Domicílios Urbanos	11.041	11.402	11.666	11.892	12.137	12.354	13.292	13.653	13.990	14.318	Urban Household
Domicílios Rurais	413	428	435	444	461	470	438	471	482	493	Rural Household
Habitante/domicílio	3,42	3,35	3,31	3,28	3,24	3,21	3,03	2,97	2,92	2,88	Household/Inhabitants

Fonte: PNAD - Pesquisa Nacional por Amostra de Domicílio - IBGE
Source: PNAD - National Search by Household Sample - IBGE

Tabela 9.4.2. PIB a Custo de Fatores
Table 9.4.2. GDP and Cost of Factors

10⁶ R\$ de 2005

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	
Primário	11.265	11.525	11.815	11.902	11.455	12.020	12.214	12.448	12.256	11.673	Primary
Secundário	193.955	197.671	209.823	219.196	202.364	221.813	226.129	219.735	226.818	218.395	Secondary
Terciário	406.680	424.980	457.829	485.391	495.657	526.469	544.352	560.990	569.901	562.425	Tertiary
Total	726.984	755.784	811.760	859.583	852.892	920.625	947.825	964.200	983.086	962.479	Total

Fonte: Fundação Sistema Estadual de Análise de Dados - SEADE
Source: Data Analyse State System Foundation - SEADE

Tabela 9.4.3. Variação Anual do PIB e do Consumo de Energia por Setores
Table 9.4.3. Annual Variation of GDP and Energy Consumption by Sectors

%

		2005	2006	2007	2008	2009	2010	2011	2012	2013	2014		
Primário	PIB	-3,59	2,31	2,52	0,74	-3,76	4,93	1,61	1,92	-1,54	-4,76	Primary	GDP
	CE	-9,63	7,01	5,72	-4,97	-13,87	2,67	-2,60	-1,71	-13,34	-0,13		EC
Secundário	PIB	2,13	1,92	6,15	4,47	-7,68	9,61	1,95	-2,83	3,22	-3,71	Secondary	GDP
	CE	4,06	6,46	7,65	5,57	-0,65	6,73	-6,01	3,98	2,98	-6,89		EC
Terciário	PIB	4,37	4,50	7,73	6,02	2,11	6,22	3,40	3,06	1,59	-1,31	Tertiary	GDP
	CE	2,90	2,56	9,49	7,62	1,55	6,64	4,85	4,70	3,11	3,93		EC
Total	PIB	3,54	3,96	7,41	5,89	-0,78	7,94	2,95	1,73	1,96	-2,10	Total	GDP
	CE	3,17	4,79	8,38	6,19	0,02	6,61	-1,17	4,22	2,76	-1,70		EC

CE = Energia Consumida / Energy Consumption
PIB = GDP

9.5. Balanço de Energia Útil - BEU

9.5. Useful Energy Balance - BEU

9.5.1. Balanço de Energia Útil (BEU)

A principal crítica que se faz aos balanços energéticos é a forma de organização das diversas formas de energia, contabilizando-as pelo seu conteúdo calorífico, ignorando o aspecto da “qualidade”.

Uma das formas adotadas para minimizar este inconveniente metodológico é com a elaboração do balanço de energia útil, ou seja, o balanço de energia efetivamente utilizada, no qual se calculam as formas de energia em função de suas finalidades, levando-se em conta os equipamentos utilizados, suas respectivas eficiências e os serviços prestados por essa energia em cada setor empregado.

Pode-se definir a energia final como sendo aquela recebida pelo usuário nos diferentes setores, seja na forma primária, seja na secundária. A chamada energia final é do ponto de vista do setor energético e, simplificando, representa a forma em que a energia é comercializada.

Em um balanço de energia útil os usos finais são geralmente agrupados em força motriz, calor de processo, aquecimento direto, iluminação, eletroquímica e outros.

Para converter a energia, chamada final na forma em que ela é usada, passa-se ainda por um processo que implica perdas, sendo necessário considerar uma eficiência de uso ou rendimento.

No caso do uso motriz, parte da energia é transferida ao eixo do motor e parte é dissipada na forma de calor.

Denomina-se rendimento a razão entre essa energia na forma que é usada, denominada energia útil, e a energia final ou seja:

Energia Útil = rendimento x Energia Final.

9.5.1. Useful Energy Balance - BEU

The main criticism made to energy balances is about the organization procedure used for the different types of energy, which is based on their calorific content, ignoring quality aspects.

One of the ways used to minimize this methodological inconvenience is the preparation of the useful energy balance, that is, a balance of the energy effectively used in which the types of energy are calculated according to their purposes, considering the equipment used, the respective efficiencies and the services provided by that energy in each industry involved.

Final energy can be defined as the energy received by the user in the different industries, either in its primary or secondary form. The so-called final energy is from the energy sector's point of view and, in a simplification, represents the way the energy is sold.

In a useful energy balance, the energy final uses are generally classified in groups such as driving power, process heat, direct heating, lighting, electrochemical and others.

To change the so-called final energy into the form it is effectively used, there is still a process that implies losses. It is then necessary to consider its efficiency of use or throughput.

In the energy application as a driving power, part of the energy is transferred to the motor shaft and part of it is dissipated as heat.

By energy throughput is meant the ratio between this energy such as it is used, called useful energy, and the final energy, that is:

Useful energy = throughput x final energy

De maneira geral, pode-se interpretar um Balanço de Energia Útil da seguinte forma:

Energia Final = Energia Útil + Perdas no uso.

O BEU permite avaliar o rendimento energético global da sociedade paulista e os rendimentos por setores de atividades específicos, das diferentes formas de energia e dos usos finais.

Dada a inexistência de um levantamento específico para o Estado de São Paulo foram consideradas, por hipótese, tanto as eficiências, quanto a utilização dos equipamentos pelos diversos setores, de acordo com o balanço de energia útil brasileiro, contido no Balanço Energético Nacional - BEN, publicado pela EPE.

No ano 2014, do total de 63.968×10^3 toe consumidos, apenas 33.195×10^3 toe foram efetivamente utilizados (53,6% do total).

A seguir, é apresentada uma planilha comparativa das energias finais e suas correspondentes energias úteis, relativas aos consumos de todos os setores e energéticos considerados no BEESP.

Generally, a Useful Energy Balance can be interpreted as follows:

Final energy = useful energy + losses in its use.

The Useful Energy Balance provides for an assessment of the society's overall energy throughput in the State of São Paulo and the energy throughput by specific areas of activities, by different types of energy or their final uses.

Given that a specific survey is not available for the State of São Paulo, an assumption was made considering the equipment efficiencies and use by the various industries according the Brazilian useful energy balance included in the National Energy Balance (BEN) published by the EPE.

In the year 2014, out of the total of $63,968 \times 10^3$ toe consumed, only $33,195 \times 10^3$ toe were effectively used (53.6% of the total).

The following is a comparative spreadsheet of the final energies and their corresponding final energies with regard to the consumptions of all the sectors and energy products covered by the BEESP.

Balança de Energia Útil no Estado de São Paulo - 2014 (10 ³ toe) Energy Balance Useful – BEU – 2014 (10 ³ toe)																
Setores Sectors	Energético Energetic		Residencial Residential		Comercial Commercial		Público Public		Agropecuário Agricu. and Livestock		Transportes (total) Transportation (total)		Indústria (total) Industrial (total)		Total Geral General Total	
	Energia Final Final Energy	Energia Útil Useful Energy	Energia Final Final Energy	Energia Útil Useful Energy	Energia Final Final Energy	Energia Útil Useful Energy	Energia Final Final Energy	Energia Útil Useful Energy	Energia Final Final Energy	Energia Útil Useful Energy	Energia Final Final Energy	Energia Útil Useful Energy	Energia Final Final Energy	Energia Útil Useful Energy	Energia Final Final Energy	Energia Útil Useful Energy
Gás Natural Natural Gas	-	-	176	97	104	68	18	12	-	-	196	53	3539	2.336	4.033	2.565
Carvão Vapor Steam Coal	-	-	-	-	-	-	-	-	-	-	-	-	5	3	5	3
Carvão Metalúrgico Metallurgical Coal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lenha Firewood	-	-	151	15	51	15	-	-	9	3	-	-	545	294	756	328
Produtos da Cana Cane Products	1555	933	-	-	-	-	-	-	-	-	-	-	11949	7.169	13.504	8.102
Outr. Fontes Prim. Others Prim. Sources	-	-	-	-	-	-	-	-	-	-	-	-	1125	529	1.125	529
Óleo Diesel Diesel Oil	259	140	-	-	35	21	36	21	501	210	9291	3.716	993	477	11.115	4.586
Óleo Combustível Fuel Oil	3	3	-	-	10	8	0	-	0	-	31	17	276	190	320	218
Gasolina Gasoline	-	-	-	-	-	-	-	-	-	-	6350	1.715	-	-	6.350	1.715
GLP LPG	13	8	1405	703	190	97	71	36	3	1	-	-	367	191	2.049	1.035
Querosene Kerosene	-	-	1	1	-	-	-	-	-	-	2484	671	0	-	2.485	671
Outras Secundárias Others Secondary	-	-	-	-	-	-	-	-	-	-	-	-	1723	1.293	1.723	1.293
Coque Carvão Mineral Coke Coal Mineral	-	-	-	-	-	-	-	-	-	-	-	-	789	584	789	584
Eletricidade Electricity	259	228	3393	2.239	2545	1.400	1014	487	285	245	99	92	5368	4.080	12.963	8.771
Carvão Vegetal Charcoal	-	-	1	0	6	1	-	-	-	-	-	-	82	57	89	59
Etanol Ethanol	-	-	-	-	-	-	-	-	-	-	5021	1.657	-	-	5.021	1.657
Gás de Coqueria Coking Gas	3	3	-	-	-	-	-	-	-	-	-	-	230	113	233	115
Gás de Refinaria Gas Refinery	1130	961	-	-	-	-	-	-	-	-	-	-	8	5	1.138	966
Alcatrão Bitumen from Coal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Total	3222	2.274	5.127	3.055	2.941	1.610	1.139	555	798	460	23.472	7.921	26.999	17.320	63.698	33.195

9.6. Emissões de CO₂

9.6. CO₂ Emissions

9.6.1. Introdução

A crescente preocupação mundial com as possíveis alterações ambientais e climáticas provocadas pelas emissões de gases na atmosfera, em particular o CO₂, principal responsável pelo “efeito estufa”, tem ampliado as pesquisas e estudos sobre esse problema.

A emissão de CO₂ está intimamente associada a qualquer atividade antropogênica onde há utilização de energia. No ano de 2004, segundo a Global Regional and National Fossil Fuel CO₂ Emissions foram emitidas 7,9 giga toneladas de CO₂ no planeta, provenientes em sua maioria da utilização de combustíveis fósseis.

Segundo o Painel Internacional de Mudanças Climáticas/IPCC-Intergovernmental Panel on Climate Change, caso não sejam adotadas medidas restritivas, cerca de 16 giga toneladas de CO₂ serão emitidas por volta do ano 2100.

Cerca de 50% das atuais emissões são de responsabilidade dos países da OCDE. Entretanto, espera-se um crescimento menor da emissão desses países em comparação com a China e outros países em desenvolvimento, fato que deve se constituir no principal contencioso internacional nos próximos anos, em função dos interesses conflitantes e da grande heterogeneidade mundial quanto a conscientização e preocupação com essa questão.

A quantidade de CO₂ emitida em um país está fortemente ligada ao padrão de vida de seus habitantes e ao seu grau de desenvolvimento sócio-econômico e tecnológico. A emissão depende da maior ou menor necessidade de eletricidade, calor, trabalho mecânico e do correspondente “mix” energético para as suas produções.

É importante a escolha da metodologia de contabilização e dos coeficientes da emissão de CO₂ por fonte energética, não tanto pelos valores absolutos encontrados, mas principalmente pela sua comparação com as emissões de outros países ou regiões.

9.6.1. Introduction

The increasing world's concern about possible climate and environmental changes caused by gas emissions, particularly CO₂, the main gas responsible for the greenhouse effect, has led to extended researches and studies about this problem

The CO₂ emissions are closely related to any anthropogenic activity involving the use of energy. In 2004, according to the Global Regional and National Fossil Fuel CO₂ Emissions, 7,9 giga tons of CO₂ were emitted worldwide, most of it as a result of the use of fossil fuels.

According to the International Panel on Climate Change (IPCC), if restrictive actions are not taken, the emissions of CO₂ will reach 16 giga tons towards 2100.

About 50% of the current emissions are caused by OECD countries. However, these countries are expected to show a lower growth in their emissions in comparison with China and other developing countries. This fact will certainly become an important international dispute in the coming years as a result of conflicting interests and the great world heterogeneity regarding the awareness and concern about this issue.

The CO₂ emissions in a country are closely connected to the standard of living of its inhabitants and its level of socioeconomic and technological. The emissions depend on the greater or lesser need of electricity, heat, mechanical work and the corresponding energymix to meet the production requirements.

It is important to choose the accounting methodology and the coefficients of CO₂ emissions per energy source, not so much by the absolute values found, but particularly by its comparison with the emissions of other countries or regions.

Nesse sentido, os coeficientes adotados para se calcular tais emissões são aqueles utilizados pelo IPCC/OCDE apresentados no Latin American Regional Workshop for Estimating National Greenhouse Gases Emissions, realizado em 1993 no INPE - Instituto Nacional de Pesquisas Espaciais.

Nesta edição do Balanço Energético do Estado de São Paulo – ano base 2013, foi realizada uma revisão das estimativas e dos critérios adotados desde 2003, levando-se em conta as recomendações adotadas por instituições ambientais nacionais (CETESB, Secretaria Estadual do Meio Ambiente), segundo as quais deve-se considerar nula a contribuição dos combustíveis renováveis (bagaço, lenha, carvão vegetal, etc) na absorção de CO₂, uma vez que o processo de fotossíntese retira da atmosfera uma quantidade equivalente de carbono liberado na combustão.

As emissões classificadas como biogênicas/EB, são aquelas que se produzem com a combustão da biomassa e não contribuem para o efeito estufa, desde que sua utilização seja acompanhada da equivalente reposição de matéria prima vegetal. Assim, entende-se que o uso da biomassa como energético em um sistema efetivamente renovável, resulte num balanço nulo de CO₂ na atmosfera.

9.6.2. Cálculo das Emissões de CO₂ por Fonte

Em contraposição à abordagem recomendada pelo IPCC, referida como “top-down” para países cujas estatísticas energéticas se resumem apenas à produção, balanço importação-exportação e variação de estoques de energia primária, foi escolhida para calcular as emissões de CO₂ a abordagem co-nhecida como “bottom-up”, uma vez que o Balanço Energético do Estado de São Paulo contém informações mais detalhadas do consumo de energia primária e secundária pelos diversos setores sócio-econômicos.

In this connection, the coefficients adopted to calculate such emissions are those used by the IPCC/OECD in the Latin American Regional Workshop for Estimating National Greenhouse Gas Emissions held in 1993 at the Brazilian Space Research Institute (INPE).

This edition of the Energy Balance for the State of Sao Paulo – base year 2013, brings a revision of the estimates and criteria adopted since 2003, taking into consideration the recommendations made by national environmental institutions (CETESB, Environment State Department), which advises that the contribution of renewable fuels (bagasse, firewood, charcoal, etc) should be regarded as null in the CO₂ absorption since the photosynthesis process withdraws from the atmosphere an equivalent quantity of carbon released during the combustion.

The emissions classified as biogenic/EB are those produced by the biomass combustion and do not add to the greenhouse effect, provided that they are followed by an equivalent replacement of the vegetable raw material. Thus, it is understood that the use of biomass for energy purpose in an effectively renewable system results in a null balance of CO₂ in the atmosphere.

9.6.2. Calculation of CO₂ Emissions per Source

In compliance with the top-down approach recommended by the IPCC for countries whose energy statistics are restricted to the import, export and changes in the stocks of primary energy, this Energy Balance for the State of Sao Paulo has adopted the bottom-up criteria for the data gathered on the consumption of primary and secondary energy by the various socioeconomic sectors.

As emissões de CO₂ classificadas como não biogênicas/ENB, estão relacionadas à combustão de qualquer energético, especialmente a do carvão, do petróleo e do gás natural. Os combustíveis fósseis produzem esse gás em proporções relativamente fixas, sendo as emissões do carvão maiores do que as do petróleo e do gás.

Os fatores de emissão em toneladas de carbono por Terajoule (t de C/TJ) por fonte utilizados no cálculo, são os apresentados na Tabela 9.6.1. Para se obter a efetiva emissão de CO₂ multiplica-se esses fatores pelo peso molecular do CO₂ (44) e divide-se pelo peso atômico de Carbono (12). Excetuando-se a nafta, utilizada em sua maior parte como matéria prima, merecendo portanto um tratamento específico, por simplicidade considerou-se que para os outros energéticos apenas 95% do carbono é transformado em CO₂, uma vez que parte desse carbono: i) fica retido nas cinzas ou não é oxidado; ii) é incorporado como produto não energético.

The CO₂ emissions classified as non-biogenic/ENB are related to the consumption of any energy, particularly energy from coal, oil and natural gas. Fossil fuels produce this gas in relatively fixed proportions, coal emissions being greater than those from oil and gas.

The emission factors in tons of carbon by terajoule (t of C/TJ) per source used in the calculation are shown in Table 9.6.1. To arrive at the effective CO₂ emissions, these factors are multiplied by the molecular weight of CO₂ (44) divided by the carbon atomic weight (12). Except for naphtha, mostly used as raw material and, as a result, being subject to a specific treatment, other energies, for simplicity, were considered with 95% of carbon being changed into CO₂, since part of this carbon content: i) is retained by the ashes or is not oxidized; ii) is incorporated as a non-energy product.

Tabela 9.6.1. Fatores de Conversão
Table 9.6.1. Conversion Factors

ENERGÉTICO	(t de C/TJ)	(t de CO ₂ /TJ)	ENERGY
Petróleo	20,0	69,7	Petroleum
Carvão Vapor	26,8	93,4	Steam Coal
Gás Natural	15,3	53,3	Natural Gas
Óleo Diesel	20,2	70,4	Diesel
Óleo Combustível	21,1	73,5	Fuel Oil
Gasolina	18,9	65,8	Gasoline
GLP	17,2	59,9	LPG
Nafta	19,0	11,1 (*)	Naphtha
Querosene	19,6	68,3	Kerosene
Outras Secundárias	19,0	66,2	Other Secondary
Gás de Coqueria	18,2	63,5	Coking Gas
Coque de Carvão Mineral	29,5	102,8	Coal Coke
Gás de Refinaria	16,5	57,5	Gas Refinery
Outros Não Energéticos de Petróleo	18,4	64,1	Other Non-Oil Energy

Fonte: IPCC/OCDE

(*) Esse valor foi obtido considerando-se que o total da nafta contemplada, apenas 16% contribuiu efetivamente para a emissão de CO₂, pois o carbono restante é incorporado nos produtos petroquímicos derivados da nafta.

Source: IPCC / OECD

(*) This value was obtained considering that out of the contemplated naphtha total, only 16% was effectively added to the CO₂ emissions, because the remaining carbon is incorporated into naphtha petrochemical products.

Os valores apresentados nas Tabelas 9.6.2, 9.6.3 e 9.6.4 devem ser analisados como estimativas preliminares e, portanto, objetos de utilização e interpretação criteriosa, pois há muita controvérsia sobre as metodologias usadas para a mensuração dessas emissões.

The values shown in Tables 9.6.2, 9.6.3 and 9.6.4 should be analyzed as preliminary estimates and, therefore, more carefully used and interpreted, because there is much controversy involved about the methodologies used for measuring these emissions.

No gráfico derivado da Tabela 9.6.2 são apresentadas as Emissões de CO₂ por Fonte, de 2005 a 2014.

The chart derived from Table 9.6.2 shows the CO₂ emissions per source, from 2005 to 2014.

Nos gráficos seguintes indica-se a evolução das emissões em relação ao PIB e “per Capita” em relação a população.

The charts that follow show the evolution of the emissions with regard to the gross domestic product and the per capita figure with regard to the population.

Tabela 9.6.2. Emissões de CO₂ por Fontes

Table 9.6.2. CO₂ Emissions by Source

	10 ⁶ tCO ₂ / ano									
Fonte Source	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Total Geral Total	67,27	67,70	70,65	72,21	69,08	75,03	80,01	85,12	85,37	84,10
Carvão Vapor Steam Coal	0,13	0,09	0,09	0,09	0,07	0,03	0,02	0,02	0,02	0,02
Gás Natural Natural Gas	7,95	9,11	9,77	9,73	8,33	9,25	9,55	9,36	9,38	9,01
Óleo Diesel Diesel Oil	23,73	23,52	25,02	26,98	26,58	29,23	30,42	32,05	33,30	32,79
Óleo Combustível Fuel Oil	3,54	2,42	2,23	1,92	2,05	1,68	1,54	1,33	1,06	0,99
Gasolina Gasoline	11,48	11,53	11,70	11,48	10,82	12,01	15,24	17,75	16,89	17,51
GLP LPG	4,89	4,92	4,93	5,11	5,00	5,12	4,88	5,11	5,23	5,14
Nafta Naphtha	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Querosene Kerosene	4,92	4,68	5,01	5,41	5,34	6,02	6,52	6,66	6,72	7,11
Outras Secundárias Others Secondary Sources	3,18	3,89	4,07	4,25	4,55	4,36	4,76	5,46	5,59	4,78
Gás de Coqueria Coking Gas	0,69	0,66	0,68	0,70	0,65	0,75	0,72	0,69	0,68	0,62
Coque de Carvão Mineral Coal Coke	4,78	4,76	5,04	4,46	3,61	4,23	3,81	4,06	3,78	3,40
Gás de Refinaria Refinery Gas	1,97	2,11	2,11	2,07	2,09	2,36	2,55	2,64	2,73	2,74
Não Energética de Petróleo Non-Energy Petroleum	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00

Tabela 9.6.3. Evolução das Emissões de CO₂ - Aspectos Sócio-Econômicos

Table 9.6.3. Trends in Emissions of CO₂ - Socio-Economic Aspects

	Unidade	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Total Geral Grand Total	10 ³ t/ano 10 ³ t/year	67,27	67,70	70,65	72,21	69,08	75,03	80,01	85,12	85,37	84,10
População Population	10 ⁶ hab. 10 ⁶ inhab.	39.201	39.620	40.022	40.420	40.815	41.224	41.580	41.940	42.305	42.673
PIB GPD	10 ⁶ R\$ 10 ⁶ R\$	726.984	755.784	811.760	859.583	852.892	920.625	947.825	964.200	983.086	962.479
Emissão CO ₂ /PIB CO ₂ Emission/PIB	CO ₂ /10 ³ R\$ CO ₂ /10 ³ R\$	0,093	0,090	0,087	0,084	0,081	0,082	0,084	0,088	0,087	0,087
Emissão CO ₂ /hab CO ₂ Emission/inhab	tCO ₂ /hab tCO ₂ /inhab	1,716	1,709	1,765	1,787	1,693	1,820	1,924	2,030	2,018	1,971

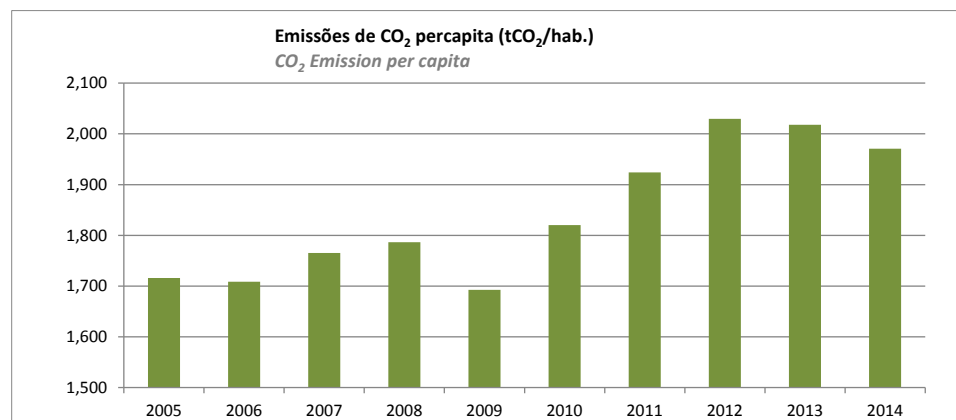
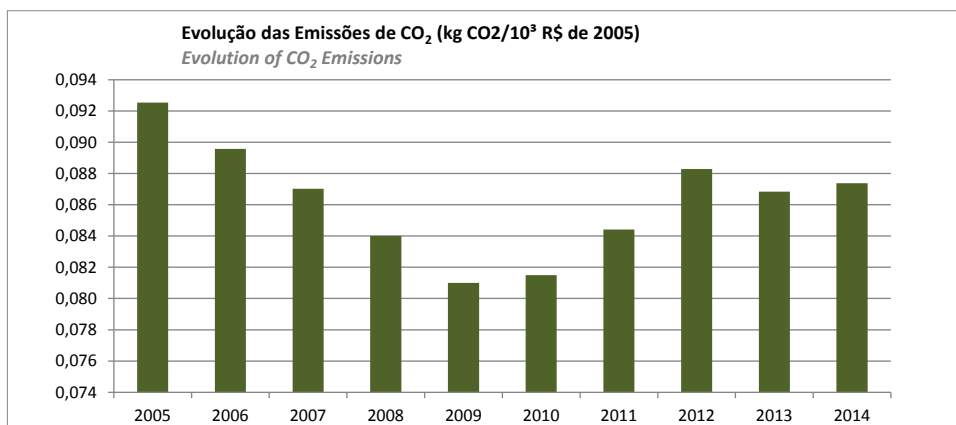
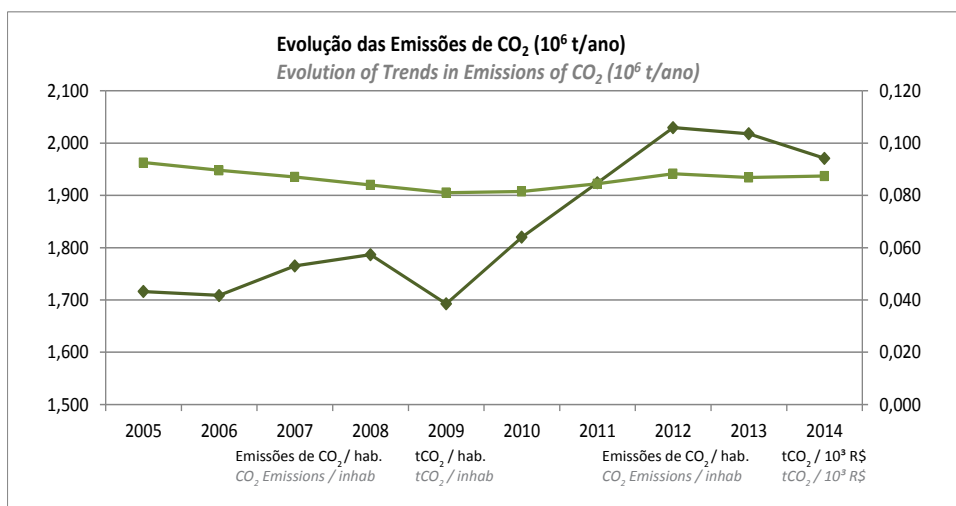


Tabela 9.6.4. Emissões de CO₂ por Setores - 2014

Table 9.6.4. CO₂ Emissions by Sector - 2014

	10 ⁶ tCO ₂ / ano													
OPERACAO OPERATION	Carvão Vapor Steam Coal	Gás Natural Natural Gas	Óleo Diesel Diesel Oil	Óleo Combustível Fuel oil	Gasolina Gasoline	GLP LPG	Nafta Naphtha	Querosene Kerosene	Outras Secundárias Other Secondary Sources	Gás de Coqueria Gas Coke	Coque Carvão Mineral Coal Coke	Gás Refinaria Refinery Gas	Não Energético de Petróleo Non-Energy Petroleum	Total Total
Setor Energético Energy Sector	0,000	0,000	0,764	0,009	0,000	0,032	0,000	0,000	0,000	0,007	0,000	2,723	0,000	3,535
Residencial Residential	0,000	0,393	0,000	0,000	0,000	3,527	0,000	0,002	0,000	0,000	0,000	0,000	0,000	3,922
Comercial Commercial	0,000	0,232	0,102	0,029	0,000	0,478	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,842
Público Public	0,000	0,040	0,105	0,000	0,000	0,177	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,322
Agropecuário Agriculture	0,000	0,000	1,477	0,000	0,000	0,008	0,000	0,000	0,000	0,000	0,000	0,000	0,000	1,484
Transportes - Total Transportation - Total	0,000	0,438	27,407	0,094	17,507	0,000	0,000	7,109	0,000	0,000	0,000	0,000	0,000	52,555
Rodoviário Highways	0,000	0,438	26,614	0,000	17,477	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	44,529
Ferroviário Railroads	0,000	0,000	0,723	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,723
Aéreo Airways	0,000	0,000	0,000	0,000	0,030	0,000	0,000	7,109	0,000	0,000	0,000	0,000	0,000	7,139
Hidroviário Waterways	0,000	0,000	0,069	0,094	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,163
Industrial - Total Industrial - Total	0,019	7,902	2,931	0,852	0,000	0,919	0,000	0,000	4,778	0,611	3,400	0,020	0,000	21,433
Cimento Cement	0,019	0,000	0,087	0,006	0,000	0,000	0,000	0,000	1,484	0,000	0,000	0,000	0,000	1,596
Ferro Gusa e Aço Pig-Iron and Steel	0,000	0,980	0,026	0,029	0,000	0,127	0,000	0,000	0,000	0,611	3,400	0,000	0,000	5,173
Ferro Ligas Iron Alloys	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000
Mineração e Pelotiz. Mining/Pelletization	0,000	0,000	0,299	0,026	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,326
Não Ferrosos/Out. Metalúrgicos Non-Ferrous/Other Metallurgical	0,000	0,000	0,000	0,103	0,000	0,000	0,000	0,000	2,019	0,000	0,000	0,000	0,000	2,122
Química Chemical	0,000	1,353	0,056	0,120	0,000	0,110	0,000	0,000	0,741	0,000	0,000	0,020	0,000	2,401
Alimentos e Bebidas Foods and Beverages	0,000	0,828	1,681	0,179	0,000	0,148	0,000	0,000	0,000	0,000	0,000	0,000	0,000	2,837
Têxtil Textiles	0,000	0,216	0,003	0,035	0,000	0,050	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,304
Papel e Celulose Paper and Pulp	0,000	0,808	0,082	0,350	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	1,239
Cerâmica Ceramics	0,000	1,391	0,031	0,003	0,000	0,163	0,000	0,000	0,000	0,000	0,000	0,000	0,000	1,588
Outros Others	0,000	2,326	0,667	0,000	0,000	0,321	0,000	0,000	0,535	0,000	0,000	0,000	0,000	3,848
TOTAL TOTAL	0,019	9,00	32,79	0,98	17,51	5,14	0,00	7,11	4,78	0,62	3,40	2,74	0,00	84,09

Nota: 0,00 quando a emissão de CO₂ for maior que 0 e menor que 0,005 Mt/ano / Note: 0.00 when the emission of CO₂ is greater than 0 and less than 0.005 Mt / year

Capítulo 10

Apêndices



Chapter 10

Appendixes

10.1. Metodologia e Conceitos

10.1. Methodology and Concepts

10.1.1. Conceituação

A figura abaixo apresenta a estrutura básica de um Balanço Energético padrão, composto por linhas (setores e processos de transformação) e colunas (combustíveis).

As linhas apresentam dados referentes a Oferta, Transformação e Consumo de energia.

As colunas agregam dados referentes a Energia Primária e Energia Secundária

10.1.1.1. Energia Primária

Produtos energéticos providos pela natureza na sua forma direta, como o petróleo, gás natural, carvão mineral, biomassa, energia eólica, solar, etc.

Colunas 1 a 11 - FONTES DE ENERGIA PRIMÁRIA: petróleo, carvão vapor, carvão metalúrgico, gás natural, energia hidráulica, lenha, caldo, melão e bagaço de cana, lixívia e outras primárias.

Coluna 11 - OUTRAS FONTES PRIMÁRIAS: inclui resíduos agrícolas e industriais como a palha de arroz e a borra de café, utilizadas principalmente para geração de vapor.

Coluna 12 - TOTAL DE ENERGIA PRIMÁRIA: Soma das colunas de 1 a 11.

10.1.1.2. Energia Secundária

Produtos energéticos resultantes dos diferentes centros de transformação que têm como destino os diversos setores de consumo e eventualmente outros centros de transformação.

Colunas 13 a 28 - FONTES DE ENERGIA SECUNDÁRIA: óleo diesel, óleo combustível, gasolina (automotiva e de aviação), GLP, nafta, querosene (iluminante e de aviação), gás (nafta, sintético), gás de coqueria, coque de carvão mineral, eletricidade, carvão vegetal, álcool anidro e hidratado, gás de refinaria e outros energéticos derivados do petróleo (coque, piche) e produtos não-energéticos do petróleo.

10.1.1. Concept Development

The figure below shows the basic structure of the standard Energy Balance consisting of lines (transformation processes and sectors) and columns (fuels).

The lines show data about supply, transformation and consumption of energy.

The columns aggregate data on primary energy and secondary energy.

10.1.1.1. Primary Energy

Energy products provided by nature in its direct form, such as oil, natural gas, coal, biomass, wind and solar energy, etc.

Columns 1 to 11 - PRIMARY ENERGY SOURCES: oil, steam coal, hard coking coal, natural gas, hydraulic energy, firewood, sugar cane juice, molasses and sugar cane bagasse, black liquor and other primary sources.

Column 11 - OTHER PRIMARY SOURCES: Comprising farming and industrial waste, such as rice husk and coffee ground, particularly for steam generation.

Column 12 - PRIMARY ENERGY TOTAL: Sum of columns 1 to 11.

10.1.1.2. Secondary Energy

Energy products resulting from different transformation centers whose destination are the various consumption industries and possibly other transformation centers.

Columns 13 to 28 - SECONDARY ENERGY SOURCES: oil diesel, fuel oil, gasoline (automotive and aviation), LPG, naphtha, kerosene (lighting and aviation), (naphtha, synthetic) gas, coke oven gas, coal coke, electricity, charcoal, anhydrous and hydrous alcohol, refinery gas and other energy oil products (coke pitch) and oil non-energy by products.

Coluna 28 - PRODUTOS NÃO-ENERGÉTICOS DO PETRÓLEO: derivados do petróleo que, mesmo tendo significativo conteúdo energético, são utilizados para outros fins (graxa, lubrificante, asfalto, parafina, solvente, etc.)

Column 28 - NON-ENERGY OIL PRODUCTS: oil by-products which, even with significant energy content, are used for other purposes (grease, lubricant, asphalt paraffin, solvent, etc.)

Coluna 29 - TOTAL DE ENERGIA SECUNDÁRIA: soma das colunas 13 a 28.

Column 29 - TOTAL SECONDARY ENERGY: sum of columns 13 to 28.

10.1.1.3. Total Geral

10.1.1.3. Total

Consolida todas energias produzidas, transformadas e consumidas no Estado de São Paulo.

Consolidates all the energies produced, transformed and consumed in the State of Sao Paulo.

Coluna 30 - TOTAL: Soma algébrica das colunas 12 e 29.

Column 30 - TOTAL: Algebraic sum of columns 12 and 29.

10.1.1.4. Oferta

10.1.1.4. Offer

Quantidade de energia que se coloca à disposição para ser transformada e/ou para consumo final.

Quantity of energy available to be transformed and/or for final consumption.

Linha 1 - PRODUÇÃO: energia primária que se obtém de recursos minerais, vegetais, hídricos, reservatórios geotérmicos, sol, vento, marés. Tem sinal positivo.

Line 1 - PRODUCTION: primary energy obtained from mineral, vegetable and hydro resources, geothermal reservoirs, sun, wind, tides. Positive sign.

Linha 2 e 3 - IMPORTAÇÃO E IMPORTAÇÃO ESTADUAL: quantidade de energia primária e secundária proveniente de outros países (Importação) e de outros estados (Importação Estadual). Constitui-se em parte da oferta no balanço. Tem sinal positivo.

Line 2 and 3 - STATE IMPORTS AND EXPORTS: quantity primary and secondary energy from other countries (Imports) and other states (State imports). They are part of the offer in the balance. Positive sign.

Linha 4 - VARIAÇÃO DE ESTOQUES: diferença entre o estoque inicial e final em cada ano. Um aumento de estoques num determinado ano significa uma redução na oferta total. No balanço tem sinal negativo as entradas e positivo as saídas.

Line 4 - VARIATION OF STOCKS: difference between the initial and final stocks each year. An stocks increase in a certain year means a reduction in the total offer. In the balance, the inputs have a negative sign and the outputs a positive sign.

Linha 5 - OFERTA TOTAL: quantidade de energia que se coloca à disposição para ser transformada e/ou para consumo final.

Line 5 - TOTAL OFFER: quantity of energy available to be transformed and/or for final consumption.

Linha 6 e 7 - EXPORTAÇÃO E EXPORTAÇÃO ESTADUAL: quantidade de energia primária e secundária que se envia ao exterior do País (Exportação) e para outros estados (Exportação Estadual). É identificada com sinal negativo.

Line 6 to 7 - EXPORTS AND STATE EXPORTS: quantity of primary and secondary energy sent abroad (Export) and to other states (State exports). It is identified by a negative sign.

Linha 8 - NÃO APROVEITADA: quantidade de energia que, quer por condições técnicas e/ou econômicas, atualmente não está sendo utilizada. É caracterizada com sinal negativo.

Line 8 - NOT EXPLOITED: quantity of energy that, because of technical and/or economic conditions, is not currently being used. It is identified by a negative sign.

Linha 9 - REINJEÇÃO: quantidade de gás natural que é reinjetado nos poços de petróleo para uma melhor recuperação deste hidrocarboneto.

Line 9 - REINJECTION: quantity of natural gas reinjected into the oil wells to enhance the hydrocarbon recovery.

Linha 10 - OFERTA INTERNA BRUTA: quantidade de energia que se coloca à disposição do Estado para ser submetida aos processos de transformação e/ou consumo final. Corresponde a soma algébrica das linhas 5 a 9.

Line 10 - GROSS DOMESTIC SUPPLY: quantity of energy available to the state to be carried to the transformation processes and/of final consumption. It corresponds to the algebraic sum of lines 5 to 9.

10.1.1.5. Transformação

10.1.1.5. Transformation

O setor agrupa todos os centros de transformação onde a energia que entra (primária e/ou secundária) se transforma em uma ou mais formas de energia secundária com suas correspondentes perdas de transformação.

This sector consists of all the transformation centers where the (primary and/or secondary) energy received is changed into one or more forms of secondary energy with their corresponding transformation losses

Linha 11 - TOTAL DA TRANSFORMAÇÃO: soma das linhas 12 a 20. As quantidades colocadas nas colunas 1 a 11 e 13 a 28, representam a soma algébrica de energia primária e secundária que entra e sai do conjunto dos centros de transformação.

Line 11 - TRANSFORMATION TOTAL: sum of lines 12 to 20. The quantities placed in columns 1 to 11 and 13 to 28 represent the algebraic sum of primary and secondary energies that input and output transformation centers.

Linhas 12 a 19 - CENTROS DE TRANSFORMAÇÃO: refinarias de petróleo, plantas de gás natural, usinas de gaseificação, coquearias, centrais elétricas de serviço público e autoprodutoras, carvoarias e destilarias.

Lines 12 to 19 - TRANSFORMATION CENTERS: oil refineries, natural gas plants, gasifying plants, coke plants, public service and self-producing electric power plants, charcoal works and distilleries.

Linha 20 - OUTRAS TRANSFORMAÇÕES: inclui os efluentes (produtos energéticos) produzidos pela Indústria Química, quando do processamento da nafta e outros produtos não-energéticos de petróleo.

Line 20 - OTHER TRANSFORMATIONS: This item includes the effluents (energy products) produced by chemical industries during the processing of naphtha and other non-energy oil products.

Observações importantes sobre os sinais nos centros de transformação:

- toda energia primária e/ou secundária que entra (como insumo) no centro de transformação tem sinal negativo.
- toda energia secundária produzida e apropriada nos centros de transformação tem sinal positivo.

10.1.1.6. Perdas

Linha 21- PERDAS NA DISTRIBUIÇÃO E ARMAZENAGEM: perdas ocorridas durante as atividades de produção, transporte, distribuição e armazenamento de energia. Como exemplos, podem-se destacar: perdas em gasodutos, oleodutos, linhas de transmissão de eletricidade, redes de distribuição elétrica. Não se incluem nesta linha as perdas nos centros de transformação.

10.1.1.7. Consumo Final

Nesta parte são detalhados os diferentes setores da atividade econômica do Estado, para onde convergem as energias primária e secundária, configurando o Consumo Final de Energia.

Linha 22 - CONSUMO FINAL: energia primária e secundária que se encontra disponível para ser usada por todos os setores de consumo final do Estado, incluindo o Consumo Final Energético e o Consumo Final Não-Energético. Corresponde à soma das linhas 23 e 24.

Linha 23 - CONSUMO FINAL NÃO-ENERGÉTICO: quantidade de energia contida em insumos energéticos que são utilizados em diferentes setores para fins não-energéticos.

Linha 24 - CONSUMO FINAL ENERGÉTICO: agrega o consumo final dos setores energético, residencial, comercial, público, agropecuário, transportes, industrial e consumo não-identificado. Corresponde à soma das linhas 25 a 30, mais as linhas 35 e 47.

Important remarks on the signs at transformation centers:

- *all the primary and/or secondary energy that arrives at the transformation center (as an input) has a negative sign.*
- *All the secondary energy produced and appropriated at the transformation centers has a positive sign.*

10.1.1.6. Losses

Line 21- LOSSES IN THE DISTRIBUTION AND STORAGE: Losses occurred during the activities involved in the energy production, transportation, distribution and storage. The following are examples to be highlighted: losses in gas pipelines, oil pipelines, electric power transmission lines, electric power distribution networks. This line does not include the transformation center losses.

10.1.1.7. Final Consumption

This section brings a detailed coverage of the different areas of economic activity in the state to which the primary and secondary energies converge and are to be used for final consumption purposes.

Line 22 - FINAL CONSUMPTION: Primary and secondary energy available to be used by all the state's final consumption sectors, including the energy and non-energy final consumption. It corresponds to the sum of lines 23 and 24.

Line 23 - NON-ENERGY FINAL CONSUMPTION: Quantity of energy contained in energy inputs used in different areas for non-energy purposes.

Line 24 - ENERGY FINAL CONSUMPTION: This item aggregates the final consumption of energy application areas - residential, commercial, public, farming and agriculture and livestock, transportations, industrial and unidentified consumption. It corresponds to the sum of lines 25 to 30 plus lines 35 and 47.

Por sua vez, os setores Transporte e Industrial estão ainda subdivididos da seguinte forma:

- Transporte : rodoviário, ferroviário, aéreo e hidroviário. É a somatória das linhas 31 a 34.
- Industrial: cimento, ferro-gusa e aço, ferro-ligas, mineração/pelotização, não ferrosos/outras da metalurgia, química, alimentos e bebidas, têxtil, papel e celulose, cerâmica e outros. Corresponde a soma das linhas 36 a 46.

Linha 25 - CONSUMO FINAL DO SETOR ENERGÉTICO: energia consumida nos centros de transformação e/ou nos processos de extração e transporte interno de produtos energéticos, na sua forma final.

Linha 47 - CONSUMO NÃO-IDENTIFICADO: corresponde ao consumo que, pela natureza da informação compilada, não pode ser classificado num dos setores anteriormente descritos.

Linha 48 – AJUSTES ESTATÍSTICOS: critério utilizado para compatibilizar os dados correspondentes a produção, transformação e o consumo de energia.

10.1.1.8. Convenção de Sinais

Nos blocos de oferta e centros de transformação, toda quantidade de energia que tende a aumentar a energia disponível no Estado é POSITIVA: produção, importação, retirada de estoque e saídas dos centros de transformação; toda quantidade que tende a diminuir a energia disponível no Estado é NEGATIVA: acréscimo de estoque, exportação, não aproveitada, reinjeção, energia transformada, perdas na transformação e perdas na distribuição e armazenagem.

Finalmente, todos os dados que se encontram na parte referente ao consumo final de energia são também negativos, mas por motivo de simplificação, na apresentação, aparecem como quantidades aritméticas (sem sinal).

The transportation and industrial sectors are still subdivided as follows:

- *Transportation: road, railway, air and river navigation. It is the sum of lines 31 to 34.*
- *Industrial: cement, pig iron and steel, iron alloys, mining/pelletizing, non-ferrous/others from metal works, chemistry, foods and beverages, textiles, pulp and paper, ceramics and others. It corresponds to the sum of lines 36 to 46.*

Line 25 - FINAL CONSUMPTION OF THE ENERGY INDUSTRY: Energy consumed by transformation centers and/or extraction processes and internal transportation of energy products in their final form.

Line 47 - UNIDENTIFIED CONSUMPTION: This item covers the consumed energy that, because of the nature of the compiled information, may not be included in one of the previously described sectors.

Line 48 – STATISTIC ADJUSTMENTS: Criteria used to render production, transformation and energy data compatible.

10.1.1.8. Sign Convention

In the offer blocks and transformation centers, all the energy quantity that tends to increase the energy available in the state is POSITIVE: Production, import, withdrawal of stock and outputs from transformation centers; all the quantity that tends to decrease the energy available in the state is NEGATIVE: Inventory increase, export, non-exploitation, reinjection, transformed energy, losses in the transformation and losses in the distribution and storage.

Finally, all the data found in the section covering the final consumption is also negative. But, for simplification purposes, in the presentation, they appear as arithmetic quantities (no sign).

10.1.2. Operações Básicas da Matriz

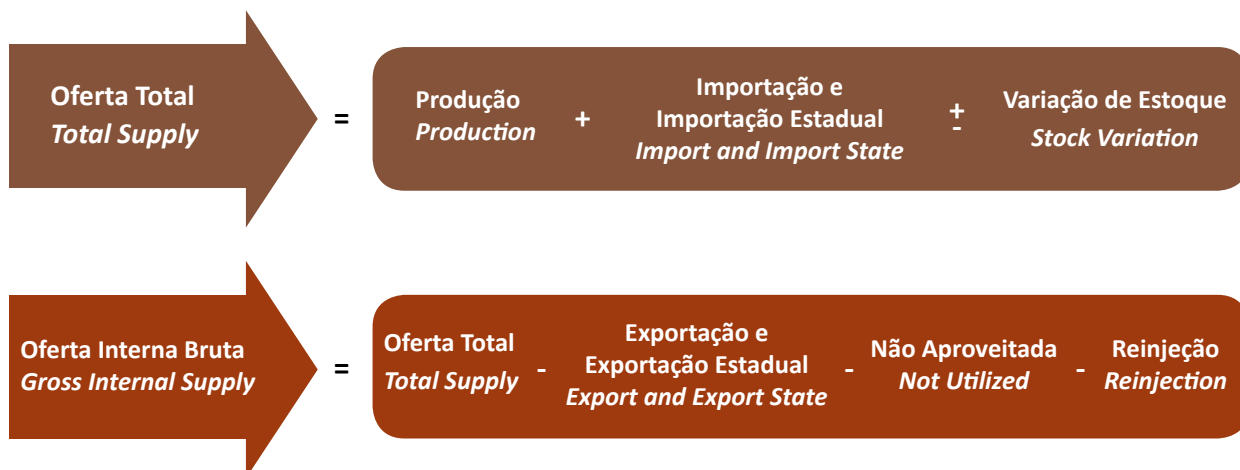
10.1.2. Matrix Basic Operations

10.1.2.1. Energia Primária e Secundária

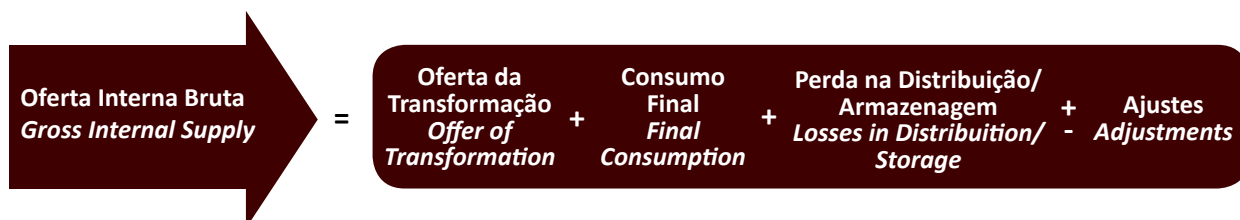
10.1.2.1. Primary and Secondary Energy

O fluxo de cada fonte primária e secundária é representada pelas seguintes equações, respeitados os sinais constantes nos números dos balanços consolidados:

The flow of each primary and secondary source is represented by the following equations, respecting the signs of the numbers in the consolidated balances:



Ou ainda:
Or:



Deve ser observado que a produção de energia secundária aparece no bloco relativo aos centros de transformação, tendo em vista ser toda ela proveniente da transformação de outras formas de energia. Assim, para evitar dupla contagem, a linha de "produção" da matriz fica sem informação para as fontes secundárias. Mesmo assim, para a energia secundária também valem as operações anteriormente descritas, desde que se considere a produção nos centros de transformação como parte da oferta.

It should be noted that the secondary energy production is shown in the block of the transformation centers since all of it results from the transformation of other forms of energy. Thus, to prevent duplicate count, the matrix "production" line brings no information on the secondary sources. Even so, for the secondary energy, the previously described operations also apply, provided that the production at transformation centers is regarded as part of the supply.

10.1.2.2. Transformação

Nesta parte, configurada pelos centros de transformação, é observada a seguinte operação, também respeitando os sinais presentes nos números.

10.1.2.2. Transformation

In this section, configured according to the transformation centers, the following operation is observed, also respecting the signs.



10.1.2.3. Consumo Final de Energia

10.1.2.3. Final Energy Consumption



Ou ainda:
Or:



[illegible]

10.2. Tratamento das Informações

10.2. Information Processing

10.2.1. Apresentação

Neste anexo são apresentadas as fontes de dados e alguns aspectos peculiares de algumas fontes de energia quanto à forma e obtenção de seus dados. Modificações em relação aos Balanços anteriores são explicitadas ao final deste anexo.

10.2.2. Classificação Setorial

A classificação de consumo setorial do Balanço Energético Nacional, que foi integralmente adotada no BEESP, segue o Código de Atividades da Receita Federal (portarias no. 907, de 28 de agosto de 1989, e no. 962, de 29 de dezembro de 1987 - DOU de 31/12/87 - seção I).

Recentemente o processo de coleta e tratamento dos dados vem sendo ajustado à Classificação Nacional de Atividades Econômicas – CNAE.

10.2.3. Fonte dos Dados

Os dados e informações utilizados na elaboração do BEESP foram obtidos de forma direta ou indireta, de diversas entidades do cenário econômico brasileiro, com destaque para o Ministério das Minas e Energia – MME, através do Departamento Nacional de Desenvolvimento Energético da Secretaria de Energia. A seguir, a relação das principais fontes de informações:

- **Cana-de-Açúcar, Etanol e Bagaço de Cana**

ANP – Agência Nacional de Petróleo
ÚNICA – União da Indústria Canavieira do Estado de São Paulo

- **Carvão Mineral**

Companhia Siderúrgica Paulista – COSIPA
Departamento Nacional da Indústria e Comércio
Sindicato Nacional dos Produtores de Carvão

10.2.1. Presentation

This annexes shows the data sources and some peculiar aspects of some energy sources regarding the form and acquisition of the data. The changes with regard to the previous balances are described at the end of this annexes.

10.2.2. Classification per Sector

The sector-based consumption classification of the National Energy Balance, which was fully adopted for use in the BEESP, complies with the Code of Activities of the Brazilian Internal Revenue Service No. 907 of August 28, 1989, and No. 962 of December, 1987 - Daily Official Gazette of 12/31/87 – Section I).

The data gathering and processing process is being adjusted to comply with the National Classification of Economic Activities – CNAE.

10.2.3. Data Sources

The data and information used in the preparation of the Energy Balance of the State of Sao Paulo were gathered either directly or indirectly from several economic entities of Brazil, particularly the Ministry of Mines and Energy – MME through the National Department for Energy Development of the Energy Secretariat. The following is a list of the main information sources:

- **Sugar Cane, Ethanol and Sugar Cane Bagasse**

*Brazil's National Petroleum Agency (ANP)
Sugar Cane Industry Union for the State of Sao Paulo*

- **Coal**

*Companhia Siderúrgica Paulista – COSIPA
National Department of Industry and Trade
National Union of Coal Producers*

• **Carvão Vegetal**

Associação Brasileira de Florestas Renováveis – ABRACAVE
Sindicato do Comércio Varejista de Carvão Vegetal e Lenha do Estado de São Paulo

• **Cimentos**

Camargo Corrêa Cimentos S.A.
Cimento Tupi – Mogi das Cruzes
Companhia de Cimento Ribeirão Grande
Companhia de Cimentos do Brasil – CIMPOR
Concrebrás
Holcim Brasil S.A. – Sorocaba
Sindicato Nacional da Indústria do Cimento – SNIC
Votorantim Cimentos

• **Energia Hidráulica e Eletricidade**

AES Tietê
Bandeirante Energia S. A.
Caiuá Serviços de Eletricidade S.A.
CESP – Companhia Energética de São Paulo
CJE – Companhia Jaguari de Energia
CLFM – Companhia Luz e Força Mococa
CLFSC – Companhia Luz e Força Santa Cruz
Companhia Brasileira de Alumínio – CBA
Companhia Paulista de Força e Luz – CPFL
Companhia Piratininga de Força e Luz
CNEE – Companhia Nacional de Energia Elétrica S.A.
CPEE – Companhia Paulista de Energia Elétrica
CPFL Geração de Energia S.A.
CPFL – Companhia Paulista de Força e Luz
CPFL – Companhia Piratininga de Força e Luz
CSPE – Companhia Sul Paulista de Energia
CTEEP – Companhia de Transmissão de Energia Elétrica Paulista
Duke Energy International Geração Paranapanema S.A.
Elektro Serviços de Eletricidade e Serviços S.A.
Eletropaulo Metropolitana - Eletricidade de São Paulo S.A.
EEB – Empresa Elétrica Bragantina S.A.
EEVP – Empresa de Eletricidade Vale Paranapanema S.A.
EMAE – Empresa Metropolitana de Águas e Energia S.A.
Furnas Centrais Elétricas S.A.

• **Charcoal**

*Brazilian Association for Renewable Forests – ABRACAVE
Union of Charcoal and Firewood Retailers for the State of São Paulo*

• **Cement**

*Camargo Corrêa Cimentos S.A.
Cimento Tupi – Mogi das Cruzes
Companhia de Cimento Ribeirão Grande
Companhia de Cimentos do Brasil – CIMPOR
Concrebrás
Holcim Brasil S.A. – Sorocaba
Cement Industries National Union – SNIC
Votorantim Cimentos*

• **Hydraulic Energy and Electric Power**

*AES Tietê
Bandeirante Energia S. A.
Caiuá Serviços de Eletricidade S.A.
CESP – Companhia Energética de São Paulo
CJE – Companhia Jaguari de Energia
CLFM – Companhia Luz e Força Mococa
CLFSC – Companhia Luz e Força Santa Cruz
Companhia Brasileira de Alumínio – CBA
Companhia Paulista de Força e Luz – CPFL
Companhia Piratininga de Força e Luz
CNEE – Companhia Nacional de Energia Elétrica S.A.
CPEE – Companhia Paulista de Energia Elétrica
CPFL Geração de Energia S.A.
CPFL – Companhia Paulista de Força e Luz
CPFL – Companhia Piratininga de Força e Luz
CSPE – Companhia Sul Paulista de Energia
CTEEP – Companhia de Transmissão de Energia Elétrica Paulista
Duke Energy International Geração Paranapanema S.A.
Elektro Serviços de Eletricidade e Serviços S.A.
Eletropaulo Metropolitana - Eletricidade de São Paulo S.A.
EEB – Empresa Elétrica Bragantina S.A.
EEVP – Empresa de Eletricidade Vale Paranapanema S.A.
EMAE – Empresa Metropolitana de Águas e Energia S.A.
Furnas Centrais Elétricas S.A.*

• **Gás Canalizado**

Companhia de Gás de São Paulo – COMGÁS
Gás Brasileiro Distribuidora Ltda.
Gás Natural Fenosa

• **Lenha**

Associação Brasileira de Florestas Renováveis – ABRACAVE
Fundação Instituto Brasileiro de Geografia e Estatística – IBGE
Projeto Matriz Energética Brasileira – MME

• **Petróleo**

Agência Nacional de Petróleo – ANP
Companhia Docas do Estado de São Paulo – CODESP
Petróleo Brasileiro S.A. – PETROBRÁS
Petrobrás Transportes S.A. - TRANSPETRO
Terminal Marítimo Almirante Barroso – TEBAR

• **Turfa e Linhito**

CESP – Companhia Energética de São Paulo

• **Outras Fontes**

Associação Brasileira de Celulose e Papel – BRACELPA
Associação Brasileira dos Fabricantes de Ferro-Ligas – ABRAFE
Associação Brasileira de Fundição – ABIFA
Associação Brasileira das Indústrias da Alimentação – ABIA
Associação Nacional dos Fabricantes de Papel e Celulose – ANFPC
Associação Nacional Indústria Química – ABIQUIM
CBA – Companhia Brasileira de Alumínio
Balanco Energético Nacional
Fundação Florestal
Fundação Getúlio Vargas – FGV
Fundação Sistema Estadual de Análise de Dados – SEADE
Instituto Economia Agrícola – IEA
Instituto Florestal
Maringá S.A. Cimento e Ferro-Liga
Braskem - Ex. Quattor e Ex Petroquímica UNIÃO

• **Piped Gas**

Companhia de Gás de São Paulo – COMGÁS
Gás Brasileiro Distribuidora Ltda.
Gás Natural Fenosa

• **Firewood**

Brazilian Association for Renewable Forests – ABRACAVE
Brazilian Institute of Geography and Statistics – IBGE
Brazilian Energy Mix Project – MME

• **Petroleum**

National Petroleum Agency – ANP
Companhia Docas do Estado de São Paulo – CODESP
Petróleo Brasileiro S.A. – PETROBRÁS
Petrobrás Transportes S.A. - TRANSPETRO
Terminal Marítimo Almirante Barroso – TEBAR

• **Turf and Lignite**

CESP – Companhia Energética de São Paulo

• **Other sources**

Brazilian Association for Paper and Pulp – BRACELPA
Brazilian Association of Ferroalloy Manufacturers – ABRAFE
Brazilian Foundry Association – ABIFA
Brazilian Association of Foodstuff Industries – ABIA
National Association of Paper and Pulp Manufacturers – ANFPC
Chemical Industry National Association – ABIQUIM
CBA – Companhia Brasileira de Alumínio
National Energy Balance
Forest Foundation
Getúlio Vargas Foundation – FGV
Data Analysis State System Foundation – SEADE
Instituto Economia Agrícola – IEA
Instituto Florestal
Maringá S.A. Cement and Ferroalloys
Braskem - Ex. Quattor e Ex. Petroquímica UNIÃO

10.2.4. Peculiaridades no Tratamento das Informações

- Petróleo, Gás Natural e Derivados - Para os dados de produção, importação, exportação, estoques e transformação é utilizada como fonte a ANP. Para os dados de consumos setoriais, três são as fontes: PETROBRÁS, ANP e Instituições de Classe. Da ANP são recebidas as informações relativas às entregas e vendas feitas diretamente pelas refinarias.

- Uma particularidade do Balanço Energético do Estado de São Paulo - BEESP em relação ao Balanço Energético Nacional - BEN é quanto à apropriação do consumo relativo ao abastecimento de navios estrangeiros (BUNKERS), que no primeiro está contabilizado no transporte hidroviário e no segundo, no item exportação.

- Carvão Vapor e Carvão Metalúrgico - as condições das jazidas (pequenas espessuras de camadas) e os métodos de lavra do carvão mineral conduzem à extração de um “carvão bruto” ROM (run-of mine) com elevadas parcelas de material inerte (argilitos, etc.). Assim, considera-se no Balanço, como energia primária, o carvão mineral após o seu beneficiamento, nas formas de carvão vapor e carvão metalúrgico.

- Energia Hidráulica e Eletricidade - para a energia hidráulica, considera-se como consumo o valor correspondente à produção bruta de energia, medido nas centrais hidráulicas. Não é considerada a parcela correspondente à energia vertida.

- Lenha e Carvão Vegetal - a produção de lenha e carvão vegetal é determinada a partir dos dados de consumo, levando-se em conta um percentual de perdas na distribuição e armazenagem, não considerando a variação de estoques. Os dados de consumo setorial de lenha são obtidos através de interpolações e extrapolações, à exceção das Indústrias de papel e celulose, cimento e química, das quais são obtidas informações de consumo real.

10.2.4. Peculiarities of the Information Processing

- *Petroleum, Natural Gas and By-Products - ANP is used as a source for data on production, imports, exports, stocks and transformation. Three sources are used for data on sectorial consumptions: PETROBRÁS, ANP and class institutions. ANP supplies information on the direct sales and deliveries by refineries.*

- *A particularity of the Energy Balance of the State of Sao Paulo (BEESP) with regard to the National Energy Balance (BEN) is the appropriation of the consumption related to foreign vessels (bunkers). In the state balance, this consumption is entered as hidroway transport while in the national balance, this consumption is referred to as exports.*

- *Steam coal and hard coking coal - the mine conditions (small layer thicknesses) and the coal mining methods lead to the extraction of a run-of mine (ROM) coal with a high content of inert materials (argillite, etc.). As a result, after being processed to become steam coal and hard coking coal, the energy balance coal is referred to as primary energy.*

- *Hydraulic Energy and Electricity - the energy gross production measured at the hydraulic plants is regarded as the hydraulic energy consumption. The spilled energy portion is not taken into consideration.*

- *Firewood and Charcoal - the firewood and charcoal production is determined according to consumption data taking into consideration the percentage of losses in the distribution and storage, disregarding the variation of stocks. The firewood sectorial consumption data is obtained by interpolations and extrapolations, except for the paper and pulp, cement and chemical industries on which the actual consumption information is available.*

O consumo do carvão vegetal é calculado, principalmente, em função das informações recebidas pelos setores da siderurgia e metalurgia. No setor comercial foi estimado e imputado, basicamente, às pizzarias e churrascarias.

- **Produtos da Cana-de-Açúcar** - Os produtos da cana-de-açúcar são considerados como produtos primários: o caldo de cana, melaço, bagaço, pontas, folhas, e como produtos secundários o etanol anidro e hidratado. De cada tonelada de cana esmagada para produção de Etanol obtêm-se 750 kg de caldo de cana (não se considera a água utilizada na lavagem da cana). Quanto ao bagaço, é considerado apenas o de uso energético.

- **Coque e Carvão Mineral** - considera-se, no BEESP, que a totalidade do consumo do coque é efetuado pela COSIPA.

The charcoal consumption is calculated mainly with the use of information supplied by the steel and iron making and metal works sectors. The commercial consumption was estimated using basically the information available on churrascarias (barbecue all-you-can-eat restaurants) and pizza houses.

- **Sugar Cane Products** - The sugar cane products are regarded as primary products: juice, molasses, bagasse, tips, leaves, anhydrous ethanol and hydrated ethanol being regarded as secondary products. Out of each smashed ton of sugar cane to produce Ethanol, 750 kilos of juice are produced (the water used for the cane washing is not considered). Only the bagasse used to produce energy is considered.

- **Coke and Coal** - The Energy Balance of the State of Sao Paulo considers that COSIPA is responsible for the total coke consumption.

10.3. Alterações Incorporadas ao BEESP 2014

10.3. Amendments to Corporate BEESP 2014

UNIDADE: Desde a edição do BEESP 2010, este documento passou a ser publicado adotando-se apenas uma única unidade de conversão, o toe (tonne of oil equivalent), apresentada em todos os consolidados e capítulos, a menos do capítulo 3 – Oferta e Demanda de Energia por Fonte, que utiliza dados em suas unidades originais. As justificativas correspondentes encontram-se descritas no item 10.4 Unidades e 10.5 Poderes Caloríficos. Vale ressaltar que o toe é uma unidade similar àquela adotada na composição do Balanco Energético Nacional (BEN), na qual 1 toe = 10.000.000 kcal

Da mesma forma que nas edições anteriores, adotou-se a unidade toe (tonne of oil equivalent) em substituição a kcal (quilocaloria). Assim, o insumo energético Cana-de-Açúcar passou a ser substituído separadamente pelos insumos energéticos Caldo de Cana, Melaço e Bagaço, este último considerado agora como energia primária e não mais energia secundária.

Na Tabela 3-05 Carvão Metalúrgico, foram revistos os valores referentes aos anos 2008 e 2013, devido a correções e ajustes estabelecidas pela ANP – Agência Nacional do Petróleo, Gás Natural e Biocombustíveis, nos itens Importação Estadual, Variação de Estoques, Oferta Bruta e Total da Transformação.

Na Tabela 3-06 Energia Hidráulica, devido a uma revisão no cálculo da oferta de eletricidade, foram alterados todos os valores correspondentes ao ano 2013.

Na Tabela 3-10 Óleo Diesel, o insumo Biodiesel passa a ser incorporado ao óleo Diesel na proporção de 5% do total considerado neste item. Em função de correções da ANP, os valores de Exportação, Consumo Final e Industrial foram revisados para o ano 2013.

Na Tabela 3-15 Nafta, os valores apresentados pela ANP – Agência Nacional de Petróleo, Gás Natural e Biocombustíveis, já estão transformados de t para m³, cuja conversão é de 1:0,7055.

Na Tabela 3-16 Querosene, os dados de Querosene de Aviação da ANP foram totalmente alocados em Transporte Aéreo.

UNIT: Since the edition of BEESP 2010, this document came to be published with the adoption of a single conversion unit, the toe (ton of oil equivalent), with all the chapters, except for Chapter 3 – Supply and Demand of Energy that use the data in its original units. The corresponding justifications are given in item 10.4 Units and 10.5 Calorific Powers. It should be pointed out that toe is a unit similar to the unit adopted for composition the National Energy Balance (BEN) in which 1 toe = 10.000.000 kcal.

Like the previous editions, we adopted the unit toe (tone of oil equivalent) in place of kcal (kilo calories). Thus, the Sugar Cane energy input started to be replaced separately by the Juice, Molasses and Bagasse sugar cane energy inputs, the bagasse now being regarded as primary energy and no longer as secondary energy.

In Table 3-05 Metallurgical Coal, have been revised figures for the years 2008 and 2013, due to corrections and adjustments established by the ANP - National Agency of Petroleum, Natural Gas and Biofuels, in the items State Imports, Changes of Stocks, Gross Offer and Total Transformation.

In Table 3-06 Power Hydraulics, due to a revision in the calculation of electricity supply, have changed all the values corresponding to the year 2013

In Tabela 3-10 Diesel oil, the feedstock Biodiesel becomes incorporated into the diesel oil in the proportion of 5% of the total used in this item. In the ANP corrections function, Export values, Final Consumption and Industrial were revised for the year 2013.

In Table 3-15 Naphtha, the values shown for ANP- National Petroleum, Natural Gas and Biofuels have already been changed from t to m³, whose conversion factor is 1:0,7055.

In Table 3-16 Kerosene, data of Aviation Kerosene of the ANP were fully allocated to Air Transport.

Já os dados de Querosene Iluminante da ANP, relativos a postos de revenda, comercial e distribuidores independentes, foram incorporados ao Consumo do Setor Residencial.

Already data Illuminating Kerosene of the ANP, posts relating to resale, commercial and independent distributors, were incorporated into the consumption of the Residential Sector.

Na Tabela 3-19 Coque de Carvão Mineral, devido a correções dos valores apresentados pela CBA para o ano 2013, foram alterados os dados de Importação, Não Aprov. + Ajustes + Perdas, Oferta Bruta e Consumo Final.

In Table 3-19 Coal Coke, due to corrections of the figures presented by the CBA for the year 2013, have changed the values to Import data, Non Utilized + Adjustments + losses, Gross Supply and Final Consumption.

Na Tabela 3-20 Eletricidade, foram revistos os valores do ano 2013, dos itens Centrais Elétricas Autoprodutores, Consumo Final e Consumo Final Energético

In Table 3-20 Electricity, have been revised figures of the year 2013 of the items Self-producers Power Plants, Final Consumption and Final Energy Consumption.

Na Tabela 3-24 Etanol Hidratado, foram revisados os valores apresentados pela ÚNICA para o ano 2013, referentes aos itens Exportação, Oferta Bruta, Consumo Final, Transportes e Rodoviário.

In Table 3-24 Ethanol Hydrated were reviewed the figures submitted by UNICA for the year 2013 concerning the Export items, Gross Supply, Final Consumption, Transportation and Highways.

Na Tabela 3-26 Outras Secundárias, sistematicamente alocam-se os dados de Coque de Petróleo como o principal insumo energético. Foram ainda atualizados os valores de 2005 a 2013 dos itens Industrial, Não Ferrosos & Outros da Metalurgia e Outros.

In Table 3-26 Other Secondary, systematically allocate the data of Petroleum Coke as the main energy source. Were also updated the values from 2005 to 2013 of the items Industrial, Non Ferrous & Others Metallurgy and Others.

Na Tabela 3-28 Não Energéticos de Petróleo, os combustíveis classificados pela ANP como não energéticos do petróleo são: solventes, graxa, parafina, asfalto e óleo lubrificante.

In Table 3-28 Non-Energy Petroleum, fuels classified by the ANP as non-energy oil are: solvents, grease, paraffin, asphalt and lubricant oil.

O Capítulo 08 Recursos e Reservas Energéticas foi inteiramente modificado e atualizado a partir da edição passada, contemplando dados e mapas das energias solar e eólica.

Chapter 08 Energy Resources and Reserves was entirely modified and updated from the previous edition, covering data and maps of solar and wind energy

O principal destaque do ano 2014 foi a necessidade do Estado de São Paulo importar etanol hidratado para atender seu parque consumidor, uma vez que a produção interna (aumento de 4,2%) foi insuficiente para abastecer o consumo (aumento de 13,91%).

The main highlight of 2014 was the need of the State of São Paulo import hydrated ethanol to meet its consumer Park, since domestic production (up 4.2%) was insufficient to fuel consumption (up 13.91%).

10.4. Unidades

10.4. Units

A adoção de uma unidade de transformação de diferentes insumos energéticos na mesma base, não é mero capricho metodológico. Ela decorre de conceitos físicos que permitem uniformizá-los, conforme metodologia internacional sobre o assunto. Nesse sentido, são apresentadas as seguintes considerações:

As operações aritméticas envolvidas em qualquer tipo de balanço pressupõem que seus elementos possuam “qualidades” equivalentes, isto é, sejam quantidades que possam ser somadas ou subtraídas entre si.

Infelizmente, não é o que ocorre quando se realiza um balanço de energia envolvendo diferentes formas energéticas e respectivas “qualidades” associadas. A dificuldade se origina do 2º princípio da termodinâmica, que discrimina as formas de energia em função de sua capacidade de realizar trabalho mecânico.

Por exemplo, pode-se transformar toda energia elétrica ou mecânica em calor ou energia térmica. Entretanto, o inverso é teoricamente impossível, ou seja, ao se transformar energia térmica em energia mecânica ou elétrica, obrigatoriamente uma parte da energia se transforma em calor a uma temperatura mais baixa, de “qualidade” inferior. Isto significa ter quantidades de energia térmica iguais, mas, dependendo da temperatura, com diferentes capacidades de realizar trabalho.

Por razões históricas, cada unidade de energia do Sistema Internacional está associada, para a maioria das pessoas, a alguma forma de energia. Assim, a caloria - cal se associa o calor (proveniente de petróleo, carvão, lenha, etc.), ao Joule - J se associa a energia mecânica (de origem hidráulica, eólica, etc.) ao Watt-hora - Wh se associa a eletricidade, de forma que qualquer que seja a unidade escolhida para se contabilizar um balanço de energia surge imediatamente o problema da conversibilidade entre suas diversas formas.

The adoption of a unit for the transformation of different energy inputs on the same base is not a mere methodological caprice. It results from physical concepts that make it possible to uniform them according to an international methodology. In this connection, the following considerations are made:

The arithmetic operations involved in any type of balance assume that its elements should have equivalent qualities, that is, quantities that may be added up or subtracted from one another.

Unfortunately, that is not what happens when making an energy balance that involves different forms of energy and their associated “qualities”. The difficulty comes from the second principle of thermodynamics which discriminates the forms of energy according to its capacity to perform a mechanical task.

For example, all the electric or mechanical energy can be transformed into heat or thermal energy. However, the inverse is theoretically impossible. That is, when transforming thermal energy into mechanical or electric energy, it is mandatory that part of the energy be transformed into heat at a temperature lower, of inferior quality. This means having equal thermal energy quantities, but, depending on the temperature, with different capacities to perform the activity.

For historic reasons, for most of the people, each unit of energy of the International System is associated with some form of energy. Thus, the calorie - cal associates the heat (from oil, coal, firewood, etc.) with Joule - J associates the mechanical energy (from a hydraulic, wind, etc origin) with Watt-hour - Wh associates electricity in such a way that whatever the unit chosen to be used in an energy balance, the immediate result is the convertibility problem involving its different forms.

Em alguns países, onde o petróleo representa o principal insumo, tanto na geração térmica, quanto na elétrica, optou-se pela adoção de uma unidade de energia não pertencente ao Sistema Internacional de Unidade, o tonne of oil equivalent - toe, que, como o próprio nome indica, representa a quantidade de um “petróleo” necessária para a realização de todas as tarefas energéticas necessárias a um país, sejam elas mecânicas, elétricas ou térmicas. A unidade toe equivale a 10 Gcal (10.000.000 kcal). Entretanto, não se deve confundir esta unidade com o poder calorífico inferior do petróleo “médio” igual a 10.200.000 kcal/t.

Esse procedimento, para um país onde a geração elétrica é essencialmente hidráulica, como no Brasil pode induzir a uma apreciação equivocada do papel da eletricidade, quando cotejada com outros energéticos.

Neste caso, 01 kWh de eletricidade corresponderia em base hidráulica ao equivalente calórico de 860 kcal e não o seu correspondente em base térmica de 3.132 kcal.

Assim, visando a uma maior uniformização de linguagem, deixando o BEESP mais aderente ao BEN, a partir desta edição, a única unidade adotada como referência para sistemas de conversão de valores passa a ser o toe (tonne of oil equivalent), uma vez que a mesma:

- Está relacionada diretamente a um energético importante;
- Expressa um valor físico;
- É uma unidade utilizada por outros balanços energéticos, tanto estaduais e nacionais, quanto internacionais (IEA, OLADE, WEC, US Energy Dept. e outros).

In some countries, where oil is the main input, both for thermal and electric generation, the option was the adoption of an energy unit that does not belong to the Unit International System, the ton of oil equivalent - toe, which represents the quantity of oil required for performing all the mechanical, electric or thermal energy activities a country may require. The unit toe is equivalent to 10 Gcal (10,000.000 kcal). However, this unit is not to be confused with the oil average lower heating values equal to 10,200,000 kcal/t.

In a country like Brazil, where electric power generation is essentially from hydraulic sources, this procedure can lead to an erroneous assessment of the role played by electricity in comparison with other types of energy.

In this case, 01 kWh of electricity would in hydraulic base the equivalent caloric 860 kcal and not its basic corresponding thermal 3,132 kcal.

Thus, for an improved language standardization, making the BEESP more adherent to the BEN, starting in this edition, the only unit used as a reference for the value conversion systems will be the toe (ton of oil equivalent), provided that:

- *It is directly related to an important energy type;*
- *Expresses a physical value;*
- *It is the unit used in other energy balances, both at the state, national and international levels (IEA, OLADE, WEC, US Energy Dept. and others).*

10.5. Poderes Calóricos

10.5. Heating Values

A tendência mundial é a elaboração de balanços que privilegiem a ótica da demanda, ou seja, a contabilização da energia sob o ponto de vista do consumidor final, considerando os poderes caloríficos inferiores (PCI) e não os superiores (PCS).

O BEESP, desde sua edição inicial em 1982 adotou o critério de contabilização de fontes de energia em PCI e a equivalência da eletricidade de 860 kcal/kWh.

A escolha do PCI ocorreu por melhor expressar à quantidade de calor recuperável de cada combustível, pois não leva em consideração o calor absorvido na vaporização da água, inerente ao processo de combustão.

A escolha da equivalência térmica (860 kcal/kWh) deveu-se ao princípio de que a geração elétrica em nosso país é essencialmente hidráulica e, portanto, mais compatível com nossa realidade.

Historicamente, até o ano de 2001, o BEN adotava o critério de equivalência térmica para geração de eletricidade, tomando-se como referência a equivalência de 3.132 kcal/kWh, o que resultava num maior dimensionamento da eletricidade, da ordem de 3,64 vezes maior que aquela energia realmente disponibilizada para a sociedade. Atualmente os dois balanços adotam os mesmos critérios de análise e avaliação de dados.

The prevailing trend in the world is the preparation of balances that favors supply from the end consumer's point of view considering the lower and not higher heating values.

Since its first edition in 1982, the BEESP has been using an energy source accounting criteria in LHV and the electricity equivalence of 860 Kcal/kWh.

The choice of LHV was due to the fact that it better expresses the quantity of recoverable heat of each fuel, because it does not take into consideration the heat absorbed in the water vaporization which is an inherent feature in the combustion process

The choice of thermal equivalence in electricity of 860 kcal/kWh was due to the principle that electric generation in our country is essentially hydraulic and, therefore, more compatible with our reality.

Historically, till the year 2001, the thermal equivalence criteria used in the BEN for electric power generation used the equivalence of 3132 kcal/kWh as a reference. This resulted in an electric power overscaling 3,64 times bigger than the electric power actually available to society. Nowadays, the two balances use the same criteria for data analysis and assessment.

10.6. Fatores de Conversão

10.6. Conversion Factors

Densidades, Poderes Caloríficos e Coeficientes de Conversão
Specific Mass, Heating Values and Conversion Coefficients

Energéticos / Energy	Densidade / Specific Mass kg/m³	Poder Calorífico Inferior / Lower Heating Values (PCI) kcal/kg	Poder Calorífico Superior / Higher Heating Values (PCS) kcal/kg	Unidade Original / Original Unit	Fator Multiplicador / Multiply by
					para/to 10³ toe (PCI)
Petróleo (médio) / average Petroleum	867	10200	10800	10³ m³	0,88434
Carvão Vapor (médio) / Stean Coal	-	4000	4460	10³ t	0,4
Carvão Metalúrgico (médio) / Metallurgical Coal	-	7425	7700	10³ t	0,7425
Energia Hidráulica / Hydraulic Energy	-	860 ⁽⁵⁾	3132 ⁽⁴⁾	GWh	0,086
Lenha / Firewood	390	2530 ⁽¹⁾	3300	10³ m³	0,0987
	390	2530 ⁽¹⁾	3300	10³ t	0,253
Cana de Açúcar (médio) Sugarcane	-	917	1030	10³ t	0,0917
Outras Fontes Primárias / Other Primary Sources	-	-	-	10³ tep	1,02
Óleo Diesel / Diesel Oil	851	10180	10750	10³ m³	0,8663
Óleo Combustível (médio) / Fuel Oil	999	9547	10900	10³ m³	0,9537
Gasolina (médio) / Gasoline	738	10556	11230	10³ m³	0,77903
GLP / LPG	552	11026	11750	10³ m³	0,6086
Nafta / Naphtha	704	10462	11320	10³ m³	0,7365
Querosene (médio) / Kerosene	787	10396	11090	10³ m³	0,8182
Gás Canalizado / Pipelined gas	-	4230 ⁽²⁾	4700 ⁽²⁾	10³ m³	0,423
Gás Coqueria / Coking Gas	-	4400 ⁽²⁾	4500 ⁽²⁾	10⁶ m³	0,44
Coque Carvão Mineral / Coal Coke	-	6900	7300	10³ t	0,69
Eletricidade / Electricity	-	860 ⁽⁵⁾	3132 ⁽⁴⁾	GWh	0,086
Lixivia / Black Liquor	2100	-	3030	m³	0,2315
Carvão Vegetal / Charcoal	250	6115	6800	10³ m³	0,15287
	250	6115	6800	10³ t	0,6115
Etanol Anidro / Anhydrous Ethanol	791	6400	7090	10³ m³	0,5062
Etanol Hidratado / Hydrated Ethanol	809	5960	6650	10³ m³	0,4814
Bagaço de Cana (3) / Sugar-Cane Bagasse	-	1777	2257	10³ t	0,1777
Gás de Refinaria / Refinery Gas	780	8272	8800	10³ m³	0,64522
Outras Fontes Secundárias / Other Secondary Sources					0
(base coque de petróleo) / Petroleum Coke Base	867	10800	10200	10³ m³	0,8843
Produtos Não Energéticos (petróleo) Non-Energy Oil by-Products	-	10200	10800	10³ m³	0,88434
Produtos Não Energéticos (açúcar) Non-Energy Sugar by-Products	-	3600	4000	10³ t	0,36
Gás Natural / Natural Gas	-	8554 ⁽²⁾	9400 ⁽²⁾	10⁶ m³	0,8111

(1) Lenha com 25% de umidade / Firewood with 25% of umidity

(2) kcal/m³, refere-se ao poder calorífico utilizado para referência de preço do gás / Heating Values when the gas price is utilized

(3) Bagaço com 50% de umidade / Bagasse with 50% of umidity

(4) kcal/kWh - Energia Primária / Energy Primary

(5) kcal/kWh - Energia Final / Final Energy

Outras Equivalências Energéticas / Others Equivalences

1 m³ = 6,28981 barris
1 barril = 0,158987 m³
1 J (Joule) = 0,239 cal
1 Btu (British Thermal Unit) = 252 cal
1 m³ de petróleo / Oil = 0,872 t
1 toe (tonelada de óleo equivalente) = 10000 Mcal
1 m³ Gás Natural / Natural Gas = 37,312 x 10³ Btu

10.7. Balanços de Energéticos Consolidados

Balço Energético do Estado de São Paulo - 10³ toe 1980

OPERAÇÃO	Petróleo	Carvão Vapor	Carvão Metalur.	Gás Natural	Energ. Hidrául.	Lenha	Caldo de Cana	Melaço	Bagaço de Cana	Lixívia	Outras Primár.	Energia Primár.	Óleo Diesel	Óleo Combust.	Gasolina	GLP	Nafta	Quero - sene	Gás Canaliz.	Gás de Coquer.	Coque Carv. Min.	Eletri- cidade	Carvão Vegetal	Etanol Anidro	Etanol Hidrat.	Gás de Refinar.	Out.Ene. Petróleo	Não Energét.	Energia Secund.	Total
Produção	0	0	0	0	4.499	943	1.603	193	3.303	217	47	10.805	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10.805
Importação	18.620	0	1.004	0	0	0	0	0	0	0	0	19.624	23	245	56	34	0	0	0	0	124	0	0	0	0	0	49	36	567	20.191
Importação Estadual	5.149	138	317	0	0	193	0	0	0	0	0	5.797	0	0	0	0	13	0	0	0	46	116	0	0	0	72	414	661	6.458	
Variação de Estoques	0	-50	-73	0	0	0	0	0	0	0	0	-123	-301	196	63	-27	-139	-56	0	0	-49	0	0	269	-117	0	-5	174	8	-115
Oferta Total	23.769	88	1.248	0	4.499	1.136	1.603	193	3.303	217	47	36.103	-278	441	119	7	-126	-56	0	0	75	46	116	269	-117	0	116	624	1.236	37.339
Exportação	0	0	0	0	0	0	0	0	0	0	0	0	-347	-180	-189	0	0	0	0	0	0	0	0	-78	-45	0	0	-14	-853	-853
Exportação Estadual	0	0	0	0	0	0	0	0	0	0	0	0	-2.703	-439	-572	-268	0	-142	0	0	0	-90	0	-460	-175	0	0	0	-4.849	-4.849
Não Aproveitada	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Reinjeção	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oferta Interna Bruta	23.769	88	1.248	0	4.499	1.136	1.603	193	3.303	217	47	36.103	-3.328	-178	-642	-261	-126	-198	0	0	75	-44	116	-269	-337	0	116	610	-4.466	31.637
Total da Transformação	-23.768	0	-1.146	0	-4.500	-480	-1.603	-193	-39	-32	-35	-31.796	7.701	6.975	3.776	1.298	1.334	675	115	215	823	4.630	17	781	512	45	191	906	29.994	-1.802
Refinarias de Petróleo	-23.768	0	0	0	0	0	0	0	0	0	0	-23.768	7.705	7.074	3.672	1.227	1.643	675	0	0	0	0	0	0	0	45	191	906	23.138	-630
Plantas de Gás Natural	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Usinas de Gaseificação	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-127	0	115	0	0	0	0	0	0	0	0	0	-12	-12
Coquerias	0	0	-1.146	0	0	0	0	0	0	0	0	-1.146	0	0	0	0	0	0	0	215	823	0	0	0	0	0	0	0	1.038	-108
Cent. Elét. Serv. Público	0	0	0	0	-4.377	0	0	0	0	0	0	-4.377	0	-16	0	0	0	0	0	0	0	4.380	0	0	0	0	0	0	4.364	-13
Cent. Elét. Auto Prod.	0	0	0	0	-123	-2	0	0	-39	-32	-35	-231	-4	-83	0	0	0	0	0	0	0	250	0	0	0	0	0	0	163	-68
Carvoarias	0	0	0	0	0	-478	0	0	0	0	0	-478	0	0	0	0	0	0	0	0	0	0	17	0	0	0	0	0	17	-461
Destilarias	0	0	0	0	0	0	-1.603	-193	0	0	0	-1.796	0	0	0	0	0	0	0	0	0	0	0	781	512	0	0	0	1.293	-503
Outras Transforma.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	104	71	-182	0	0	0	0	0	0	0	0	0	0	0	-7	-7
Perdas Distr. Armaz.	0	-2	-102	0	0	0	0	0	-370	0	0	-474	0	0	0	0	0	0	-17	0	0	-531	0	-8	-5	0	0	0	-561	-1.035
Consumo Final	0	85	0	0	0	657	0	0	2.895	185	12	3.834	4.372	6.799	3.135	1.036	1.209	476	98	215	898	4.054	133	504	169	45	306	1.516	24.965	28.799
Cons. Final Não Energ.	0	0	0	0	0	0	0	0	68	0	0	68	0	0	0	0	1.209	0	0	0	0	0	1	0	65	0	0	1.516	2.791	2.859
Cons. Final Energético	0	85	0	0	0	657	0	0	2.827	185	12	3.766	4.372	6.799	3.135	1.036	0	476	98	215	898	4.054	132	504	104	45	306	0	22.174	25.940
Setor Energético	0	0	0	0	0	0	0	0	833	0	0	833	17	657	0	6	0	0	33	0	60	0	0	0	45	0	0	818	1.651	
Residencial	0	0	0	0	0	148	0	0	0	0	0	148	0	0	0	844	0	56	34	0	0	777	2	0	0	0	0	0	1.713	1.861
Comercial	0	0	0	0	0	66	0	0	0	0	0	66	52	150	0	66	0	0	15	0	0	406	7	0	0	0	0	0	696	762
Público	0	0	0	0	0	3	0	0	0	0	0	3	15	0	0	2	0	2	1	0	0	316	0	0	0	0	0	0	336	339
Agropecuário	0	0	0	0	0	13	0	0	0	0	0	13	541	68	0	1	0	2	0	0	0	70	0	0	0	0	0	0	682	695
Transportes - Total	0	0	0	0	0	0	0	0	0	0	0	0	3.597	411	3.135	0	0	344	0	0	0	50	0	504	104	0	0	0	8.145	8.145
Rodoviário	0	0	0	0	0	0	0	0	0	0	0	0	3.324	0	3.118	0	0	0	0	0	0	0	0	504	104	0	0	0	7.050	7.050
Ferrovário	0	0	0	0	0	0	0	0	0	0	0	0	94	10	0	0	0	0	0	0	50	0	0	0	0	0	0	154	154	
Aéreo	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17	0	0	344	0	0	0	0	0	0	0	0	0	0	361	361
Hidroviário	0	0	0	0	0	0	0	0	0	0	0	0	179	401	0	0	0	0	0	0	0	0	0	0	0	0	0	0	580	580
Industrial - Total	0	85	0	0	0	427	0	0	1.994	185	12	2.703	150	5.513	0	117	0	72	48	182	898	2.375	123	0	0	0	306	0	9.784	12.487
Cimento	0	66	0	0	0	0	0	0	0	0	0	66	8	538	0	0	0	0	0	0	69	1	0	0	0	0	0	0	616	682
Ferro Gusa e Aço	0	0	0	0	0	1	0	0	0	0	3	4	2	408	0	19	0	13	0	182	898	186	105	0	0	0	0	0	1.813	1.817
Ferro Ligas	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16	14	0	0	0	0	0	30	30	
Mineração e Pelotiz.	0	0	0	0	0	0	0	0	0	0	0	0	19	326	0	0	0	1	0	0	26	0	0	0	0	0	0	0	372	372
Não Ferr.*Out. Metal.	0	0	0	0	0	0	0	0	0	0	0	0	0	274	0	0	0	5	13	0	0	372	0	0	0	0	290	0	954	954
Química	0	0	0	0	0	1	0	0	14	0	0	15	17	1.011	0	38	0	2	0	0	276	2	0	0	0	0	0	0	1.346	1.361
Alimentos e Bebidas	0	1	0	0	0	159	0	0	1.980	0	2	2.142	37	674	0	5	0	7	9	0	244	0	0	0	0	0	0	0	976	3.118
Têxtil	0	0	0	0	0	1	0	0	0	0	0	1	16	358	0	2	0	7	3	0	0	218	1	0	0	0	0	0	605	606
Papel e Celulose	0	0	0	0	0	19	0	0	0	185	5	209	14	634	0	0	0	4	1	0	0	174	0	0	0	0	0	0	827	1.036
Cerâmica	0	17	0	0	0	169	0	0	0	0	0	186	14	291	0	16	0	3	4	0	0	50	0	0	0	0	0	0	378	564
Outros	0	1	0	0	0	77	0	0	0	0	2	80	23	999	0	37	0	30	18	0	0	744	0	0	0	0	16	0	1.867	1.947
Cons. Não Identificado	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ajustes	1	1	0	0	-1	-1	0	0	-1	0	0	-1	1	-2	-1	1	-1	1	0	0	0	1	0	0	1	0	1	0	2	1

Balço Energético do Estado de São Paulo - 10³ toe 1981

OPERAÇÃO	Petróleo	Carvão Vapor	Carvão Metalur.	Gás Natural	Energ. Hidrául.	Lenha	Caldo de Cana	Melaço	Bagaço de Cana	Lixívia	Outras Primár.	Energia Primár.	Óleo Diesel	Óleo Combust.	Gasolina	GLP	Nafta	Quero - sene	Gás Canaliz.	Gás de Coquer.	Coque Carv. Min.	Eletri- cidade	Carvão Vegetal	Etanol Anidro	Etanol Hidrat.	Gás de Refinar.	Out.Ene. Petróleo	Não Energét.	Energia Secund.	Total	
Produção	0	0	0	0	4.273	980	1.675	193	3.379	212	124	10.836	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10.836	
Importação	22.908	0	931	0	0	0	0	0	0	0	0	23.839	68	20	34	63	0	0	0	0	50	0	0	0	0	0	8	10	253	24.092	
Importação Estadual	592	220	262	0	0	192	0	0	0	0	0	1.266	0	0	0	0	0	0	0	0	190	131	0	0	0	169	406	896	2.162		
Variação de Estoques	0	-100	-10	0	0	0	0	0	0	0	0	-110	-123	31	128	-13	-8	-29	0	0	-50	0	0	85	-225	0	-221	256	-169	-279	
Oferta Total	23.500	120	1.183	0	4.273	1.172	1.675	193	3.379	212	124	35.831	-55	51	162	50	-8	-29	0	0	190	131	85	-225	0	-44	672	980	36.811		
Exportação	0	0	0	0	0	0	0	0	0	0	0	0	-173	-74	-471	-15	0	0	0	0	0	0	-16	-43	0	0	-25	-817	-817		
Exportação Estadual	0	0	0	0	0	0	0	0	0	0	0	0	-2.905	-991	-756	-300	-55	-261	0	0	0	-70	0	-280	-318	0	0	0	-5.936	-5.936	
Não Aproveitada	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Reinjeção	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Oferta Interna Bruta	23.500	120	1.183	0	4.273	1.172	1.675	193	3.379	212	124	35.831	-3.133	-1.014	-1.065	-265	-63	-290	0	0	120	131	-211	-586	0	-44	647	-5.773	30.058		
Total da Transformação	-23.500	0	-1.091	0	-4.273	-461	-1.675	-193	-39	-31	-105	-31.368	7.367	6.646	4.136	1.345	1.457	758	110	194	834	4.400	19	441	948	52	256	659	29.622	-1.746	
Refinarias de Petróleo	-23.500	0	0	0	0	0	0	0	0	0	0	-23.500	7.370	6.729	4.036	1.257	1.773	758	0	0	0	0	0	0	52	256	659	22.890	-610		
Plantas de Gás Natural	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Usinas de Gaseificação	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-119	0	110	0	0	0	0	0	0	0	0	-9	-9		
Coquearias	0	0	-1.091	0	0	0	0	0	0	0	0	-1.091	0	0	0	0	0	0	0	194	834	0	0	0	0	0	0	0	1.028	-63	
Cent. Elét. Serv. Público	0	0	0	0	-4.158	0	0	0	0	0	0	-4.158	0	-12	0	0	0	0	0	0	0	4.160	0	0	0	0	0	0	4.148	-10	
Cent. Elét. Auto Prod.	0	0	0	0	-115	-5	0	0	-39	-31	-105	-295	-3	-71	0	0	0	0	0	0	0	240	0	0	0	0	0	0	166	-129	
Carvoarias	0	0	0	0	0	-456	0	0	0	0	0	-456	0	0	0	0	0	0	0	0	0	0	19	0	0	0	0	0	19	-437	
Destilarias	0	0	0	0	0	0	-1.675	-193	0	0	0	-1.868	0	0	0	0	0	0	0	0	0	0	0	441	948	0	0	0	1.389	-479	
Outras Transforma.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100	88	-197	0	0	0	0	0	0	0	0	0	0	0	-9	-9	
Perdas Distr. Armaz.	0	-3	-93	0	0	0	0	0	-378	0	0	-474	0	0	0	0	0	0	-9	0	0	-442	0	-5	-10	0	0	0	-466	-940	
Consumo Final	0	117	0	0	0	711	0	0	2.962	181	19	3.990	4.233	5.632	3.071	1.080	1.394	469	101	195	833	4.080	149	226	352	52	212	1.305	23.384	27.374	
Cons. Final Não Energ.	0	0	0	0	0	0	0	0	69	0	0	69	0	0	0	0	1.394	0	0	0	0	0	1	0	56	0	0	1.305	2.756	2.825	
Cons. Final Energético	0	117	0	0	0	711	0	0	2.893	181	19	3.921	4.233	5.632	3.071	1.080	0	469	101	195	833	4.080	148	226	296	52	212	0	20.628	24.549	
Setor Energético	0	0	0	0	0	0	0	0	861	0	0	861	4	586	0	12	0	0	0	30	0	68	0	0	0	52	0	0	752	1.613	
Residencial	0	0	0	0	0	149	0	0	0	0	0	149	0	0	0	859	0	50	36	0	0	825	2	0	0	0	0	0	1.772	1.921	
Comercial	0	0	0	0	0	65	0	0	0	0	0	65	58	116	0	114	0	0	16	0	0	423	7	0	0	0	0	0	734	799	
Público	0	0	0	0	0	3	0	0	0	0	0	3	16	0	0	2	0	3	1	0	0	335	0	0	0	0	0	0	357	360	
Agropecuário	0	0	0	0	0	14	0	0	0	0	0	14	567	60	0	1	0	2	0	0	0	80	0	0	0	0	0	0	710	724	
Transportes - Total	0	0	0	0	0	0	0	0	0	0	0	0	3.471	611	3.071	0	0	352	0	0	0	52	0	226	296	0	0	0	8.079	8.079	
Rodoviário	0	0	0	0	0	0	0	0	0	0	0	0	3.203	0	3.055	0	0	0	0	0	0	0	0	0	226	296	0	0	0	6.780	6.780
Ferrovário	0	0	0	0	0	0	0	0	0	0	0	0	95	3	0	0	0	0	0	0	0	52	0	0	0	0	0	0	150	150	
Aéreo	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16	0	0	352	0	0	0	0	0	0	0	0	0	0	368	368	
Hidroviário	0	0	0	0	0	0	0	0	0	0	0	0	173	608	0	0	0	0	0	0	0	0	0	0	0	0	0	0	781	781	
Industrial - Total	0	117	0	0	0	480	0	0	2.032	181	19	2.829	117	4.259	0	92	0	62	48	165	833	2.297	139	0	0	0	212	0	8.224	11.053	
Cimento	0	102	0	0	0	0	0	0	0	0	2	104	6	490	0	0	0	0	0	0	0	66	1	0	0	0	0	0	563	667	
Ferro Gusa e Aço	0	1	0	0	0	1	0	0	0	0	4	6	3	277	0	15	0	10	0	165	833	193	119	0	0	0	0	0	1.615	1.621	
Ferro Ligas	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18	16	0	0	0	0	0	34	34	
Mineração e Pelotiz.	0	0	0	0	0	0	0	0	0	0	0	0	15	228	0	0	0	1	0	0	0	29	0	0	0	0	0	0	273	273	
Não Ferr.*Out. Metal.	0	0	0	0	0	0	0	0	0	0	0	0	0	113	0	0	0	5	13	0	0	346	0	0	0	0	199	0	676	676	
Química	0	1	0	0	0	2	0	0	14	0	0	17	13	908	0	29	0	1	0	0	0	260	2	0	0	0	0	0	1.213	1.230	
Alimentos e Bebidas	0	5	0	0	0	161	0	0	2.018	0	4	2.188	29	634	0	4	0	6	10	0	0	256	0	0	0	0	0	0	939	3.127	
Têxtil	0	2	0	0	0	4	0	0	0	0	0	6	12	307	0	2	0	5	2	0	0	205	1	0	0	0	0	0	534	540	
Papel e Celulose	0	0	0	0	0	38	0	0	0	181	6	225	10	478	0	0	0	0	1	0	0	173	0	0	0	0	0	0	662	887	
Cerâmica	0	2	0	0	0	194	0	0	0	0	1	197	11	237	0	13	0	3	4	0	0	52	0	0	0	0	0	0	320	517	
Outros	0	4	0	0	0	80	0	0	0	0	2	86	18	587	0	29	0	31	18	0	0	699	0	0	0	0	13	0	1.395	1.481	
Cons. Não Identificado	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Ajustes	0	0	-1	0	0	0	0	0	0	0	0	-1	1	0	0	0	0	-1	0	-1	1	-2	1	-1	0	0	0	1	-1	-2	

Balço Energético do Estado de São Paulo - 10³ toe 1982

OPERAÇÃO	Petróleo	Carvão Vapor	Carvão Metalur.	Gás Natural	Energ. Hidrául.	Lenha	Caldo de Cana	Melaço	Bagaço de Cana	Lixívia	Outras Primár.	Energia Primár.	Óleo Diesel	Óleo Combust.	Gasolina	GLP	Nafta	Quero - sene	Gás Canaliz.	Gás de Coquer.	Coque Carv. Min.	Eletri- cidade	Carvão Vegetal	Etanol Anidro	Etanol Hidrat.	Gás de Refinar.	Out.Ene. Petróleo	Não Energét.	Energia Secund.	Total	
Produção	0	0	0	0	4.706	1.102	2.492	207	4.457	221	136	13.321	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13.321	
Importação	18.117	0	910	0	0	0	0	0	0	0	0	19.027	51	996	44	331	0	0	0	0	48	0	0	0	0	0	85	40	1.595	20.622	
Importação Estadual	5.540	150	218	0	0	190	0	0	0	0	0	6.098	0	0	0	0	0	0	0	0	88	158	0	0	0	93	174	513	6.611		
Variação de Estoques	0	48	-24	0	0	0	0	0	0	0	0	24	102	-583	-57	-7	102	-21	0	0	-90	0	0	-367	110	0	-150	231	-730	-706	
Oferta Total	23.657	198	1.104	0	4.706	1.292	2.492	207	4.457	221	136	38.470	153	413	-13	324	102	-21	0	0	-42	88	158	-367	110	0	28	445	1.378	39.848	
Exportação	0	0	0	0	0	0	0	0	0	0	0	0	-165	-285	-309	0	0	-5	0	0	0	0	0	-18	-16	0	-3	-1	-802	-802	
Exportação Estadual	0	0	0	0	0	0	0	0	0	0	0	0	-3.821	-1.803	-1.124	-493	-38	-355	0	0	0	0	0	0	0	0	0	0	0	0	
Não Aproveitada	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Reinjeção	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Oferta Interna Bruta	23.657	198	1.104	0	4.706	1.292	2.492	207	4.457	221	136	38.470	-3.833	-1.675	-1.446	-169	64	-381	0	0	-42	56	158	-836	-233	0	25	444	-7.868	30.602	
Total da Transformação	-23.658	0	-1.101	0	-4.706	-432	-2.492	-207	-51	-32	-105	-32.784	8.049	6.500	4.359	1.345	1.522	803	124	206	782	4.844	23	1.253	639	94	203	693	31.439	-1.345	
Refinarias de Petróleo	-23.658	0	0	0	0	0	0	0	0	0	0	-23.658	8.050	6.591	4.256	1.266	1.848	803	0	0	0	0	0	0	0	94	203	693	23.804	146	
Plantas de Gás Natural	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Usinas de Gaseificação	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-131	0	124	0	0	0	0	0	0	0	0	0	-7	-7	
Coquearias	0	0	-1.101	0	0	0	0	0	0	0	0	-1.101	0	0	0	0	0	0	0	206	782	0	0	0	0	0	0	0	988	-113	
Cent. Elét. Serv. Público	0	0	0	0	-4.592	0	0	0	0	0	0	-4.592	0	-4	0	0	0	0	0	0	0	4.592	0	0	0	0	0	0	0	4.588	-4
Cent. Elét. Auto Prod.	0	0	0	0	-114	-9	0	0	-51	-32	-105	-311	-3	-87	0	0	0	0	0	0	0	252	0	0	0	0	0	0	0	162	-149
Carvoarias	0	0	0	0	0	-423	0	0	0	0	0	-423	0	0	0	0	0	0	0	0	0	0	23	0	0	0	0	0	23	-400	
Destilarias	0	0	0	0	0	0	-2.492	-207	0	0	0	-2.699	0	0	0	0	0	0	0	0	0	0	0	1.253	639	0	0	0	1.892	-807	
Outras Transforma.	0	0	0	0	0	0	0	0	0	0	0	0	2	0	103	79	-195	0	0	0	0	0	0	0	0	0	0	0	-11	-11	
Perdas Distr. Armaz.	0	-6	-3	0	0	0	0	0	-499	0	0	-508	0	0	0	0	0	0	-13	-3	0	-654	0	-13	-6	0	0	0	-689	-1.197	
Consumo Final	0	192	0	0	0	862	0	0	3.907	189	30	5.180	4.215	4.825	2.913	1.175	1.586	422	110	203	739	4.245	183	404	399	93	228	1.137	22.877	28.057	
Cons. Final Não Energ.	0	0	0	0	0	0	0	0	90	0	0	90	0	0	0	0	1.586	0	0	0	0	0	2	0	56	14	0	1.137	2.795	2.885	
Cons. Final Energético	0	192	0	0	0	862	0	0	3.817	189	30	5.090	4.215	4.825	2.913	1.175	0	422	110	203	739	4.245	181	404	343	79	228	0	20.082	25.172	
Setor Energético	0	0	0	0	0	0	0	0	1.587	0	0	1.587	3	580	0	7	0	0	0	37	0	76	0	0	0	57	0	0	760	2.347	
Residencial	0	0	0	0	0	160	0	0	0	0	0	160	0	0	0	871	0	52	38	0	0	876	2	0	0	0	0	0	1.839	1.999	
Comercial	0	0	0	0	0	66	0	0	0	0	0	66	70	147	0	173	0	0	19	0	0	446	8	0	0	0	0	0	863	929	
Público	0	0	0	0	0	3	0	0	0	0	0	3	31	8	0	4	0	4	1	0	0	352	0	0	0	0	0	0	400	403	
Agropecuário	0	0	0	0	0	14	0	0	0	0	0	14	637	44	0	1	0	1	0	0	0	84	0	0	0	0	0	0	767	781	
Transportes - Total	0	0	0	0	0	0	0	0	0	0	0	0	3.397	557	2.913	0	0	310	0	0	0	56	0	404	343	0	0	0	7.980	7.980	
Rodoviário	0	0	0	0	0	0	0	0	0	0	0	0	3.159	0	2.896	0	0	0	0	0	0	1	0	404	343	0	0	0	6.803	6.803	
Ferrovário	0	0	0	0	0	0	0	0	0	0	0	0	96	3	0	0	0	0	0	0	0	55	0	0	0	0	0	0	154	154	
Aéreo	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17	0	0	310	0	0	0	0	0	0	0	0	0	0	327	327	
Hidroviário	0	0	0	0	0	0	0	0	0	0	0	0	142	554	0	0	0	0	0	0	0	0	0	0	0	0	0	0	696	696	
Industrial - Total	0	192	0	0	0	619	0	0	2.230	189	30	3.260	77	3.489	0	119	0	55	52	166	739	2.355	171	0	0	22	228	0	7.473	10.733	
Cimento	0	183	0	0	0	1	0	0	0	0	7	191	6	346	0	0	0	0	0	0	0	60	6	0	0	0	0	0	418	609	
Ferro Gusa e Aço	0	0	0	0	0	1	0	0	0	0	5	6	3	182	0	16	0	13	0	166	739	177	139	0	0	0	0	0	1.435	1.441	
Ferro Ligas	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	22	15	0	0	0	0	0	37	37		
Mineração e Pelotiz.	0	0	0	0	0	0	0	0	0	0	0	0	11	139	0	0	0	1	0	0	0	30	0	0	0	0	0	0	181	181	
Não Ferr.*Out. Metal.	0	0	0	0	0	0	0	0	0	0	0	0	0	70	0	0	0	5	14	0	0	360	0	0	0	0	217	0	666	666	
Química	0	0	0	0	0	7	0	0	14	0	0	21	10	840	0	38	0	2	0	0	0	276	2	0	0	22	0	0	1.190	1.211	
Alimentos e Bebidas	0	5	0	0	0	220	0	0	2.216	0	7	2.448	21	566	0	4	0	3	10	0	0	270	0	0	0	0	0	0	874	3.322	
Têxtil	0	1	0	0	0	13	0	0	0	0	0	14	3	310	0	2	0	4	2	0	0	215	8	0	0	0	0	0	544	558	
Papel e Celulose	0	0	0	0	0	76	0	0	0	189	7	272	5	421	0	0	0	3	1	0	0	187	0	0	0	0	0	0	617	889	
Cerâmica	0	3	0	0	0	219	0	0	0	0	1	223	3	180	0	15	0	2	5	0	0	58	1	0	0	0	0	0	264	487	
Outros	0	0	0	0	0	82	0	0	0	0	3	85	15	435	0	44	0	22	20	0	0	700	0	0	0	0	11	0	1.247	1.332	
Cons. Não Identificado	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Ajustes	-1	0	0	0	0	-2	0	0	0	0	1	-2	1	0	0	1	0	0	1	0	1	1	-2	0	1	1	0	0	5	3	

Balço Energético do Estado de São Paulo - 10³ toe 1983

OPERAÇÃO	Petróleo	Carvão Vapor	Carvão Metalur.	Gás Natural	Energ. Hidrául.	Lenha	Caldo de Cana	Melaço	Bagaço de Cana	Lixívia	Outras Primár.	Energia Primár.	Óleo Diesel	Óleo Combust.	Gasolina	GLP	Nafta	Quero - sene	Gás Canaliz.	Gás de Coquer.	Coque Carv. Min.	Eletri- cidade	Carvão Vegetal	Etanol Anidro	Etanol Hidrat.	Gás de Refinar.	Out.Ene. Petróleo	Não Energét.	Energia Secund.	Total	
Produção	0	0	0	0	4.676	1.279	3.492	207	5.326	230	64	15.274	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15.274	
Importação	15.700	0	1.112	0	0	0	0	0	0	0	0	16.812	99	48	44	65	3	0	0	0	108	0	0	0	0	0	191	8	566	17.378	
Importação Estadual	5.769	289	235	0	0	188	0	0	0	0	0	6.481	0	0	0	0	0	0	0	0	0	441	159	0	0	0	283	310	1.193	7.674	
Variação de Estoques	0	-16	-19	0	0	0	0	0	0	0	0	-35	-127	407	-10	94	93	-23	0	0	55	0	0	108	-501	0	-451	40	-315	-350	
Oferta Total	21.469	273	1.328	0	4.676	1.467	3.492	207	5.326	230	64	38.532	-28	455	34	159	96	-23	0	0	163	441	159	108	-501	0	23	358	1.444	39.976	
Exportação	0	0	0	0	0	0	0	0	0	0	0	0	-346	-353	-159	0	0	0	0	0	0	0	0	-161	-67	0	-19	-1	-1.106	-1.106	
Exportação Estadual	0	0	0	0	0	0	0	0	0	0	0	0	-2.478	-1.162	-872	-379	-239	-342	0	0	0	0	-196	0	-358	-556	0	0	0	0	
Não Aproveitada	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Reinjeção	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Oferta Interna Bruta	21.469	273	1.328	0	4.676	1.467	3.492	207	5.326	230	64	38.532	-2.852	-1.060	-997	-220	-143	-365	0	0	163	245	159	-411	-1.124	0	4	357	-6.244	32.288	
Total da Transformação	-21.469	0	-1.314	0	-4.676	-409	-3.492	-207	-63	-34	-30	-31.694	7.115	5.356	3.462	1.408	1.556	755	127	261	930	4.814	23	848	1.792	79	249	563	29.338	-2.356	
Refinarias de Petróleo	-21.469	0	0	0	0	0	0	0	0	0	0	-21.469	7.114	5.433	3.358	1.320	1.898	755	0	0	0	0	0	0	0	79	249	563	20.769	-700	
Plantas de Gás Natural	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Usinas de Gaseificação	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-134	0	127	0	0	0	0	0	0	0	0	0	-7	-7	
Coquerias	0	0	-1.314	0	0	0	0	0	0	0	0	-1.314	0	0	0	0	0	0	0	261	930	0	0	0	0	0	0	0	1.191	-123	
Cent. Elét. Serv. Público	0	0	0	0	-4.540	0	0	0	0	0	0	-4.540	0	-4	0	0	0	0	0	0	0	0	4.541	0	0	0	0	0	0	4.537	-3
Cent. Elét. Auto Prod.	0	0	0	0	-136	-22	0	0	-63	-34	-30	-285	-2	-73	0	0	0	0	0	0	0	273	0	0	0	0	0	0	0	198	-87
Carvoarias	0	0	0	0	0	-387	0	0	0	0	0	-387	0	0	0	0	0	0	0	0	0	0	23	0	0	0	0	0	23	-364	
Destilarias	0	0	0	0	0	0	-3.492	-207	0	0	0	-3.699	0	0	0	0	0	0	0	0	0	0	0	848	1.792	0	0	0	2.640	-1.059	
Outras Transforma.	0	0	0	0	0	0	0	0	0	0	0	0	3	0	104	88	-208	0	0	0	0	0	0	0	0	0	0	0	-13	-13	
Perdas Distr. Armaz.	0	-8	-13	0	0	0	0	0	-559	0	0	-580	0	0	0	0	0	0	-8	-15	0	-527	0	-9	-18	0	0	0	-577	-1.157	
Consumo Final	0	266	0	0	0	1.056	0	0	4.705	197	34	6.258	4.265	4.296	2.465	1.188	1.413	389	120	246	1.092	4.530	184	428	650	80	253	921	22.520	28.778	
Cons. Final Não Energ.	0	0	0	0	0	0	0	0	111	0	0	111	0	0	0	0	1.413	0	0	0	0	0	2	0	84	12	0	921	2.432	2.543	
Cons. Final Energético	0	266	0	0	0	1.056	0	0	4.594	197	34	6.147	4.265	4.296	2.465	1.188	0	389	120	246	1.092	4.530	182	428	566	68	253	0	20.088	26.235	
Setor Energético	0	0	0	0	0	0	0	0	2.343	0	0	2.343	20	478	0	5	0	0	0	38	0	110	0	0	0	34	0	0	685	3.028	
Residencial	0	0	0	0	0	161	0	0	0	0	0	161	0	0	0	857	0	46	41	0	0	948	2	0	0	0	0	0	1.894	2.055	
Comercial	0	0	0	0	0	65	0	0	0	0	0	65	68	117	0	201	0	0	21	0	0	479	8	0	0	0	0	0	894	959	
Público	0	0	0	0	0	2	0	0	0	0	0	2	27	17	0	4	0	2	1	0	0	376	0	0	0	0	0	0	427	429	
Agropecuário	0	0	0	0	0	13	0	0	0	0	0	13	606	31	0	1	0	1	0	0	0	91	0	0	0	0	0	0	730	743	
Transportes - Total	0	0	0	0	0	0	0	0	0	0	0	0	3.480	499	2.465	0	0	288	0	0	0	54	0	428	566	0	0	0	7.780	7.780	
Rodoviário	0	0	0	0	0	0	0	0	0	0	0	0	3.209	0	2.452	0	0	0	0	0	0	0	0	0	428	566	0	0	0	6.655	6.655
Ferrovário	0	0	0	0	0	0	0	0	0	0	0	0	97	3	0	0	0	0	0	0	0	54	0	0	0	0	0	0	154	154	
Aéreo	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13	0	0	288	0	0	0	0	0	0	0	0	0	0	301	301	
Hidroviário	0	0	0	0	0	0	0	0	0	0	0	0	174	496	0	0	0	0	0	0	0	0	0	0	0	0	0	0	670	670	
Industrial - Total	0	266	0	0	0	815	0	0	2.251	197	34	3.563	64	3.154	0	120	0	52	57	208	1.092	2.472	172	0	0	34	253	0	7.678	11.241	
Cimento	0	250	0	0	0	0	0	0	0	0	10	260	5	366	0	0	0	0	0	0	0	49	2	0	0	0	0	0	422	682	
Ferro Gusa e Aço	0	0	0	0	0	1	0	0	0	0	3	4	2	162	0	19	0	13	0	208	1.092	193	138	0	0	0	0	0	1.827	1.831	
Ferro Ligas	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25	20	0	0	0	0	0	45	45		
Mineração e Pelotiz.	0	0	0	0	0	0	0	0	0	0	0	0	9	59	0	0	0	1	0	0	0	29	0	0	0	0	0	0	98	98	
Não Ferr.*Out. Metal.	0	0	0	0	0	0	0	0	0	0	0	0	0	72	0	0	0	5	16	0	0	377	0	0	0	0	245	0	715	715	
Química	0	0	0	0	0	16	0	0	14	0	0	30	8	756	0	43	0	1	0	0	0	309	2	0	0	34	0	0	1.153	1.183	
Alimentos e Bebidas	0	4	0	0	0	230	0	0	2.237	0	6	2.477	21	514	0	5	0	3	12	0	0	288	0	0	0	0	0	0	843	3.320	
Têxtil	0	2	0	0	0	24	0	0	0	0	0	26	2	294	0	3	0	3	2	0	0	189	9	0	0	0	0	0	502	528	
Papel e Celulose	0	6	0	0	0	187	0	0	0	197	9	399	4	285	0	0	0	2	1	0	0	195	0	0	0	0	0	0	487	886	
Cerâmica	0	4	0	0	0	273	0	0	0	0	3	280	1	70	0	15	0	2	5	0	0	73	1	0	0	0	0	0	167	447	
Outros	0	0	0	0	0	84	0	0	0	0	3	87	12	576	0	35	0	22	21	0	0	745	0	0	0	0	8	0	1.419	1.506	
Cons. Não Identificado	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Ajustes	0	-1	1	0	0	2	0	0	-1	-1	0	0	-2	0	0	0	0	1	-1	0	1	2	-2	0	0	-1	0	-1	-3	-3	

Balço Energético do Estado de São Paulo - 10³ toe 1984

OPERAÇÃO	Petróleo	Carvão Vapor	Carvão Metalur.	Gás Natural	Energ. Hidrául.	Lenha	Caldo de Cana	Melaço	Bagaço de Cana	Lixívia	Outras Primár.	Energia Primár.	Óleo Diesel	Óleo Combust.	Gasolina	GLP	Nafta	Quero - sene	Gás Canaliz.	Gás de Coquer.	Coque Carv. Min.	Eletri- cidade	Carvão Vegetal	Etanol Anidro	Etanol Hidrat.	Gás de Refinar.	Out.Ene. Petróleo	Não Energét.	Energia Secund.	Total
Produção	0	0	0	0	4.749	1.395	3.443	337	5.243	257	122	15.546	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15.546
Importação	12.584	0	1.331	0	0	0	0	0	0	0	0	13.915	56	33	37	89	3	0	0	0	10	0	0	0	0	0	84	1	313	14.228
Importação Estadual	10.939	278	211	0	0	186	0	0	0	0	0	11.614	0	0	0	0	0	0	0	0	1.091	207	0	0	0	57	313	1.668	13.282	
Variação de Estoques	0	-25	-89	0	0	0	0	0	0	0	0	-114	30	-62	-14	2	184	2	0	0	36	0	0	185	-279	0	-62	36	58	-56
Oferta Total	23.523	253	1.453	0	4.749	1.581	3.443	337	5.243	257	122	40.961	86	-29	23	91	187	2	0	0	46	1.091	207	185	-279	0	79	350	2.039	43.000
Exportação	0	0	0	0	0	0	0	0	0	0	0	0	-406	-535	-761	-18	0	-59	0	0	0	0	0	-250	-121	0	0	-1	-2.151	-2.151
Exportação Estadual	0	0	0	0	0	0	0	0	0	0	0	0	-3.695	-1.153	-954	-332	-382	-456	0	0	0	0	0	-299	-778	0	0	0	-8.323	-8.323
Não Aproveitada	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Reinjeção	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oferta Interna Bruta	23.523	253	1.453	0	4.749	1.581	3.443	337	5.243	257	122	40.961	-4.015	-1.717	-1.692	-259	-195	-513	0	0	46	817	207	-364	-1.178	0	79	349	-8.435	32.526
Total da Transformação	-23.523	0	-1.436	0	-4.749	-406	-3.443	-337	-63	-38	-86	-34.081	8.226	5.721	3.870	1.424	1.477	856	132	269	1.014	4.822	30	787	2.281	190	236	570	31.905	-2.176
Refinarias de Petróleo	-23.523	0	0	0	0	0	0	0	0	0	0	-23.523	8.121	5.775	3.771	1.348	1.895	856	0	0	0	0	0	0	190	236	570	22.762	-761	
Plantas de Gás Natural	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Usinas de Gaseificação	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-142	0	132	0	0	0	0	0	0	0	0	0	-10	-10
Coquerias	0	0	-1.436	0	0	0	0	0	0	0	0	-1.436	0	0	0	0	0	0	0	269	1.014	0	0	0	0	0	0	0	1.283	-153
Cent. Elét. Serv. Público	0	0	0	0	-4.600	0	0	0	0	0	0	-4.600	0	-4	0	0	0	0	0	0	0	4.600	0	0	0	0	0	0	4.596	-4
Cent. Elét. Auto Prod.	0	0	0	0	-149	-31	0	0	-63	-38	-86	-367	-2	-50	0	0	0	0	0	0	0	222	0	0	0	0	0	0	170	-197
Carvoarias	0	0	0	0	0	-375	0	0	0	0	0	-375	0	0	0	0	0	0	0	0	0	0	30	0	0	0	0	0	30	-345
Destilarias	0	0	0	0	0	0	-3.443	-337	0	0	0	-3.780	0	0	0	0	0	0	0	0	0	0	0	787	2.281	0	0	0	3.068	-712
Outras Transforma.	0	0	0	0	0	0	0	0	0	0	0	0	107	0	99	76	-276	0	0	0	0	0	0	0	0	0	0	0	6	6
Perdas Distr. Armaz.	0	-8	-16	0	0	0	0	0	-559	0	0	-583	0	0	0	0	0	0	-8	-5	0	-580	0	-8	-23	0	0	0	-624	-1.207
Consumo Final	0	245	0	0	0	1.174	0	0	4.621	220	36	6.296	4.211	4.005	2.178	1.165	1.282	343	123	264	1.060	5.062	236	416	1.080	190	315	920	22.850	29.146
Cons. Final Não Energ.	0	0	0	0	0	0	0	0	111	0	0	111	0	0	0	0	1.282	0	0	0	0	0	2	0	227	28	0	920	2.459	2.570
Cons. Final Energético	0	245	0	0	0	1.174	0	0	4.510	220	36	6.185	4.211	4.005	2.178	1.165	0	343	123	264	1.060	5.062	234	416	853	162	315	0	20.391	26.576
Setor Energético	0	0	0	0	0	0	0	0	2.380	0	0	2.380	3	667	0	1	0	0	0	44	0	122	0	0	0	118	0	0	955	3.335
Residencial	0	0	0	0	0	161	0	0	0	0	0	161	0	0	0	854	0	42	41	0	0	971	2	0	0	0	0	0	1.910	2.071
Comercial	0	0	0	0	0	66	0	0	0	0	0	66	69	129	0	184	0	0	21	0	0	506	8	0	0	0	0	0	917	983
Público	0	0	0	0	0	1	0	0	0	0	0	1	20	11	0	4	0	1	1	0	0	391	0	0	0	0	0	0	428	429
Agropecuário	0	0	0	0	0	14	0	0	0	0	0	14	563	29	0	1	0	1	0	0	0	107	0	0	0	0	0	0	701	715
Transportes - Total	0	0	0	0	0	0	0	0	0	0	0	0	3.505	544	2.178	0	0	256	0	0	0	57	0	416	853	0	0	0	7.809	7.809
Rodoviário	0	0	0	0	0	0	0	0	0	0	0	0	3.230	0	2.166	0	0	0	0	0	0	1	0	416	853	0	0	0	6.666	6.666
Ferrovário	0	0	0	0	0	0	0	0	0	0	0	0	95	1	0	0	0	0	0	0	0	56	0	0	0	0	0	0	152	152
Aéreo	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	0	0	256	0	0	0	0	0	0	0	0	0	0	268	268
Hidroviário	0	0	0	0	0	0	0	0	0	0	0	0	180	543	0	0	0	0	0	0	0	0	0	0	0	0	0	0	723	723
Industrial - Total	0	245	0	0	0	932	0	0	2.130	220	36	3.563	51	2.625	0	121	0	43	60	220	1.060	2.908	224	0	0	44	315	0	7.671	11.234
Cimento	0	222	0	0	0	1	0	0	0	0	8	231	3	7	0	0	0	0	0	0	0	41	2	0	0	0	0	0	53	284
Ferro Gusa e Aço	0	1	0	0	0	1	0	0	0	0	4	6	2	154	0	19	0	7	0	220	1.060	219	184	0	0	0	0	0	1.865	1.871
Ferro Ligas	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	31	25	0	0	0	0	0	56	56
Mineração e Pelotiz.	0	0	0	0	0	0	0	0	0	0	0	0	9	27	0	0	0	1	0	0	0	32	0	0	0	0	0	0	69	69
Não Ferr.*Out. Metal.	0	0	0	0	0	0	0	0	0	0	0	0	0	36	0	0	0	5	17	0	0	480	0	0	0	0	304	0	842	842
Química	0	0	0	0	0	20	0	0	14	0	0	34	6	733	0	44	0	1	0	0	0	354	3	0	0	44	0	0	1.185	1.219
Alimentos e Bebidas	0	7	0	0	0	241	0	0	2.116	0	6	2.370	18	466	0	5	0	2	11	0	0	355	0	0	0	0	0	0	857	3.227
Têxtil	0	4	0	0	0	43	0	0	0	0	0	47	2	188	0	3	0	2	2	0	0	265	9	0	0	0	0	0	471	518
Papel e Celulose	0	9	0	0	0	257	0	0	0	220	11	497	0	205	0	0	0	3	1	0	0	229	0	0	0	0	0	0	438	935
Cerâmica	0	2	0	0	0	282	0	0	0	0	4	288	1	61	0	12	0	2	4	0	0	76	1	0	0	0	0	0	157	445
Outros	0	0	0	0	0	87	0	0	0	0	3	90	10	748	0	38	0	20	25	0	0	826	0	0	0	0	11	0	1.678	1.768
Cons. Não Identificado	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ajustes	0	0	1	0	0	1	0	0	0	-1	0	1	0	-1	0	0	0	0	1	0	0	-3	1	-1	0	0	-1	-4	-3	

Balço Energético do Estado de São Paulo - 10³ toe 1985

OPERAÇÃO	Petróleo	Carvão Vapor	Carvão Metalur.	Gás Natural	Energ. Hidrául.	Lenha	Caldo de Cana	Melaço	Bagaço de Cana	Lixívia	Outras Primár.	Energia Primár.	Óleo Diesel	Óleo Combust.	Gasolina	GLP	Nafta	Quero - sene	Gás Canaliz.	Gás de Coquer.	Coque Carv. Min.	Eletri- cidade	Carvão Vegetal	Etanol Anidro	Etanol Hidrat.	Gás de Refinar.	Out.Ene. Petróleo	Não Energét.	Energia Secund.	Total
Produção	0	0	0	0	5.172	1.406	4.142	267	5.452	280	139	16.858	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16.858
Importação	9.182	0	1.043	0	0	0	0	0	0	0	0	10.225	39	28	0	175	3	0	0	0	0	0	0	0	0	0	73	11	329	10.554
Importação Estadual	14.581	227	272	0	0	184	0	0	0	0	0	15.264	0	0	0	0	0	0	0	0	0	1.345	242	0	0	0	4	286	1.877	17.141
Variação de Estoques	0	23	130	0	0	0	0	0	0	0	0	153	184	-145	69	-71	169	-77	0	0	-9	0	0	-357	-117	0	41	74	-239	-86
Oferta Total	23.763	250	1.445	0	5.172	1.590	4.142	267	5.452	280	139	42.500	223	-117	69	104	172	-77	0	0	-9	1.345	242	-357	-117	0	118	371	1.967	44.467
Exportação	0	0	0	0	0	0	0	0	0	0	0	0	-420	-445	-1.200	-46	0	-14	0	0	0	0	0	-124	-27	0	0	-22	-2.298	-2.298
Exportação Estadual	0	0	0	0	0	0	0	0	0	0	0	0	-3.449	-1.249	-788	-290	-401	-304	0	0	0	0	0	0	0	0	0	0	0	0
Não Aproveitada	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Reinjeção	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oferta Interna Bruta	23.763	250	1.445	0	5.172	1.590	4.142	267	5.452	280	139	42.500	-3.646	-1.811	-1.919	-232	-229	-395	0	0	-9	966	242	-844	-1.136	0	118	349	-8.546	33.954
Total da Transformação	-23.763	0	-1.435	0	-5.173	-373	-4.142	-267	-69	-41	-97	-35.360	8.010	5.592	4.045	1.476	1.858	801	139	275	1.018	5.258	35	1.263	2.480	119	266	638	33.273	-2.087
Refinarias de Petróleo	-23.763	0	0	0	0	0	0	0	0	0	0	-23.763	8.011	5.648	3.946	1.417	2.200	801	0	0	0	0	0	0	0	119	266	638	23.046	-717
Plantas de Gás Natural	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Usinas de Gaseificação	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-176	0	139	0	0	0	0	0	0	0	0	0	-37	-37
Coquearias	0	0	-1.435	0	0	0	0	0	0	0	0	-1.435	0	0	0	0	0	0	0	275	1.018	0	0	0	0	0	0	0	1.293	-142
Cent. Elét. Serv. Público	0	0	0	0	-5.024	0	0	0	0	0	0	-5.024	0	-10	0	0	0	0	0	0	0	5.026	0	0	0	0	0	0	5.016	-8
Cent. Elét. Auto Prod.	0	0	0	0	-149	-33	0	0	-69	-41	-97	-389	-2	-46	0	0	0	0	0	0	0	232	0	0	0	0	0	0	184	-205
Carvoarias	0	0	0	0	0	-340	0	0	0	0	0	-340	0	0	0	0	0	0	0	0	0	0	35	0	0	0	0	0	35	-305
Destilarias	0	0	0	0	0	0	-4.142	-267	0	0	0	-4.409	0	0	0	0	0	0	0	0	0	0	0	1.263	2.480	0	0	0	3.743	-666
Outras Transforma.	0	0	0	0	0	0	0	0	0	0	0	0	1	0	99	59	-166	0	0	0	0	0	0	0	0	0	0	0	-7	-7
Perdas Distr. Armaz.	0	-7	-10	0	0	0	0	0	-555	0	0	-572	0	0	0	0	0	0	-8	-4	0	-772	0	-13	-25	0	0	0	-822	-1.394
Consumo Final	0	243	0	0	0	1.219	0	0	4.829	239	41	6.571	4.364	3.779	2.127	1.245	1.629	407	132	270	1.009	5.452	280	406	1.318	119	385	986	23.908	30.479
Cons. Final Não Energ.	0	0	0	0	0	0	0	0	118	0	0	118	0	0	0	0	1.629	0	0	0	0	0	3	0	227	18	0	986	2.863	2.981
Cons. Final Energético	0	243	0	0	0	1.219	0	0	4.711	239	41	6.453	4.364	3.779	2.127	1.245	0	407	132	270	1.009	5.452	277	406	1.091	101	385	0	21.045	27.498
Setor Energético	0	0	0	0	0	0	0	0	2.937	0	0	2.937	3	667	0	4	0	0	0	47	0	145	0	0	0	64	0	0	930	3.867
Residencial	0	0	0	0	0	162	0	0	0	0	0	162	0	0	0	962	0	43	43	0	0	1.027	2	0	0	0	0	0	2.077	2.239
Comercial	0	0	0	0	0	66	0	0	0	0	0	66	65	48	0	184	0	0	22	0	0	533	9	0	0	0	0	0	861	927
Público	0	0	0	0	0	1	0	0	0	0	0	1	21	11	0	5	0	1	2	0	0	403	0	0	0	0	0	0	443	444
Agropecuário	0	0	0	0	0	14	0	0	0	0	0	14	587	29	0	2	0	1	0	0	0	121	0	0	0	0	0	0	740	754
Transportes - Total	0	0	0	0	0	0	0	0	0	0	0	0	3.634	637	2.127	0	0	317	0	0	0	55	0	406	1.091	0	0	0	8.267	8.267
Rodoviário	0	0	0	0	0	0	0	0	0	0	0	0	3.304	0	2.118	0	0	0	0	0	0	1	0	406	1.091	0	0	0	6.920	6.920
Ferrovário	0	0	0	0	0	0	0	0	0	0	0	0	99	1	0	0	0	0	0	0	0	54	0	0	0	0	0	0	154	154
Aéreo	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	0	0	317	0	0	0	0	0	0	0	0	0	0	326	326
Hidroviário	0	0	0	0	0	0	0	0	0	0	0	0	231	636	0	0	0	0	0	0	0	0	0	0	0	0	0	0	867	867
Industrial - Total	0	243	0	0	0	976	0	0	1.774	239	41	3.273	54	2.387	0	88	0	45	65	223	1.009	3.168	266	0	0	37	385	0	7.727	11.000
Cimento	0	230	0	0	0	1	0	0	0	0	7	238	3	4	0	0	0	0	0	0	0	40	6	0	0	0	0	0	53	291
Ferro Gusa e Aço	0	0	0	0	0	1	0	0	0	0	4	5	2	160	0	19	0	5	0	223	1.009	221	200	0	0	0	0	0	1.839	1.844
Ferro Ligas	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	26	32	0	0	0	0	0	58	58	
Mineração e Pelotiz.	0	0	0	0	0	0	0	0	0	0	0	0	10	18	0	0	0	0	0	0	38	0	0	0	0	0	0	66	66	
Não Ferr.*Out. Metal.	0	0	0	0	0	0	0	0	0	0	0	0	0	53	0	0	0	16	0	0	536	0	0	0	0	382	0	987	987	
Química	0	0	0	0	0	21	0	0	14	0	0	35	6	811	0	43	0	22	0	0	0	402	6	0	0	37	0	0	1.327	1.362
Alimentos e Bebidas	0	5	0	0	0	255	0	0	1.760	0	6	2.026	19	396	0	4	0	2	10	0	0	388	0	0	0	0	0	0	819	2.845
Têxtil	0	0	0	0	0	44	0	0	0	0	0	44	2	135	0	3	0	2	3	0	0	288	21	0	0	0	0	0	454	498
Papel e Celulose	0	7	0	0	0	272	0	0	0	239	15	533	1	134	0	0	0	3	1	0	0	251	0	0	0	0	0	0	390	923
Cerâmica	0	1	0	0	0	293	0	0	0	0	5	299	1	61	0	12	0	0	7	0	0	79	1	0	0	0	0	0	161	460
Outros	0	0	0	0	0	89	0	0	0	0	4	93	10	615	0	7	0	11	28	0	0	899	0	0	0	0	3	0	1.573	1.666
Cons. Não Identificado	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ajustes	0	0	0	0	-1	-2	0	0	-1	0	1	-3	0	2	-1	-1	0	-1	-1	1	0	0	-3	0	1	0	-1	1	-3	-6

Balço Energético do Estado de São Paulo - 10³ toe 1986

OPERAÇÃO	Petróleo	Carvão Vapor	Carvão Metalur.	Gás Natural	Energ. Hidrául.	Lenha	Caldo de Cana	Melaço	Bagaço de Cana	Lixívia	Outras Primár.	Energia Primár.	Óleo Diesel	Óleo Combust.	Gasolina	GLP	Nafta	Quero - sene	Gás Canaliz.	Gás de Coquer.	Coque Carv. Min.	Eletri- cidade	Carvão Vegetal	Etanol Anidro	Etanol Hidrat.	Gás de Refinar.	Out.Ene. Petróleo	Não Energét.	Energia Secund.	Total
Produção	0	0	0	0	4.761	1.470	3.780	267	5.249	292	224	16.043	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16.043
Importação	11.562	0	1.096	0	0	0	0	0	0	0	0	12.658	46	26	6	171	1	0	0	0	0	0	0	0	0	0	4	4	258	12.916
Importação Estadual	13.267	281	183	0	0	182	0	0	0	0	0	13.913	0	0	0	0	0	0	0	0	0	1.761	257	0	0	0	0	412	2.430	16.343
Variação de Estoques	0	7	52	0	0	0	0	0	0	0	0	59	-67	55	-32	-20	-1	-2	0	0	-73	0	0	-201	-43	0	2	-69	-451	-392
Oferta Total	24.829	288	1.331	0	4.761	1.652	3.780	267	5.249	292	224	42.673	-21	81	-26	151	0	-2	0	0	-73	1.761	257	-201	-43	0	6	347	2.237	44.910
Exportação	0	0	0	0	0	0	0	0	0	0	0	0	-107	-472	-922	-5	0	0	0	0	0	0	0	-21	-36	0	0	-2	-1.565	-1.565
Exportação Estadual	0	0	0	0	0	0	0	0	0	0	0	0	-3.818	-1.001	-1.078	-352	-43	-189	0	0	0	-412	0	-569	-746	0	-21	0	-8.229	-8.229
Não Aproveitada	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Reinjeção	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oferta Interna Bruta	24.829	288	1.331	0	4.761	1.652	3.780	267	5.249	292	224	42.673	-3.946	-1.392	-2.026	-206	-43	-191	0	0	-73	1.349	257	-791	-825	0	-15	345	-7.557	35.116
Total da Transformação	-24.829	0	-1.317	0	-4.760	-401	-3.780	-267	-70	-43	-121	-35.588	8.652	5.474	4.388	1.492	1.483	685	150	263	934	5.014	36	1.256	2.307	289	302	837	33.562	-2.026
Refinarias de Petróleo	-24.829	0	0	0	0	0	0	0	0	0	0	-24.829	8.655	6.029	4.303	1.418	1.818	685	0	0	0	0	0	0	289	302	837	24.336	-493	
Plantas de Gás Natural	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Usinas de Gaseificação	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-164	0	150	0	0	0	0	0	0	0	0	0	-14	-14
Coquearias	0	0	-1.317	0	0	0	0	0	0	0	0	-1.317	0	0	0	0	0	0	0	263	934	0	0	0	0	0	0	0	1.197	-120
Cent. Elét. Serv. Público	0	0	0	0	-4.593	0	0	0	0	0	0	-4.593	0	-482	0	0	0	0	0	0	0	4.752	0	0	0	0	0	0	4.270	-323
Cent. Elét. Auto Prod.	0	0	0	0	-167	-35	0	0	-70	-43	-121	-436	-3	-73	0	0	0	0	0	0	0	262	0	0	0	0	0	0	186	-250
Carvoarias	0	0	0	0	0	-366	0	0	0	0	0	-366	0	0	0	0	0	0	0	0	0	0	36	0	0	0	0	0	36	-330
Destilarias	0	0	0	0	0	0	-3.780	-267	0	0	0	-4.047	0	0	0	0	0	0	0	0	0	0	1.256	2.307	0	0	0	0	3.563	-484
Outras Transforma.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	85	74	-171	0	0	0	0	0	0	0	0	0	0	0	-12	-12
Perdas Distr. Armaz.	0	-4	-13	0	0	0	0	0	-489	0	0	-506	0	0	0	0	0	0	-7	-2	0	-611	0	-13	-23	0	0	0	-656	-1.162
Consumo Final	0	283	0	0	0	1.251	0	0	4.690	250	102	6.576	4.708	4.081	2.362	1.285	1.440	493	143	261	861	5.755	294	453	1.460	289	287	1.182	25.354	31.930
Cons. Final Não Energ.	0	0	0	0	0	0	0	0	111	0	0	111	0	0	0	0	1.440	0	0	0	0	0	3	0	41	43	0	1.182	2.709	2.820
Cons. Final Energético	0	283	0	0	0	1.251	0	0	4.579	250	102	6.465	4.708	4.081	2.362	1.285	0	493	143	261	861	5.755	291	453	1.419	246	287	0	22.645	29.110
Setor Energético	0	0	0	0	0	0	0	0	2.701	0	0	2.701	5	692	0	2	0	0	0	41	0	152	0	0	0	160	0	0	1.052	3.753
Residencial	0	0	0	0	0	163	0	0	0	0	0	163	0	0	0	991	0	43	43	0	0	1.106	2	0	0	0	0	0	2.185	2.348
Comercial	0	0	0	0	0	65	0	0	0	0	0	65	69	50	0	192	0	0	23	0	0	567	9	0	0	0	0	0	910	975
Público	0	0	0	0	0	1	0	0	0	0	0	1	31	12	0	6	0	1	2	0	0	410	0	0	0	0	0	0	462	463
Agropecuário	0	0	0	0	0	14	0	0	0	0	0	14	668	29	0	2	0	1	0	0	0	127	0	0	0	0	0	0	827	841
Transportes - Total	0	0	0	0	0	0	0	0	0	0	0	0	3.874	655	2.362	0	0	387	0	0	0	58	0	453	1.419	0	0	0	9.208	9.208
Rodoviário	0	0	0	0	0	0	0	0	0	0	0	0	3.525	0	2.350	0	0	0	0	0	0	1	0	453	1.419	0	0	0	7.748	7.748
Ferrovário	0	0	0	0	0	0	0	0	0	0	0	0	100	1	0	0	0	0	0	0	0	57	0	0	0	0	0	0	158	158
Aéreo	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	0	0	387	0	0	0	0	0	0	0	0	0	0	399	399
Hidroviário	0	0	0	0	0	0	0	0	0	0	0	0	249	654	0	0	0	0	0	0	0	0	0	0	0	0	0	0	903	903
Industrial - Total	0	283	0	0	0	1.008	0	0	1.878	250	102	3.521	61	2.643	0	92	0	61	75	220	861	3.335	280	0	0	86	287	0	8.001	11.522
Cimento	0	270	0	0	0	1	0	0	0	0	15	286	4	6	0	0	0	0	0	0	0	51	6	0	0	0	0	0	67	353
Ferro Gusa e Aço	0	0	0	0	0	1	0	0	0	0	4	5	3	176	0	20	0	5	0	220	861	243	211	0	0	0	0	0	1.739	1.744
Ferro Ligas	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	38	33	0	0	0	0	0	71	71
Mineração e Pelotiz.	0	0	0	0	0	0	0	0	0	0	0	0	10	21	0	0	0	0	0	0	0	41	0	0	0	0	0	0	72	72
Não Ferr.*Out. Metal.	0	0	0	0	0	0	0	0	0	0	0	0	0	60	0	0	0	0	19	0	0	567	0	0	0	0	283	0	929	929
Química	0	0	0	0	0	22	0	0	14	0	0	36	7	902	0	45	0	32	0	0	0	399	6	0	0	86	0	0	1.477	1.513
Alimentos e Bebidas	0	5	0	0	0	265	0	0	1.864	0	6	2.140	22	448	0	5	0	2	11	0	0	389	0	0	0	0	0	0	877	3.017
Têxtil	0	0	0	0	0	46	0	0	0	0	0	46	2	151	0	3	0	2	3	0	0	288	22	0	0	0	0	0	471	517
Papel e Celulose	0	7	0	0	0	274	0	0	0	250	67	598	2	240	0	0	0	2	1	0	0	244	0	0	0	0	0	0	489	1.087
Cerâmica	0	1	0	0	0	308	0	0	0	0	5	314	1	68	0	12	0	0	8	0	0	85	2	0	0	0	0	0	176	490
Outros	0	0	0	0	0	91	0	0	0	0	5	96	10	571	0	7	0	18	33	0	0	990	0	0	0	0	4	0	1.633	1.729
Cons. Não Identificado	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ajustes	0	1	1	0	1	0	0	0	0	-1	1	3	-2	1	0	1	0	1	0	0	0	-3	-1	-1	-1	0	0	0	-5	-2

Balço Energético do Estado de São Paulo - 10³ toe 1987

OPERAÇÃO	Petróleo	Carvão Vapor	Carvão Metalur.	Gás Natural	Energ. Hidrául.	Lenha	Caldo de Cana	Melaço	Bagaço de Cana	Lixívia	Outras Primár.	Energia Primár.	Óleo Diesel	Óleo Combust.	Gasolina	GLP	Nafta	Quero - sene	Gás Canaliz.	Gás de Coquer.	Coque Carv. Min.	Eletri- cidade	Carvão Vegetal	Etanol Anidro	Etanol Hidrat.	Gás de Refinar.	Out.Ene. Petróleo	Não Energét.	Energia Secund.	Total
Produção	0	0	0	0	4.953	1.417	4.275	267	5.678	321	207	17.118	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17.118
Importação	10.139	0	1.299	0	0	0	0	0	0	0	0	11.438	55	41	5	279	0	0	0	0	0	0	0	0	0	0	0	5	385	11.823
Importação Estadual	16.544	246	88	0	0	180	0	0	0	0	0	17.058	0	0	0	0	0	0	0	0	0	2.169	283	0	0	0	0	237	2.689	19.747
Variação de Estoques	0	16	-59	0	0	0	0	0	0	0	0	-43	-63	150	9	-133	-29	-22	0	0	-66	0	0	-1	104	0	-25	78	2	-41
Oferta Total	26.683	262	1.328	0	4.953	1.597	4.275	267	5.678	321	207	45.571	-8	191	14	146	-29	-22	0	0	-66	2.169	283	-1	104	0	-25	320	3.076	48.647
Exportação	0	0	0	0	0	0	0	0	0	0	0	0	-182	-365	-1.920	-7	0	-58	0	0	0	0	0	-34	-10	0	0	0	-2.576	-2.576
Exportação Estadual	0	0	0	0	0	0	0	0	0	0	0	0	-4.475	-783	-597	-330	-84	-422	0	0	0	0	0	-320	-1.296	0	-5	0	-9.135	-9.135
Não Aproveitada	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Reinjeção	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oferta Interna Bruta	26.683	262	1.328	0	4.953	1.597	4.275	267	5.678	321	207	45.571	-4.665	-957	-2.503	-191	-113	-502	0	0	-66	1.346	283	-355	-1.202	0	-30	320	-8.635	36.936
Total da Transformação	-26.683	0	-1.315	0	-4.952	-363	-4.275	-267	-77	-47	-122	-38.101	9.656	5.396	4.682	1.529	1.595	1.012	157	262	934	5.138	33	762	2.799	356	421	814	35.546	-2.555
Refinarias de Petróleo	-26.683	0	0	0	0	0	0	0	0	0	0	-26.683	9.659	5.681	4.606	1.461	1.921	1.012	0	0	0	0	0	0	0	356	421	814	25.931	-752
Plantas de Gás Natural	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Usinas de Gaseificação	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-169	0	157	0	0	0	0	0	0	0	0	0	-12	-12
Coquerias	0	0	-1.315	0	0	0	0	0	0	0	0	-1.315	0	0	0	0	0	0	0	262	934	0	0	0	0	0	0	0	1.196	-119
Cent. Elét. Serv. Público	0	0	0	0	-4.795	0	0	0	0	0	0	-4.795	0	-200	0	0	0	0	0	0	0	4.858	0	0	0	0	0	0	4.658	-137
Cent. Elét. Auto Prod.	0	0	0	0	-157	-33	0	0	-77	-47	-122	-436	-3	-85	0	0	0	0	0	0	0	280	0	0	0	0	0	0	192	-244
Carvoarias	0	0	0	0	0	-330	0	0	0	0	0	-330	0	0	0	0	0	0	0	0	0	0	33	0	0	0	0	0	33	-297
Destilarias	0	0	0	0	0	0	-4.275	-267	0	0	0	-4.542	0	0	0	0	0	0	0	0	0	0	0	762	2.799	0	0	0	3.561	-981
Outras Transforma.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	76	68	-157	0	0	0	0	0	0	0	0	0	0	0	-13	-13
Perdas Distr. Armaz.	0	-4	-13	0	0	0	0	0	-529	0	0	-546	0	0	0	0	0	0	-3	-2	0	-610	0	-8	-28	0	0	0	-651	-1.197
Consumo Final	0	258	0	0	0	1.233	0	0	5.072	274	84	6.921	4.991	4.439	2.179	1.336	1.482	509	153	260	868	5.873	318	398	1.569	356	390	1.135	26.256	33.177
Cons. Final Não Energ.	0	0	0	0	0	0	0	0	121	0	0	121	0	0	0	0	1.482	0	0	0	0	0	3	0	47	54	0	1.135	2.721	2.842
Cons. Final Energético	0	258	0	0	0	1.233	0	0	4.951	274	84	6.800	4.991	4.439	2.179	1.336	0	509	153	260	868	5.873	315	398	1.522	302	390	0	23.535	30.335
Setor Energético	0	0	0	0	0	0	0	0	3.041	0	0	3.041	6	735	0	7	0	0	0	44	0	129	0	0	0	197	0	0	1.118	4.159
Residencial	0	0	0	0	0	163	0	0	0	0	0	163	0	0	0	1.032	0	53	46	0	0	1.189	2	0	0	0	0	0	2.322	2.485
Comercial	0	0	0	0	0	66	0	0	0	0	0	66	80	53	0	179	0	0	25	0	0	590	10	0	0	0	0	0	937	1.003
Público	0	0	0	0	0	1	0	0	0	0	0	1	40	14	0	13	0	1	2	0	0	424	0	0	0	0	0	0	494	495
Agropecuário	0	0	0	0	0	13	0	0	0	0	0	13	709	29	0	2	0	1	0	0	0	141	0	0	0	0	0	0	882	895
Transportes - Total	0	0	0	0	0	0	0	0	0	0	0	0	4.090	722	2.179	0	0	392	0	0	0	61	0	398	1.522	0	0	0	9.364	9.364
Rodoviário	0	0	0	0	0	0	0	0	0	0	0	0	3.724	0	2.167	0	0	0	0	0	0	1	0	398	1.522	0	0	0	7.812	7.812
Ferrovário	0	0	0	0	0	0	0	0	0	0	0	0	101	1	0	0	0	0	0	0	0	60	0	0	0	0	0	0	162	162
Aéreo	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	0	0	392	0	0	0	0	0	0	0	0	0	0	404	404
Hidroviário	0	0	0	0	0	0	0	0	0	0	0	0	265	721	0	0	0	0	0	0	0	0	0	0	0	0	0	0	986	986
Industrial - Total	0	258	0	0	0	990	0	0	1.910	274	84	3.516	66	2.886	0	103	0	62	80	216	868	3.339	303	0	0	105	390	0	8.418	11.934
Cimento	0	243	0	0	0	12	0	0	0	0	19	274	1	89	0	0	0	0	0	0	0	58	2	0	0	0	0	0	150	424
Ferro Gusa e Aço	0	0	0	0	0	1	0	0	0	0	4	5	4	185	0	23	0	5	0	216	868	247	245	0	0	0	0	0	1.793	1.798
Ferro Ligas	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	38	26	0	0	0	0	0	64	64	
Mineração e Pelotiz.	0	0	0	0	0	0	0	0	0	0	0	0	10	20	0	0	0	0	0	0	37	0	0	0	0	0	0	67	67	
Não Ferr.*Out. Metal.	0	0	0	0	0	0	0	0	0	0	0	0	0	60	0	0	0	0	21	0	0	549	0	0	0	0	386	0	1.016	1.016
Química	0	0	0	0	0	21	0	0	14	0	0	35	6	865	0	47	0	34	0	0	0	425	6	0	0	105	4	0	1.492	1.527
Alimentos e Bebidas	0	6	0	0	0	265	0	0	1.874	0	8	2.153	25	437	0	5	0	2	13	0	0	434	0	0	0	0	0	0	916	3.069
Têxtil	0	0	0	0	0	44	0	0	0	0	0	44	2	149	0	5	0	2	3	0	0	268	22	0	0	0	0	0	451	495
Papel e Celulose	0	8	0	0	0	277	0	0	22	274	42	623	2	299	0	0	0	2	1	0	0	224	0	0	0	0	0	0	528	1.151
Cerâmica	0	1	0	0	0	284	0	0	0	0	5	290	2	98	0	15	0	1	8	0	0	87	2	0	0	0	0	0	213	503
Outros	0	0	0	0	0	86	0	0	0	0	6	92	14	684	0	8	0	16	34	0	0	972	0	0	0	0	0	0	1.728	1.820
Cons. Não Identificado	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ajustes	0	0	0	0	1	1	0	0	0	0	1	3	0	0	0	2	0	1	1	0	0	1	-2	1	0	0	1	-1	4	7

Balço Energético do Estado de São Paulo - 10³ toe 1988

OPERAÇÃO	Petróleo	Carvão Vapor	Carvão Metalur.	Gás Natural	Energ. Hidrául.	Lenha	Caldo de Cana	Melaço	Bagaço de Cana	Lixívia	Outras Primár.	Energia Primár.	Óleo Diesel	Óleo Combust.	Gasolina	GLP	Nafta	Quero - sene	Gás Canaliz.	Gás de Coquer.	Coque Carv. Min.	Eletri- cidade	Carvão Vegetal	Etanol Anidro	Etanol Hidrat.	Gás de Refinar.	Out.Ene. Petróleo	Não Energét.	Energia Secund.	Total
Produção	0	0	0	0	5.016	1.314	4.288	267	5.878	344	201	17.308	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17.308
Importação	11.845	0	1.307	0	0	0	0	0	0	0	0	13.152	41	273	12	614	2	0	0	0	0	0	0	0	0	0	0	9	951	14.103
Importação Estadual	15.378	260	123	0	0	179	0	0	0	0	0	15.940	0	0	0	0	0	0	0	0	0	1.848	255	0	0	0	0	313	2.416	18.356
Variação de Estoques	0	18	-13	0	0	0	0	0	0	0	0	5	42	-226	-142	-130	95	-37	0	0	35	0	0	-50	137	0	50	207	-19	-14
Oferta Total	27.223	278	1.417	0	5.016	1.493	4.288	267	5.878	344	201	46.405	83	47	-130	484	97	-37	0	0	35	1.848	255	-50	137	0	50	529	3.348	49.753
Exportação	0	0	0	0	0	0	0	0	0	0	0	0	-358	-507	-1.909	-5	0	-152	0	0	0	0	0	-46	-26	0	0	-5	-3.008	-3.008
Exportação Estadual	0	0	0	0	0	0	0	0	0	0	0	0	-4.462	-693	-556	-538	-248	-497	0	0	0	-212	0	-264	-1.255	0	-6	0	-8.731	-8.731
Não Aproveitada	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Reinjeção	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oferta Interna Bruta	27.223	278	1.417	0	5.016	1.493	4.288	267	5.878	344	201	46.405	-4.737	-1.153	-2.595	-59	-151	-686	0	0	35	1.636	255	-360	-1.144	0	44	524	-8.391	38.014
Total da Transformação	-27.223	0	-1.403	0	-5.016	-342	-4.288	-267	-84	-50	-122	-38.795	9.971	5.415	4.703	1.455	1.765	1.105	162	308	1.084	5.190	31	764	2.992	341	364	761	36.411	-2.384
Refinarias de Petróleo	-27.223	0	0	0	0	0	0	0	0	0	0	-27.223	9.974	5.605	4.624	1.392	2.082	1.105	0	0	0	0	0	0	0	341	364	761	26.248	-975
Plantas de Gás Natural	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Usinas de Gaseificação	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-177	0	162	0	0	0	0	0	0	0	0	0	-15	-15
Coquearias	0	0	-1.403	0	0	0	0	0	0	0	0	-1.403	0	0	0	0	0	0	0	308	1.084	0	0	0	0	0	0	0	1.392	-11
Cent. Elét. Serv. Público	0	0	0	0	-4.861	0	0	0	0	0	0	-4.861	0	-105	0	0	0	0	0	0	0	4.891	0	0	0	0	0	0	4.786	-75
Cent. Elét. Auto Prod.	0	0	0	0	-155	-32	0	0	-84	-50	-122	-443	-3	-85	0	0	0	0	0	0	0	299	0	0	0	0	0	0	211	-232
Carvoarias	0	0	0	0	0	-310	0	0	0	0	0	-310	0	0	0	0	0	0	0	0	0	0	31	0	0	0	0	0	31	-279
Destilarias	0	0	0	0	0	0	-4.288	-267	0	0	0	-4.555	0	0	0	0	0	0	0	0	0	0	0	764	2.992	0	0	0	3.756	-799
Outras Transforma.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	79	63	-140	0	0	0	0	0	0	0	0	0	0	0	2	2
Perdas Distr. Armaz.	0	-4	-13	0	0	0	0	0	-555	0	0	-572	0	0	0	0	0	0	0	-4	0	-623	0	-8	-36	0	0	0	-671	-1.243
Consumo Final	0	273	0	0	0	1.150	0	0	5.239	293	78	7.033	5.233	4.261	2.107	1.395	1.614	420	162	305	1.118	6.206	287	397	1.812	341	408	1.285	27.351	34.384
Cons. Final Não Energ.	0	0	0	0	0	0	0	0	123	0	0	123	0	0	0	0	1.614	0	0	0	14	0	3	0	0	51	0	1.285	2.967	3.090
Cons. Final Energético	0	273	0	0	0	1.150	0	0	5.116	293	78	6.910	5.233	4.261	2.107	1.395	0	420	162	305	1.104	6.206	284	397	1.812	290	408	0	24.384	31.294
Setor Energético	0	0	0	0	0	0	0	0	3.015	0	0	3.015	7	650	0	4	0	0	0	59	0	124	0	0	0	262	0	0	1.106	4.121
Residencial	0	0	0	0	0	164	0	0	0	0	0	164	0	0	0	1.094	0	52	48	0	0	1.246	2	0	0	0	0	0	2.442	2.606
Comercial	0	0	0	0	0	65	0	0	0	0	0	65	83	48	0	192	0	0	25	0	0	618	10	0	0	0	0	0	976	1.041
Público	0	0	0	0	0	0	0	0	0	0	0	0	43	15	0	9	0	1	3	0	0	455	0	0	0	0	0	0	526	526
Agropecuário	0	0	0	0	0	13	0	0	0	0	0	13	711	29	0	2	0	1	0	0	0	148	0	0	0	0	0	0	891	904
Transportes - Total	0	0	0	0	0	0	0	0	0	0	0	0	4.319	728	2.107	0	0	297	0	0	0	64	0	397	1.812	0	0	0	9.724	9.724
Rodoviário	0	0	0	0	0	0	0	0	0	0	0	0	3.944	0	2.096	0	0	0	0	0	0	1	0	397	1.812	0	0	0	8.250	8.250
Ferrovário	0	0	0	0	0	0	0	0	0	0	0	0	105	1	0	0	0	0	0	0	0	63	0	0	0	0	0	0	169	169
Aéreo	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11	0	0	297	0	0	0	0	0	0	0	0	0	0	308	308
Hidroviário	0	0	0	0	0	0	0	0	0	0	0	0	270	727	0	0	0	0	0	0	0	0	0	0	0	0	0	0	997	997
Industrial - Total	0	273	0	0	0	908	0	0	2.101	293	78	3.653	70	2.791	0	94	0	69	86	246	1.104	3.551	272	0	0	28	408	0	8.719	12.372
Cimento	0	257	0	0	0	4	0	0	0	0	4	265	1	48	0	0	0	0	0	0	0	59	2	0	0	0	35	0	145	410
Ferro Gusa e Aço	0	0	0	0	0	1	0	0	0	0	4	5	5	181	0	19	0	7	0	246	1.104	265	225	0	0	0	0	0	2.052	2.057
Ferro Ligas	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	41	19	0	0	0	0	0	60	60
Mineração e Pelotiz.	0	0	0	0	0	0	0	0	0	0	0	0	10	19	0	0	0	0	0	0	0	38	0	0	0	0	0	0	67	67
Não Ferr.*Out. Metal.	0	0	0	0	0	0	0	0	0	0	0	0	0	59	0	0	0	21	0	0	589	0	0	0	0	360	0	1.029	1.029	
Química	0	0	0	0	0	18	0	0	14	0	0	32	6	850	0	41	0	37	0	0	0	452	5	0	0	28	13	0	1.432	1.464
Alimentos e Bebidas	0	6	0	0	0	249	0	0	2.062	0	11	2.328	25	429	0	4	0	2	12	0	0	465	0	0	0	0	0	0	937	3.265
Têxtil	0	0	0	0	0	38	0	0	0	0	0	38	2	147	0	5	0	2	4	0	0	314	20	0	0	0	0	0	494	532
Papel e Celulose	0	9	0	0	0	280	0	0	25	293	45	652	3	287	0	0	0	2	1	0	0	245	0	0	0	0	0	0	538	1.190
Cerâmica	0	1	0	0	0	241	0	0	0	0	6	248	2	94	0	18	0	2	10	0	0	91	1	0	0	0	0	0	218	466
Outros	0	0	0	0	0	77	0	0	0	0	8	85	16	677	0	7	0	17	38	0	0	992	0	0	0	0	0	0	1.747	1.832
Cons. Não Identificado	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ajustes	0	1	1	0	0	1	0	0	0	1	1	5	1	1	1	1	0	-1	0	-1	1	-3	-1	-1	0	0	0	0	-2	3

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OPERAÇÃO	Petróleo	Carvão Vapor	Carvão Metalur.	Gás Natural	Energ. Hidrául.	Lenha	Caldo de Cana	Melaço	Bagaço de Cana	Lixívia	Outras Primár.	Energia Primár.	Óleo Diesel	Óleo Combust.	Gasolina	GLP	Nafta	Quero - sene	Gás Canaliz.	Gás de Coquer.	Coque Carv. Min.	Eletri- cidade	Carvão Vegetal	Etanol Anidro	Etanol Hidrat.	Gás de Refinar.	Out.Ene. Petróleo	Não Energét.	Energia Secund.	Total
Produção	0	0	0	0	5.110	1.222	4.462	219	5.509	345	215	17.082	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17.082
Importação	10.612	0	1.433	0	0	0	0	0	0	0	0	12.045	68	186	10	585	1	0	0	0	227	0	0	0	0	0	0	11	1.088	13.133
Importação Estadual	16.479	238	103	97	0	177	0	0	0	0	0	17.094	0	0	0	0	0	0	0	0	1.964	276	0	0	0	0	578	2.818	19.912	
Variação de Estoques	0	-56	-27	0	0	0	0	0	0	0	0	-83	86	28	-43	-52	-5	35	0	0	-57	0	0	-37	-45	0	-4	-78	-172	-255
Oferta Total	27.091	182	1.509	97	5.110	1.399	4.462	219	5.509	345	215	46.138	154	214	-33	533	-4	35	0	0	170	1.964	276	-37	-45	0	-4	511	3.734	49.872
Exportação	0	0	0	0	0	0	0	0	0	0	0	0	-315	-747	-1.644	0	0	-4	0	0	0	0	0	-34	-29	0	0	-3	-2.776	-2.776
Exportação Estadual	0	0	0	0	0	0	0	0	0	0	0	0	-4.144	-371	-551	-664	-468	-774	0	0	0	0	0	-198	-1.204	0	-27	0	-8.640	-8.640
Não Aproveitada	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Reinjeção	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oferta Interna Bruta	27.091	182	1.509	97	5.110	1.399	4.462	219	5.509	345	215	46.138	-4.305	-904	-2.228	-131	-472	-743	0	0	170	1.725	276	-269	-1.278	0	-31	508	-7.682	38.456
Total da Transformação	-27.091	0	-1.495	0	-5.110	-301	-4.462	-219	-83	-50	-131	-38.942	9.668	5.271	4.551	1.580	1.901	1.281	147	300	1.070	5.275	31	575	3.181	329	442	717	36.319	-2.623
Refinarias de Petróleo	-27.091	0	0	0	0	0	0	0	0	0	0	-27.091	9.671	5.447	4.467	1.537	2.190	1.281	0	0	0	0	0	0	0	329	442	717	26.081	-1.010
Plantas de Gás Natural	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Usinas de Gaseificação	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-164	0	147	0	0	0	0	0	0	0	0	0	-17	-17
Coquearias	0	0	-1.495	0	0	0	0	0	0	0	0	-1.495	0	0	0	0	0	0	0	300	1.070	0	0	0	0	0	0	0	1.370	-125
Cent. Elét. Serv. Público	0	0	0	0	-4.946	0	0	0	0	0	0	-4.946	0	-73	0	0	0	0	0	0	0	4.967	0	0	0	0	0	0	4.894	-52
Cent. Elét. Auto Prod.	0	0	0	0	-164	-30	0	0	-83	-50	-131	-458	-3	-103	0	0	0	0	0	0	0	308	0	0	0	0	0	0	202	-256
Carvoarias	0	0	0	0	0	-271	0	0	0	0	0	-271	0	0	0	0	0	0	0	0	0	0	31	0	0	0	0	0	31	-240
Destilarias	0	0	0	0	0	0	-4.462	-219	0	0	0	-4.681	0	0	0	0	0	0	0	0	0	0	0	575	3.181	0	0	0	3.756	-925
Outras Transforma.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	84	43	-125	0	0	0	0	0	0	0	0	0	0	0	2	2
Perdas Distr. Armaz.	0	-4	-15	-11	0	0	0	0	-551	0	0	-581	0	0	0	0	0	0	0	-1	0	-625	0	-6	-37	0	0	0	-669	-1.250
Consumo Final	0	178	0	85	0	1.096	0	0	4.875	294	84	6.612	5.362	4.366	2.324	1.447	1.430	539	147	298	1.241	6.376	306	299	1.865	330	411	1.227	27.968	34.580
Cons. Final Não Energ.	0	0	0	0	0	0	0	0	117	0	0	117	0	0	0	0	1.430	0	0	0	0	0	3	0	0	50	0	1.227	2.710	2.827
Cons. Final Energético	0	178	0	85	0	1.096	0	0	4.758	294	84	6.495	5.362	4.366	2.324	1.447	0	539	147	298	1.241	6.376	303	299	1.865	280	411	0	25.258	31.753
Setor Energético	0	0	0	0	0	0	0	0	3.141	0	0	3.141	11	634	0	4	0	0	59	0	59	0	128	0	0	261	0	0	1.097	4.238
Residencial	0	0	0	0	0	165	0	0	0	0	0	165	0	0	0	1.148	0	56	52	0	0	1.321	1	0	0	0	0	0	2.578	2.743
Comercial	0	0	0	0	0	64	0	0	0	0	0	64	85	45	0	187	0	0	27	0	0	647	11	0	0	0	0	0	1.002	1.066
Público	0	0	0	0	0	0	0	0	0	0	0	0	44	14	0	10	0	1	4	0	0	457	0	0	0	0	0	0	530	530
Agropecuário	0	0	0	0	0	11	0	0	0	0	0	11	726	29	0	3	0	1	0	0	0	146	0	0	0	0	0	0	905	916
Transportes - Total	0	0	0	0	0	0	0	0	0	0	0	0	4.424	673	2.324	0	0	425	0	0	0	64	0	299	1.865	0	0	0	10.074	10.074
Rodoviário	0	0	0	0	0	0	0	0	0	0	0	0	4.040	0	2.313	0	0	0	0	0	0	1	0	299	1.865	0	0	0	8.518	8.518
Ferrovário	0	0	0	0	0	0	0	0	0	0	0	0	107	1	0	0	0	0	0	0	0	63	0	0	0	0	0	0	171	171
Aéreo	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11	0	0	425	0	0	0	0	0	0	0	0	0	0	436	436
Hidroviário	0	0	0	0	0	0	0	0	0	0	0	0	277	672	0	0	0	0	0	0	0	0	0	0	0	0	0	0	949	949
Industrial - Total	0	178	0	85	0	856	0	0	1.617	294	84	3.114	72	2.971	0	95	0	56	64	239	1.241	3.613	291	0	0	19	411	0	9.072	12.186
Cimento	0	161	0	0	0	3	0	0	0	0	7	171	1	140	0	0	0	0	0	0	0	60	2	0	0	0	27	0	230	401
Ferro Gusa e Aço	0	0	0	18	0	1	0	0	0	0	5	24	6	188	0	17	0	0	0	239	1.241	270	244	0	0	0	0	0	2.205	2.229
Ferro Ligas	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	42	20	0	0	0	0	0	62	62	
Mineração e Pelotiz.	0	0	0	0	0	0	0	0	0	0	0	0	10	15	0	0	0	0	0	0	39	0	0	0	0	0	0	64	64	
Não Ferr.*Out. Metal.	0	0	0	0	0	0	0	0	0	0	0	0	0	57	0	0	0	8	13	0	0	594	0	0	0	0	372	0	1.044	1.044
Química	0	0	0	5	0	16	0	0	14	0	0	35	7	894	0	35	0	31	4	0	0	462	3	0	0	19	4	0	1.459	1.494
Alimentos e Bebidas	0	8	0	11	0	231	0	0	1.578	0	12	1.840	26	454	0	4	0	2	8	0	0	471	0	0	0	0	0	0	965	2.805
Têxtil	0	0	0	2	0	37	0	0	0	0	0	39	2	155	0	4	0	2	2	0	0	319	20	0	0	0	0	0	504	543
Papel e Celulose	0	8	0	0	0	283	0	0	25	294	47	657	2	256	0	0	0	2	1	0	0	250	0	0	0	0	0	0	511	1.168
Cerâmica	0	1	0	12	0	215	0	0	0	0	4	232	2	105	0	30	0	2	9	0	0	93	2	0	0	0	0	0	243	475
Outros	0	0	0	37	0	70	0	0	0	0	9	116	16	707	0	5	0	9	27	0	0	1.013	0	0	0	0	8	0	1.785	1.901
Cons. Não Identificado	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ajustes	0	0	-1	1	0	2	0	0	0	1	0	3	1	1	-1	2	-1	-1	0	1	-1	-1	1	1	1	-1	0	-2	0	3

Balço Energético do Estado de São Paulo - 10³ toe 1990

OPERAÇÃO	Petróleo	Carvão Vapor	Carvão Metalur.	Gás Natural	Energ. Hidrául.	Lenha	Caldo de Cana	Melaço	Bagaço de Cana	Lixívia	Outras Primár.	Energia Primár.	Óleo Diesel	Óleo Combust.	Gasolina	GLP	Nafta	Quero - sene	Gás Canaliz.	Gás de Coquer.	Coque Carv. Min.	Eletri- cidade	Carvão Vegetal	Etanol Anidro	Etanol Hidrat.	Gás de Refinar.	Out.Ene. Petróleo	Não Energét.	Energia Secund.	Total
Produção	0	0	0	0	4.548	1.135	4.643	248	5.893	332	195	16.994	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16.994
Importação	8.962	0	1.413	0	0	0	0	0	0	0	0	10.375	30	51	9	604	4	0	0	0	220	0	0	0	0	0	0	10	928	11.303
Importação Estadual	17.931	217	59	207	0	175	0	0	0	0	0	18.589	0	0	0	0	0	34	0	0	0	2.232	154	0	0	0	0	478	2.898	21.487
Variação de Estoques	0	-59	10	0	0	0	0	0	0	0	0	-49	29	-42	-49	-43	-5	47	0	0	-55	0	0	-31	-48	0	-33	-144	-374	-423
Oferta Total	26.893	158	1.482	207	4.548	1.310	4.643	248	5.893	332	195	45.909	59	9	-40	561	-1	81	0	0	165	2.232	154	-31	-48	0	-33	344	3.452	49.361
Exportação	0	0	0	0	0	0	0	0	0	0	0	0	-313	-598	-1.719	0	0	-60	0	0	0	0	0	-28	-31	0	0	-2	-2.751	-2.751
Exportação Estadual	0	0	0	0	0	0	0	0	0	0	0	0	-4.118	-309	-521	-770	-448	-391	0	0	0	-7	0	-165	-1.162	0	-28	0	-7.919	-7.919
Não Aproveitada	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Reinjeção	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oferta Interna Bruta	26.893	158	1.482	207	4.548	1.310	4.643	248	5.893	332	195	45.909	-4.372	-898	-2.280	-209	-449	-370	0	0	165	2.225	154	-224	-1.241	0	-61	342	-7.218	38.691
Total da Transformação	-26.893	0	-1.472	0	-4.548	-263	-4.643	-248	-88	-49	-119	-38.323	9.592	5.000	4.803	1.698	1.819	965	125	287	1.038	4.707	28	476	3.359	423	465	672	35.457	-2.866
Refinarias de Petróleo	-26.893	0	0	0	0	0	0	0	0	0	0	-26.893	9.595	5.300	4.712	1.643	2.098	965	0	0	0	0	0	0	0	423	465	672	25.873	-1.020
Plantas de Gás Natural	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Usinas de Gaseificação	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-140	0	125	0	0	0	0	0	0	0	0	0	-15	-15
Coquearias	0	0	-1.472	0	0	0	0	0	0	0	0	-1.472	0	0	0	0	0	0	0	287	1.038	0	0	0	0	0	0	0	1.325	-147
Cent. Elét. Serv. Público	0	0	0	0	-4.390	0	0	0	0	0	0	-4.390	0	-43	0	0	0	0	0	0	0	4.401	0	0	0	0	0	0	4.358	-32
Cent. Elét. Auto Prod.	0	0	0	0	-158	-28	0	0	-88	-49	-119	-442	-3	-257	0	0	0	0	0	0	0	306	0	0	0	0	0	0	46	-396
Carvoarias	0	0	0	0	0	-235	0	0	0	0	0	-235	0	0	0	0	0	0	0	0	0	0	28	0	0	0	0	0	28	-207
Destilarias	0	0	0	0	0	0	-4.643	-248	0	0	0	-4.891	0	0	0	0	0	0	0	0	0	0	0	476	3.359	0	0	0	3.835	-1.056
Outras Transforma.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	91	55	-139	0	0	0	0	0	0	0	0	0	0	0	7	7
Perdas Distr. Armaz.	0	-3	-10	-13	0	0	0	0	-589	0	0	-615	0	0	0	0	0	0	0	-3	0	-542	0	-5	-39	0	0	0	-589	-1.204
Consumo Final	0	155	0	195	0	1.047	0	0	5.216	283	75	6.971	5.221	4.100	2.522	1.489	1.369	596	124	284	1.204	6.389	184	248	2.078	424	404	1.014	27.650	34.621
Cons. Final Não Energ.	0	0	0	0	0	0	0	0	126	0	0	126	0	0	0	0	1.369	0	0	0	0	0	2	0	109	63	0	1.014	2.557	2.683
Cons. Final Energético	0	155	0	195	0	1.047	0	0	5.090	283	75	6.845	5.221	4.100	2.522	1.489	0	596	124	284	1.204	6.389	182	248	1.969	361	404	0	25.093	31.938
Setor Energético	0	0	0	0	0	0	0	0	3.261	0	0	3.261	11	617	0	4	0	0	0	53	0	132	0	0	0	336	0	0	1.153	4.414
Residencial	0	0	0	1	0	166	0	0	0	0	0	167	0	0	0	1.202	0	26	50	0	0	1.422	2	0	0	0	0	0	2.702	2.869
Comercial	0	0	0	1	0	63	0	0	0	0	0	64	83	45	0	171	0	0	30	0	0	690	11	0	0	0	0	0	1.030	1.094
Público	0	0	0	0	0	0	0	0	0	0	0	0	43	14	0	11	0	1	3	0	0	462	0	0	0	0	0	0	534	534
Agropecuário	0	0	0	0	0	11	0	0	0	0	0	11	713	29	0	3	0	1	0	0	0	144	0	0	0	0	0	0	890	901
Transportes - Total	0	0	0	0	0	0	0	0	0	0	0	0	4.300	573	2.522	0	0	497	0	0	0	65	0	248	1.969	0	0	0	10.174	10.174
Rodoviário	0	0	0	0	0	0	0	0	0	0	0	0	3.922	0	2.512	0	0	0	0	0	0	1	0	248	1.969	0	0	0	8.652	8.652
Ferrovário	0	0	0	0	0	0	0	0	0	0	0	0	106	1	0	0	0	0	0	0	0	64	0	0	0	0	0	0	171	171
Aéreo	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	0	0	497	0	0	0	0	0	0	0	0	0	0	507	507
Hidroviário	0	0	0	0	0	0	0	0	0	0	0	0	272	572	0	0	0	0	0	0	0	0	0	0	0	0	0	0	844	844
Industrial - Total	0	155	0	193	0	807	0	0	1.829	283	75	3.342	71	2.822	0	98	0	71	41	231	1.204	3.474	169	0	0	25	404	0	8.610	11.952
Cimento	0	140	0	0	0	2	0	0	0	0	6	148	1	134	0	0	0	0	0	0	0	58	8	0	0	0	0	0	201	349
Ferro Gusa e Aço	0	0	0	21	0	1	0	0	0	0	4	26	6	178	0	12	0	12	0	231	1.204	261	141	0	0	0	0	0	2.045	2.071
Ferro Ligas	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	41	2	0	0	0	0	0	43	43
Mineração e Pelotiz.	0	0	0	0	0	0	0	0	0	0	0	0	10	15	0	0	0	1	0	0	0	37	0	0	0	0	0	0	63	63
Não Ferr.*Out. Metal.	0	0	0	0	0	0	0	0	0	0	0	0	0	54	0	0	0	6	9	0	0	560	0	0	0	0	392	0	1.021	1.021
Química	0	0	0	6	0	15	0	0	14	0	0	35	7	850	0	30	0	26	3	0	0	448	2	0	0	25	4	0	1.395	1.430
Alimentos e Bebidas	0	7	0	40	0	210	0	0	1.789	0	11	2.057	25	431	0	4	0	2	5	0	0	448	0	0	0	0	0	0	915	2.972
Têxtil	0	0	0	11	0	34	0	0	0	0	0	45	2	148	0	4	0	2	1	0	0	306	14	0	0	0	0	0	477	522
Papel e Celulose	0	7	0	0	0	286	0	0	26	283	42	644	2	242	0	0	0	2	0	0	0	243	0	0	0	0	0	0	489	1.133
Cerâmica	0	1	0	23	0	191	0	0	0	0	4	219	2	99	0	43	0	2	6	0	0	90	2	0	0	0	0	0	244	463
Outros	0	0	0	92	0	68	0	0	0	0	8	168	16	671	0	5	0	18	17	0	0	982	0	0	0	0	8	0	1.717	1.885
Cons. Não Identificado	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ajustes	0	0	0	-1	0	0	0	0	0	0	1	0	-1	2	1	0	1	-1	1	0	-1	1	-2	-1	1	-1	0	0	0	0

Balço Energético do Estado de São Paulo - 10³ toe 1991

OPERAÇÃO	Petróleo	Carvão Vapor	Carvão Metalur.	Gás Natural	Energ. Hidrául.	Lenha	Caldo de Cana	Melaço	Bagaço de Cana	Lixívia	Outras Primár.	Energia Primár.	Óleo Diesel	Óleo Combust.	Gasolina	GLP	Nafta	Quero - sene	Gás Canaliz.	Gás de Coquer.	Coque Carv. Min.	Eletri- cidade	Carvão Vegetal	Etanol Anidro	Etanol Hidrat.	Gás de Refinar.	Out.Ene. Petróleo	Não Energét.	Energia Secund.	Total
Produção	0	0	0	0	5.408	1.071	4.492	327	6.487	360	224	18.369	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18.369
Importação	8.937	0	1.421	0	0	0	0	0	0	0	0	10.358	322	209	7	473	3	61	0	0	238	0	0	0	0	0	0	10	1.323	11.681
Importação Estadual	16.802	315	71	242	0	173	0	0	0	0	0	17.603	0	0	0	0	0	0	0	0	1.726	149	0	0	0	0	424	2.299	19.902	
Variação de Estoques	0	-54	-15	0	0	0	0	0	0	0	0	-69	28	299	-26	-71	-21	21	0	0	21	0	0	-107	-48	0	22	33	151	82
Oferta Total	25.739	261	1.477	242	5.408	1.244	4.492	327	6.487	360	224	46.261	350	508	-19	402	-18	82	0	0	259	1.726	149	-107	-48	0	22	467	3.773	50.034
Exportação	0	0	0	0	0	0	0	0	0	0	0	0	-305	-621	-1.394	0	0	-61	0	0	0	0	0	-55	-34	0	0	-2	-2.472	-2.472
Exportação Estadual	0	0	0	0	0	0	0	0	0	0	0	0	-3.939	-224	-503	-489	-438	-290	0	0	0	0	0	0	0	0	0	0	0	0
Não Aproveitada	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Reinjeção	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oferta Interna Bruta	25.739	261	1.477	242	5.408	1.244	4.492	327	6.487	360	224	46.261	-3.894	-337	-1.916	-87	-456	-269	0	0	259	1.650	149	-431	-1.218	0	-5	465	-6.090	40.171
Total da Transformação	-25.739	0	-1.463	0	-5.408	-256	-4.492	-327	-100	-54	-143	-37.982	9.357	4.233	4.721	1.608	1.815	976	121	286	1.031	5.580	27	772	3.377	483	429	505	35.321	-2.661
Refinarias de Petróleo	-25.739	0	0	0	0	0	0	0	0	0	0	-25.739	9.360	4.536	4.639	1.565	2.050	976	0	0	0	0	0	0	0	483	429	505	24.543	-1.196
Plantas de Gás Natural	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Usinas de Gaseificação	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-131	0	121	0	0	0	0	0	0	0	0	0	-10	-10
Coquearias	0	0	-1.463	0	0	0	0	0	0	0	0	-1.463	0	0	0	0	0	0	0	286	1.031	0	0	0	0	0	0	0	1.317	-146
Cent. Elét. Serv. Público	0	0	0	0	-5.255	0	0	0	0	0	0	-5.255	0	-47	0	0	0	0	0	0	0	5.267	0	0	0	0	0	0	5.220	-35
Cent. Elét. Auto Prod.	0	0	0	0	-153	-30	0	0	-100	-54	-143	-480	-3	-256	0	0	0	0	0	0	0	313	0	0	0	0	0	0	54	-426
Carvoarias	0	0	0	0	0	-226	0	0	0	0	0	-226	0	0	0	0	0	0	0	0	0	0	27	0	0	0	0	0	27	-199
Destilarias	0	0	0	0	0	0	-4.492	-327	0	0	0	-4.819	0	0	0	0	0	0	0	0	0	0	0	772	3.377	0	0	0	4.149	-670
Outras Transforma.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	82	43	-104	0	0	0	0	0	0	0	0	0	0	0	21	21
Perdas Distr. Armaz.	0	-4	-13	-15	0	0	0	0	-649	0	0	-681	0	0	0	0	0	0	-2	-2	0	-636	0	-7	-39	0	0	0	-686	-1.367
Consumo Final	0	256	0	227	0	988	0	0	5.740	306	81	7.598	5.461	3.896	2.804	1.522	1.360	709	118	285	1.290	6.594	177	335	2.119	482	424	970	28.546	36.144
Cons. Final Não Energ.	0	0	0	0	0	0	0	0	136	0	0	136	0	0	0	0	1.360	0	0	0	0	0	2	0	142	72	0	970	2.546	2.682
Cons. Final Energético	0	256	0	227	0	988	0	0	5.604	306	81	7.462	5.461	3.896	2.804	1.522	0	709	118	285	1.290	6.594	175	335	1.977	410	424	0	26.000	33.462
Setor Energético	0	0	0	0	0	0	0	0	3.209	0	0	3.209	10	573	0	4	0	0	0	54	0	141	0	0	0	395	0	0	1.177	4.386
Residencial	0	0	0	1	0	167	0	0	0	0	0	168	0	0	0	1.258	0	21	49	0	0	1.518	2	0	0	0	0	0	2.848	3.016
Comercial	0	0	0	1	0	64	0	0	0	0	0	65	80	41	0	128	0	0	31	0	0	723	11	0	0	0	0	0	1.014	1.079
Público	0	0	0	0	0	0	0	0	0	0	0	0	64	13	0	11	0	1	3	0	0	483	0	0	0	0	0	0	575	575
Agropecuário	0	0	0	0	0	10	0	0	0	0	0	10	742	29	0	4	0	1	0	0	0	158	0	0	0	0	0	0	934	944
Transportes - Total	0	0	0	0	0	0	0	0	0	0	0	0	4.412	526	2.804	0	0	627	0	0	0	67	0	335	1.977	0	0	0	10.748	10.748
Rodoviário	0	0	0	0	0	0	0	0	0	0	0	0	4.042	0	2.794	0	0	0	0	0	0	1	0	335	1.977	0	0	0	9.149	9.149
Ferrovário	0	0	0	0	0	0	0	0	0	0	0	0	87	1	0	0	0	0	0	0	0	66	0	0	0	0	0	0	154	154
Aéreo	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	0	0	627	0	0	0	0	0	0	0	0	0	0	637	637
Hidroviário	0	0	0	0	0	0	0	0	0	0	0	0	283	525	0	0	0	0	0	0	0	0	0	0	0	0	0	0	808	808
Industrial - Total	0	256	0	225	0	747	0	0	2.395	306	81	4.010	153	2.714	0	117	0	59	35	231	1.290	3.504	162	0	0	15	424	0	8.704	12.714
Cimento	0	239	0	0	0	1	0	0	0	0	7	247	6	125	0	0	0	0	0	0	11	59	7	0	0	0	27	0	235	482
Ferro Gusa e Aço	0	0	0	25	0	1	0	0	0	0	5	31	13	182	0	15	0	10	0	231	1.279	263	136	0	0	0	0	0	2.129	2.160
Ferro Ligas	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	41	2	0	0	0	0	0	0	43	43
Mineração e Pelotiz.	0	0	0	0	0	0	0	0	0	0	0	0	29	17	0	0	0	1	0	0	0	38	0	0	0	0	0	0	85	85
Não Ferr.*Out. Metal.	0	0	0	0	0	0	0	0	0	0	0	0	0	53	0	0	0	5	7	0	0	566	0	0	0	0	385	0	1.016	1.016
Química	0	0	0	7	0	13	0	0	14	0	0	34	30	646	0	24	0	21	2	0	0	451	2	0	0	15	4	0	1.195	1.229
Alimentos e Bebidas	0	8	0	51	0	183	0	0	2.353	0	11	2.606	55	475	0	4	0	2	5	0	0	452	0	0	0	0	0	0	993	3.599
Têxtil	0	0	0	14	0	32	0	0	0	0	0	46	2	143	0	4	0	2	1	0	0	309	13	0	0	0	0	0	474	520
Papel e Celulose	0	8	0	0	0	289	0	0	28	306	45	676	6	257	0	0	0	2	0	0	0	245	0	0	0	0	0	0	510	1.186
Cerâmica	0	1	0	28	0	171	0	0	0	0	4	204	3	98	0	61	0	2	5	0	0	91	2	0	0	0	0	0	262	466
Outros	0	0	0	100	0	57	0	0	0	0	9	166	9	718	0	9	0	14	15	0	0	989	0	0	0	0	8	0	1.762	1.928
Cons. Não Identificado	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ajustes	0	1	1	0	0	0	0	0	-2	0	0	0	2	0	1	-1	-1	-2	1	-1	0	0	-1	-1	1	1	0	0	-1	-1

Balço Energético do Estado de São Paulo - 10³ toe 1992

OPERAÇÃO	Petróleo	Carvão Vapor	Carvão Metalur.	Gás Natural	Energ. Hidrául.	Lenha	Caldo de Cana	Melaço	Bagaço de Cana	Lixívia	Outras Primár.	Energia Primár.	Óleo Diesel	Óleo Combust.	Gasolina	GLP	Nafta	Quero - sene	Gás Canaliz.	Gás de Coquer.	Coque Carv. Min.	Eletri- cidade	Carvão Vegetal	Etanol Anidro	Etanol Hidrat.	Gás de Refinar.	Out.Ene. Petróleo	Não Energét.	Energia Secund.	Total
Produção	0	0	0	0	5.314	992	4.462	327	6.432	380	245	18.152	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18.152
Importação	7.669	0	1.355	0	0	0	0	0	0	0	0	9.024	353	340	21	371	3	20	0	0	236	0	0	0	0	0	0	11	1.355	10.379
Importação Estadual	18.718	235	67	320	0	172	0	0	0	0	0	19.512	0	0	0	0	0	0	0	0	1.884	144	0	0	0	5	432	2.465	21.977	
Variação de Estoques	0	-101	48	0	0	0	0	0	0	0	0	-53	29	278	-26	-69	3	48	0	0	21	0	0	-115	84	0	25	50	328	275
Oferta Total	26.387	134	1.470	320	5.314	1.164	4.462	327	6.432	380	245	46.635	382	618	-5	302	6	68	0	0	257	1.884	144	-115	84	0	30	493	4.148	50.783
Exportação	0	0	0	0	0	0	0	0	0	0	0	0	-249	-646	-1.390	0	0	-58	0	0	0	0	0	-61	-30	0	0	-2	-2.436	-2.436
Exportação Estadual	0	0	0	0	0	0	0	0	0	0	0	0	-4.137	-447	-520	-423	-731	-275	0	0	0	-52	0	-302	-933	0	-34	0	-7.854	-7.854
Não Aproveitada	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Reinjeção	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oferta Interna Bruta	26.387	134	1.470	320	5.314	1.164	4.462	327	6.432	380	245	46.635	-4.004	-475	-1.915	-121	-725	-265	0	0	257	1.832	144	-478	-879	0	-4	491	-6.142	40.493
Total da Transformação	-26.387	0	-1.457	0	-5.314	-219	-4.462	-327	-99	-62	-156	-38.483	9.548	4.475	4.744	1.669	1.817	1.013	101	290	1.023	5.486	26	868	2.991	559	461	531	35.602	-2.881
Refinarias de Petróleo	-26.387	0	0	0	0	0	0	0	0	0	0	-26.387	9.551	4.795	4.661	1.625	2.019	1.013	0	0	0	0	0	0	559	461	531	25.215	-1.172	
Plantas de Gás Natural	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Usinas de Gaseificação	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-111	0	101	0	0	0	0	0	0	0	0	0	-10	-10
Coquearias	0	0	-1.457	0	0	0	0	0	0	0	0	-1.457	0	0	0	0	0	0	0	290	1.023	0	0	0	0	0	0	0	1.313	-144
Cent. Elét. Serv. Público	0	0	0	0	-5.158	0	0	0	0	0	0	-5.158	0	-50	0	0	0	0	0	0	0	5.171	0	0	0	0	0	0	5.121	-37
Cent. Elét. Auto Prod.	0	0	0	0	-156	-28	0	0	-99	-62	-156	-501	-3	-270	0	0	0	0	0	0	0	315	0	0	0	0	0	0	42	-459
Carvoarias	0	0	0	0	0	-191	0	0	0	0	0	-191	0	0	0	0	0	0	0	0	0	0	26	0	0	0	0	0	26	-165
Destilarias	0	0	0	0	0	0	-4.462	-327	0	0	0	-4.789	0	0	0	0	0	0	0	0	0	0	0	868	2.991	0	0	0	3.859	-930
Outras Transforma.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	83	44	-91	0	0	0	0	0	0	0	0	0	0	0	36	36
Perdas Distr. Armaz.	0	-3	-13	-17	0	0	0	0	-643	0	0	-676	0	0	0	0	0	0	-2	-2	0	-682	0	-8	-38	0	0	0	-732	-1.408
Consumo Final	0	132	0	303	0	945	0	0	5.690	319	88	7.477	5.543	4.000	2.830	1.548	1.091	750	100	288	1.279	6.634	171	382	2.074	559	457	1.022	28.728	36.205
Cons. Final Não Energ.	0	0	0	0	0	0	0	0	137	0	0	137	0	0	0	0	1.091	0	0	0	0	0	2	0	197	84	0	1.022	2.396	2.533
Cons. Final Energético	0	132	0	303	0	945	0	0	5.553	319	88	7.340	5.543	4.000	2.830	1.548	0	750	100	288	1.279	6.634	169	382	1.877	475	457	0	26.332	33.672
Setor Energético	0	0	0	0	0	0	0	0	2.965	0	0	2.965	6	608	0	4	0	0	0	55	0	143	0	0	0	463	0	0	1.279	4.244
Residencial	0	0	0	2	0	168	0	0	0	0	0	170	0	0	0	1.288	0	19	41	0	0	1.548	1	0	0	0	0	0	2.897	3.067
Comercial	0	0	0	4	0	65	0	0	0	0	0	69	78	44	0	112	0	0	26	0	0	765	11	0	0	0	0	0	1.036	1.105
Público	0	0	0	0	0	0	0	0	0	0	0	0	61	14	0	9	0	1	2	0	0	493	0	0	0	0	0	0	580	580
Agropecuário	0	0	0	0	0	10	0	0	0	0	0	10	781	29	0	3	0	1	0	0	0	152	0	0	0	0	0	0	966	976
Transportes - Total	0	0	0	2	0	0	0	0	0	0	0	2	4.459	528	2.830	0	0	680	0	0	0	69	0	382	1.877	0	0	0	10.825	10.827
Rodoviário	0	0	0	2	0	0	0	0	0	0	0	2	4.149	0	2.821	0	0	0	0	0	0	1	0	382	1.877	0	0	0	9.230	9.232
Ferrovário	0	0	0	0	0	0	0	0	0	0	0	0	78	1	0	0	0	0	0	0	0	68	0	0	0	0	0	0	147	147
Aéreo	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	0	0	680	0	0	0	0	0	0	0	0	0	0	689	689
Hidroviário	0	0	0	0	0	0	0	0	0	0	0	0	232	527	0	0	0	0	0	0	0	0	0	0	0	0	0	0	759	759
Industrial - Total	0	132	0	295	0	702	0	0	2.588	319	88	4.124	158	2.777	0	132	0	49	31	233	1.279	3.464	157	0	0	12	457	0	8.749	12.873
Cimento	0	115	0	0	0	1	0	0	0	0	7	123	8	154	0	0	0	0	0	0	11	58	7	0	0	0	29	0	267	390
Ferro Gusa e Aço	0	0	0	33	0	1	0	0	0	0	5	39	12	186	0	16	0	8	0	233	1.268	260	131	0	0	0	0	0	2.114	2.153
Ferro Ligas	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	40	2	0	0	0	0	0	42	42
Mineração e Pelotiz.	0	0	0	0	0	0	0	0	0	0	0	0	29	17	0	0	0	1	0	0	0	37	0	0	0	0	0	0	84	84
Não Ferr.*Out. Metal.	0	0	0	0	0	0	0	0	0	0	0	0	0	53	0	0	0	4	6	0	0	560	0	0	0	0	416	0	1.039	1.039
Química	0	0	0	10	0	12	0	0	14	0	0	36	36	636	0	18	0	18	2	0	0	446	2	0	0	12	4	0	1.174	1.210
Alimentos e Bebidas	0	9	0	67	0	162	0	0	2.546	0	12	2.796	49	487	0	6	0	1	4	0	0	448	0	0	0	0	0	0	995	3.791
Têxtil	0	0	0	18	0	30	0	0	0	0	0	48	2	146	0	4	0	1	1	0	0	305	13	0	0	0	0	0	472	520
Papel e Celulose	0	7	0	0	0	292	0	0	28	319	49	695	8	264	0	0	0	2	0	0	0	242	0	0	0	0	0	0	516	1.211
Cerâmica	0	1	0	37	0	151	0	0	0	0	4	193	5	100	0	73	0	2	5	0	0	90	2	0	0	0	0	0	277	470
Outros	0	0	0	130	0	53	0	0	0	0	11	194	9	734	0	15	0	12	13	0	0	978	0	0	0	0	8	0	1.769	1.963
Cons. Não Identificado	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ajustes	0	-1	0	0	0	0	0	0	0	-1	1	-1	1	0	-1	0	1	-2	-1	0	1	2	-1	0	0	0	0	0	0	-1

Balço Energético do Estado de São Paulo - 10³ toe 1993

OPERAÇÃO	Petróleo	Carvão Vapor	Carvão Metalur.	Gás Natural	Energ. Hidrául.	Lenha	Caldo de Cana	Melaço	Bagaço de Cana	Lixívia	Outras Primár.	Energia Primár.	Óleo Diesel	Óleo Combust.	Gasolina	GLP	Nafta	Quero - sene	Gás Canaliz.	Gás de Coquer.	Coque Carv. Min.	Eletri- cidade	Carvão Vegetal	Etanol Anidro	Etanol Hidrat.	Gás de Refinar.	Out.Ene. Petróleo	Não Energét.	Energia Secund.	Total
Produção	0	0	0	0	5.400	975	4.568	370	6.780	459	263	18.815	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18.815
Importação	10.899	0	1.594	0	0	0	0	0	0	0	0	12.493	795	828	21	304	0	22	0	0	139	0	0	0	0	0	0	11	2.120	14.613
Importação Estadual	15.100	87	0	408	0	170	0	0	0	0	0	15.765	0	0	0	0	0	8	0	0	0	3.617	139	0	0	0	4	226	3.994	19.759
Variação de Estoques	0	14	30	0	0	0	0	0	0	0	0	44	-17	225	33	33	0	20	0	0	17	0	0	-353	72	0	22	-11	41	85
Oferta Total	25.999	101	1.624	408	5.400	1.145	4.568	370	6.780	459	263	47.117	778	1.053	54	337	0	50	0	0	156	3.617	139	-353	72	0	26	226	6.155	53.272
Exportação	0	0	0	0	0	0	0	0	0	0	0	0	-216	-843	-2.029	0	0	-30	0	0	0	0	0	-12	-45	0	0	0	-3.175	-3.175
Exportação Estadual	0	0	0	0	0	0	0	0	0	0	0	0	-3.774	-225	-495	-403	-109	-234	0	0	0	0	0	-176	-930	0	-25	0	-7.018	-7.018
Não Aproveitada	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Reinjeção	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oferta Interna Bruta	25.999	101	1.624	408	5.400	1.145	4.568	370	6.780	459	263	47.117	-3.212	-15	-2.470	-66	-109	-214	0	0	156	2.970	139	-541	-903	0	1	226	-4.038	43.079
Total da Transformação	-25.999	0	-1.609	0	-5.400	-229	-4.568	-370	-113	-77	-177	-38.542	8.778	4.073	5.343	1.702	1.576	1.123	104	302	1.088	4.942	26	1.092	2.947	703	405	756	34.960	-3.582
Refinarias de Petróleo	-25.999	0	0	0	0	0	0	0	0	0	0	-25.999	8.781	4.385	5.257	1.655	1.797	1.123	0	0	0	0	0	0	0	703	405	756	24.862	-1.137
Plantas de Gás Natural	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Usinas de Gaseificação	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-113	0	104	0	0	0	0	0	0	0	0	0	-9	-9
Coquearias	0	0	-1.609	0	0	0	0	0	0	0	0	-1.609	0	0	0	0	0	0	0	302	1.088	0	0	0	0	0	0	0	1.390	-219
Cent. Elét. Serv. Público	0	0	0	0	-5.240	0	0	0	0	0	0	-5.240	0	-34	0	0	0	0	0	0	0	4.561	0	0	0	0	0	0	4.527	-713
Cent. Elét. Auto Prod.	0	0	0	0	-160	-27	0	0	-113	-77	-177	-554	-3	-278	0	0	0	0	0	0	0	381	0	0	0	0	0	0	100	-454
Carvoarias	0	0	0	0	0	-202	0	0	0	0	0	-202	0	0	0	0	0	0	0	0	0	0	26	0	0	0	0	0	26	-176
Destilarias	0	0	0	0	0	0	-4.568	-370	0	0	0	-4.938	0	0	0	0	0	0	0	0	0	0	1.092	2.947	0	0	0	0	4.039	-899
Outras Transforma.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	86	47	-108	0	0	0	0	0	0	0	0	0	0	0	25	25
Perdas Distr. Armaz.	0	-3	-15	-21	0	0	0	0	-678	0	0	-717	0	0	0	0	0	0	-10	-3	0	-848	0	-8	-35	0	0	0	-904	-1.621
Consumo Final	0	99	0	387	0	916	0	0	5.989	382	85	7.858	5.567	4.058	2.873	1.636	1.467	911	93	299	1.244	7.064	163	542	2.009	702	407	983	30.018	37.876
Cons. Final Não Energ.	0	0	0	0	0	0	0	0	146	0	0	146	0	0	0	0	1.467	0	0	0	0	0	2	0	130	105	0	983	2.687	2.833
Cons. Final Energético	0	99	0	387	0	916	0	0	5.843	382	85	7.712	5.567	4.058	2.873	1.636	0	911	93	299	1.244	7.064	161	542	1.879	597	407	0	27.331	35.043
Setor Energético	0	0	0	0	0	0	0	0	2.916	0	0	2.916	9	556	0	4	0	0	1	57	0	172	0	0	0	597	0	0	1.396	4.312
Residencial	0	0	0	2	0	169	0	0	0	0	0	171	0	0	0	1.319	0	19	48	0	0	1.603	1	0	0	0	0	0	2.990	3.161
Comercial	0	0	0	3	0	66	0	0	0	0	0	69	76	39	0	145	0	0	28	0	0	813	10	0	0	0	0	0	1.111	1.180
Público	0	0	0	0	0	0	0	0	0	0	0	0	58	10	0	11	0	1	3	0	0	544	0	0	0	0	0	0	627	627
Agropecuário	0	0	0	0	0	11	0	0	0	0	0	11	790	29	0	4	0	1	0	0	0	155	0	0	0	0	0	0	979	990
Transportes - Total	0	0	0	9	0	0	0	0	0	0	0	9	4.445	546	2.873	0	0	843	0	0	0	76	0	542	1.879	0	0	0	11.204	11.213
Rodoviário	0	0	0	9	0	0	0	0	0	0	0	9	4.121	0	2.864	0	0	0	0	0	0	4	0	542	1.879	0	0	0	9.410	9.419
Ferrovário	0	0	0	0	0	0	0	0	0	0	0	0	79	1	0	0	0	0	0	0	0	72	0	0	0	0	0	0	152	152
Aéreo	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	0	0	843	0	0	0	0	0	0	0	0	0	0	852	852
Hidroviário	0	0	0	0	0	0	0	0	0	0	0	0	245	545	0	0	0	0	0	0	0	0	0	0	0	0	0	0	790	790
Industrial - Total	0	99	0	373	0	670	0	0	2.927	382	85	4.536	189	2.878	0	153	0	47	13	242	1.244	3.701	150	0	0	0	407	0	9.024	13.560
Cimento	0	88	0	1	0	0	0	0	0	0	0	89	6	188	0	0	0	0	0	0	0	64	7	0	0	0	27	0	292	381
Ferro Gusa e Aço	0	0	0	24	0	1	0	0	0	0	0	25	12	193	0	16	0	8	0	242	1.244	280	126	0	0	0	0	0	2.121	2.146
Ferro Ligas	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	45	2	0	0	0	0	0	47	47
Mineração e Pelotiz.	0	0	0	0	0	0	0	0	0	0	0	0	29	17	0	0	0	1	0	0	0	42	0	0	0	0	0	0	89	89
Não Ferr.*Out. Metal.	0	0	0	0	0	0	0	0	0	0	0	0	0	55	0	0	0	4	8	0	0	602	0	0	0	0	369	0	1.038	1.038
Química	0	0	0	52	0	11	0	0	14	0	0	77	48	640	0	12	0	17	0	0	0	493	2	0	0	0	4	0	1.216	1.293
Alimentos e Bebidas	0	9	0	34	0	153	0	0	2.885	0	14	3.095	72	506	0	9	0	1	5	0	0	475	0	0	0	0	0	0	1.068	4.163
Têxtil	0	0	0	21	0	28	0	0	0	0	0	49	2	152	0	4	0	1	0	0	0	322	12	0	0	0	0	0	493	542
Papel e Celulose	0	0	0	49	0	295	0	0	28	382	52	806	7	271	0	0	0	2	0	0	0	265	0	0	0	0	0	0	545	1.351
Cerâmica	0	2	0	52	0	133	0	0	0	0	4	191	4	104	0	91	0	2	0	0	0	104	1	0	0	0	0	0	306	497
Outros	0	0	0	140	0	49	0	0	0	0	15	204	9	752	0	21	0	11	0	0	0	1.009	0	0	0	0	7	0	1.809	2.013
Cons. Não Identificado	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ajustes	0	-1	0	0	0	0	0	0	0	0	1	0	-1	0	0	0	0	-2	1	0	0	0	2	1	0	1	-1	-1	0	0

Balço Energético do Estado de São Paulo - 10³ toe 1994

OPERAÇÃO	Petróleo	Carvão Vapor	Carvão Metalur.	Gás Natural	Energ. Hidrául.	Lenha	Caldo de Cana	Melaço	Bagaço de Cana	Lixívia	Outras Primár.	Energia Primár.	Óleo Diesel	Óleo Combust.	Gasolina	GLP	Nafta	Quero - sene	Gás Canaliz.	Gás de Coquer.	Coque Carv. Min.	Eletri- cidade	Carvão Vegetal	Etanol Anidro	Etanol Hidrat.	Gás de Refinar.	Out.Ene. Petróleo	Não Energét.	Energia Secund.	Total
Produção	0	0	0	468	5.120	903	4.407	444	6.757	506	333	18.938	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18.938
Importação	12.319	0	1.660	0	0	0	0	0	0	0	0	13.979	655	1.088	26	215	0	40	0	0	457	0	0	0	0	0	0	13	2.494	16.473
Importação Estadual	17.590	92	0	109	0	169	0	0	0	0	0	17.960	0	0	0	0	0	20	0	0	0	3.744	134	0	0	0	0	245	4.143	22.103
Variação de Estoques	0	-10	-30	0	0	0	0	0	0	0	0	-40	-203	-150	27	40	0	32	0	0	-86	0	0	120	-61	0	-27	-13	-321	-361
Oferta Total	29.909	82	1.630	577	5.120	1.072	4.407	444	6.757	506	333	50.837	452	938	53	255	0	92	0	0	371	3.744	134	120	-61	0	-27	245	6.316	57.153
Exportação	0	0	0	0	0	0	0	0	0	0	0	0	-452	-791	-1.490	0	0	-38	0	0	0	0	0	-16	-50	0	0	0	-2.837	-2.837
Exportação Estadual	0	0	0	0	0	0	0	0	0	0	0	0	-5.217	-142	-1.088	-491	-288	-232	0	0	0	-710	0	-664	-807	0	-24	0	-9.663	-9.663
Não Aproveitada	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Reinjeção	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oferta Interna Bruta	29.909	82	1.630	577	5.120	1.072	4.407	444	6.757	506	333	50.837	-5.217	5	-2.525	-236	-288	-178	0	0	371	3.034	134	-560	-918	0	-51	245	-6.184	44.653
Total da Transformação	-29.908	0	-1.614	0	-5.120	-229	-4.407	-444	-117	-86	-243	-42.168	11.015	4.212	5.996	1.903	1.714	1.215	70	291	1.041	5.005	25	1.170	3.074	836	500	814	38.881	-3.287
Refinarias de Petróleo	-29.908	0	0	0	0	0	0	0	0	0	0	-29.908	11.018	4.563	5.823	1.781	1.898	1.215	0	0	0	0	0	0	0	836	500	814	28.448	-1.460
Plantas de Gás Natural	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Usinas de Gaseificação	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-81	0	70	0	0	0	0	0	0	0	0	0	-11	-11
Coquearias	0	0	-1.614	0	0	0	0	0	0	0	0	-1.614	0	0	0	0	0	0	0	291	1.041	0	0	0	0	0	0	0	1.332	-282
Cent. Elét. Serv. Público	0	0	0	0	-4.965	0	0	0	0	0	0	-4.965	0	-65	0	0	0	0	0	0	0	4.639	0	0	0	0	0	0	4.574	-391
Cent. Elét. Auto Prod.	0	0	0	0	-155	-28	0	0	-117	-86	-243	-629	-3	-286	0	0	0	0	0	0	0	366	0	0	0	0	0	0	77	-552
Carvoarias	0	0	0	0	0	-201	0	0	0	0	0	-201	0	0	0	0	0	0	0	0	0	0	25	0	0	0	0	0	25	-176
Destilarias	0	0	0	0	0	0	-4.407	-444	0	0	0	-4.851	0	0	0	0	0	0	0	0	0	0	0	1.170	3.074	0	0	0	4.244	-607
Outras Transforma.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	173	122	-103	0	0	0	0	0	0	0	0	0	0	0	192	192
Perdas Distr. Armaz.	0	-2	-16	-19	0	0	0	0	-676	0	0	-713	0	0	0	0	0	0	-5	0	0	-727	0	-12	-36	0	0	0	-780	-1.493
Consumo Final	0	80	0	557	0	841	0	0	5.964	420	89	7.951	5.798	4.217	3.472	1.667	1.426	1.039	64	290	1.411	7.312	159	598	2.121	835	449	1.059	31.917	39.868
Cons. Final Não Energ.	0	0	0	0	0	0	0	0	157	0	0	157	0	0	0	0	1.426	0	0	0	0	0	2	0	174	125	0	1.059	2.786	2.943
Cons. Final Energético	0	80	0	557	0	841	0	0	5.807	420	89	7.794	5.798	4.217	3.472	1.667	0	1.039	64	290	1.411	7.312	157	598	1.947	710	449	0	29.131	36.925
Setor Energético	0	0	0	0	0	0	0	0	2.475	0	0	2.475	9	591	0	4	0	0	0	64	0	169	0	0	0	710	0	0	1.547	4.022
Residencial	0	0	0	12	0	170	0	0	0	0	0	182	0	0	0	1.321	0	20	35	0	0	1.677	1	0	0	0	0	0	3.054	3.236
Comercial	0	0	0	11	0	67	0	0	0	0	0	78	75	38	0	143	0	0	22	0	0	858	10	0	0	0	0	0	1.146	1.224
Público	0	0	0	0	0	0	0	0	0	0	0	0	58	5	0	10	0	1	2	0	0	589	0	0	0	0	0	0	665	665
Agropecuário	0	0	0	0	0	11	0	0	0	0	0	11	835	29	0	5	0	1	0	0	0	165	0	0	0	0	0	0	1.035	1.046
Transportes - Total	0	0	0	15	0	0	0	0	0	0	0	15	4.629	626	3.472	0	0	977	0	0	0	65	0	598	1.947	0	0	0	12.314	12.329
Rodoviário	0	0	0	15	0	0	0	0	0	0	0	15	4.295	0	3.462	0	0	0	0	0	0	5	0	598	1.947	0	0	0	10.307	10.322
Ferrovário	0	0	0	0	0	0	0	0	0	0	0	0	83	1	0	0	0	0	0	0	0	60	0	0	0	0	0	0	144	144
Aéreo	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	0	0	977	0	0	0	0	0	0	0	0	0	0	987	987
Hidroviário	0	0	0	0	0	0	0	0	0	0	0	0	251	625	0	0	0	0	0	0	0	0	0	0	0	0	0	0	876	876
Industrial - Total	0	80	0	519	0	593	0	0	3.332	420	89	5.033	192	2.928	0	184	0	40	5	226	1.411	3.789	146	0	0	0	449	0	9.370	14.403
Cimento	0	76	0	2	0	0	0	0	0	0	0	78	5	195	0	0	0	0	0	0	33	65	7	0	0	0	31	0	336	414
Ferro Gusa e Aço	0	0	0	120	0	1	0	0	0	0	0	121	14	199	0	17	0	7	0	226	1.378	304	122	0	0	0	0	0	2.267	2.388
Ferro Ligas	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	48	2	0	0	0	0	0	50	50
Mineração e Pelotiz.	0	0	0	0	0	0	0	0	0	0	0	0	29	18	0	0	0	1	0	0	0	44	0	0	0	0	0	0	92	92
Não Ferr.*Out. Metal.	0	0	0	0	0	0	0	0	0	0	0	0	0	57	0	0	0	3	3	0	0	627	0	0	0	0	407	0	1.097	1.097
Química	0	0	0	115	0	9	0	0	14	0	0	138	55	609	0	9	0	14	0	0	0	500	2	0	0	0	4	0	1.193	1.331
Alimentos e Bebidas	0	2	0	42	0	136	0	0	3.288	0	14	3.482	66	525	0	11	0	1	2	0	0	486	0	0	0	0	0	0	1.091	4.573
Têxtil	0	0	0	26	0	23	0	0	0	0	0	49	1	157	0	4	0	1	0	0	0	314	12	0	0	0	0	0	489	538
Papel e Celulose	0	0	0	47	0	266	0	0	30	420	54	817	10	280	0	0	0	2	0	0	0	264	0	0	0	0	0	0	556	1.373
Cerâmica	0	2	0	45	0	115	0	0	0	0	5	167	3	108	0	110	0	2	0	0	0	106	1	0	0	0	0	0	330	497
Outros	0	0	0	122	0	43	0	0	0	0	16	181	9	780	0	33	0	9	0	0	0	1.031	0	0	0	0	7	0	1.869	2.050
Cons. Não Identificado	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ajustes	1	0	0	1	0	2	0	0	0	0	1	5	0	0	-1	0	0	-2	1	1	1	0	0	0	-1	1	0	0	0	5

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OPERAÇÃO	Petróleo	Carvão Vapor	Carvão Metalur.	Gás Natural	Energ. Hidrául.	Lenha	Caldo de Cana	Melaço	Bagaço de Cana	Lixívia	Outras Primár.	Energia Primár.	Óleo Diesel	Óleo Combust.	Gasolina	GLP	Nafta	Quero - sene	Gás Canaliz.	Gás de Coquer.	Coque Carv. Min.	Eletri- cidade	Carvão Vegetal	Etanol Anidro	Etanol Hidrat.	Gás de Refinar.	Out.Ene. Petróleo	Não Energét.	Energia Secund.	Total
Produção	0	0	0	455	5.483	870	3.620	479	6.757	551	392	18.607	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18.607
Importação	8.169	0	1.685	0	0	0	0	0	0	0	0	9.854	839	366	101	121	0	34	0	0	297	0	0	0	0	0	0	135	1.893	11.747
Importação Estadual	22.741	112	0	313	0	168	0	0	0	0	0	23.334	0	0	0	0	0	25	0	0	0	3.931	129	0	0	0	0	263	4.348	27.682
Variação de Estoques	0	-6	-30	0	0	0	0	0	0	0	0	-36	157	114	-57	-3	0	25	0	0	-93	0	0	134	-53	0	27	27	278	242
Oferta Total	30.910	106	1.655	768	5.483	1.038	3.620	479	6.757	551	392	51.759	996	480	44	118	0	84	0	0	204	3.931	129	134	-53	0	27	425	6.519	58.278
Exportação	0	0	0	0	0	0	0	0	0	0	0	0	-598	-988	-545	0	0	-27	0	0	0	0	0	-5	-65	0	0	0	-2.228	-2.228
Exportação Estadual	0	0	0	0	0	0	0	0	0	0	0	0	-5.547	-166	-1.809	-277	-175	-187	0	0	0	-680	0	-560	-580	0	-27	0	-10.008	-10.008
Não Aproveitada	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Reinjeção	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oferta Interna Bruta	30.910	106	1.655	768	5.483	1.038	3.620	479	6.757	551	392	51.759	-5.149	-674	-2.310	-159	-175	-130	0	0	204	3.251	129	-431	-698	0	0	425	-5.717	46.042
Total da Transformação	-30.909	0	-1.637	0	-5.483	-214	-3.620	-479	-119	-95	-292	-42.848	11.198	4.821	6.106	1.858	1.662	1.444	36	304	1.098	5.215	24	1.138	2.828	839	462	744	39.777	-3.071
Refinarias de Petróleo	-30.909	0	0	0	0	0	0	0	0	0	0	-30.909	11.201	5.091	5.942	1.724	1.835	1.444	0	0	0	0	0	0	0	839	462	744	29.282	-1.627
Plantas de Gás Natural	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Usinas de Gaseificação	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-77	0	36	0	0	0	0	0	0	0	0	0	-41	-41
Coquearias	0	0	-1.637	0	0	0	0	0	0	0	0	-1.637	0	0	0	0	0	0	0	304	1.098	0	0	0	0	0	0	0	1.402	-235
Cent. Elét. Serv. Público	0	0	0	0	-5.328	0	0	0	0	0	0	-5.328	0	-24	0	0	0	0	0	0	0	4.838	0	0	0	0	0	0	4.814	-514
Cent. Elét. Auto Prod.	0	0	0	0	-155	-29	0	0	-119	-95	-292	-690	-3	-246	0	0	0	0	0	0	0	377	0	0	0	0	0	0	128	-562
Carvoarias	0	0	0	0	0	-185	0	0	0	0	0	-185	0	0	0	0	0	0	0	0	0	0	24	0	0	0	0	0	24	-161
Destilarias	0	0	0	0	0	0	-3.620	-479	0	0	0	-4.099	0	0	0	0	0	0	0	0	0	0	0	1.138	2.828	0	0	0	3.966	-133
Outras Transforma.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	164	134	-96	0	0	0	0	0	0	0	0	0	0	0	202	202
Perdas Distr. Armaz.	0	-3	-19	-20	0	0	0	0	-676	0	0	-718	0	0	0	0	0	0	-3	-1	0	-790	0	-10	-39	0	0	0	-843	-1.561
Consumo Final	0	103	0	745	0	824	0	0	5.962	456	99	8.189	6.051	4.145	3.796	1.699	1.487	1.317	32	303	1.303	7.676	152	697	2.092	839	462	1.168	33.219	41.408
Cons. Final Não Energ.	0	0	0	0	0	0	0	0	157	0	0	157	0	0	0	0	1.487	0	0	0	0	0	2	0	165	126	0	1.168	2.948	3.105
Cons. Final Energético	0	103	0	745	0	824	0	0	5.805	456	99	8.032	6.051	4.145	3.796	1.699	0	1.317	32	303	1.303	7.676	150	697	1.927	713	462	0	30.271	38.303
Setor Energético	0	0	0	0	0	0	0	0	2.117	0	0	2.117	9	637	0	4	0	0	0	72	0	179	0	0	0	713	0	0	1.614	3.731
Residencial	0	0	0	32	0	172	0	0	0	0	0	204	0	0	0	1.322	0	24	15	0	0	1.876	1	0	0	0	0	0	3.238	3.442
Comercial	0	0	0	24	0	68	0	0	0	0	0	92	74	21	0	146	0	0	15	0	0	959	9	0	0	0	0	0	1.224	1.316
Público	0	0	0	0	0	0	0	0	0	0	0	0	56	5	0	10	0	1	0	0	0	603	0	0	0	0	0	0	675	675
Agropecuário	0	0	0	0	0	12	0	0	0	0	0	12	878	32	0	5	0	1	0	0	0	176	0	0	0	0	0	0	1.092	1.104
Transportes - Total	0	0	0	12	0	0	0	0	0	0	0	12	4.833	563	3.796	0	0	1.249	0	0	0	73	0	697	1.927	0	0	0	13.138	13.150
Rodoviário	0	0	0	12	0	0	0	0	0	0	0	12	4.492	0	3.784	0	0	0	0	0	0	5	0	697	1.927	0	0	0	10.905	10.917
Ferrovário	0	0	0	0	0	0	0	0	0	0	0	0	81	1	0	0	0	0	0	0	0	68	0	0	0	0	0	0	150	150
Aéreo	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	0	0	1.249	0	0	0	0	0	0	0	0	0	0	1.261	1.261
Hidroviário	0	0	0	0	0	0	0	0	0	0	0	0	260	562	0	0	0	0	0	0	0	0	0	0	0	0	0	0	822	822
Industrial - Total	0	103	0	677	0	572	0	0	3.688	456	99	5.595	201	2.887	0	212	0	42	2	231	1.303	3.810	140	0	0	0	462	0	9.290	14.885
Cimento	0	99	0	0	0	0	0	0	0	0	0	99	5	198	0	0	0	0	0	0	36	71	6	0	0	0	31	0	347	446
Ferro Gusa e Aço	0	0	0	127	0	2	0	0	0	0	0	129	12	180	0	18	0	8	0	231	1.267	295	118	0	0	0	0	0	2.129	2.258
Ferro Ligas	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	46	2	0	0	0	0	0	0	48	48
Mineração e Pelotiz.	0	0	0	0	0	0	0	0	0	0	0	0	29	19	0	0	0	1	0	0	0	46	0	0	0	0	0	0	95	95
Não Ferr.*Out. Metal.	0	0	0	0	0	0	0	0	0	0	0	0	0	57	0	0	0	6	1	0	0	615	0	0	0	0	420	0	1.099	1.099
Química	0	0	0	152	0	10	0	0	14	0	0	176	56	629	0	8	0	14	0	0	0	488	2	0	0	0	4	0	1.201	1.377
Alimentos e Bebidas	0	2	0	62	0	134	0	0	3.644	0	15	3.857	75	466	0	12	0	1	1	0	0	500	0	0	0	0	0	0	1.055	4.912
Têxtil	0	0	0	29	0	22	0	0	0	0	0	51	1	137	0	3	0	1	0	0	0	295	11	0	0	0	0	0	448	499
Papel e Celulose	0	0	0	71	0	254	0	0	30	456	59	870	11	381	0	0	0	2	0	0	0	249	0	0	0	0	0	0	643	1.513
Cerâmica	0	2	0	49	0	109	0	0	0	0	5	165	3	115	0	128	0	2	0	0	0	115	1	0	0	0	0	0	364	529
Outros	0	0	0	187	0	41	0	0	0	0	20	248	9	705	0	43	0	7	0	0	0	1.090	0	0	0	0	7	0	1.861	2.109
Cons. Não Identificado	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ajustes	1	0	-1	3	0	0	0	0	0	0	1	4	-2	2	0	0	0	-3	1	0	-1	0	1	0	-1	0	0	1	-2	2

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OPERAÇÃO	Petróleo	Carvão Vapor	Carvão Metalur.	Gás Natural	Energ. Hidrául.	Lenha	Caldo de Cana	Melaço	Bagaço de Cana	Lixívia	Outras Primár.	Energia Primár.	Óleo Diesel	Óleo Combust.	Gasolina	GLP	Nafta	Quero - sene	Gás Canaliz.	Gás de Coquer.	Coque Carv. Min.	Eletri- cidade	Carvão Vegetal	Etanol Anidro	Etanol Hidrat.	Gás de Refinar.	Out.Ene. Petróleo	Não Energét.	Energia Secund.	Total
Produção	0	0	0	522	5.390	880	3.303	526	7.571	576	478	19.246	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	19.246
Importação	10.394	0	1.641	0	0	0	0	0	0	0	0	12.035	308	191	118	481	109	83	0	0	130	0	0	0	0	0	0	190	1.610	13.645
Importação Estadual	20.472	98	0	377	0	166	0	0	0	0	0	21.113	0	0	0	0	242	75	0	0	0	4.032	124	0	0	0	0	346	4.819	25.932
Variação de Estoques	0	12	18	0	0	0	0	0	0	0	0	30	-106	-155	-58	11	-119	-51	0	0	-26	0	0	-161	-53	0	-27	7	-738	-708
Oferta Total	30.866	110	1.659	899	5.390	1.046	3.303	526	7.571	576	478	52.424	202	36	60	492	232	107	0	0	104	4.032	124	-161	-53	0	-27	543	5.691	58.115
Exportação	0	0	0	0	0	0	0	0	0	0	0	0	-40	-379	-225	0	0	-25	0	0	0	0	0	-10	-65	0	0	0	-744	-744
Exportação Estadual	0	0	0	0	0	0	0	0	0	0	0	0	-4.340	-191	-1.524	-211	0	-16	0	0	0	-698	0	-607	-582	0	-27	0	-8.196	-8.196
Não Aproveitada	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Reinjeção	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oferta Interna Bruta	30.866	110	1.659	899	5.390	1.046	3.303	526	7.571	576	478	52.424	-4.178	-534	-1.689	281	232	66	0	0	104	3.334	124	-778	-700	0	-54	543	-3.249	49.175
Total da Transformação	-30.865	0	-1.642	0	-5.389	-220	-3.303	-526	-133	-102	-361	-42.541	10.824	5.053	6.132	1.674	1.277	1.483	13	322	1.188	5.426	23	1.586	2.828	843	508	735	39.915	-2.626
Refinarias de Petróleo	-30.865	0	0	0	0	0	0	0	0	0	0	-30.865	10.827	5.498	5.937	1.552	1.642	1.483	0	0	0	0	0	0	0	843	508	735	29.025	-1.840
Plantas de Gás Natural	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Usinas de Gaseificação	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-23	0	13	0	0	0	0	0	0	0	0	0	-10	-10
Coquearias	0	0	-1.642	0	0	0	0	0	0	0	0	-1.642	0	0	0	0	0	0	0	322	1.188	0	0	0	0	0	0	0	1.510	-132
Cent. Elét. Serv. Público	0	0	0	0	-5.230	0	0	0	0	0	0	-5.230	0	-251	0	0	0	0	0	0	0	5.000	0	0	0	0	0	0	4.749	-481
Cent. Elét. Auto Prod.	0	0	0	0	-159	-30	0	0	-133	-102	-361	-785	-3	-194	0	0	0	0	0	0	0	426	0	0	0	0	0	0	229	-556
Carvoarias	0	0	0	0	0	-190	0	0	0	0	0	-190	0	0	0	0	0	0	0	0	0	0	23	0	0	0	0	0	23	-167
Destilarias	0	0	0	0	0	0	-3.303	-526	0	0	0	-3.829	0	0	0	0	0	0	0	0	0	0	1.586	2.828	0	0	0	0	4.414	585
Outras Transforma.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	195	122	-342	0	0	0	0	0	0	0	0	0	0	0	-25	-25
Perdas Distr. Armaz.	0	-2	-17	-10	0	0	0	0	-757	0	0	-786	0	0	0	0	0	0	-1	-1	0	-886	0	-13	-39	0	0	0	-940	-1.726
Consumo Final	0	108	0	890	0	826	0	0	6.680	473	117	9.094	6.646	4.519	4.444	1.955	1.508	1.551	11	321	1.292	7.877	147	794	2.090	842	455	1.278	35.730	44.824
Cons. Final Não Energ.	0	0	0	0	0	0	0	0	157	0	0	157	0	0	0	0	1.508	0	0	0	0	0	2	0	165	126	0	1.278	3.079	3.236
Cons. Final Energético	0	108	0	890	0	826	0	0	6.523	473	117	8.937	6.646	4.519	4.444	1.955	0	1.551	11	321	1.292	7.877	145	794	1.925	716	455	0	32.651	41.588
Setor Energético	0	0	0	0	0	0	0	0	2.547	0	0	2.547	10	658	0	6	0	0	0	80	0	183	0	0	0	716	0	0	1.653	4.200
Residencial	0	0	0	47	0	173	0	0	0	0	0	220	0	0	0	1.518	0	16	4	0	0	2.037	1	0	0	0	0	0	3.576	3.796
Comercial	0	0	0	32	0	63	0	0	0	0	0	95	35	26	0	165	0	0	5	0	0	1.038	9	0	0	0	0	0	1.278	1.373
Público	0	0	0	0	0	0	0	0	0	0	0	0	61	16	0	12	0	1	2	0	0	620	0	0	0	0	0	0	712	712
Agropecuário	0	0	0	0	0	12	0	0	0	0	0	12	953	70	0	7	0	1	0	0	0	181	0	0	0	0	0	0	1.212	1.224
Transportes - Total	0	0	0	11	0	0	0	0	0	0	0	11	5.385	672	4.444	0	0	1.515	0	0	0	74	0	794	1.925	0	0	0	14.809	14.820
Rodoviário	0	0	0	11	0	0	0	0	0	0	0	11	5.031	0	4.428	0	0	0	0	0	0	5	0	794	1.925	0	0	0	12.183	12.194
Ferrovário	0	0	0	0	0	0	0	0	0	0	0	0	85	1	0	0	0	0	0	0	0	69	0	0	0	0	0	0	155	155
Aéreo	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16	0	0	1.515	0	0	0	0	0	0	0	0	0	0	1.531	1.531
Hidroviário	0	0	0	0	0	0	0	0	0	0	0	0	269	671	0	0	0	0	0	0	0	0	0	0	0	0	0	0	940	940
Industrial - Total	0	108	0	800	0	578	0	0	3.976	473	117	6.052	202	3.077	0	247	0	18	0	241	1.292	3.744	135	0	0	0	455	0	9.411	15.463
Cimento	0	106	0	1	0	0	0	0	0	0	0	107	4	167	0	0	0	0	0	0	35	76	6	0	0	0	86	0	374	481
Ferro Gusa e Aço	0	0	0	192	0	2	0	0	0	0	0	194	13	217	0	18	0	4	0	241	1.257	266	113	0	0	0	0	0	2.129	2.323
Ferro Ligas	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	42	2	0	0	0	0	0	44	44
Mineração e Pelotiz.	0	0	0	0	0	0	0	0	0	0	0	0	17	29	0	0	0	0	0	0	0	48	0	0	0	0	0	0	94	94
Não Ferr.*Out. Metal.	0	0	0	0	0	0	0	0	0	0	0	0	0	67	0	0	0	1	0	0	0	584	0	0	0	0	335	0	987	987
Química	0	0	0	159	0	10	0	0	14	0	0	183	62	691	0	7	0	7	0	0	0	493	2	0	0	0	4	0	1.266	1.449
Alimentos e Bebidas	0	1	0	64	0	131	0	0	3.929	0	19	4.144	78	538	0	18	0	1	0	0	0	491	0	0	0	0	0	0	1.126	5.270
Têxtil	0	0	0	32	0	21	0	0	0	0	0	53	2	122	0	1	0	0	0	0	0	260	11	0	0	0	0	0	396	449
Papel e Celulose	0	0	0	70	0	268	0	0	33	473	66	910	12	491	0	0	0	2	0	0	0	248	0	0	0	0	0	0	753	1.663
Cerâmica	0	1	0	32	0	106	0	0	0	0	5	144	3	125	0	148	0	1	0	0	0	124	1	0	0	0	0	0	402	546
Outros	0	0	0	250	0	40	0	0	0	0	27	317	11	630	0	55	0	2	0	0	0	1.112	0	0	0	0	30	0	1.840	2.157
Cons. Não Identificado	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ajustes	1	0	0	-1	1	0	0	0	1	1	0	3	0	0	-1	0	1	-2	1	0	0	-3	0	1	-1	1	-1	0	-4	-1

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OPERAÇÃO	Petróleo	Carvão Vapor	Carvão Metalur.	Gás Natural	Energ. Hidrául.	Lenha	Caldo de Cana	Melaço	Bagaço de Cana	Lixívia	Outras Primár.	Energia Primár.	Óleo Diesel	Óleo Combust.	Gasolina	GLP	Nafta	Quero - sene	Gás Canaliz.	Gás de Coquer.	Coque Carv. Min.	Eletri- cidade	Carvão Vegetal	Etanol Anidro	Etanol Hidrat.	Gás de Refinar.	Out.Ene. Petróleo	Não Energét.	Energia Secund.	Total
Produção	0	0	0	560	5.766	868	5.179	576	8.064	605	485	22.103	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	22.103
Importação	12.873	0	1.620	0	0	0	0	0	0	0	0	14.493	773	0	114	324	0	31	0	0	198	0	0	0	0	0	0	55	1.495	15.988
Importação Estadual	20.146	60	88	450	0	165	0	0	0	0	0	20.909	0	0	0	0	22	74	0	0	0	4.196	120	0	0	0	0	397	4.809	25.718
Variação de Estoques	0	-8	-39	0	0	0	0	0	0	0	0	-47	87	104	46	-13	15	21	0	0	-97	0	0	-104	-87	0	6	33	11	-36
Oferta Total	33.019	52	1.669	1.010	5.766	1.033	5.179	576	8.064	605	485	57.458	860	104	160	311	37	126	0	0	101	4.196	120	-104	-87	0	6	485	6.315	63.773
Exportação	0	0	0	0	0	0	0	0	0	0	0	0	-1	-129	-87	0	0	-16	0	0	0	0	0	-10	-65	0	19	-36	-325	-325
Exportação Estadual	0	0	0	0	0	0	0	0	0	0	0	0	-5.309	-1.634	-2.725	-126	0	-9	0	0	0	-689	0	-869	-812	0	-84	0	-12.257	-12.257
Não Aproveitada	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Reinjeção	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oferta Interna Bruta	33.019	52	1.669	1.010	5.766	1.033	5.179	576	8.064	605	485	57.458	-4.450	-1.659	-2.652	185	37	101	0	0	101	3.507	120	-983	-964	0	-59	449	-6.267	51.191
Total da Transformação	-33.019	0	-1.657	0	-5.765	-207	-5.179	-576	-142	-108	-360	-47.013	11.776	6.524	7.391	1.841	1.956	1.548	0	321	1.207	5.633	22	1.814	2.847	810	545	982	45.217	-1.796
Refinarias de Petróleo	-33.019	0	0	0	0	0	0	0	0	0	0	-33.019	11.789	6.860	7.159	1.710	1.943	1.548	0	0	0	0	0	0	0	810	545	982	33.346	327
Plantas de Gás Natural	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Usinas de Gaseificação	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Coquearias	0	0	-1.657	0	0	0	0	0	0	0	0	-1.657	0	0	0	0	0	0	0	321	1.207	0	0	0	0	0	0	0	1.528	-129
Cent. Elét. Serv. Público	0	0	0	0	-5.629	0	0	0	0	0	0	-5.629	0	-117	0	0	0	0	0	0	0	5.145	0	0	0	0	0	0	5.028	-601
Cent. Elét. Auto Prod.	0	0	0	0	-136	-28	0	0	-142	-108	-360	-774	-13	-219	0	0	0	0	0	0	0	488	0	0	0	0	0	0	256	-518
Carvoarias	0	0	0	0	0	-179	0	0	0	0	0	-179	0	0	0	0	0	0	0	0	0	0	22	0	0	0	0	0	22	-157
Destilarias	0	0	0	0	0	0	-5.179	-576	0	0	0	-5.755	0	0	0	0	0	0	0	0	0	0	0	1.814	2.847	0	0	0	4.661	-1.094
Outras Transforma.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	232	131	13	0	0	0	0	0	0	0	0	0	0	0	376	376
Perdas Distr. Armaz.	0	-2	-11	-11	0	0	0	0	-806	0	0	-830	0	0	0	0	0	0	0	-1	0	-946	0	-13	-39	0	0	0	-999	-1.829
Consumo Final	0	50	0	998	0	827	0	0	7.115	497	124	9.611	7.327	4.863	4.739	2.024	1.992	1.649	0	320	1.308	8.195	143	819	1.844	809	486	1.430	37.948	47.559
Cons. Final Não Energ.	0	0	0	0	0	0	0	0	157	0	0	157	0	0	0	0	1.992	0	0	0	0	0	2	0	186	121	0	1.430	3.731	3.888
Cons. Final Energético	0	50	0	998	0	827	0	0	6.958	497	124	9.454	7.327	4.863	4.739	2.024	0	1.649	0	320	1.308	8.195	141	819	1.658	688	486	0	34.217	43.671
Setor Energético	0	0	0	0	0	0	0	0	2.594	0	0	2.594	12	700	0	9	0	0	0	74	0	197	0	0	0	688	0	0	1.680	4.274
Residencial	0	0	0	53	0	175	0	0	0	0	0	228	0	0	0	1.475	0	17	0	0	0	2.156	1	0	0	0	0	0	3.649	3.877
Comercial	0	0	0	36	0	62	0	0	0	0	0	98	35	28	0	181	0	0	0	0	0	1.135	9	0	0	0	0	0	1.388	1.486
Público	0	0	0	5	0	0	0	0	0	0	0	5	68	22	0	13	0	1	0	0	0	674	0	0	0	0	0	0	778	783
Agropecuário	0	0	0	0	0	12	0	0	0	0	0	12	1.012	57	0	9	0	1	0	0	0	192	0	0	0	0	0	0	1.271	1.283
Transportes - Total	0	0	0	11	0	0	0	0	0	0	0	11	5.967	857	4.739	0	0	1.612	0	0	0	64	0	819	1.658	0	0	0	15.716	15.727
Rodoviário	0	0	0	11	0	0	0	0	0	0	0	11	5.601	0	4.718	0	0	0	0	0	0	5	0	819	1.658	0	0	0	12.801	12.812
Ferrovário	0	0	0	0	0	0	0	0	0	0	0	0	91	1	0	0	0	0	0	0	0	59	0	0	0	0	0	0	151	151
Aéreo	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21	0	0	1.612	0	0	0	0	0	0	0	0	0	0	1.633	1.633
Hidroviário	0	0	0	0	0	0	0	0	0	0	0	0	275	856	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1.131	1.131
Industrial - Total	0	50	0	893	0	578	0	0	4.364	497	124	6.506	233	3.199	0	337	0	18	0	246	1.308	3.777	131	0	0	0	486	0	9.735	16.241
Cimento	0	48	0	1	0	0	0	0	0	0	0	49	8	180	0	0	0	0	0	0	38	85	6	0	0	0	100	0	417	466
Ferro Gusa e Aço	0	0	0	232	0	2	0	0	0	0	0	234	11	270	0	24	0	4	0	246	1.270	239	104	0	0	0	0	0	2.168	2.402
Ferro Ligas	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	35	7	0	0	0	0	0	42	42
Mineração e Pelotiz.	0	0	0	0	0	0	0	0	0	0	0	0	28	33	0	0	0	0	0	0	0	60	0	0	0	0	0	0	121	121
Não Ferr.*Out. Metal.	0	0	0	0	0	0	0	0	0	0	0	0	0	78	0	0	0	1	0	0	0	522	0	0	0	0	346	0	947	947
Química	0	0	0	192	0	9	0	0	14	0	0	215	80	651	0	7	0	7	0	0	0	590	2	0	0	0	4	0	1.341	1.556
Alimentos e Bebidas	0	1	0	67	0	128	0	0	4.316	0	21	4.533	76	559	0	20	0	1	0	0	0	524	0	0	0	0	0	0	1.180	5.713
Têxtil	0	0	0	33	0	19	0	0	0	0	0	52	3	109	0	2	0	0	0	0	0	273	11	0	0	0	0	0	398	450
Papel e Celulose	0	0	0	68	0	282	0	0	34	497	68	949	12	464	0	0	0	2	0	0	0	294	0	0	0	0	0	0	772	1.721
Cerâmica	0	1	0	29	0	100	0	0	0	0	5	135	3	116	0	204	0	1	0	0	0	146	1	0	0	0	0	0	471	606
Outros	0	0	0	271	0	38	0	0	0	0	30	339	12	739	0	80	0	2	0	0	0	1.009	0	0	0	0	36	0	1.878	2.217
Cons. Não Identificado	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ajustes	0	0	1	1	1	-1	0	0	1	0	1	4	-1	2	0	2	1	0	0	0	0	-1	-1	-1	0	1	0	1	3	7

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OPERAÇÃO	Petróleo	Carvão Vapor	Carvão Metalur.	Gás Natural	Energ. Hidrául.	Lenha	Caldo de Cana	Melaço	Bagaço de Cana	Lixívia	Outras Primár.	Energia Primár.	Óleo Diesel	Óleo Combust.	Gasolina	GLP	Nafta	Quero - sene	Gás Canaliz.	Gás de Coquer.	Coque Carv. Min.	Eletri- cidade	Carvão Vegetal	Etanol Anidro	Etanol Hidrat.	Gás de Refinar.	Out.Ene. Petróleo	Não Energét.	Energia Secund.	Total
Produção	0	0	0	528	5.844	853	4.912	633	8.864	559	510	22.703	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	22.703
Importação	14.395	0	1.475	0	0	0	0	0	0	0	0	15.870	612	0	0	362	0	43	0	0	214	0	0	0	0	0	0	26	1.257	17.127
Importação Estadual	21.244	36	111	457	0	163	0	0	0	0	0	22.011	0	0	0	0	32	168	0	0	0	4.342	116	0	0	0	19	0	4.677	26.688
Variação de Estoques	0	8	-46	0	0	0	0	0	0	0	0	-38	113	2	135	41	10	-6	0	0	0	0	0	-101	-72	0	3	22	147	109
Oferta Total	35.639	44	1.540	985	5.844	1.016	4.912	633	8.864	559	510	60.546	725	2	135	403	42	205	0	0	214	4.342	116	-101	-72	0	22	48	6.081	66.627
Exportação	0	0	0	0	0	0	0	0	0	0	0	0	-1	-448	-350	0	0	0	0	0	0	0	0	-10	-65	0	-17	-24	-915	-915
Exportação Estadual	0	0	0	0	0	0	0	0	0	0	0	0	-5.928	-1.580	-3.152	-249	0	0	0	0	0	-705	0	-820	-1.215	0	0	0	-13.649	-13.649
Não Aproveitada	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Reinjeção	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oferta Interna Bruta	35.639	44	1.540	985	5.844	1.016	4.912	633	8.864	559	510	60.546	-5.204	-2.026	-3.367	154	42	205	0	0	214	3.637	116	-931	-1.352	0	5	24	-8.483	52.063
Total da Transformação	-35.639	0	-1.535	0	-5.844	-189	-4.912	-633	-156	-102	-388	-49.398	12.623	6.845	8.188	1.882	1.965	1.706	0	297	1.110	5.804	21	1.717	2.743	744	524	1.410	47.579	-1.819
Refinarias de Petróleo	-35.639	0	0	0	0	0	0	0	0	0	0	-35.639	12.665	7.133	7.946	1.803	1.938	1.706	0	0	0	0	0	0	0	744	524	1.410	35.869	230
Plantas de Gás Natural	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Usinas de Gaseificação	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Coquearias	0	0	-1.535	0	0	0	0	0	0	0	0	-1.535	0	0	0	0	0	0	0	297	1.110	0	0	0	0	0	0	0	1.407	-128
Cent. Elét. Serv. Público	0	0	0	0	-5.683	0	0	0	0	0	0	-5.683	0	-139	0	0	0	0	0	0	0	5.293	0	0	0	0	0	0	5.154	-529
Cent. Elét. Auto Prod.	0	0	0	0	-161	-25	0	0	-156	-102	-388	-832	-42	-149	0	0	0	0	0	0	0	511	0	0	0	0	0	0	320	-512
Carvoarias	0	0	0	0	0	-164	0	0	0	0	0	-164	0	0	0	0	0	0	0	0	0	0	21	0	0	0	0	0	21	-143
Destilarias	0	0	0	0	0	0	-4.912	-633	0	0	0	-5.545	0	0	0	0	0	0	0	0	0	0	0	1.717	2.743	0	0	0	4.460	-1.085
Outras Transforma.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	242	79	27	0	0	0	0	0	0	0	0	0	0	0	348	348
Perdas Distr. Armaz.	0	-2	-4	-11	0	0	0	0	-886	0	0	-903	0	0	0	0	0	0	0	0	0	-961	0	-13	-39	0	0	0	-1.013	-1.916
Consumo Final	0	42	0	975	0	828	0	0	7.822	457	122	10.246	7.421	4.820	4.821	2.037	2.006	1.912	0	296	1.324	8.480	138	773	1.352	744	529	1.434	38.087	48.333
Cons. Final Não Energ.	0	0	0	0	0	0	0	0	157	0	0	157	0	0	0	0	2.006	0	0	0	0	0	2	0	193	93	0	1.434	3.728	3.885
Cons. Final Energético	0	42	0	975	0	828	0	0	7.665	457	122	10.089	7.421	4.820	4.821	2.037	0	1.912	0	296	1.324	8.480	136	773	1.159	651	529	0	34.359	44.448
Setor Energético	0	0	0	0	0	0	0	0	1.702	0	0	1.702	22	658	0	11	0	0	0	50	0	181	0	0	0	619	0	0	1.541	3.243
Residencial	0	0	0	56	0	176	0	0	0	0	0	232	0	0	0	1.526	0	20	0	0	0	2.260	1	0	0	0	0	0	3.807	4.039
Comercial	0	0	0	42	0	61	0	0	0	0	0	103	36	26	0	122	0	0	0	0	0	1.231	9	0	0	0	0	0	1.424	1.527
Público	0	0	0	5	0	0	0	0	0	0	0	5	52	14	0	18	0	1	0	0	0	720	0	0	0	0	0	0	805	810
Agropecuário	0	0	0	0	0	12	0	0	0	0	0	12	940	26	0	1	0	1	0	0	0	193	0	0	0	0	0	0	1.161	1.173
Transportes - Total	0	0	0	16	0	0	0	0	0	0	0	16	6.043	912	4.821	0	0	1.870	0	0	0	57	0	773	1.159	0	0	0	15.635	15.651
Rodoviário	0	0	0	16	0	0	0	0	0	0	0	16	5.721	0	4.800	0	0	0	0	0	0	4	0	773	1.159	0	0	0	12.457	12.473
Ferrovário	0	0	0	0	0	0	0	0	0	0	0	0	72	1	0	0	0	0	0	0	0	53	0	0	0	0	0	0	126	126
Aéreo	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21	0	0	1.870	0	0	0	0	0	0	0	0	0	0	1.891	1.891
Hidroviário	0	0	0	0	0	0	0	0	0	0	0	0	250	911	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1.161	1.161
Industrial - Total	0	42	0	856	0	579	0	0	5.963	457	122	8.019	328	3.184	0	359	0	20	0	246	1.324	3.838	126	0	0	32	529	0	9.986	18.005
Cimento	0	40	0	0	0	1	0	0	0	0	0	41	8	317	0	0	0	0	0	0	39	70	6	0	0	0	237	0	677	718
Ferro Gusa e Aço	0	0	0	164	0	2	0	0	0	0	0	166	14	215	0	21	0	2	0	246	1.285	264	100	0	0	0	0	0	2.147	2.313
Ferro Ligas	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	45	7	0	0	0	0	0	52	52
Mineração e Pelotiz.	0	0	0	0	0	0	0	0	0	0	0	0	29	40	0	0	0	6	0	0	0	49	0	0	0	0	0	0	124	124
Não Ferr.*Out. Metal.	0	0	0	0	0	0	0	0	0	0	0	0	0	109	0	0	0	2	0	0	0	644	0	0	0	0	252	0	1.007	1.007
Química	0	0	0	243	0	9	0	0	15	0	0	267	47	624	0	5	0	2	0	0	0	508	2	0	0	32	6	0	1.226	1.493
Alimentos e Bebidas	0	1	0	69	0	128	0	0	5.914	0	20	6.132	67	537	0	13	0	1	0	0	0	512	0	0	0	0	0	0	1.130	7.262
Têxtil	0	0	0	35	0	19	0	0	0	0	0	54	5	113	0	4	0	1	0	0	0	237	10	0	0	0	0	0	370	424
Papel e Celulose	0	0	0	43	0	308	0	0	34	457	66	908	9	485	0	0	0	0	0	0	0	242	0	0	0	0	0	0	736	1.644
Cerâmica	0	1	0	43	0	99	0	0	0	0	5	148	3	112	0	99	0	0	0	0	0	113	1	0	0	0	0	0	328	476
Outros	0	0	0	259	0	13	0	0	0	0	31	303	146	632	0	217	0	6	0	0	0	1.154	0	0	0	0	34	0	2.189	2.492
Cons. Não Identificado	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ajustes	0	0	1	-1	0	-1	0	0	0	0	0	-1	-2	-1	0	-1	1	-1	0	1	0	0	-1	0	0	0	0	0	-4	-5

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OPERAÇÃO	Petróleo	Carvão Vapor	Carvão Metalur.	Gás Natural	Energ. Hidrául.	Lenha	Caldo de Cana	Melaço	Bagaço de Cana	Lixívia	Outras Primár.	Energia Primár.	Óleo Diesel	Óleo Combust.	Gasolina	GLP	Nafta	Quero - sene	Gás Canaliz.	Gás de Coquer.	Coque Carv. Min.	Eletri- cidade	Carvão Vegetal	Etanol Anidro	Etanol Hidrat.	Gás de Refinar.	Out.Ene. Petróleo	Não Energét.	Energia Secund.	Total
Produção	0	0	0	453	6.211	823	4.411	831	8.629	622	525	22.505	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	22.505
Importação	6.849	0	1.377	0	0	0	0	0	0	0	0	8.226	544	46	49	944	0	0	0	0	26	0	0	0	0	0	0	15	1.624	9.850
Importação Estadual	27.551	34	0	662	0	162	0	0	0	0	0	28.409	0	0	0	0	38	164	0	0	0	4.493	112	0	0	0	0	0	4.807	33.216
Variação de Estoques	0	8	42	0	0	0	0	0	0	0	0	50	-120	138	5	-5	-64	2	0	0	15	0	0	-123	-8	0	0	-4	-164	-114
Oferta Total	34.400	42	1.419	1.115	6.211	985	4.411	831	8.629	622	525	59.190	424	184	54	939	-26	166	0	0	41	4.493	112	-123	-8	0	0	11	6.267	65.457
Exportação	0	0	0	0	0	0	0	0	0	0	0	0	0	-599	-698	0	0	-16	0	0	0	0	0	-14	-113	0	-88	-20	-1.548	-1.548
Exportação Estadual	0	0	0	0	0	0	0	0	0	0	0	0	-6.393	-1.515	-1.768	-568	0	0	0	0	0	-679	0	-698	-675	0	0	0	-12.296	-12.296
Não Aproveitada	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Reinjeção	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oferta Interna Bruta	34.400	42	1.419	1.115	6.211	985	4.411	831	8.629	622	525	59.190	-5.969	-1.930	-2.412	371	-26	150	0	0	41	3.814	112	-835	-796	0	-88	-9	-7.577	51.613
Total da Transformação	-34.400	0	-1.401	-15	-6.211	-148	-4.411	-831	-152	-112	-408	-48.089	13.557	6.312	7.357	1.834	2.136	1.622	0	241	1.111	5.993	20	1.804	2.175	823	765	1.387	47.137	-952
Refinarias de Petróleo	-34.400	0	0	0	0	0	0	0	0	0	0	-34.400	13.573	6.918	7.127	1.818	2.123	1.622	0	0	0	0	0	0	0	823	765	1.387	36.156	1.756
Plantas de Gás Natural	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Usinas de Gaseificação	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Coquearias	0	0	-1.401	0	0	0	0	0	0	0	0	-1.401	0	0	0	0	0	0	0	241	1.111	0	0	0	0	0	0	0	1.352	-49
Cent. Elét. Serv. Público	0	0	0	0	-6.046	0	0	0	0	0	0	-6.046	0	-425	0	0	0	0	0	0	0	5.460	0	0	0	0	0	0	5.035	-1.011
Cent. Elét. Auto Prod.	0	0	0	-15	-165	-25	0	0	-152	-112	-408	-877	-16	-181	0	0	0	0	0	0	0	533	0	0	0	0	0	0	336	-541
Carvoarias	0	0	0	0	0	-123	0	0	0	0	0	-123	0	0	0	0	0	0	0	0	0	0	20	0	0	0	0	0	20	-103
Destilarias	0	0	0	0	0	0	-4.411	-831	0	0	0	-5.242	0	0	0	0	0	0	0	0	0	0	0	1.804	2.175	0	0	0	3.979	-1.263
Outras Transforma.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	230	16	13	0	0	0	0	0	0	0	0	0	0	0	259	259
Perdas Distr. Armaz.	0	-2	-18	-54	0	0	0	0	-863	0	0	-937	0	0	0	0	0	0	0	0	0	-1.032	0	-5	-22	0	0	0	-1.059	-1.996
Consumo Final	0	40	0	1.045	0	837	0	0	7.614	510	117	10.163	7.588	4.382	4.944	2.203	2.109	1.771	0	240	1.152	8.774	132	964	1.356	822	677	1.377	38.491	48.654
Cons. Final Não Energ.	0	0	0	0	0	0	0	0	157	0	0	157	0	0	0	0	2.109	0	0	0	0	0	1	0	15	116	0	1.377	3.618	3.775
Cons. Final Energético	0	40	0	1.045	0	837	0	0	7.457	510	117	10.006	7.588	4.382	4.944	2.203	0	1.771	0	240	1.152	8.774	131	964	1.341	706	677	0	34.873	44.879
Setor Energético	0	0	0	0	0	0	0	0	1.103	0	0	1.103	23	629	0	13	0	0	0	7	0	228	0	0	0	661	0	0	1.561	2.664
Residencial	0	0	0	59	0	177	0	0	0	0	0	236	0	0	0	1.543	0	21	0	0	0	2.312	1	0	0	0	0	0	3.877	4.113
Comercial	0	0	0	44	0	61	0	0	0	0	0	105	36	22	0	183	0	0	0	0	0	1.303	8	0	0	0	0	0	1.552	1.657
Público	0	0	0	2	0	0	0	0	0	0	0	2	63	11	0	26	0	1	0	0	0	739	0	0	0	0	0	0	840	842
Agropecuário	0	0	0	0	0	12	0	0	0	0	0	12	958	56	0	4	0	1	0	0	0	205	0	0	0	0	0	0	1.224	1.236
Transportes - Total	0	0	0	26	0	0	0	0	0	0	0	26	6.139	955	4.944	0	0	1.731	0	0	0	57	0	964	1.341	0	0	0	16.131	16.157
Rodoviário	0	0	0	26	0	0	0	0	0	0	0	26	5.804	0	4.924	0	0	0	0	0	0	4	0	964	1.341	0	0	0	13.037	13.063
Ferrovário	0	0	0	0	0	0	0	0	0	0	0	0	66	1	0	0	0	0	0	0	0	53	0	0	0	0	0	0	120	120
Aéreo	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20	0	0	1.731	0	0	0	0	0	0	0	0	0	0	1.751	1.751
Hidroviário	0	0	0	0	0	0	0	0	0	0	0	0	269	954	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1.223	1.223
Industrial - Total	0	40	0	914	0	587	0	0	6.354	510	117	8.522	369	2.709	0	434	0	17	0	233	1.152	3.930	122	0	0	45	677	0	9.688	18.210
Cimento	0	38	0	0	0	1	0	0	0	0	0	39	8	169	0	0	0	0	0	0	35	88	6	0	0	0	338	0	644	683
Ferro Gusa e Aço	0	0	0	168	0	2	0	0	0	0	0	170	16	250	0	49	0	2	0	233	1.117	249	97	0	0	0	0	0	2.013	2.183
Ferro Ligas	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	36	7	0	0	0	0	0	43	43
Mineração e Pelotiz.	0	0	0	0	0	0	0	0	0	0	0	0	30	45	0	0	0	3	0	0	0	62	0	0	0	0	0	0	140	140
Não Ferr.*Out. Metal.	0	0	0	0	0	0	0	0	0	0	0	0	0	111	0	0	0	2	0	0	0	543	0	0	0	0	275	0	931	931
Química	0	0	0	305	0	8	0	0	15	0	0	328	60	584	0	12	0	2	0	0	0	614	1	0	0	45	9	0	1.327	1.655
Alimentos e Bebidas	0	1	0	55	0	128	0	0	6.305	0	17	6.506	69	498	0	32	0	1	0	0	0	545	0	0	0	0	0	0	1.145	7.651
Têxtil	0	0	0	41	0	19	0	0	0	0	0	60	5	109	0	7	0	0	0	0	0	284	10	0	0	0	0	0	415	475
Papel e Celulose	0	0	0	94	0	317	0	0	34	510	68	1.023	12	456	0	0	0	0	0	0	0	306	0	0	0	0	0	0	774	1.797
Cerâmica	0	1	0	41	0	99	0	0	0	0	5	146	2	119	0	184	0	0	0	0	0	152	1	0	0	0	0	0	458	604
Outros	0	0	0	210	0	13	0	0	0	0	27	250	167	368	0	150	0	7	0	0	0	1.051	0	0	0	0	55	0	1.798	2.048
Cons. Não Identificado	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ajustes	0	0	0	1	0	0	0	0	0	0	0	1	0	0	1	2	1	1	0	1	0	1	0	0	1	1	0	1	10	11

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OPERAÇÃO	Petróleo	Carvão Vapor	Carvão Metalur.	Gás Natural	Energ. Hidrául.	Lenha	Caldo de Cana	Melaço	Bagaço de Cana	Lixívia	Outras Primár.	Energia Primár.	Óleo Diesel	Óleo Combust.	Gasolina	GLP	Nafta	Quero - sene	Gás Canaliz.	Gás de Coquer.	Coque Carv. Min.	Eletri- cidade	Carvão Vegetal	Etanol Anidro	Etanol Hidrat.	Gás de Refinar.	Out.Ene. Petróleo	Não Energét.	Energia Secund.	Total
Produção	0	0	0	263	5.927	851	3.343	639	6.586	713	548	18.870	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18.870
Importação	5.199	0	1.319	0	0	0	0	0	0	0	0	6.518	916	0	0	626	0	0	0	0	83	0	0	0	0	0	50	50	1.725	8.243
Importação Estadual	33.531	42	0	1.066	0	161	0	0	0	0	0	34.800	0	0	0	0	19	0	0	0	0	4.719	108	0	0	0	97	0	4.943	39.743
Variação de Estoques	0	-4	20	0	0	0	0	0	0	0	0	16	-14	-18	-191	0	-41	-7	0	0	63	0	0	-51	-44	0	-12	-12	-327	-311
Oferta Total	38.730	38	1.339	1.329	5.927	1.012	3.343	639	6.586	713	548	60.204	902	-18	-191	626	-22	-7	0	0	146	4.719	108	-51	-44	0	135	38	6.341	66.545
Exportação	0	0	0	0	0	0	0	0	0	0	0	0	0	-667	-1.451	0	0	-214	0	0	0	0	0	0	-11	0	-345	-8	-2.696	-2.696
Exportação Estadual	0	0	0	0	0	0	0	0	0	0	0	0	-6.267	-2.052	-1.949	-534	0	0	0	0	0	-665	0	-971	-377	0	0	0	-12.815	-12.815
Não Aproveitada	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Reinjeção	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oferta Interna Bruta	38.730	38	1.339	1.329	5.927	1.012	3.343	639	6.586	713	548	60.204	-5.365	-2.737	-3.591	92	-22	-221	0	0	146	4.054	108	-1.022	-432	0	-210	30	-9.170	51.034
Total da Transformação	-38.730	0	-1.336	-75	-5.926	-144	-3.343	-639	-116	-130	-433	-50.872	13.030	6.168	8.168	2.105	2.206	1.805	0	245	919	6.221	20	1.805	1.384	962	1.267	1.316	47.621	-3.251
Refinarias de Petróleo	-38.730	0	0	0	0	0	0	0	0	0	0	-38.730	13.052	6.798	7.934	2.025	2.199	1.805	0	0	0	0	0	0	962	1.267	1.316	37.358	-1.372	
Plantas de Gás Natural	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Usinas de Gaseificação	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Coquearias	0	0	-1.336	0	0	0	0	0	0	0	0	-1.336	0	0	0	0	0	0	0	245	919	0	0	0	0	0	0	0	1.164	-172
Cent. Elét. Serv. Público	0	0	0	-40	-5.759	0	0	0	0	0	0	-5.799	0	-445	0	0	0	0	0	0	0	5.662	0	0	0	0	0	0	5.217	-582
Cent. Elét. Auto Prod.	0	0	0	-35	-167	-25	0	0	-116	-130	-433	-906	-22	-185	0	0	0	0	0	0	0	559	0	0	0	0	0	0	352	-554
Carvoarias	0	0	0	0	0	-119	0	0	0	0	0	-119	0	0	0	0	0	0	0	0	0	0	20	0	0	0	0	0	20	-99
Destilarias	0	0	0	0	0	0	-3.343	-639	0	0	0	-3.982	0	0	0	0	0	0	0	0	0	0	0	1.805	1.384	0	0	0	3.189	-793
Outras Transforma.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	234	80	7	0	0	0	0	0	0	0	0	0	0	0	321	321
Perdas Distr. Armaz.	0	-2	-3	0	0	0	0	0	-659	0	0	-664	0	0	0	0	0	0	0	-2	-2	-1.058	0	-5	-39	0	0	0	-1.106	-1.770
Consumo Final	0	36	0	1.253	0	868	0	0	5.811	583	113	8.664	7.666	3.430	4.577	2.197	2.184	1.585	0	243	1.063	9.218	128	779	920	962	1.057	1.346	37.355	46.019
Cons. Final Não Energ.	0	0	0	0	0	0	0	0	157	0	0	157	0	0	0	0	2.184	0	0	0	0	0	2	0	9	145	0	1.346	3.686	3.843
Cons. Final Energético	0	36	0	1.253	0	868	0	0	5.654	583	113	8.507	7.666	3.430	4.577	2.197	0	1.585	0	243	1.063	9.218	126	779	911	817	1.057	0	33.669	42.176
Setor Energético	0	0	0	0	0	0	0	0	799	0	0	799	13	420	0	15	0	0	0	8	0	192	0	0	0	749	0	0	1.397	2.196
Residencial	0	0	0	59	0	179	0	0	0	0	0	238	0	0	0	1.504	0	23	0	0	0	2.369	1	0	0	0	0	0	3.897	4.135
Comercial	0	0	0	46	0	60	0	0	0	0	0	106	36	14	0	181	0	0	0	0	0	1.442	8	0	0	0	0	0	1.681	1.787
Público	0	0	0	0	0	0	0	0	0	0	0	0	58	13	0	30	0	1	0	0	0	765	0	0	0	0	0	0	867	867
Agropecuário	0	0	0	0	0	12	0	0	0	0	0	12	844	72	0	5	0	1	0	0	0	204	0	0	0	0	0	0	1.126	1.138
Transportes - Total	0	0	0	52	0	0	0	0	0	0	0	52	6.366	716	4.577	0	0	1.543	0	0	0	58	0	779	911	0	0	0	14.950	15.002
Rodoviário	0	0	0	52	0	0	0	0	0	0	0	52	6.049	0	4.557	0	0	0	0	0	0	4	0	779	911	0	0	0	12.300	12.352
Ferrovário	0	0	0	0	0	0	0	0	0	0	0	0	74	1	0	0	0	0	0	0	0	54	0	0	0	0	0	0	129	129
Aéreo	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20	0	0	1.543	0	0	0	0	0	0	0	0	0	0	1.563	1.563
Hidroviário	0	0	0	0	0	0	0	0	0	0	0	0	243	715	0	0	0	0	0	0	0	0	0	0	0	0	0	0	958	958
Industrial - Total	0	36	0	1.096	0	617	0	0	4.855	583	113	7.300	349	2.195	0	462	0	17	0	235	1.063	4.188	117	0	0	68	1.057	0	9.751	17.051
Cimento	0	34	0	1	0	1	0	0	0	0	0	36	7	76	0	0	0	0	0	0	29	90	5	0	0	0	541	0	748	784
Ferro Gusa e Aço	0	0	0	197	0	2	0	0	0	0	0	199	15	283	0	52	0	2	0	235	1.034	330	94	0	0	0	0	0	2.045	2.244
Ferro Ligas	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	50	6	0	0	0	0	0	56	56
Mineração e Pelotiz.	0	0	0	0	0	0	0	0	0	0	0	0	28	46	0	0	0	1	0	0	0	64	0	0	0	0	0	0	139	139
Não Ferr.*Out. Metal.	0	0	0	0	0	0	0	0	0	0	0	0	0	125	0	0	0	1	0	0	0	596	0	0	0	0	372	0	1.094	1.094
Química	0	0	0	369	0	8	0	0	15	0	0	392	42	515	0	9	0	2	0	0	0	576	1	0	0	68	14	0	1.227	1.619
Alimentos e Bebidas	0	1	0	75	0	128	0	0	4.806	0	16	5.026	80	510	0	33	0	0	0	0	0	587	0	0	0	0	0	0	1.210	6.236
Têxtil	0	0	0	50	0	21	0	0	0	0	0	71	4	101	0	20	0	0	0	0	0	295	10	0	0	0	0	0	430	501
Papel e Celulose	0	0	0	99	0	339	0	0	34	583	68	1.123	12	246	0	0	0	0	0	0	0	312	0	0	0	0	0	0	570	1.693
Cerâmica	0	1	0	56	0	104	0	0	0	0	5	166	2	67	0	228	0	0	0	0	0	155	1	0	0	0	0	0	453	619
Outros	0	0	0	249	0	14	0	0	0	0	24	287	159	226	0	120	0	11	0	0	0	1.133	0	0	0	0	130	0	1.779	2.066
Cons. Não Identificado	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ajustes	0	0	0	1	1	0	0	0	0	0	2	4	-1	1	0	0	0	-1	0	0	0	-1	0	-1	-7	0	0	0	-10	-6

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OPERAÇÃO	Petróleo	Carvão Vapor	Carvão Metalur.	Gás Natural	Energ. Hidrául.	Lenha	Caldo de Cana	Melaço	Bagaço de Cana	Lixívia	Outras Primár.	Energia Primár.	Óleo Diesel	Óleo Combust.	Gasolina	GLP	Nafta	Quero - sene	Gás Canaliz.	Gás de Coquer.	Coque Carv. Min.	Eletri- cidade	Carvão Vegetal	Etanol Anidro	Etanol Hidrat.	Gás de Refinar.	Out.Ene. Petróleo	Não Energét.	Energia Secund.	Total
Produção	0	0	0	279	5.118	837	3.702	814	8.158	709	492	20.109	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20.109
Importação	6.702	0	1.442	0	0	0	0	0	0	0	0	8.144	522	0	0	371	0	0	0	0	201	0	0	0	0	0	0	52	1.146	9.290
Importação Estadual	31.681	40	0	1.541	0	159	0	0	0	0	0	33.421	0	0	0	0	7	0	0	0	0	4.310	107	0	0	0	70	0	4.494	37.915
Variação de Estoques	0	-4	47	0	0	0	0	0	0	0	0	43	-64	93	-187	-10	-50	-7	0	0	-19	0	0	-51	-20	0	-31	-11	-357	-314
Oferta Total	38.383	36	1.489	1.820	5.118	996	3.702	814	8.158	709	492	61.717	458	93	-187	361	-43	-7	0	0	182	4.310	107	-51	-20	0	39	41	5.283	67.000
Exportação	0	0	0	0	0	0	0	0	0	0	0	0	-10	-1.495	-1.493	0	0	-281	0	0	0	0	0	-4	-208	0	-408	-12	-3.911	-3.911
Exportação Estadual	0	0	0	0	0	0	0	0	0	0	0	0	-6.416	-1.872	-1.670	-245	0	-255	0	0	0	-752	0	-1.242	-495	0	0	0	-12.947	-12.947
Não Aproveitada	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Reinjeção	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oferta Interna Bruta	38.383	36	1.489	1.820	5.118	996	3.702	814	8.158	709	492	61.717	-5.968	-3.274	-3.350	116	-43	-543	0	0	182	3.558	107	-1.297	-723	0	-369	29	-11.575	50.142
Total da Transformação	-38.382	0	-1.487	-252	-5.119	-125	-3.702	-814	-138	-129	-386	-50.534	13.874	6.340	7.845	2.036	2.616	1.876	0	243	816	5.652	20	2.154	1.386	965	1.204	1.243	48.270	-2.264
Refinarias de Petróleo	-38.382	0	0	0	0	0	0	0	0	0	0	-38.382	13.888	6.900	7.682	1.958	2.612	1.876	0	0	0	0	0	0	0	965	1.204	1.243	38.328	-54
Plantas de Gás Natural	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Usinas de Gaseificação	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Coquearias	0	0	-1.487	0	0	0	0	0	0	0	0	-1.487	0	0	0	0	0	0	0	243	816	0	0	0	0	0	0	0	1.059	-428
Cent. Elét. Serv. Público	0	0	0	-179	-4.958	0	0	0	0	0	0	-5.137	0	-364	0	0	0	0	0	0	0	5.112	0	0	0	0	0	0	4.748	-389
Cent. Elét. Auto Prod.	0	0	0	-73	-161	-25	0	0	-138	-129	-386	-912	-14	-196	0	0	0	0	0	0	0	540	0	0	0	0	0	0	330	-582
Carvoarias	0	0	0	0	0	-100	0	0	0	0	0	-100	0	0	0	0	0	0	0	0	0	0	20	0	0	0	0	0	20	-80
Destilarias	0	0	0	0	0	0	-3.702	-814	0	0	0	-4.516	0	0	0	0	0	0	0	0	0	0	0	2.154	1.386	0	0	0	3.540	-976
Outras Transforma.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	163	78	4	0	0	0	0	0	0	0	0	0	0	0	245	245
Perdas Distr. Armaz.	0	-2	-1	0	0	0	0	0	-816	0	0	-819	0	0	0	0	0	0	0	-2	0	-792	0	-46	-23	0	0	0	-863	-1.682
Consumo Final	0	34	0	1.567	0	872	0	0	7.203	580	105	10.361	7.906	3.063	4.495	2.151	2.574	1.333	0	242	998	8.417	126	812	641	966	835	1.273	35.832	46.193
Cons. Final Não Energ.	0	0	0	0	0	0	0	0	157	0	0	157	0	0	0	0	2.574	0	0	0	0	0	1	0	8	125	0	1.273	3.981	4.138
Cons. Final Energético	0	34	0	1.567	0	872	0	0	7.046	580	105	10.204	7.906	3.063	4.495	2.151	0	1.333	0	242	998	8.417	125	812	633	841	835	0	31.851	42.055
Setor Energético	0	0	0	0	0	0	0	0	1.004	0	0	1.004	21	362	0	15	0	0	0	15	0	189	0	0	0	767	0	0	1.369	2.373
Residencial	0	0	0	59	0	180	0	0	0	0	0	239	0	0	0	1.498	0	22	0	0	0	1.998	1	0	0	0	0	0	3.519	3.758
Comercial	0	0	0	44	0	60	0	0	0	0	0	104	37	19	0	173	0	0	0	0	0	1.314	9	0	0	0	0	0	1.552	1.656
Público	0	0	0	6	0	0	0	0	0	0	0	6	59	13	0	33	0	1	0	0	0	697	0	0	0	0	0	0	803	809
Agropecuário	0	0	0	0	0	12	0	0	0	0	0	12	754	76	0	5	0	0	0	0	0	186	0	0	0	0	0	0	1.021	1.033
Transportes - Total	0	0	0	91	0	0	0	0	0	0	0	91	6.649	525	4.495	0	0	1.299	0	0	0	59	0	812	633	0	0	0	14.472	14.563
Rodoviário	0	0	0	91	0	0	0	0	0	0	0	91	6.239	0	4.473	0	0	0	0	0	0	4	0	812	633	0	0	0	12.161	12.252
Ferrovário	0	0	0	0	0	0	0	0	0	0	0	0	107	0	0	0	0	0	0	0	0	55	0	0	0	0	0	0	162	162
Aéreo	0	0	0	0	0	0	0	0	0	0	0	0	0	0	22	0	0	1.299	0	0	0	0	0	0	0	0	0	0	1.321	1.321
Hidroviário	0	0	0	0	0	0	0	0	0	0	0	0	303	525	0	0	0	0	0	0	0	0	0	0	0	0	0	0	828	828
Industrial - Total	0	34	0	1.367	0	620	0	0	6.042	580	105	8.748	386	2.068	0	427	0	11	0	227	998	3.974	115	0	0	74	835	0	9.115	17.863
Cimento	0	32	0	0	0	1	0	0	0	0	0	33	8	74	0	0	0	0	0	0	27	96	5	0	0	0	478	0	688	721
Ferro Gusa e Aço	0	0	0	225	0	2	0	0	0	0	0	227	20	243	0	58	0	1	0	227	971	282	93	0	0	0	0	0	1.895	2.122
Ferro Ligas	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	48	5	0	0	0	0	0	53	53
Mineração e Pelotiz.	0	0	0	0	0	0	0	0	0	0	0	0	23	26	0	0	0	1	0	0	0	63	0	0	0	0	0	0	113	113
Não Ferr.*Out. Metal.	0	0	0	0	0	0	0	0	0	0	0	0	0	98	0	0	0	1	0	0	0	475	0	0	0	0	303	0	877	877
Química	0	0	0	317	0	8	0	0	15	0	0	340	59	537	0	12	0	2	0	0	0	535	1	0	0	74	13	0	1.233	1.573
Alimentos e Bebidas	0	1	0	160	0	133	0	0	5.993	0	13	6.300	107	488	0	35	0	0	0	0	0	427	0	0	0	0	0	0	1.057	7.357
Têxtil	0	0	0	82	0	21	0	0	0	0	0	103	2	75	0	18	0	0	0	0	0	243	10	0	0	0	0	0	348	451
Papel e Celulose	0	0	0	157	0	336	0	0	34	580	68	1.175	13	221	0	0	0	0	0	0	0	304	0	0	0	0	0	0	538	1.713
Cerâmica	0	1	0	118	0	104	0	0	0	0	5	228	1	57	0	184	0	0	0	0	0	158	1	0	0	0	0	0	401	629
Outros	0	0	0	308	0	15	0	0	0	0	19	342	153	249	0	120	0	6	0	0	0	1.343	0	0	0	0	41	0	1.912	2.254
Cons. Não Identificado	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ajustes	1	0	1	1	-1	-1	0	0	1	0	1	3	0	3	0	1	-1	0	0	-1	0	1	1	-1	-1	-1	0	-1	0	3

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OPERAÇÃO	Petróleo	Carvão Vapor	Carvão Metalur.	Gás Natural	Energ. Hidrául.	Lenha	Caldo de Cana	Melaço	Bagaço de Cana	Lixívia	Outras Primár.	Energia Primár.	Óleo Diesel	Óleo Combust.	Gasolina	GLP	Nafta	Quero - sene	Gás Canaliz.	Gás de Coquer.	Coque Carv. Min.	Eletri- cidade	Carvão Vegetal	Etanol Anidro	Etanol Hidrat.	Gás de Refinar.	Out.Ene. Petróleo	Não Energét.	Energia Secund.	Total
Produção	0	0	0	320	5.724	817	3.691	905	8.469	748	503	21.177	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21.177
Importação	5.006	0	1.354	0	0	0	0	0	0	0	0	6.360	585	8	0	760	0	0	0	0	324	0	0	0	0	0	0	15	1.692	8.052
Importação Estadual	32.267	40	0	2.091	0	158	0	0	0	0	0	34.556	0	0	0	0	1	175	0	0	0	4.409	103	0	0	0	61	0	4.749	39.305
Variação de Estoques	0	-4	31	0	0	0	0	0	0	0	0	27	331	-37	34	24	-109	30	0	0	-123	0	0	-31	-20	0	4	-7	96	123
Oferta Total	37.273	36	1.385	2.411	5.724	975	3.691	905	8.469	748	503	62.120	916	-29	34	784	-108	205	0	0	201	4.409	103	-31	-20	0	65	8	6.537	68.657
Exportação	0	0	0	0	0	0	0	0	0	0	0	0	-13	-1.451	-1.454	0	0	-137	0	0	0	0	0	-7	-223	0	-421	-19	-3.725	-3.725
Exportação Estadual	0	0	0	0	0	0	0	0	0	0	0	0	-6.532	-2.379	-1.568	-784	0	-463	0	0	0	-749	0	-1.428	-445	0	0	0	-14.348	-14.348
Não Aproveitada	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Reinjeção	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oferta Interna Bruta	37.273	36	1.385	2.411	5.724	975	3.691	905	8.469	748	503	62.120	-5.629	-3.859	-2.988	0	-108	-395	0	0	201	3.660	103	-1.466	-688	0	-356	-11	-11.536	50.584
Total da Transformação	-37.273	0	-1.381	-352	-5.724	-116	-3.691	-905	-149	-137	-403	-50.131	13.674	6.202	7.213	2.023	1.978	1.802	0	226	809	5.931	21	2.323	1.492	1.068	1.220	1.208	47.190	-2.941
Refinarias de Petróleo	-37.273	0	0	0	0	0	0	0	0	0	0	-37.273	13.690	6.422	7.066	1.969	1.968	1.802	0	0	0	0	0	0	0	1.068	1.220	1.208	36.413	-860
Plantas de Gás Natural	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Usinas de Gaseificação	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Coquearias	0	0	-1.381	0	0	0	0	0	0	0	0	-1.381	0	0	0	0	0	0	0	226	809	0	0	0	0	0	0	0	1.035	-346
Cent. Elét. Serv. Público	0	0	0	-268	-5.531	0	0	0	0	0	0	-5.799	0	-44	0	0	0	0	0	0	0	5.273	0	0	0	0	0	0	5.229	-570
Cent. Elét. Auto Prod.	0	0	0	-84	-193	-28	0	0	-149	-137	-403	-994	-16	-176	0	0	0	0	0	0	0	658	0	0	0	0	0	0	466	-528
Carvoarias	0	0	0	0	0	-88	0	0	0	0	0	-88	0	0	0	0	0	0	0	0	0	0	21	0	0	0	0	0	21	-67
Destilarias	0	0	0	0	0	0	-3.691	-905	0	0	0	-4.596	0	0	0	0	0	0	0	0	0	0	0	2.323	1.492	0	0	0	3.815	-781
Outras Transforma.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	147	54	10	0	0	0	0	0	0	0	0	0	0	0	211	211
Perdas Distr. Armaz.	0	-2	-4	-1	0	0	0	0	-847	0	0	-854	0	0	0	0	0	0	0	0	-7	-980	0	-5	-22	0	0	0	-1.014	-1.868
Consumo Final	0	34	0	2.057	0	858	0	0	7.472	611	99	11.131	8.045	2.341	4.225	2.023	1.871	1.407	0	226	1.003	8.610	122	853	782	1.068	864	1.197	34.637	45.768
Cons. Final Não Energ.	0	0	0	0	0	0	0	0	165	0	0	165	0	0	0	0	1.871	0	0	0	0	0	1	0	6	137	0	1.197	3.212	3.377
Cons. Final Energético	0	34	0	2.057	0	858	0	0	7.307	611	99	10.966	8.045	2.341	4.225	2.023	0	1.407	0	226	1.003	8.610	121	853	776	931	864	0	31.425	42.391
Setor Energético	0	0	0	0	0	0	0	0	483	0	0	483	18	277	0	13	0	0	0	4	0	207	0	0	0	850	0	0	1.369	1.852
Residencial	0	0	0	67	0	165	0	0	0	0	0	232	0	0	0	1.507	0	14	0	0	0	1.957	1	0	0	0	0	0	3.479	3.711
Comercial	0	0	0	50	0	59	0	0	0	0	0	109	40	25	0	152	0	0	0	0	0	1.320	8	0	0	0	0	0	1.545	1.654
Público	0	0	0	7	0	0	0	0	0	0	0	7	77	9	0	40	0	0	0	0	0	728	0	0	0	0	0	0	854	861
Agropecuário	0	0	0	0	0	12	0	0	0	0	0	12	836	75	0	6	0	0	0	0	0	182	0	0	0	0	0	0	1.099	1.111
Transportes - Total	0	0	0	161	0	0	0	0	0	0	0	161	6.709	324	4.225	0	0	1.382	0	0	0	60	0	853	776	0	0	0	14.329	14.490
Rodoviário	0	0	0	161	0	0	0	0	0	0	0	161	6.392	0	4.212	0	0	0	0	0	0	4	0	853	776	0	0	0	12.237	12.398
Ferrovário	0	0	0	0	0	0	0	0	0	0	0	0	118	0	0	0	0	0	0	0	0	56	0	0	0	0	0	0	174	174
Aéreo	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13	0	0	1.382	0	0	0	0	0	0	0	0	0	0	1.395	1.395
Hidroviário	0	0	0	0	0	0	0	0	0	0	0	0	199	324	0	0	0	0	0	0	0	0	0	0	0	0	0	0	523	523
Industrial - Total	0	34	0	1.772	0	622	0	0	6.824	611	99	9.962	365	1.631	0	305	0	11	0	222	1.003	4.156	112	0	0	81	864	0	8.750	18.712
Cimento	0	32	0	0	0	1	0	0	0	0	0	33	9	64	0	0	0	0	0	0	25	99	5	0	0	0	522	0	724	757
Ferro Gusa e Aço	0	0	0	223	0	2	0	0	0	0	0	225	16	197	0	42	0	1	0	222	978	294	91	0	0	0	0	0	1.841	2.066
Ferro Ligas	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	50	5	0	0	0	0	0	55	55
Mineração e Pelotiz.	0	0	0	0	0	0	0	0	0	0	0	0	30	23	0	0	0	1	0	0	0	66	0	0	0	0	0	0	120	120
Não Ferr.*Out. Metal.	0	0	0	0	0	0	0	0	0	0	0	0	0	83	0	0	0	0	0	0	0	496	0	0	0	0	283	0	862	862
Química	0	0	0	336	0	7	0	0	15	0	0	358	73	448	0	10	0	2	0	0	0	560	1	0	0	81	14	0	1.189	1.547
Alimentos e Bebidas	0	1	0	156	0	137	0	0	6.774	0	10	7.078	90	435	0	35	0	0	0	0	0	446	0	0	0	0	0	0	1.006	8.084
Têxtil	0	0	0	77	0	20	0	0	0	0	0	97	1	72	0	8	0	0	0	0	0	254	9	0	0	0	0	0	344	441
Papel e Celulose	0	0	0	243	0	342	0	0	35	611	70	1.301	6	202	0	0	0	0	0	0	0	318	0	0	0	0	0	0	526	1.827
Cerâmica	0	1	0	282	0	99	0	0	0	0	5	387	2	53	0	119	0	0	0	0	0	166	1	0	0	0	0	0	341	728
Outros	0	0	0	455	0	14	0	0	0	0	14	483	138	54	0	91	0	7	0	0	0	1.407	0	0	0	0	45	0	1.742	2.225
Cons. Não Identificado	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ajustes	0	0	0	1	0	1	0	0	1	0	1	4	0	2	0	0	-1	0	0	0	0	1	2	-1	0	0	0	0	3	7

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OPERAÇÃO	Petróleo	Carvão Vapor	Carvão Metalur.	Gás Natural	Energ. Hidrául.	Lenha	Caldo de Cana	Melaço	Bagaço de Cana	Lixívia	Outras Primár.	Energia Primár.	Óleo Diesel	Óleo Combust.	Gasolina	GLP	Nafta	Quero - sene	Gás Canaliz.	Gás de Coquer.	Coque Carv. Min.	Eletri- cidade	Carvão Vegetal	Etanol Anidro	Etanol Hidrat.	Gás de Refinar.	Out.Ene. Petróleo	Não Energét.	Energia Secund.	Total
Produção	0	0	0	315	6.170	795	4.113	968	9.037	818	516	22.732	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	22.732
Importação	4.604	0	1.194	0	0	0	0	0	0	0	0	5.798	566	19	0	534	0	0	0	0	595	0	0	0	0	0	0	80	1.794	7.592
Importação Estadual	32.545	35	0	2.524	0	156	0	0	0	0	0	35.260	0	0	0	0	14	43	0	0	0	4.677	100	0	0	0	0	0	4.834	40.094
Variação de Estoques	0	-4	137	0	0	0	0	0	0	0	0	133	-249	-45	-7	10	4	-23	0	0	-48	0	0	-56	-36	0	13	75	-362	-229
Oferta Total	37.149	31	1.331	2.839	6.170	951	4.113	968	9.037	818	516	63.923	317	-26	-7	544	18	20	0	0	547	4.677	100	-56	-36	0	13	155	6.266	70.189
Exportação	0	0	0	0	0	0	0	0	0	0	0	0	-43	-1.725	-1.131	0	0	0	0	0	0	0	0	-49	-208	0	-222	-53	-3.431	-3.431
Exportação Estadual	0	0	0	0	0	0	0	0	0	0	0	0	-7.010	-2.452	-1.606	-645	0	-228	0	0	0	0	0	0	0	0	0	0	-15.141	-15.141
Não Aproveitada	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Reinjeção	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oferta Interna Bruta	37.149	31	1.331	2.839	6.170	951	4.113	968	9.037	818	516	63.923	-6.736	-4.203	-2.744	-101	18	-208	0	0	547	4.002	100	-2.192	-682	0	-209	102	-12.306	51.617
Total da Transformação	-37.149	0	-1.331	-200	-6.170	-119	-4.113	-968	-162	-149	-421	-50.782	14.485	5.994	6.738	2.096	1.952	1.796	0	206	747	6.138	20	3.004	1.383	1.059	1.187	1.402	48.207	-2.575
Refinarias de Petróleo	-37.149	0	0	0	0	0	0	0	0	0	0	-37.149	14.506	6.220	6.547	2.013	1.936	1.796	0	0	0	0	0	0	0	1.059	1.187	1.402	36.666	-483
Plantas de Gás Natural	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Usinas de Gaseificação	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Coquearias	0	0	-1.331	0	0	0	0	0	0	0	0	-1.331	0	0	0	0	0	0	0	206	747	0	0	0	0	0	0	0	953	-378
Cent. Elét. Serv. Público	0	0	0	-108	-5.918	0	0	0	0	0	0	-6.026	0	-84	0	0	0	0	0	0	0	5.437	0	0	0	0	0	0	5.353	-673
Cent. Elét. Auto Prod.	0	0	0	-92	-252	0	0	0	-162	-149	-421	-1.103	-21	-142	0	0	0	0	0	0	0	701	0	0	0	0	0	0	538	-565
Carvoarias	0	0	0	0	0	-92	0	0	0	0	0	-92	0	0	0	0	0	0	0	0	0	0	20	0	0	0	0	0	20	-72
Destilarias	0	0	0	0	0	0	-4.113	-968	0	0	0	-5.081	0	0	0	0	0	0	0	0	0	0	0	3.004	1.383	0	0	0	4.387	-694
Outras Transforma.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	191	83	16	0	0	0	0	0	0	0	0	0	0	0	290	290
Perdas Distr. Armaz.	0	-2	0	-1	0	0	0	0	-904	0	0	-907	0	0	0	0	0	0	0	-1	0	-1.005	0	-4	-23	0	0	0	-1.033	-1.940
Consumo Final	0	30	0	2.639	0	835	0	0	7.970	669	94	12.237	7.748	1.791	3.994	1.994	1.969	1.588	0	205	1.295	9.135	119	808	678	1.059	978	1.503	34.864	47.101
Cons. Final Não Energ.	0	0	0	0	0	0	0	0	176	0	0	176	0	0	0	0	1.969	0	0	0	0	0	1	0	7	131	0	1.503	3.611	3.787
Cons. Final Energético	0	30	0	2.639	0	835	0	0	7.794	669	94	12.061	7.748	1.791	3.994	1.994	0	1.588	0	205	1.295	9.135	118	808	671	928	978	0	31.253	43.314
Setor Energético	0	0	0	0	0	0	0	0	459	0	0	459	16	136	0	14	0	0	0	3	0	217	0	0	0	874	0	0	1.260	1.719
Residencial	0	0	0	76	0	152	0	0	0	0	0	228	0	0	0	1.537	0	11	0	0	0	2.048	1	0	0	0	0	0	3.597	3.825
Comercial	0	0	0	59	0	59	0	0	0	0	0	118	56	23	0	128	0	0	0	0	0	1.403	8	0	0	0	0	0	1.618	1.736
Público	0	0	0	7	0	0	0	0	0	0	0	7	72	8	0	43	0	0	0	0	0	780	0	0	0	0	0	0	903	910
Agropecuário	0	0	0	0	0	12	0	0	0	0	0	12	775	72	0	6	0	0	0	0	0	194	0	0	0	0	0	0	1.047	1.059
Transportes - Total	0	0	0	281	0	0	0	0	0	0	0	281	6.426	241	3.994	0	0	1.564	0	0	0	61	0	808	671	0	0	0	13.765	14.046
Rodoviário	0	0	0	281	0	0	0	0	0	0	0	281	6.122	0	3.986	0	0	0	0	0	0	4	0	808	671	0	0	0	11.591	11.872
Ferrovário	0	0	0	0	0	0	0	0	0	0	0	0	128	0	0	0	0	0	0	0	0	57	0	0	0	0	0	0	185	185
Aéreo	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	0	1.564	0	0	0	0	0	0	0	0	0	0	1.572	1.572
Hidroviário	0	0	0	0	0	0	0	0	0	0	0	0	176	241	0	0	0	0	0	0	0	0	0	0	0	0	0	0	417	417
Industrial - Total	0	30	0	2.216	0	612	0	0	7.335	669	94	10.956	403	1.311	0	266	0	13	0	202	1.295	4.432	109	0	0	54	978	0	9.063	20.019
Cimento	0	28	0	0	0	1	0	0	0	0	0	29	10	42	0	0	0	0	0	0	22	103	5	0	0	513	0	695	724	
Ferro Gusa e Aço	0	0	0	252	0	2	0	0	0	0	0	254	18	76	0	43	0	0	0	202	1.273	305	88	0	0	0	0	0	2.005	2.259
Ferro Ligas	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	52	5	0	0	0	0	0	57	57	
Mineração e Pelotiz.	0	0	0	0	0	0	0	0	0	0	0	0	39	18	0	0	0	1	0	0	0	74	0	0	0	0	0	0	132	132
Não Ferr.*Out. Metal.	0	0	0	0	0	0	0	0	0	0	0	0	0	150	0	0	0	0	0	0	0	524	0	0	0	0	355	0	1.029	1.029
Química	0	0	0	363	0	7	0	0	15	0	0	385	77	357	0	12	0	2	0	0	0	605	1	0	0	54	14	0	1.122	1.507
Alimentos e Bebidas	0	1	0	154	0	136	0	0	7.285	0	7	7.583	107	365	0	35	0	0	0	0	0	458	0	0	0	0	0	0	965	8.548
Têxtil	0	0	0	76	0	20	0	0	0	0	0	96	1	49	0	4	0	0	0	0	0	257	9	0	0	0	0	0	320	416
Papel e Celulose	0	0	0	276	0	336	0	0	35	669	72	1.388	13	187	0	0	0	0	0	0	0	372	0	0	0	0	0	0	572	1.960
Cerâmica	0	1	0	309	0	96	0	0	0	0	5	411	3	49	0	95	0	0	0	0	0	173	1	0	0	0	0	0	321	732
Outros	0	0	0	786	0	14	0	0	0	0	10	810	135	18	0	77	0	10	0	0	0	1.509	0	0	0	0	96	0	1.845	2.655
Cons. Não Identificado	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ajustes	0	-1	0	-1	0	-3	0	0	1	0	1	-3	1	0	0	1	1	0	0	0	-1	0	1	0	0	0	0	1	4	1

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OPERAÇÃO	Petróleo	Carvão Vapor	Carvão Metalur.	Gás Natural	Energ. Hidrául.	Lenha	Caldo de Cana	Melaço	Bagaço de Cana	Lixívia	Outras Primár.	Energia Primár.	Óleo Diesel	Óleo Combust.	Gasolina	GLP	Nafta	Quero - sene	Gás Canaliz.	Gás de Coquer.	Coque Carv. Min.	Eletri- cidade	Carvão Vegetal	Etanol Anidro	Etanol Hidrat.	Gás de Refinar.	Out.Ene. Petróleo	Não Energét.	Energia Secund.	Total
Produção	0	0	0	311	6.019	806	4.674	1.054	10.436	861	549	24.710	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24.710
Importação	8.031	0	1.654	0	0	0	0	0	0	0	0	9.685	605	23	0	433	0	0	0	0	297	0	0	0	0	0	115	87	1.560	11.245
Importação Estadual	33.052	38	0	2.998	0	154	0	0	0	0	0	36.242	0	0	0	0	32	20	0	0	0	5.027	103	0	0	0	0	0	5.182	41.424
Variação de Estoques	0	-4	24	0	0	0	0	0	0	0	0	20	254	-99	-33	-10	-28	4	0	0	28	0	0	-61	-45	0	36	83	129	149
Oferta Total	41.083	34	1.678	3.309	6.019	960	4.674	1.054	10.436	861	549	70.657	859	-76	-33	423	4	24	0	0	325	5.027	103	-61	-45	0	151	170	6.871	77.528
Exportação	0	0	0	0	0	0	0	0	0	0	0	0	-52	-1.792	-890	0	0	0	0	0	0	0	0	-282	-357	0	-374	-32	-3.779	-3.779
Exportação Estadual	0	0	0	0	0	0	0	0	0	0	0	0	-8.857	-2.647	-1.550	-709	0	-362	0	0	0	-595	0	-1.536	-366	0	0	0	-16.622	-16.622
Não Aproveitada	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Reinjeção	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oferta Interna Bruta	41.083	34	1.678	3.309	6.019	960	4.674	1.054	10.436	861	549	70.657	-8.050	-4.515	-2.473	-286	4	-338	0	0	325	4.432	103	-1.879	-768	0	-223	138	-13.530	57.127
Total da Transformação	-41.083	0	-1.678	-149	-6.019	-122	-4.674	-1.054	-180	-157	-443	-55.559	16.098	5.985	6.506	2.286	2.350	1.976	0	231	859	6.250	21	2.693	1.821	1.050	1.250	1.525	50.901	-4.658
Refinarias de Petróleo	-41.083	0	0	0	0	0	0	0	0	0	0	-41.083	16.123	6.247	6.331	2.206	2.326	1.976	0	0	0	0	0	0	0	1.050	1.250	1.525	39.034	-2.049
Plantas de Gás Natural	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Usinas de Gaseificação	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Coquerias	0	0	-1.678	0	0	0	0	0	0	0	0	-1.678	0	0	0	0	0	0	0	231	859	0	0	0	0	0	0	0	1.090	-588
Cent. Elét. Serv. Público	0	0	0	-61	-5.758	0	0	0	0	0	0	-5.819	0	-176	0	0	0	0	0	0	0	5.500	0	0	0	0	0	0	5.324	-495
Cent. Elét. Auto Prod.	0	0	0	-88	-261	-29	0	0	-180	-157	-443	-1.158	-25	-86	0	0	0	0	0	0	0	750	0	0	0	0	0	0	639	-519
Carvoarias	0	0	0	0	0	-93	0	0	0	0	0	-93	0	0	0	0	0	0	0	0	0	0	21	0	0	0	0	0	21	-72
Destilarias	0	0	0	0	0	0	-4.674	-1.054	0	0	0	-5.728	0	0	0	0	0	0	0	0	0	0	0	2.693	1.821	0	0	0	4.514	-1.214
Outras Transforma.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	175	80	24	0	0	0	0	0	0	0	0	0	0	0	279	279
Perdas Distr. Armaz.	0	-2	0	-1	0	0	0	0	-1.044	0	0	-1.047	0	0	0	0	0	0	0	-4	0	-1.055	0	-3	-19	0	0	0	-1.081	-2.128
Consumo Final	0	32	0	3.161	0	839	0	0	9.211	704	106	14.053	8.047	1.470	4.031	2.000	2.355	1.639	0	228	1.184	9.629	123	811	1.034	1.051	1.026	1.663	36.291	50.344
Cons. Final Não Energ.	0	0	0	0	0	0	0	0	200	0	0	200	0	0	0	0	2.355	0	0	0	0	0	1	0	10	125	0	1.663	4.154	4.354
Cons. Final Energético	0	32	0	3.161	0	839	0	0	9.011	704	106	13.853	8.047	1.470	4.031	2.000	0	1.639	0	228	1.184	9.629	122	811	1.024	926	1.026	0	32.137	45.990
Setor Energético	0	0	0	0	0	0	0	0	743	0	0	743	25	105	0	13	0	0	0	3	0	222	0	0	0	874	0	0	1.242	1.985
Residencial	0	0	0	87	0	154	0	0	0	0	0	241	0	0	0	1.523	0	10	0	0	0	2.133	1	0	0	0	0	0	3.667	3.908
Comercial	0	0	0	65	0	58	0	0	0	0	0	123	52	21	0	128	0	0	0	0	0	1.463	8	0	0	0	0	0	1.672	1.795
Público	0	0	0	15	0	0	0	0	0	0	0	15	68	7	0	67	0	0	0	0	0	775	0	0	0	0	0	0	917	932
Agropecuário	0	0	0	0	0	12	0	0	0	0	0	12	832	69	0	6	0	0	0	0	0	202	0	0	0	0	0	0	1.109	1.121
Transportes - Total	0	0	0	330	0	0	0	0	0	0	0	330	6.585	205	4.031	0	0	1.617	0	0	0	62	0	811	1.024	0	0	0	14.335	14.665
Rodoviário	0	0	0	330	0	0	0	0	0	0	0	330	6.303	0	4.021	0	0	0	0	0	0	5	0	811	1.024	0	0	0	12.164	12.494
Ferrovário	0	0	0	0	0	0	0	0	0	0	0	0	123	0	0	0	0	0	0	0	0	57	0	0	0	0	0	0	180	180
Aéreo	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	0	0	1.617	0	0	0	0	0	0	0	0	0	0	1.627	1.627
Hidroviário	0	0	0	0	0	0	0	0	0	0	0	0	159	205	0	0	0	0	0	0	0	0	0	0	0	0	0	0	364	364
Industrial - Total	0	32	0	2.664	0	615	0	0	8.268	704	106	12.389	485	1.063	0	263	0	12	0	225	1.184	4.772	113	0	0	52	1.026	0	9.195	21.584
Cimento	0	30	0	0	0	0	0	0	0	0	0	30	13	26	0	0	0	0	0	0	22	111	6	0	0	0	539	0	717	747
Ferro Gusa e Aço	0	0	0	284	0	2	0	0	0	0	0	286	20	49	0	41	0	0	0	225	1.162	336	91	0	0	0	0	0	1.924	2.210
Ferro Ligas	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	63	5	0	0	0	0	0	68	68
Mineração e Pelotiz.	0	0	0	0	0	0	0	0	0	0	0	0	45	10	0	0	0	1	0	0	0	96	0	0	0	0	0	0	152	152
Não Ferr.*Out. Metal.	0	0	0	0	0	0	0	0	0	0	0	0	0	120	0	0	0	0	0	0	0	597	0	0	0	0	364	0	1.081	1.081
Química	0	0	0	423	0	6	0	0	16	0	0	445	95	295	0	12	0	1	0	0	0	636	1	0	0	52	15	0	1.107	1.552
Alimentos e Bebidas	0	1	0	171	0	135	0	0	8.215	0	10	8.532	163	266	0	37	0	0	0	0	0	475	0	0	0	0	0	0	941	9.473
Têxtil	0	0	0	84	0	19	0	0	0	0	0	103	1	56	0	6	0	0	0	0	0	251	9	0	0	0	0	0	323	426
Papel e Celulose	0	0	0	321	0	346	0	0	37	704	77	1.485	10	175	0	0	0	0	0	0	0	456	0	0	0	0	0	0	641	2.126
Cerâmica	0	1	0	340	0	96	0	0	0	0	5	442	3	45	0	71	0	0	0	0	0	201	1	0	0	0	0	0	321	763
Outros	0	0	0	1.041	0	11	0	0	0	0	14	1.066	135	21	0	96	0	10	0	0	0	1.550	0	0	0	0	108	0	1.920	2.986
Cons. Não Identificado	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ajustes	0	0	0	-2	0	-1	0	0	1	0	0	-2	1	0	2	0	-1	-1	0	-1	0	-2	1	0	0	-1	1	0	-1	-3

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OPERAÇÃO	Petróleo	Carvão Vapor	Carvão Metalur.	Gás Natural	Energ. Hidrául.	Lenha	Caldo de Cana	Melaço	Bagaço de Cana	Lixívia	Outras Primár.	Energia Primár.	Óleo Diesel	Óleo Combust.	Gasolina	GLP	Nafta	Quero - sene	Gás Canaliz.	Gás de Coquer.	Coque Carv. Min.	Eletri- cidade	Carvão Vegetal	Etanol Anidro	Etanol Hidrat.	Gás de Refinar.	Out.Ene. Petróleo	Não Energét.	Energia Secund.	Total
Produção	0	0	0	308	5.878	828	5.154	1.069	11.003	906	556	25.702	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25.702
Importação	4.758	0	1.549	0	0	0	0	0	0	0	0	6.307	583	26	0	278	0	0	0	0	97	0	0	0	0	0	0	34	1.018	7.325
Importação Estadual	34.824	39	0	3.537	0	152	0	0	0	0	0	38.552	0	0	0	0	25	2	0	0	0	5.377	104	0	0	0	0	0	5.508	44.060
Variação de Estoques	0	-4	11	0	0	0	0	0	0	0	0	7	94	95	-62	-2	-18	26	0	0	28	0	0	-12	-6	0	-6	84	221	228
Oferta Total	39.582	35	1.560	3.845	5.878	980	5.154	1.069	11.003	906	556	70.568	677	121	-62	276	7	28	0	0	125	5.377	104	-12	-6	0	-6	118	6.747	77.315
Exportação	0	0	0	0	0	0	0	0	0	0	0	0	-35	-1.458	-1.131	0	0	0	0	0	0	0	0	-241	-552	0	-319	-5	-3.741	-3.741
Exportação Estadual	0	0	0	0	0	0	0	0	0	0	0	0	-8.536	-1.996	-1.955	-766	0	-138	0	0	0	0	0	-1.637	-436	0	0	0	-16.066	-16.066
Não Aproveitada	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Reinjeção	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oferta Interna Bruta	39.582	35	1.560	3.845	5.878	980	5.154	1.069	11.003	906	556	70.568	-7.894	-3.333	-3.148	-490	7	-110	0	0	125	4.775	104	-1.890	-994	0	-325	113	-13.060	57.508
Total da Transformação	-39.581	0	-1.560	-284	-5.878	-126	-5.154	-1.069	-190	-165	-456	-54.463	15.938	4.483	7.314	2.439	1.721	1.831	0	263	985	6.348	21	2.745	2.177	928	1.473	1.299	49.965	-4.498
Refinarias de Petróleo	-39.581	0	0	0	0	0	0	0	0	0	0	-39.581	15.967	4.784	7.138	2.370	1.690	1.831	0	0	0	0	0	0	0	928	1.473	1.299	37.480	-2.101
Plantas de Gás Natural	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Usinas de Gaseificação	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Coquearias	0	0	-1.560	0	0	0	0	0	0	0	0	-1.560	0	0	0	0	0	0	0	263	985	0	0	0	0	0	0	0	1.248	-312
Cent. Elét. Serv. Público	0	0	0	-120	-5.538	0	0	0	0	0	0	-5.658	0	-234	0	0	0	0	0	0	0	5.538	0	0	0	0	0	0	5.304	-354
Cent. Elét. Auto Prod.	0	0	0	-164	-340	-30	0	0	-190	-165	-456	-1.345	-29	-67	0	0	0	0	0	0	0	810	0	0	0	0	0	0	714	-631
Carvoarias	0	0	0	0	0	-96	0	0	0	0	0	-96	0	0	0	0	0	0	0	0	0	0	21	0	0	0	0	0	21	-75
Destilarias	0	0	0	0	0	0	-5.154	-1.069	0	0	0	-6.223	0	0	0	0	0	0	0	0	0	0	0	2.745	2.177	0	0	0	4.922	-1.301
Outras Transforma.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	176	69	31	0	0	0	0	0	0	0	0	0	0	0	276	276
Perdas Distr. Armaz.	0	-2	0	-1	0	0	0	0	-1.100	0	0	-1.103	0	0	0	0	0	0	0	-4	0	-1.094	0	-13	-30	0	0	0	-1.141	-2.244
Consumo Final	0	33	0	3.561	0	854	0	0	9.713	741	100	15.002	8.045	1.151	4.165	1.948	1.727	1.720	0	259	1.110	10.031	125	842	1.141	929	1.148	1.412	35.753	50.755
Cons. Final Não Energ.	0	0	0	0	0	0	0	0	210	0	0	210	0	0	0	0	1.727	0	0	0	0	0	2	0	30	112	0	1.412	3.283	3.493
Cons. Final Energético	0	33	0	3.561	0	854	0	0	9.503	741	100	14.792	8.045	1.151	4.165	1.948	0	1.720	0	259	1.110	10.031	123	842	1.111	817	1.148	0	32.470	47.262
Setor Energético	0	0	0	0	0	0	0	0	797	0	0	797	28	81	0	12	0	0	0	3	0	233	0	0	0	775	0	0	1.132	1.929
Residencial	0	0	0	89	0	158	0	0	0	0	0	247	0	0	0	1.463	0	8	0	0	0	2.245	1	0	0	0	0	0	3.717	3.964
Comercial	0	0	0	79	0	57	0	0	0	0	0	136	27	18	0	133	0	0	0	0	0	1.537	8	0	0	0	0	0	1.723	1.859
Público	0	0	0	17	0	0	0	0	0	0	0	17	73	6	0	67	0	0	0	0	0	799	0	0	0	0	0	0	945	962
Agropecuário	0	0	0	0	0	12	0	0	0	0	0	12	714	65	0	6	0	0	0	0	0	216	0	0	0	0	0	0	1.001	1.013
Transportes - Total	0	0	0	389	0	0	0	0	0	0	0	389	6.652	152	4.165	0	0	1.699	0	0	0	65	0	842	1.111	0	0	0	14.686	15.075
Rodoviário	0	0	0	389	0	0	0	0	0	0	0	389	6.376	0	4.152	0	0	0	0	0	0	5	0	842	1.111	0	0	0	12.486	12.875
Ferrovário	0	0	0	0	0	0	0	0	0	0	0	0	130	0	0	0	0	0	0	0	0	60	0	0	0	0	0	0	190	190
Aéreo	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13	0	0	1.699	0	0	0	0	0	0	0	0	0	0	1.712	1.712
Hidroviário	0	0	0	0	0	0	0	0	0	0	0	0	146	152	0	0	0	0	0	0	0	0	0	0	0	0	0	0	298	298
Industrial - Total	0	33	0	2.987	0	627	0	0	8.706	741	100	13.194	551	829	0	267	0	13	0	256	1.110	4.936	114	0	0	42	1.148	0	9.266	22.460
Cimento	0	31	0	0	0	0	0	0	0	0	0	31	16	11	0	0	0	0	0	0	23	118	5	0	0	0	368	0	541	572
Ferro Gusa e Aço	0	0	0	383	0	2	0	0	0	0	0	385	18	41	0	43	0	0	0	256	1.087	349	93	0	0	0	0	0	1.887	2.272
Ferro Ligas	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	73	5	0	0	0	0	0	78	78	
Mineração e Pelotiz.	0	0	0	0	0	0	0	0	0	0	0	0	44	11	0	0	0	0	0	0	95	0	0	0	0	0	0	150	150	
Não Ferr.*Out. Metal.	0	0	0	0	0	0	0	0	0	0	0	0	0	103	0	0	0	0	0	0	0	588	0	0	0	0	623	0	1.314	1.314
Química	0	0	0	714	0	6	0	0	17	0	0	737	134	174	0	12	0	2	0	0	0	685	1	0	0	42	107	0	1.157	1.894
Alimentos e Bebidas	0	1	0	224	0	136	0	0	8.650	0	7	9.018	197	208	0	35	0	0	0	0	0	494	0	0	0	0	0	0	934	9.952
Têxtil	0	0	0	134	0	19	0	0	0	0	0	153	1	48	0	5	0	0	0	0	0	283	9	0	0	0	0	0	346	499
Papel e Celulose	0	0	0	367	0	354	0	0	39	741	79	1.580	5	169	0	0	0	0	0	0	0	511	0	0	0	0	0	0	685	2.265
Cerâmica	0	1	0	457	0	98	0	0	0	0	5	561	2	41	0	63	0	0	0	0	0	245	1	0	0	0	0	0	352	913
Outros	0	0	0	708	0	12	0	0	0	0	9	729	134	23	0	109	0	11	0	0	0	1.495	0	0	0	0	50	0	1.822	2.551
Cons. Não Identificado	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ajustes	1	0	0	-1	0	0	0	0	0	0	0	0	-1	-1	1	1	1	1	0	0	0	-2	0	0	12	-1	0	0	11	11

Balço Energético do Estado de São Paulo - 10³ toe 2006

OPERAÇÃO	Petróleo	Carvão Vapor	Carvão Metalur.	Gás Natural	Energ. Hidrául.	Lenha	Caldo de Cana	Melaço	Bagaço de Cana	Lixívia	Outras Primár.	Energia Primár.	Óleo Diesel	Óleo Combust.	Gasolina	GLP	Nafta	Quero - sene	Gás Canaliz.	Gás de Coquer.	Coque Carv. Min.	Eletri- cidade	Carvão Vegetal	Etanol Anidro	Etanol Hidrat.	Gás de Refinar.	Out.Ene. Petróleo	Não Energét.	Energia Secund.	Total
Produção	0	0	0	290	6.228	854	5.174	1.244	11.743	956	588	27.077	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	27.077
Importação	6.071	0	1.665	0	0	0	0	0	0	0	0	7.736	72	11	0	396	0	0	0	0	31	0	0	0	0	0	0	8	518	8.254
Importação Estadual	33.665	20	0	4.010	0	150	0	0	0	0	0	37.845	0	0	0	0	52	47	0	0	0	5.620	76	0	0	0	0	0	5.795	43.640
Variação de Estoques	0	4	-5	0	0	0	0	0	0	0	0	-1	-134	-82	23	1	9	-17	0	0	41	0	0	-77	-47	0	32	-38	-289	-290
Oferta Total	39.736	24	1.660	4.300	6.228	1.004	5.174	1.244	11.743	956	588	72.657	-62	-71	23	397	61	30	0	0	72	5.620	76	-77	-47	0	32	-30	6.024	78.681
Exportação	0	0	0	0	0	0	0	0	0	0	0	0	-67	-1.622	-1.397	0	0	0	0	0	0	0	0	-991	-384	0	-401	-3	-4.865	-4.865
Exportação Estadual	0	0	0	0	0	0	0	0	0	0	0	0	-8.411	-1.949	-2.397	-663	0	-74	0	0	0	-637	0	-721	-481	0	0	0	-15.333	-15.333
Não Aproveitada	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Reinjeção	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oferta Interna Bruta	39.736	24	1.660	4.300	6.228	1.004	5.174	1.244	11.743	956	588	72.657	-8.540	-3.642	-3.771	-266	61	-44	0	0	72	4.983	76	-1.789	-912	0	-369	-33	-14.174	58.483
Total da Transformação	-39.736	0	-1.659	-221	-6.228	-135	-5.174	-1.244	-207	-174	-481	-55.259	16.513	4.428	7.954	2.226	1.889	1.680	0	249	1.034	6.765	49	2.670	2.734	994	1.770	1.290	52.245	-3.014
Refinarias de Petróleo	-39.736	0	0	0	0	0	0	0	0	0	0	-39.736	16.530	4.552	7.790	2.154	1.820	1.680	0	0	0	0	0	0	0	994	1.770	1.290	38.580	-1.156
Plantas de Gás Natural	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Usinas de Gaseificação	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Coquearias	0	0	-1.659	0	0	0	0	0	0	0	0	-1.659	0	0	0	0	0	0	0	249	1.034	0	0	0	0	0	0	0	1.283	-376
Cent. Elét. Serv. Público	0	0	0	-52	-5.850	0	0	0	0	0	0	-5.902	0	-95	0	0	0	0	0	0	0	5.850	0	0	0	0	0	0	5.755	-147
Cent. Elét. Auto Prod.	0	0	0	-169	-378	-32	0	0	-207	-174	-481	-1.441	-35	-29	0	0	0	0	0	0	0	915	0	0	0	0	0	0	851	-590
Carvoarias	0	0	0	0	0	-103	0	0	0	0	0	-103	0	0	0	0	0	0	0	0	0	0	49	0	0	0	0	0	49	-54
Destilarias	0	0	0	0	0	0	-5.174	-1.244	0	0	0	-6.418	0	0	0	0	0	0	0	0	0	0	0	2.670	2.734	0	0	0	5.404	-1.014
Outras Transforma.	0	0	0	0	0	0	0	0	0	0	0	0	18	0	164	72	69	0	0	0	0	0	0	0	0	0	0	0	323	323
Perdas Distr. Armaz.	0	-1	0	-1	0	0	0	0	-1.174	0	0	-1.176	0	0	0	0	0	0	0	-2	0	-1.166	0	-25	-35	0	0	0	-1.228	-2.404
Consumo Final	0	24	0	4.079	0	870	0	0	10.363	782	106	16.224	7.974	785	4.183	1.959	1.950	1.637	0	248	1.106	10.582	125	855	1.786	994	1.402	1.258	36.844	53.068
Cons. Final Não Energ.	0	0	0	0	0	0	0	0	218	0	0	218	0	0	0	0	1.950	0	0	0	0	0	2	0	46	119	0	1.258	3.375	3.593
Cons. Final Energético	0	24	0	4.079	0	870	0	0	10.145	782	106	16.006	7.974	785	4.183	1.959	0	1.637	0	248	1.106	10.582	123	855	1.740	875	1.402	0	33.469	49.475
Setor Energético	0	0	0	0	0	0	0	0	876	0	0	876	30	53	0	16	0	0	0	3	0	250	0	0	0	825	0	0	1.177	2.053
Residencial	0	0	0	97	0	163	0	0	0	0	0	260	0	0	0	1.426	0	6	0	0	0	2.380	1	0	0	0	0	0	3.813	4.073
Comercial	0	0	0	83	0	57	0	0	0	0	0	140	26	14	0	145	0	0	0	0	0	1.624	8	0	0	0	0	0	1.817	1.957
Público	0	0	0	19	0	0	0	0	0	0	0	19	73	9	0	50	0	0	0	0	0	824	0	0	0	0	0	0	956	975
Agropecuário	0	0	0	0	0	12	0	0	0	0	0	12	823	16	0	6	0	0	0	0	0	227	0	0	0	0	0	0	1.072	1.084
Transportes - Total	0	0	0	463	0	0	0	0	0	0	0	463	6.392	101	4.183	0	0	1.621	0	0	0	68	0	855	1.740	0	0	0	14.960	15.423
Rodoviário	0	0	0	463	0	0	0	0	0	0	0	463	6.176	0	4.169	0	0	0	0	0	0	5	0	855	1.740	0	0	0	12.945	13.408
Ferrovário	0	0	0	0	0	0	0	0	0	0	0	0	129	0	0	0	0	0	0	0	0	63	0	0	0	0	0	0	192	192
Aéreo	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14	0	0	1.621	0	0	0	0	0	0	0	0	0	0	1.635	1.635
Hidroviário	0	0	0	0	0	0	0	0	0	0	0	0	87	101	0	0	0	0	0	0	0	0	0	0	0	0	0	0	188	188
Industrial - Total	0	24	0	3.417	0	638	0	0	9.269	782	106	14.236	630	592	0	316	0	10	0	245	1.106	5.209	114	0	0	50	1.402	0	9.674	23.910
Cimento	0	22	0	0	0	0	0	0	0	0	0	22	16	7	0	0	0	0	0	0	12	146	6	0	0	0	392	0	579	601
Ferro Gusa e Aço	0	0	0	453	0	1	0	0	0	0	0	454	18	33	0	56	0	0	0	245	1.094	366	92	0	0	0	0	0	1.904	2.358
Ferro Ligas	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	81	5	0	0	0	0	0	86	86
Mineração e Pelotiz.	0	0	0	0	0	0	0	0	0	0	0	0	44	11	0	0	0	0	0	0	0	46	0	0	0	0	0	0	101	101
Não Ferr.*Out. Metal.	0	0	0	0	0	0	0	0	0	0	0	0	0	80	0	0	0	0	0	0	0	665	0	0	0	0	707	0	1.452	1.452
Química	0	0	0	733	0	6	0	0	15	0	0	754	141	92	0	48	0	1	0	0	0	690	1	0	0	50	166	0	1.189	1.943
Alimentos e Bebidas	0	1	0	273	0	138	0	0	9.213	0	8	9.633	253	147	0	36	0	0	0	0	0	512	0	0	0	0	0	0	948	10.581
Têxtil	0	0	0	163	0	20	0	0	0	0	0	183	1	26	0	5	0	0	0	0	0	310	9	0	0	0	0	0	351	534
Papel e Celulose	0	0	0	418	0	359	0	0	41	782	83	1.683	8	141	0	0	0	0	0	0	0	524	0	0	0	0	0	0	673	2.356
Cerâmica	0	1	0	473	0	99	0	0	0	0	5	578	2	36	0	74	0	0	0	0	0	257	1	0	0	0	0	0	370	948
Outros	0	0	0	904	0	15	0	0	0	0	10	929	147	19	0	97	0	9	0	0	0	1.612	0	0	0	0	137	0	2.021	2.950
Cons. Não Identificado	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ajustes	0	-1	1	-1	0	-1	0	0	-1	0	1	-2	-1	1	0	1	0	-1	0	-1	0	0	0	1	1	0	-1	-1	-1	-3

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OPERAÇÃO	Petróleo	Carvão Vapor	Carvão Metalur.	Gás Natural	Energ. Hidrául.	Lenha	Caldo de Cana	Melaço	Bagaço de Cana	Lixívia	Outras Primár.	Energia Primár.	Óleo Diesel	Óleo Combust.	Gasolina	GLP	Nafta	Quero - sene	Gás Canaliz.	Gás de Coquer.	Coque Carv. Min.	Eletri- cidade	Carvão Vegetal	Etanol Anidro	Etanol Hidrat.	Gás de Refinar.	Out.Ene. Petróleo	Não Energét.	Energia Secund.	Total
Produção	0	0	0	263	6.259	866	6.759	1.219	13.164	994	612	30.136	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	30.136
Importação	7.267	0	1.589	0	0	0	0	0	0	0	0	8.856	618	0	0	530	0	0	0	0	161	0	0	0	0	0	0	30	1.339	10.195
Importação Estadual	33.503	20	0	4.333	0	149	0	0	0	0	0	38.005	0	0	0	0	88	176	0	0	0	6.186	98	0	0	0	0	0	6.548	44.553
Variação de Estoques	0	2	-27	0	0	0	0	0	0	0	0	-25	-70	40	54	-13	24	-15	0	0	-22	0	0	-56	-53	0	34	69	-8	-33
Oferta Total	40.770	22	1.562	4.596	6.259	1.015	6.759	1.219	13.164	994	612	76.972	548	40	54	517	112	161	0	0	139	6.186	98	-56	-53	0	34	99	7.879	84.851
Exportação	0	0	0	0	0	0	0	0	0	0	0	0	-90	-1.597	-1.883	0	0	0	0	0	0	0	0	-516	-548	0	-392	-4	-5.030	-5.030
Exportação Estadual	0	0	0	0	0	0	0	0	0	0	0	0	-8.887	-2.323	-2.031	-909	0	-190	0	0	0	-567	0	-1.054	-667	0	0	0	-16.628	-16.628
Não Aproveitada	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Reinjeção	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oferta Interna Bruta	40.770	22	1.562	4.596	6.259	1.015	6.759	1.219	13.164	994	612	76.972	-8.429	-3.880	-3.860	-392	112	-29	0	0	139	5.619	98	-1.626	-1.268	0	-358	95	-13.779	63.193
Total da Transformação	-40.770	0	-1.562	-219	-6.259	-137	-6.759	-1.219	-232	-181	-500	-57.838	16.910	4.607	8.103	2.358	1.924	1.779	0	259	1.032	6.808	29	2.504	4.043	994	1.824	1.393	54.567	-3.271
Refinarias de Petróleo	-40.770	0	0	0	0	0	0	0	0	0	0	-40.770	16.915	4.714	7.933	2.300	1.839	1.779	0	0	0	0	0	0	0	994	1.824	1.393	39.691	-1.079
Plantas de Gás Natural	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Usinas de Gaseificação	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Coquerias	0	0	-1.562	0	0	0	0	0	0	0	0	-1.562	0	0	0	0	0	0	0	259	1.032	0	0	0	0	0	0	0	1.291	-271
Cent. Elét. Serv. Público	0	0	0	-41	-5.834	0	0	0	0	0	0	-5.875	0	-76	0	0	0	0	0	0	0	5.834	0	0	0	0	0	0	5.758	-117
Cent. Elét. Auto Prod.	0	0	0	-178	-425	-31	0	0	-232	-181	-500	-1.547	-37	-31	0	0	0	0	0	0	0	974	0	0	0	0	0	0	906	-641
Carvoarias	0	0	0	0	0	-106	0	0	0	0	0	-106	0	0	0	0	0	0	0	0	0	0	29	0	0	0	0	0	29	-77
Destilarias	0	0	0	0	0	0	-6.759	-1.219	0	0	0	-7.978	0	0	0	0	0	0	0	0	0	0	0	2.504	4.043	0	0	0	6.547	-1.431
Outras Transforma.	0	0	0	0	0	0	0	0	0	0	0	0	32	0	170	58	85	0	0	0	0	0	0	0	0	0	0	0	345	345
Perdas Distr. Armaz.	0	-1	0	-3	0	0	0	0	-1.316	0	0	-1.320	0	0	0	0	0	0	0	-3	0	-1.221	0	-9	-37	0	0	0	-1.270	-2.590
Consumo Final	0	22	0	4.373	0	879	0	0	11.616	812	112	17.814	8.482	725	4.244	1.965	2.037	1.750	0	256	1.171	11.207	127	869	2.738	994	1.467	1.487	39.519	57.333
Cons. Final Não Energ.	0	0	0	0	0	0	0	0	238	0	0	238	0	0	0	0	2.037	0	0	0	0	0	2	0	69	119	0	1.487	3.714	3.952
Cons. Final Energético	0	22	0	4.373	0	879	0	0	11.378	812	112	17.576	8.482	725	4.244	1.965	0	1.750	0	256	1.171	11.207	125	869	2.669	875	1.467	0	35.805	53.381
Setor Energético	0	0	0	0	0	0	0	0	992	0	0	992	32	35	0	16	0	0	0	3	0	262	0	0	0	825	0	0	1.173	2.165
Residencial	0	0	0	101	0	165	0	0	0	0	0	266	0	0	0	1.441	0	2	0	0	0	2.525	1	0	0	0	0	0	3.969	4.235
Comercial	0	0	0	82	0	57	0	0	0	0	0	139	28	13	0	145	0	0	0	0	0	1.716	9	0	0	0	0	0	1.911	2.050
Público	0	0	0	19	0	0	0	0	0	0	0	19	74	9	0	50	0	0	0	0	0	849	0	0	0	0	0	0	982	1.001
Agropecuário	0	0	0	0	0	13	0	0	0	0	0	13	875	15	0	5	0	0	0	0	0	238	0	0	0	0	0	0	1.133	1.146
Transportes - Total	0	0	0	500	0	0	0	0	0	0	0	500	6.864	80	4.244	0	0	1.746	0	0	0	73	0	869	2.669	0	0	0	16.545	17.045
Rodoviário	0	0	0	500	0	0	0	0	0	0	0	500	6.653	0	4.235	0	0	0	0	0	0	5	0	869	2.669	0	0	0	14.431	14.931
Ferrovário	0	0	0	0	0	0	0	0	0	0	0	0	130	0	0	0	0	0	0	0	0	68	0	0	0	0	0	0	198	198
Aéreo	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	0	0	1.746	0	0	0	0	0	0	0	0	0	0	1.755	1.755
Hidroviário	0	0	0	0	0	0	0	0	0	0	0	0	81	80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	161	161
Industrial - Total	0	22	0	3.671	0	644	0	0	10.386	812	112	15.647	609	573	0	308	0	2	0	253	1.171	5.544	115	0	0	50	1.467	0	10.092	25.739
Cimento	0	20	0	0	0	0	0	0	0	0	0	20	16	8	0	0	0	0	0	0	0	161	6	0	0	0	396	0	587	607
Ferro Gusa e Aço	0	0	0	419	0	1	0	0	0	0	0	420	18	32	0	48	0	0	0	253	1.171	379	93	0	0	0	0	0	1.994	2.414
Ferro Ligas	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	83	5	0	0	0	0	0	88	88	
Mineração e Pelotiz.	0	0	0	0	0	0	0	0	0	0	0	0	44	10	0	0	0	0	0	0	0	58	0	0	0	0	0	0	112	112
Não Ferr.*Out. Metal.	0	0	0	0	0	0	0	0	0	0	0	0	0	80	0	0	0	0	0	0	0	750	0	0	0	0	658	0	1.488	1.488
Química	0	0	0	812	0	6	0	0	16	0	0	834	87	85	0	48	0	1	0	0	0	732	1	0	0	50	232	0	1.236	2.070
Alimentos e Bebidas	0	1	0	329	0	140	0	0	10.327	0	9	10.806	256	144	0	36	0	0	0	0	0	544	0	0	0	0	0	0	980	11.786
Têxtil	0	0	0	152	0	20	0	0	0	0	0	172	1	25	0	5	0	0	0	0	0	320	9	0	0	0	0	0	360	532
Papel e Celulose	0	0	0	474	0	370	0	0	43	812	86	1.785	8	139	0	0	0	0	0	0	0	532	0	0	0	0	0	0	679	2.464
Cerâmica	0	1	0	523	0	94	0	0	0	0	6	624	2	32	0	74	0	0	0	0	0	269	1	0	0	0	0	0	378	1.002
Outros	0	0	0	962	0	13	0	0	0	0	11	986	177	18	0	97	0	1	0	0	0	1.716	0	0	0	0	181	0	2.190	3.176
Cons. Não Identificado	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ajustes	0	-1	0	1	0	-1	0	0	0	1	0	0	-1	2	-1	1	-1	0	0	0	0	-1	0	0	0	0	-1	1	-1	-1

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OPERAÇÃO	Petróleo	Carvão Vapor	Carvão Metalur.	Gás Natural	Energ. Hidrául.	Lenha	Caldo de Cana	Melaço	Bagaço de Cana	Lixívia	Outras Primár.	Energia Primár.	Óleo Diesel	Óleo Combust.	Gasolina	GLP	Nafta	Quero - sene	Gás Canaliz.	Gás de Coquer.	Coque Carv. Min.	Eletri- cidade	Carvão Vegetal	Etanol Anidro	Etanol Hidrat.	Gás de Refinar.	Out.Ene. Petróleo	Não Energét.	Energia Secund.	Total
Produção	0	0	0	196	6.398	883	8.823	1.255	15.692	1.039	619	34.905	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	34.905
Importação	5.977	0	1.612	0	0	0	0	0	0	0	0	7.589	1.639	147	0	756	0	0	0	0	2	0	0	0	0	0	0	42	2.586	10.175
Importação Estadual	32.860	20	0	4.678	0	151	0	0	0	0	0	37.709	0	0	0	0	122	682	0	0	0	6.092	95	0	0	0	0	0	6.991	44.700
Variação de Estoques	0	3	-27	0	0	0	0	0	0	0	0	-24	0	35	-8	9	7	35	0	0	-26	0	0	-30	-22	0	-14	-83	-97	-121
Oferta Total	38.837	23	1.585	4.874	6.398	1.034	8.823	1.255	15.692	1.039	619	80.179	1.639	182	-8	765	129	717	0	0	-24	6.092	95	-30	-22	0	-14	-41	9.480	89.659
Exportação	0	0	0	0	0	0	0	0	0	0	0	0	-106	-793	-1.141	0	0	-8	0	0	0	0	0	-889	-673	0	-243	-5	-3.858	-3.858
Exportação Estadual	0	0	0	0	0	0	0	0	0	0	0	0	-9.517	-2.697	-2.758	-950	0	-262	0	0	0	-477	0	-1.228	-834	0	0	0	-18.723	-18.723
Não Aproveitada	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Reinjeção	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oferta Interna Bruta	38.837	23	1.585	4.874	6.398	1.034	8.823	1.255	15.692	1.039	619	80.179	-7.984	-3.308	-3.907	-185	129	447	0	0	-24	5.615	95	-2.147	-1.529	0	-257	-46	-13.101	67.078
Total da Transformação	-38.837	0	-1.586	-516	-6.398	-140	-8.823	-1.255	-290	-189	-507	-58.541	17.130	3.931	8.072	2.222	1.518	1.442	0	270	1.061	6.995	31	3.041	5.159	978	1.789	1.517	55.156	-3.385
Refinarias de Petróleo	-38.837	0	0	0	0	0	0	0	0	0	0	-38.837	17.006	4.049	7.929	2.168	1.363	1.442	0	0	0	0	0	0	0	978	1.789	1.517	38.241	-596
Plantas de Gás Natural	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Usinas de Gaseificação	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Coquerias	0	0	-1.586	0	0	0	0	0	0	0	0	-1.586	0	0	0	0	0	0	0	270	1.061	0	0	0	0	0	0	0	1.331	-255
Cent. Elét. Serv. Público	0	0	0	-265	-5.949	0	0	0	0	0	0	-6.214	0	-91	0	0	0	0	0	0	0	5.949	0	0	0	0	0	0	5.858	-356
Cent. Elét. Auto Prod.	0	0	0	-251	-449	-32	0	0	-290	-189	-507	-1.718	-37	-27	0	0	0	0	0	0	0	1.046	0	0	0	0	0	0	982	-736
Carvoarias	0	0	0	0	0	-108	0	0	0	0	0	-108	0	0	0	0	0	0	0	0	0	0	31	0	0	0	0	0	31	-77
Destilarias	0	0	0	0	0	0	-8.823	-1.255	0	0	0	-10.078	0	0	0	0	0	0	0	0	0	0	0	3.041	5.159	0	0	0	8.200	-1.878
Outras Transforma.	0	0	0	0	0	0	0	0	0	0	0	0	161	0	143	54	155	0	0	0	0	0	0	0	0	0	0	0	513	513
Perdas Distr. Armaz.	0	-1	0	-1	0	0	0	0	-1.569	0	0	-1.571	0	0	0	0	0	0	0	-6	0	-965	0	-40	-48	0	0	0	-1.059	-2.630
Consumo Final	0	22	0	4.356	0	895	0	0	13.832	849	112	20.066	9.148	625	4.165	2.035	1.648	1.891	0	264	1.036	11.643	125	853	3.582	978	1.531	1.470	40.994	61.060
Cons. Final Não Energ.	0	0	0	0	0	0	0	0	259	0	0	259	0	0	0	0	1.648	0	0	0	0	0	2	0	91	117	0	1.470	3.328	3.587
Cons. Final Energético	0	22	0	4.356	0	895	0	0	13.573	849	112	19.807	9.148	625	4.165	2.035	0	1.891	0	264	1.036	11.643	123	853	3.491	861	1.531	0	37.666	57.473
Setor Energético	0	0	0	0	0	0	0	0	1.936	0	0	1.936	34	18	0	17	0	0	0	4	0	294	0	0	0	816	0	0	1.183	3.119
Residencial	0	0	0	114	0	168	0	0	0	0	0	282	0	0	0	1.487	0	2	0	0	0	2.692	1	0	0	0	0	0	4.182	4.464
Comercial	0	0	0	84	0	57	0	0	0	0	0	141	29	10	0	149	0	0	0	0	0	1.787	8	0	0	0	0	0	1.983	2.124
Público	0	0	0	20	0	0	0	0	0	0	0	20	94	10	0	51	0	0	0	0	0	877	0	0	0	0	0	0	1.032	1.052
Agropecuário	0	0	0	0	0	13	0	0	0	0	0	13	836	14	0	6	0	0	0	0	0	220	0	0	0	0	0	0	1.076	1.089
Transportes - Total	0	0	0	458	0	0	0	0	0	0	0	458	7.453	67	4.165	0	0	1.887	0	0	0	78	0	853	3.491	0	0	0	17.994	18.452
Rodoviário	0	0	0	458	0	0	0	0	0	0	0	458	7.219	0	4.156	0	0	0	0	0	0	5	0	853	3.491	0	0	0	15.724	16.182
Ferrovário	0	0	0	0	0	0	0	0	0	0	0	0	149	0	0	0	0	0	0	0	0	73	0	0	0	0	0	0	222	222
Aéreo	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	0	0	1.887	0	0	0	0	0	0	0	0	0	0	1.896	1.896
Hidroviário	0	0	0	0	0	0	0	0	0	0	0	0	85	67	0	0	0	0	0	0	0	0	0	0	0	0	0	0	152	152
Industrial - Total	0	22	0	3.680	0	657	0	0	11.637	849	112	16.957	702	506	0	325	0	2	0	260	1.036	5.695	114	0	0	45	1.531	0	10.216	27.173
Cimento	0	20	0	0	0	0	0	0	0	0	0	20	19	8	0	0	0	0	0	0	0	156	6	0	0	0	426	0	615	635
Ferro Gusa e Aço	0	0	0	448	0	1	0	0	0	0	0	449	23	25	0	57	0	0	0	260	1.036	392	93	0	0	0	0	0	1.886	2.335
Ferro Ligas	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	80	4	0	0	0	0	0	84	84	
Mineração e Pelotiz.	0	0	0	0	0	0	0	0	0	0	0	0	53	10	0	0	0	0	0	0	0	55	0	0	0	0	0	0	118	118
Não Ferr.*Out. Metal.	0	0	0	0	0	0	0	0	0	0	0	0	0	69	0	0	0	0	0	0	0	735	0	0	0	0	697	0	1.501	1.501
Química	0	0	0	799	0	6	0	0	16	0	0	821	55	79	0	50	0	0	0	0	0	741	1	0	0	45	267	0	1.238	2.059
Alimentos e Bebidas	0	1	0	346	0	143	0	0	11.575	0	10	12.075	307	146	0	37	0	0	0	0	0	555	0	0	0	0	0	0	1.045	13.120
Têxtil	0	0	0	154	0	20	0	0	0	0	0	174	2	26	0	5	0	0	0	0	0	325	9	0	0	0	0	0	367	541
Papel e Celulose	0	0	0	496	0	378	0	0	46	849	90	1.859	10	94	0	0	0	0	0	0	0	542	0	0	0	0	0	0	646	2.505
Cerâmica	0	1	0	573	0	97	0	0	0	0	4	675	3	30	0	74	0	0	0	0	0	251	1	0	0	0	0	0	359	1.034
Outros	0	0	0	864	0	12	0	0	0	0	8	884	230	19	0	102	0	2	0	0	0	1.863	0	0	0	0	141	0	2.357	3.241
Cons. Não Identificado	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ajustes	0	0	-1	1	0	-1	0	0	1	1	0	1	-2	-2	0	2	-1	-2	0	0	1	2	1	1	0	0	1	1	2	3

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OPERAÇÃO	Petróleo	Carvão Vapor	Carvão Metalur.	Gás Natural	Energ. Hidrául.	Lenha	Caldo de Cana	Melaço	Bagaço de Cana	Lixívia	Outras Primár.	Energia Primár.	Óleo Diesel	Óleo Combust.	Gasolina	GLP	Nafta	Quero - sene	Gás Canaliz.	Gás de Coquer.	Coque Carv. Min.	Eletri- cidade	Carvão Vegetal	Etanol Anidro	Etanol Hidrat.	Gás de Refinar.	Out.Ene. Petróleo	Não Energét.	Energia Secund.	Total
Produção	0	0	0	177	6.475	836	9.120	1.325	16.691	1.018	589	36.231	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	36.231
Importação	6.380	0	1.311	0	0	0	0	0	0	0	0	7.691	611	15	0	440	0	0	0	0	4	0	0	0	0	0	0	20	1.090	8.781
Importação Estadual	34.947	16	0	3.856	0	145	0	0	0	0	0	38.964	0	0	0	0	52	299	0	0	0	6.044	84	0	0	0	0	0	6.479	45.443
Variação de Estoques	0	2	6	0	0	0	0	0	0	0	0	8	26	-57	-95	-9	-4	-32	0	0	1	0	0	-29	-20	0	-33	-73	-325	-317
Oferta Total	41.327	18	1.317	4.033	6.475	981	9.120	1.325	16.691	1.018	589	82.894	637	-42	-95	431	48	267	0	0	5	6.044	84	-29	-20	0	-33	-53	7.244	90.138
Exportação	0	0	0	0	0	0	0	0	0	0	0	0	-113	-648	-1.000	0	0	-2	0	0	0	0	0	-358	-634	0	-191	-4	-2.950	-2.950
Exportação Estadual	0	0	0	0	0	0	0	0	0	0	0	0	-9.751	-3.450	-2.705	-368	0	-151	0	0	0	-486	0	-854	-184	0	0	0	-17.949	-17.949
Não Aproveitada	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Reinjeção	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oferta Interna Bruta	41.327	18	1.317	4.033	6.475	981	9.120	1.325	16.691	1.018	589	82.894	-9.227	-4.140	-3.800	63	48	114	0	0	5	5.558	84	-1.241	-838	0	-224	-57	-13.655	69.239
Total da Transformação	-41.326	0	-1.317	-300	-6.476	-127	-9.120	-1.325	-303	-186	-481	-60.961	18.235	4.805	7.723	1.928	2.020	1.751	0	253	831	7.095	23	2.137	5.146	985	1.864	1.706	56.502	-4.459
Refinarias de Petróleo	-41.326	0	0	0	0	0	0	0	0	0	0	-41.326	18.066	4.926	7.522	1.859	1.899	1.751	0	0	0	0	0	0	0	985	1.864	1.706	40.578	-748
Plantas de Gás Natural	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Usinas de Gaseificação	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Coquerias	0	0	-1.317	0	0	0	0	0	0	0	0	-1.317	0	0	0	0	0	0	253	831	0	0	0	0	0	0	0	0	1.084	-233
Cent. Elét. Serv. Público	0	0	0	-47	-6.034	0	0	0	0	0	0	-6.081	0	-94	0	0	0	0	0	0	0	6.034	0	0	0	0	0	0	5.940	-141
Cent. Elét. Auto Prod.	0	0	0	-253	-442	-30	0	0	-303	-186	-481	-1.695	-35	-27	0	0	0	0	0	0	0	1.061	0	0	0	0	0	0	999	-696
Carvoarias	0	0	0	0	0	-97	0	0	0	0	0	-97	0	0	0	0	0	0	0	0	0	0	23	0	0	0	0	0	23	-74
Destilarias	0	0	0	0	0	0	-9.120	-1.325	0	0	0	-10.445	0	0	0	0	0	0	0	0	0	0	0	2.137	5.146	0	0	0	7.283	-3.162
Outras Transforma.	0	0	0	0	0	0	0	0	0	0	0	0	204	0	201	69	121	0	0	0	0	0	0	0	0	0	0	0	595	595
Perdas Distr. Armaz.	0	0	0	-2	0	0	0	0	-1.669	0	0	-1.671	0	0	0	0	0	0	0	-7	0	-1.059	0	-48	-78	0	0	0	-1.192	-2.863
Consumo Final	0	18	0	3.732	0	853	0	0	14.718	832	107	20.260	9.010	666	3.923	1.991	2.067	1.865	0	246	837	11.594	106	847	4.230	984	1.641	1.648	41.655	61.915
Cons. Final Não Energ.	0	0	0	0	0	0	0	0	269	0	0	269	0	0	0	0	2.067	0	0	0	0	0	1	0	85	118	0	1.648	3.919	4.188
Cons. Final Energético	0	18	0	3.732	0	853	0	0	14.449	832	107	19.991	9.010	666	3.923	1.991	0	1.865	0	246	837	11.594	105	847	4.145	866	1.641	0	37.736	57.727
Setor Energético	0	0	0	0	0	0	0	0	2.056	0	0	2.056	25	10	0	16	0	0	0	3	0	302	0	0	0	820	0	0	1.176	3.232
Residencial	0	0	0	121	0	167	0	0	0	0	0	288	0	0	0	1.479	0	1	0	0	4	2.828	1	0	0	0	0	0	4.309	4.597
Comercial	0	0	0	82	0	56	0	0	0	0	0	138	26	10	0	145	0	0	0	0	0	1.871	7	0	0	0	0	0	2.059	2.197
Público	0	0	0	17	0	0	0	0	0	0	0	17	87	9	0	49	0	0	0	0	0	890	0	0	0	0	0	0	1.035	1.052
Agropecuário	0	0	0	0	0	11	0	0	0	0	0	11	692	17	0	5	0	0	0	0	0	213	0	0	0	0	0	0	927	938
Transportes - Total	0	0	0	324	0	0	0	0	0	0	0	324	7.473	60	3.923	0	0	1.864	0	0	0	78	0	847	4.145	0	0	0	18.390	18.714
Rodoviário	0	0	0	324	0	0	0	0	0	0	0	324	7.225	0	3.914	0	0	0	0	0	0	3	0	847	4.145	0	0	0	16.134	16.458
Ferrovário	0	0	0	0	0	0	0	0	0	0	0	0	162	0	0	0	0	0	0	0	0	75	0	0	0	0	0	0	237	237
Aéreo	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	0	0	1.864	0	0	0	0	0	0	0	0	0	0	1.873	1.873
Hidroviário	0	0	0	0	0	0	0	0	0	0	0	0	86	60	0	0	0	0	0	0	0	0	0	0	0	0	0	0	146	146
Industrial - Total	0	18	0	3.188	0	619	0	0	12.393	832	107	17.157	707	560	0	297	0	0	0	243	837	5.412	97	0	0	46	1.641	0	9.840	26.997
Cimento	0	18	0	0	0	0	0	0	0	0	0	18	22	9	0	0	0	0	0	0	0	151	5	0	0	0	422	0	609	627
Ferro Gusa e Aço	0	0	0	477	0	1	0	0	0	0	0	478	21	30	0	54	0	0	0	243	837	363	79	0	0	0	0	0	1.627	2.105
Ferro Ligas	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	79	3	0	0	0	0	0	82	82	
Mineração e Pelotiz.	0	0	0	0	0	0	0	0	0	0	0	0	66	12	0	0	0	0	0	0	0	47	0	0	0	0	0	0	125	125
Não Ferr.*Out. Metal.	0	0	0	0	0	0	0	0	0	0	0	0	0	74	0	0	0	0	0	0	0	718	0	0	0	0	752	0	1.544	1.544
Química	0	0	0	680	0	5	0	0	17	0	0	702	24	81	0	47	0	0	0	0	0	715	1	0	0	46	267	0	1.181	1.883
Alimentos e Bebidas	0	0	0	254	0	135	0	0	12.327	0	9	12.725	315	159	0	33	0	0	0	0	0	533	0	0	0	0	0	0	1.040	13.765
Têxtil	0	0	0	129	0	19	0	0	0	0	0	148	2	27	0	5	0	0	0	0	0	303	8	0	0	0	0	0	345	493
Papel e Celulose	0	0	0	318	0	355	0	0	49	832	87	1.641	14	105	0	0	0	0	0	0	0	497	0	0	0	0	0	0	616	2.257
Cerâmica	0	0	0	482	0	93	0	0	0	0	4	579	3	31	0	70	0	0	0	0	0	234	1	0	0	0	0	0	339	918
Outros	0	0	0	848	0	11	0	0	0	0	7	866	240	32	0	88	0	0	0	0	0	1.772	0	0	0	0	200	0	2.332	3.198
Cons. Não Identificado	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ajustes	1	0	0	-1	-1	1	0	0	1	0	1	2	-2	-1	0	0	1	0	0	0	-1	0	1	1	0	1	-1	1	0	2

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OPERAÇÃO	Petróleo	Carvão Vapor	Carvão Metalur.	Gás Natural	Energ. Hidrául.	Lenha	Caldo de Cana	Melaço	Bagaço de Cana	Lixívia	Outras Primár.	Energia Primár.	Óleo Diesel	Óleo Combust.	Gasolina	GLP	Nafta	Quero - sene	Gás Canaliz.	Gás de Coquer.	Coque Carv. Min.	Eletri- cidade	Carvão Vegetal	Etanol Anidro	Etanol Hidrat.	Gás de Refinar.	Out.Ene. Petróleo	Não Energét.	Energia Secund.	Total	
Produção	0	0	0	277	6.729	818	8.108	1.496	16.610	1.106	583	35.727	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	35.727	
Importação	5.056	0	1.614	0	0	0	0	0	0	0	0	6.670	1.009	136	0	281	0	0	0	0	20	0	0	0	0	0	0	26	1.472	8.142	
Importação Estadual	34.489	7	0	4.400	0	109	0	0	0	0	0	39.005	0	0	0	0	208	434	0	0	0	6.948	76	0	0	0	0	0	7.666	46.671	
Variação de Estoques	0	0	-12	0	0	0	0	0	0	0	0	-12	9	-21	-52	-23	34	-12	0	0	-52	0	0	-19	-7	0	-23	-241	-407	-419	
Oferta Total	39.545	7	1.602	4.677	6.729	927	8.108	1.496	16.610	1.106	583	81.390	1.018	115	-52	258	242	422	0	0	-32	6.948	76	-19	-7	0	-23	-215	8.731	90.121	
Exportação	0	0	0	0	0	0	0	0	0	0	0	0	-120	-591	-1.032	0	0	-13	0	0	0	0	0	-355	-666	0	-181	-409	-3.367	-3.367	
Exportação Estadual	0	0	0	0	0	0	0	0	0	0	0	0	-7.483	-3.340	-2.696	-87	0	-111	0	0	0	-954	0	-1.270	-104	0	0	0	-16.045	-16.045	
Não Aproveitada	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Reinjeção	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Oferta Interna Bruta	39.545	7	1.602	4.677	6.729	927	8.108	1.496	16.610	1.106	583	81.390	-6.585	-3.816	-3.780	171	242	298	0	0	-32	5.994	76	-1.644	-777	0	-204	-624	-10.681	70.709	
Total da Transformação	-39.545	0	-1.602	-507	-6.729	-120	-8.108	-1.496	-301	-185	-473	-59.066	16.493	4.360	8.137	1.868	2.009	1.804	0	301	1.014	7.341	21	2.591	4.928	1.114	1.777	2.059	55.817	-3.249	
Refinarias de Petróleo	-39.545	0	0	0	0	0	0	0	0	0	0	-39.545	16.238	4.475	7.929	1.817	1.561	1.804	0	0	0	0	0	0	0	1.114	1.777	2.059	38.774	-771	
Plantas de Gás Natural	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Usinas de Gaseificação	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Coquerias	0	0	-1.602	0	0	0	0	0	0	0	0	-1.602	0	0	0	0	0	0	0	301	1.014	0	0	0	0	0	0	0	1.315	-287	
Cent. Elét. Serv. Público	0	0	0	-230	-6.319	0	0	0	0	0	0	-6.549	0	-90	0	0	0	0	0	0	0	6.319	0	0	0	0	0	0	6.229	-320	
Cent. Elét. Auto Prod.	0	0	0	-277	-410	-27	0	0	-301	-185	-473	-1.673	-28	-25	0	0	0	0	0	0	0	1.022	0	0	0	0	0	0	969	-704	
Carvoarias	0	0	0	0	0	-93	0	0	0	0	0	-93	0	0	0	0	0	0	0	0	0	0	21	0	0	0	0	0	21	-72	
Destilarias	0	0	0	0	0	0	-8.108	-1.496	0	0	0	-9.604	0	0	0	0	0	0	0	0	0	0	0	2.591	4.928	0	0	0	7.519	-2.085	
Outras Transforma.	0	0	0	0	0	0	0	0	0	0	0	0	283	0	208	51	448	0	0	0	0	0	0	0	0	0	0	0	990	990	
Perdas Distr. Armaz.	0	0	0	-31	0	0	0	0	-1.661	0	0	-1.692	0	0	0	0	0	0	0	-18	0	-1.167	0	-7	-39	0	0	0	-1.231	-2.923	
Consumo Final	0	7	0	4.141	0	807	0	0	14.647	921	110	20.633	9.908	546	4.357	2.039	2.250	2.102	0	283	982	12.171	99	941	4.113	1.115	1.571	1.434	43.911	64.544	
Cons. Final Não Energ.	0	0	0	0	0	0	0	0	280	0	0	280	0	0	0	0	2.250	0	0	0	0	0	1	0	82	134	0	1.434	3.901	4.181	
Cons. Final Energético	0	7	0	4.141	0	807	0	0	14.367	921	110	20.353	9.908	546	4.357	2.039	0	2.102	0	283	982	12.171	98	941	4.031	981	1.571	0	40.010	60.363	
Setor Energético	0	0	0	0	0	0	0	0	1.168	0	0	1.168	36	5	0	18	0	0	4	0	4	0	309	0	0	0	887	0	0	1.259	2.427
Residencial	0	0	0	136	0	154	0	0	0	0	0	290	0	0	0	1.503	0	2	0	0	0	2.943	1	0	0	0	0	0	4.449	4.739	
Comercial	0	0	0	87	0	52	0	0	0	0	0	139	33	11	0	173	0	0	0	0	0	1.967	7	0	0	0	0	0	2.191	2.330	
Público	0	0	0	18	0	0	0	0	0	0	0	18	100	0	0	54	0	0	0	0	0	918	0	0	0	0	0	0	1.072	1.090	
Agropecuário	0	0	0	0	0	10	0	0	0	0	0	10	707	0	0	5	0	0	0	0	0	241	0	0	0	0	0	0	953	963	
Transportes - Total	0	0	0	281	0	0	0	0	0	0	0	281	8.149	56	4.357	0	0	2.100	0	0	0	86	0	941	4.031	0	0	0	19.720	20.001	
Rodoviário	0	0	0	281	0	0	0	0	0	0	0	281	7.941	0	4.345	0	0	0	0	0	0	2	0	941	4.031	0	0	0	17.260	17.541	
Ferrovário	0	0	0	0	0	0	0	0	0	0	0	0	150	0	0	0	0	0	0	0	0	84	0	0	0	0	0	0	234	234	
Aéreo	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	0	0	2.100	0	0	0	0	0	0	0	0	0	0	2.112	2.112	
Hidroviário	0	0	0	0	0	0	0	0	0	0	0	0	58	56	0	0	0	0	0	0	0	0	0	0	0	0	0	0	114	114	
Industrial - Total	0	7	0	3.619	0	591	0	0	13.199	921	110	18.447	883	474	0	286	0	0	0	279	982	5.707	90	0	0	94	1.571	0	10.366	28.813	
Cimento	0	7	0	0	0	0	0	0	0	0	0	7	31	2	0	0	0	0	0	0	0	162	5	0	0	0	403	0	603	610	
Ferro Gusa e Aço	0	0	0	603	0	1	0	0	0	0	0	604	24	25	0	49	0	0	0	279	982	378	72	0	0	0	0	0	1.809	2.413	
Ferro Ligas	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	83	4	0	0	0	0	0	87	87	
Mineração e Pelotiz.	0	0	0	0	0	0	0	0	0	0	0	0	83	6	0	0	0	0	0	0	0	49	0	0	0	0	0	0	138	138	
Não Ferr.*Out. Metal.	0	0	0	0	0	0	0	0	0	0	0	0	0	63	0	0	0	0	0	0	0	751	0	0	0	0	760	0	1.574	1.574	
Química	0	0	0	711	0	5	0	0	18	0	0	734	20	93	0	43	0	0	0	0	0	740	1	0	0	94	249	0	1.240	1.974	
Alimentos e Bebidas	0	0	0	341	0	127	0	0	13.129	0	9	13.606	410	96	0	44	0	0	0	0	0	573	0	0	0	0	0	0	1.123	14.729	
Têxtil	0	0	0	146	0	19	0	0	0	0	0	165	1	26	0	7	0	0	0	0	0	312	8	0	0	0	0	0	354	519	
Papel e Celulose	0	0	0	484	0	342	0	0	52	921	82	1.881	19	134	0	0	0	0	0	0	0	531	0	0	0	0	0	0	684	2.565	
Cerâmica	0	0	0	593	0	88	0	0	0	0	4	685	3	26	0	70	0	0	0	0	0	241	0	0	0	0	0	0	340	1.025	
Outros	0	0	0	741	0	9	0	0	0	0	15	765	292	3	0	73	0	0	0	0	0	1.887	0	0	0	0	159	0	2.414	3.179	
Cons. Não Identificado	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Ajustes	0	0	0	-2	0	0	0	0	1	0	0	-1	0	-2	0	0	1	0	0	0	0	-3	-2	-1	-1	-1	2	1	-6	-7	

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OPERAÇÃO	Petróleo	Carvão Vapor	Carvão Metalur.	Gás Natural	Energ. Hidrául.	Lenha	Caldo de Cana	Melaço	Bagaço de Cana	Lixívia	Outras Primár.	Energia Primár.	Óleo Diesel	Óleo Combust.	Gasolina	GLP	Nafta	Quero - sene	Gás Canaliz.	Gás de Coquer.	Coque Carv. Min.	Eletri- cidade	Carvão Vegetal	Etanol Anidro	Etanol Hidrat.	Gás de Refinar.	Out.Ene. Petróleo	Não Energét.	Energia Secund.	Total
Produção	0	0	0	1.059	6.465	794	6.435	1.344	14.056	1.109	561	31.823	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	31.823
Importação	5.694	0	1.810	0	0	0	0	0	0	0	0	7.504	858	38	0	122	0	0	0	0	105	0	0	0	0	0	0	15	1.138	8.642
Importação Estadual	36.429	6	0	3.665	0	106	0	0	0	0	0	40.206	0	0	0	0	199	94	0	0	0	7.506	72	0	0	0	0	0	7.871	48.077
Variação de Estoques	0	0	7	0	0	0	0	0	0	0	0	7	109	-15	-129	-18	-47	-29	0	0	-136	0	0	188	188	0	-8	-276	-173	-166
Oferta Total	42.123	6	1.817	4.724	6.465	900	6.435	1.344	14.056	1.109	561	79.540	967	23	-129	104	152	65	0	0	-31	7.506	72	188	188	0	-8	-261	8.836	88.376
Exportação	0	0	0	0	0	0	0	0	0	0	0	0	-213	-670	-989	0	0	-6	0	0	0	0	0	-330	-155	0	-630	-469	-3.462	-3.462
Exportação Estadual	0	0	0	0	0	0	0	0	0	0	0	0	-8.103	-2.413	-2.215	-149	0	-61	0	0	0	-650	0	-1.061	-87	0	0	0	-14.739	-14.739
Não Aproveitada	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Reinjeção	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oferta Interna Bruta	42.123	6	1.817	4.724	6.465	900	6.435	1.344	14.056	1.109	561	79.540	-7.349	-3.060	-3.333	-45	152	-2	0	0	-31	6.856	72	-1.203	-54	0	-638	-730	-9.365	70.175
Total da Transformação	-42.123	0	-1.817	-323	-6.466	-117	-6.435	-1.344	-255	-185	-455	-59.520	17.661	3.558	8.861	1.989	1.708	2.279	0	284	916	7.029	21	2.407	3.294	1.203	2.353	1.892	55.455	-4.065
Refinarias de Petróleo	-42.123	0	0	0	0	0	0	0	0	0	0	-42.123	17.428	3.653	8.677	1.952	1.290	2.279	0	0	0	0	0	0	0	1.203	2.353	1.892	40.727	-1.396
Plantas de Gás Natural	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Usinas de Gaseificação	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Coquerias	0	0	-1.817	0	0	0	0	0	0	0	0	-1.817	0	0	0	0	0	0	0	284	916	0	0	0	0	0	0	0	1.200	-617
Cent. Elét. Serv. Público	0	0	0	-66	-6.027	0	0	0	0	0	0	-6.093	0	-74	0	0	0	0	0	0	0	6.027	0	0	0	0	0	0	5.953	-140
Cent. Elét. Auto Prod.	0	0	0	-257	-439	-26	0	0	-255	-185	-455	-1.617	-23	-21	0	0	0	0	0	0	0	1.002	0	0	0	0	0	0	958	-659
Carvoarias	0	0	0	0	0	-91	0	0	0	0	0	-91	0	0	0	0	0	0	0	0	0	0	21	0	0	0	0	0	21	-70
Destilarias	0	0	0	0	0	0	-6.435	-1.344	0	0	0	-7.779	0	0	0	0	0	0	0	0	0	0	0	2.407	3.294	0	0	0	5.701	-2.078
Outras Transforma.	0	0	0	0	0	0	0	0	0	0	0	0	256	0	184	37	418	0	0	0	0	0	0	0	0	0	0	0	895	895
Perdas Distr. Armaz.	0	0	0	-126	0	0	0	0	-1.406	0	0	-1.532	0	0	0	0	0	0	0	-14	0	-1.339	0	-7	-34	0	0	0	-1.394	-2.926
Consumo Final	0	6	0	4.276	0	783	0	0	12.395	924	106	18.490	10.312	500	5.528	1.943	1.860	2.278	0	270	885	12.546	94	1.197	3.205	1.203	1.716	1.163	44.700	63.190
Cons. Final Não Energ.	0	0	0	0	0	0	0	0	238	0	0	238	0	0	0	0	1.860	0	0	0	0	0	1	0	81	144	0	1.163	3.249	3.487
Cons. Final Energético	0	6	0	4.276	0	783	0	0	12.157	924	106	18.252	10.312	500	5.528	1.943	0	2.278	0	270	885	12.546	93	1.197	3.124	1.059	1.716	0	41.451	59.703
Setor Energético	0	0	0	0	0	0	0	0	938	0	0	938	56	3	0	14	0	0	4	0	4	0	278	0	0	1.005	0	0	1.360	2.298
Residencial	0	0	0	152	0	150	0	0	0	0	0	302	0	0	0	1.436	0	2	0	0	0	3.090	1	0	0	0	0	0	4.529	4.831
Comercial	0	0	0	92	0	50	0	0	0	0	0	142	29	6	0	129	0	0	0	0	0	2.086	6	0	0	0	0	0	2.256	2.398
Público	0	0	0	19	0	0	0	0	0	0	0	19	54	0	0	57	0	0	0	0	0	957	0	0	0	0	0	0	1.068	1.087
Agropecuário	0	0	0	0	0	10	0	0	0	0	0	10	682	0	0	2	0	0	0	0	0	244	0	0	0	0	0	0	928	938
Transportes - Total	0	0	0	255	0	0	0	0	0	0	0	255	8.549	45	5.528	0	0	2.276	0	0	0	97	0	1.197	3.124	0	0	0	20.816	21.071
Rodoviário	0	0	0	255	0	0	0	0	0	0	0	255	8.334	0	5.515	0	0	0	0	0	0	2	0	1.197	3.124	0	0	0	18.172	18.427
Ferrovário	0	0	0	0	0	0	0	0	0	0	0	0	204	0	0	0	0	0	0	0	0	95	0	0	0	0	0	0	299	299
Aéreo	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13	0	0	2.276	0	0	0	0	0	0	0	0	0	0	2.289	2.289
Hidroviário	0	0	0	0	0	0	0	0	0	0	0	0	11	45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	56	56
Industrial - Total	0	6	0	3.758	0	573	0	0	11.219	924	106	16.586	942	446	0	305	0	0	0	266	885	5.794	86	0	0	54	1.716	0	10.494	27.080
Cimento	0	6	0	0	0	0	0	0	0	0	0	6	34	2	0	0	0	0	0	0	0	158	5	0	0	0	468	0	667	673
Ferro Gusa e Aço	0	0	0	489	0	1	0	0	0	0	0	490	19	30	0	44	0	0	0	266	885	427	69	0	0	0	0	0	1.740	2.230
Ferro Ligas	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	84	4	0	0	0	0	0	88	88	
Mineração e Pelotiz.	0	0	0	0	0	0	0	0	0	0	0	0	84	7	0	0	0	0	0	0	0	47	0	0	0	0	0	0	138	138
Não Ferr.*Out. Metal.	0	0	0	0	0	0	0	0	0	0	0	0	0	68	0	0	0	0	0	0	0	737	0	0	0	0	805	0	1.610	1.610
Química	0	0	0	666	0	5	0	0	15	0	0	686	25	80	0	38	0	0	0	0	0	754	1	0	0	54	266	0	1.218	1.904
Alimentos e Bebidas	0	0	0	357	0	119	0	0	11.159	0	9	11.644	442	106	0	31	0	0	0	0	0	642	0	0	0	0	0	0	1.221	12.865
Têxtil	0	0	0	122	0	18	0	0	0	0	0	140	1	21	0	7	0	0	0	0	0	320	7	0	0	0	0	0	356	496
Papel e Celulose	0	0	0	397	0	335	0	0	45	924	79	1.780	9	125	0	0	0	0	0	0	0	577	0	0	0	0	0	0	711	2.491
Cerâmica	0	0	0	616	0	86	0	0	0	0	4	706	13	4	0	76	0	0	0	0	0	245	0	0	0	0	0	0	338	1.044
Outros	0	0	0	1.111	0	9	0	0	0	0	14	1.134	315	3	0	109	0	0	0	0	0	1.803	0	0	0	0	177	0	2.407	3.541
Cons. Não Identificado	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ajustes	0	0	0	-1	-1	0	0	0	0	0	0	-2	0	-2	0	1	0	-1	0	0	0	0	-1	0	1	0	-1	-1	-4	-6

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OPERAÇÃO	Petróleo	Carvão Vapor	Carvão Metalur.	Gás Natural	Energ. Hidrául.	Lenha	Caldo de Cana	Melaço	Bagaço de Cana	Lixívia	Outras Primár.	Energia Primár.	Óleo Diesel	Óleo Combust.	Gasolina	GLP	Nafta	Quero - sene	Gás Canaliz.	Gás de Coquer.	Coque Carv. Min.	Eletri- cidade	Carvão Vegetal	Etanol Anidro	Etanol Hidrat.	Gás de Refinar.	Out.Ene. Petróleo	Não Energét.	Energia Secund.	Total
Produção	0	0	0	1.616	6.750	816	6.824	1.486	15.243	1.107	545	34.387	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	34.387
Importação	6.795	0	1.460	0	0	0	0	0	0	0	0	8.255	1.273	86	0	522	0	0	0	0	102	0	0	0	0	0	0	10	1.993	10.248
Importação Estadual	38.086	5	0	3.280	0	120	0	0	0	0	0	41.491	0	0	0	0	839	153	0	0	0	7.225	70	0	0	0	0	0	8.287	49.778
Variação de Estoques	0	0	5	0	0	0	0	0	0	0	0	5	-88	-62	51	-4	13	-29	0	0	-106	0	0	-46	-19	0	7	-270	-553	-548
Oferta Total	44.881	5	1.465	4.896	6.750	936	6.824	1.486	15.243	1.107	545	84.138	1.185	24	51	518	852	124	0	0	-4	7.225	70	-46	-19	0	7	-260	9.727	93.865
Exportação	0	0	0	0	0	0	0	0	0	0	0	0	-45	-1.249	-1.212	0	0	-6	0	0	0	0	0	-720	-48	0	-631	-552	-4.463	-4.463
Exportação Estadual	0	0	0	0	0	0	0	0	0	0	0	0	-10.029	-1.974	-2.633	-638	0	-6	0	0	0	-458	0	-1.016	-19	0	0	0	-16.773	-16.773
Não Aproveitada	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Reinjeção	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oferta Interna Bruta	44.881	5	1.465	4.896	6.750	936	6.824	1.486	15.243	1.107	545	84.138	-8.889	-3.199	-3.794	-120	852	112	0	0	-4	6.767	70	-1.782	-86	0	-624	-812	-11.509	72.629
Total da Transformação	-44.880	0	-1.464	-652	-6.751	-122	-6.824	-1.486	-277	-185	-442	-63.083	19.753	3.629	10.233	2.160	1.091	2.213	0	260	946	7.430	22	2.835	3.002	1.245	2.593	1.965	59.377	-3.706
Refinarias de Petróleo	-44.880	0	0	0	0	0	0	0	0	0	0	-44.880	19.638	3.739	10.054	2.122	963	2.213	0	0	0	0	0	0	0	1.245	2.593	1.965	44.532	-348
Plantas de Gás Natural	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Usinas de Gaseificação	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Coquearias	0	0	-1.464	0	0	0	0	0	0	0	0	-1.464	0	0	0	0	0	0	0	260	946	0	0	0	0	0	0	0	1.206	-258
Cent. Elét. Serv. Público	0	0	0	-359	-6.366	0	0	0	0	0	0	-6.725	0	-86	0	0	0	0	0	0	0	6.366	0	0	0	0	0	0	6.280	-445
Cent. Elét. Auto Prod.	0	0	0	-293	-385	-28	0	0	-277	-185	-442	-1.610	-23	-24	0	0	0	0	0	0	0	1.064	0	0	0	0	0	0	1.017	-593
Carvoarias	0	0	0	0	0	-94	0	0	0	0	0	-94	0	0	0	0	0	0	0	0	0	0	22	0	0	0	0	0	22	-72
Destilarias	0	0	0	0	0	0	-6.824	-1.486	0	0	0	-8.310	0	0	0	0	0	0	0	0	0	0	0	2.835	3.002	0	0	0	5.837	-2.473
Outras Transforma.	0	0	0	0	0	0	0	0	0	0	0	0	138	0	179	38	128	0	0	0	0	0	0	0	0	0	0	0	483	483
Perdas Distr. Armaz.	0	0	0	-54	0	0	0	0	-1.524	0	0	-1.578	0	0	0	0	0	0	0	-1	0	-1.267	0	-9	-36	0	0	0	-1.313	-2.891
Consumo Final	0	5	0	4.191	0	814	0	0	13.443	922	102	19.477	10.864	431	6.438	2.037	1.944	2.326	0	259	943	12.930	92	1.044	2.878	1.244	1.969	1.153	46.552	66.029
Cons. Final Não Energ.	0	0	0	0	0	0	0	0	255	0	0	255	0	0	0	0	1.944	0	0	0	0	0	1	0	70	149	0	1.153	3.317	3.572
Cons. Final Energético	0	5	0	4.191	0	814	0	0	13.188	922	102	19.222	10.864	431	6.438	2.037	0	2.326	0	259	943	12.930	91	1.044	2.808	1.095	1.969	0	43.235	62.457
Setor Energético	0	0	0	0	0	0	0	0	1.183	0	0	1.183	61	4	0	16	0	0	0	3	0	297	0	0	0	1.045	0	0	1.426	2.609
Residencial	0	0	0	165	0	157	0	0	0	0	0	322	0	0	0	1.491	0	1	0	0	0	3.242	1	0	0	0	0	0	4.735	5.057
Comercial	0	0	0	95	0	52	0	0	0	0	0	147	33	8	0	160	0	0	0	0	0	2.225	6	0	0	0	0	0	2.432	2.579
Público	0	0	0	16	0	0	0	0	0	0	0	16	49	0	0	61	0	0	0	0	0	990	0	0	0	0	0	0	1.100	1.116
Agropecuário	0	0	0	0	0	10	0	0	0	0	0	10	675	0	0	2	0	0	0	0	0	235	0	0	0	0	0	0	912	922
Transportes - Total	0	0	0	227	0	0	0	0	0	0	0	227	9.038	37	6.438	0	0	2.325	0	0	0	99	0	1.044	2.808	0	0	0	21.789	22.016
Rodoviário	0	0	0	227	0	0	0	0	0	0	0	227	8.768	0	6.424	0	0	0	0	0	0	2	0	1.044	2.808	0	0	0	19.046	19.273
Ferrovário	0	0	0	0	0	0	0	0	0	0	0	0	254	0	0	0	0	0	0	0	0	97	0	0	0	0	0	0	351	351
Aéreo	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14	0	0	2.325	0	0	0	0	0	0	0	0	0	0	2.339	2.339
Hidroviário	0	0	0	0	0	0	0	0	0	0	0	0	16	37	0	0	0	0	0	0	0	0	0	0	0	0	0	0	53	53
Industrial - Total	0	5	0	3.688	0	595	0	0	12.005	922	102	17.317	1.008	382	0	307	0	0	0	256	943	5.842	84	0	0	50	1.969	0	10.841	28.158
Cimento	0	5	0	0	0	0	0	0	0	0	0	5	30	2	0	0	0	0	0	0	0	158	5	0	0	0	501	0	696	701
Ferro Gusa e Aço	0	0	0	481	0	1	0	0	0	0	0	482	11	30	0	47	0	0	0	256	943	424	68	0	0	0	0	0	1.779	2.261
Ferro Ligas	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	85	3	0	0	0	0	0	88	88	
Mineração e Pelotiz.	0	0	0	0	0	0	0	0	0	0	0	0	85	4	0	0	0	0	0	0	0	46	0	0	0	0	0	0	135	135
Não Ferr.*Out. Metal.	0	0	0	0	0	0	0	0	0	0	0	0	0	58	0	0	0	0	0	0	0	732	0	0	0	0	807	0	1.597	1.597
Química	0	0	0	634	0	5	0	0	16	0	0	655	27	56	0	38	0	0	0	0	0	788	0	0	0	50	347	0	1.306	1.961
Alimentos e Bebidas	0	0	0	333	0	127	0	0	11.941	0	9	12.410	472	93	0	45	0	0	0	0	0	683	0	0	0	0	0	0	1.293	13.703
Têxtil	0	0	0	114	0	19	0	0	0	0	0	133	1	15	0	8	0	0	0	0	0	318	8	0	0	0	0	0	350	483
Papel e Celulose	0	0	0	379	0	344	0	0	48	922	75	1.768	29	118	0	0	0	0	0	0	0	597	0	0	0	0	0	0	744	2.512
Cerâmica	0	0	0	611	0	89	0	0	0	0	4	704	11	3	0	75	0	0	0	0	0	240	0	0	0	0	0	0	329	1.033
Outros	0	0	0	1.136	0	10	0	0	0	0	14	1.160	342	3	0	94	0	0	0	0	0	1.771	0	0	0	0	314	0	2.524	3.684
Cons. Não Identificado	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ajustes	1	0	1	-1	-1	0	0	0	-1	0	1	0	0	-1	1	3	-1	-1	0	0	-1	0	0	0	2	1	0	0	3	3

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OPERAÇÃO	Petróleo	Carvão Vapor	Carvão Metalur.	Gás Natural	Energ. Hidrául.	Lenha	Caldo de Cana	Melaço	Bagaço de Cana	Lixívia	Outras Primár.	Energia Primár.	Óleo Diesel	Óleo Combust.	Gasolina	GLP	Nafta	Quero - sene	Gás Canaliz.	Gás de Coquer.	Coque Carv. Min.	Eletri- cidade	Carvão Vegetal	Etanol Anidro	Etanol Hidrat.	Gás de Refinar.	Out.Ene. Petróleo	Não Energét.	Energia Secund.	Total
Produção	0	0	0	2.261	6.171	791	8.280	1.529	16.970	1.161	529	37.692	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	37.692
Importação	8.439	0	1.391	0	0	0	0	0	0	0	0	9.830	3.407	23	0	491	0	0	0	0	97	0	0	0	0	0	0	0	4.018	13.848
Importação Estadual	37.563	6	0	2.938	0	105	0	0	0	0	0	40.612	0	0	0	0	1.410	292	0	0	0	7.816	69	0	0	0	0	0	9.587	50.199
Variação de Estoques	0	0	-25	0	0	0	0	0	0	0	0	-25	314	96	107	1	-15	56	0	0	68	0	0	-63	-22	0	-19	-355	168	143
Oferta Total	46.002	6	1.366	5.199	6.171	896	8.280	1.529	16.970	1.161	529	88.109	3.721	119	107	492	1.395	348	0	0	165	7.816	69	-63	-22	0	-19	-355	13.773	101.882
Exportação	0	0	0	0	0	0	0	0	0	0	0	0	-49	-1.411	-1.710	0	0	-11	0	0	0	0	0	-863	-23	0	-603	-642	-5.312	-5.312
Exportação Estadual	0	0	0	0	0	0	0	0	0	0	0	0	-13.264	-1.979	-3.143	-428	0	-41	0	0	0	-405	0	-1.260	-5	0	0	0	-20.525	-20.525
Não Aproveitada	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Reinjeção	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oferta Interna Bruta	46.002	6	1.366	5.199	6.171	896	8.280	1.529	16.970	1.161	529	88.109	-9.592	-3.271	-4.746	64	1.395	296	0	0	165	7.411	69	-2.186	-50	0	-622	-997	-12.064	76.045
Total da Transformação	-46.002	0	-1.365	-888	-6.171	-114	-8.280	-1.529	-308	-194	-422	-65.273	20.878	3.615	10.873	2.017	652	2.050	0	264	711	6.888	21	3.522	3.361	1.289	2.637	2.106	60.884	-4.389
Refinarias de Petróleo	-46.002	0	0	0	0	0	0	0	0	0	0	-46.002	20.759	3.715	10.682	1.982	526	2.050	0	0	0	0	0	0	0	1.289	2.637	2.106	45.746	-256
Plantas de Gás Natural	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Usinas de Gaseificação	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Coquearias	0	0	-1.365	0	0	0	0	0	0	0	0	-1.365	0	0	0	0	0	0	0	264	711	0	0	0	0	0	0	0	975	-390
Cent. Elét. Serv. Público	0	0	0	-624	-5.820	0	0	0	0	0	0	-6.444	0	-79	0	0	0	0	0	0	0	5.820	0	0	0	0	0	0	5.741	-703
Cent. Elét. Auto Prod.	0	0	0	-264	-351	-26	0	0	-308	-194	-422	-1.565	-23	-21	0	0	0	0	0	0	0	1.068	0	0	0	0	0	0	1.024	-541
Carvoarias	0	0	0	0	0	-88	0	0	0	0	0	-88	0	0	0	0	0	0	0	0	0	0	21	0	0	0	0	0	21	-67
Destilarias	0	0	0	0	0	0	-8.280	-1.529	0	0	0	-9.809	0	0	0	0	0	0	0	0	0	0	0	3.522	3.361	0	0	0	6.883	-2.926
Outras Transforma.	0	0	0	0	0	0	0	0	0	0	0	0	142	0	191	35	126	0	0	0	0	0	0	0	0	0	0	0	494	494
Perdas Distr. Armaz.	0	0	0	-110	0	0	0	0	-1.697	0	0	-1.807	0	0	0	0	0	0	0	-10	0	-1.128	0	-11	-38	0	0	0	-1.187	-2.994
Consumo Final	0	6	0	4.201	0	781	0	0	14.965	968	107	21.028	11.289	343	6.127	2.083	2.046	2.347	0	254	877	13.172	90	1.325	3.274	1.289	2.014	1.110	47.640	68.668
Cons. Final Não Energ.	0	0	0	0	0	0	0	0	273	0	0	273	0	0	0	0	2.046	0	0	0	0	0	1	0	69	155	0	1.110	3.381	3.654
Cons. Final Energético	0	6	0	4.201	0	781	0	0	14.692	968	107	20.755	11.289	343	6.127	2.083	0	2.347	0	254	877	13.172	89	1.325	3.205	1.134	2.014	0	44.259	65.014
Setor Energético	0	0	0	0	0	0	0	0	1.847	0	0	1.847	282	1	0	10	0	0	0	3	0	299	0	0	0	1.086	0	0	1.681	3.528
Residencial	0	0	0	187	0	156	0	0	0	0	0	343	0	0	0	1.503	0	1	0	0	0	3.333	1	0	0	0	0	0	4.838	5.181
Comercial	0	0	0	101	0	52	0	0	0	0	0	153	37	4	0	173	0	0	0	0	0	2.344	6	0	0	0	0	0	2.564	2.717
Público	0	0	0	21	0	0	0	0	0	0	0	21	42	0	0	58	0	0	0	0	0	996	0	0	0	0	0	0	1.096	1.117
Agropecuário	0	0	0	0	0	9	0	0	0	0	0	9	522	0	0	2	0	0	0	0	0	266	0	0	0	0	0	0	790	799
Transportes - Total	0	0	0	220	0	0	0	0	0	0	0	220	9.322	33	6.127	0	0	2.346	0	0	0	98	0	1.325	3.205	0	0	0	22.456	22.676
Rodoviário	0	0	0	220	0	0	0	0	0	0	0	220	9.071	0	6.115	0	0	0	0	0	0	2	0	1.325	3.205	0	0	0	19.718	19.938
Ferrovário	0	0	0	0	0	0	0	0	0	0	0	0	229	0	0	0	0	0	0	0	96	0	0	0	0	0	0	325	325	
Aéreo	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	0	0	2.346	0	0	0	0	0	0	0	0	0	0	2.358	2.358
Hidroviário	0	0	0	0	0	0	0	0	0	0	0	0	22	33	0	0	0	0	0	0	0	0	0	0	0	0	0	55	55	
Industrial - Total	0	6	0	3.672	0	564	0	0	12.845	968	107	18.162	1.084	305	0	337	0	0	0	251	877	5.836	82	0	0	48	2.014	0	10.834	28.996
Cimento	0	6	0	0	0	0	0	0	0	0	0	6	31	2	0	0	0	0	0	0	0	158	4	0	0	0	526	0	721	727
Ferro Gusa e Aço	0	0	0	475	0	1	0	0	0	0	0	476	10	12	0	43	0	0	0	251	877	438	67	0	0	0	0	0	1.698	2.174
Ferro Ligas	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	88	4	0	0	0	0	0	92	92	
Mineração e Pelotiz.	0	0	0	0	0	0	0	0	0	0	0	0	95	4	0	0	0	0	0	0	0	47	0	0	0	0	0	0	146	146
Não Ferr.*Out. Metal.	0	0	0	0	0	0	0	0	0	0	0	0	0	47	0	0	0	0	0	0	0	747	0	0	0	0	822	0	1.616	1.616
Química	0	0	0	634	0	5	0	0	18	0	0	657	22	44	0	41	0	0	0	0	0	799	0	0	0	48	313	0	1.267	1.924
Alimentos e Bebidas	0	0	0	368	0	122	0	0	12.776	0	9	13.275	651	64	0	52	0	0	0	0	0	718	0	0	0	0	0	0	1.485	14.760
Têxtil	0	0	0	105	0	18	0	0	0	0	0	123	1	16	0	17	0	0	0	0	0	303	7	0	0	0	0	0	344	467
Papel e Celulose	0	0	0	401	0	326	0	0	51	968	80	1.826	23	113	0	0	0	0	0	0	0	601	0	0	0	0	0	0	737	2.563
Cerâmica	0	0	0	632	0	85	0	0	0	0	4	721	10	3	0	60	0	0	0	0	0	227	0	0	0	0	0	0	300	1.021
Outros	0	0	0	1.057	0	7	0	0	0	0	14	1.078	241	0	0	124	0	0	0	0	0	1.710	0	0	0	0	353	0	2.428	3.506
Cons. Não Identificado	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ajustes	0	0	1	0	0	1	0	0	0	-1	0	1	-3	1	0	-2	1	-1	0	0	-1	-1	0	0	-1	0	1	-1	-7	-6

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OPERAÇÃO	Petróleo	Carvão Vapor	Carvão Metalur.	Gás Natural	Energ. Hidrául.	Lenha	Caldo de Cana	Melaço	Bagaço de Cana	Lixívia	Outras Primár.	Energia Primár.	Óleo Diesel	Óleo Combust.	Gasolina	GLP	Nafta	Quero - sene	Gás Canaliz.	Gás de Coquer.	Coque Carv. Min.	Eletri- cidade	Carvão Vegetal	Etanol Anidro	Etanol Hidrat.	Gás de Refinar.	Out.Ene. Petróleo	Não Energét.	Energia Secund.	Total	
Produção	0	0	0	3.377	4.872	760	7.661	1.398	15.607	1.219	514	35.408	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	35.408	
Importação	8.542	0	1.192	0	0	0	0	0	0	0	0	9.734	2.615	134	0	198	0	0	0	0	26	0	0	0	0	0	0	0	2.973	12.707	
Importação Estadual	37.808	5	0	1.707	0	104	0	0	0	0	0	39.624	0	0	0	0	1.206	388	0	0	0	8.663	69	0	314	0	0	0	10.640	50.264	
Variação de Estoques	0	0	-6	0	0	0	0	0	0	0	0	-6	100	53	36	4	-10	65	0	0	17	0	0	-37	-32	0	0	10	206	200	
Oferta Total	46.350	5	1.186	5.084	4.872	864	7.661	1.398	15.607	1.219	514	84.760	2.715	187	36	202	1.196	453	0	0	43	8.663	69	-37	282	0	0	10	13.819	98.579	
Exportação	0	0	0	0	0	0	0	0	0	0	0	0	-48	-1.225	-1.366	0	0	-7	0	0	0	0	0	-762	-12	0	-916	-951	-5.287	-5.287	
Exportação Estadual	0	0	0	0	0	0	0	0	0	0	0	0	-12.956	-2.233	-3.054	-32	0	-291	0	0	0	0	-309	0	-1.101	-5	0	0	-19.981	-19.981	
Não Aproveitada	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Reinjeção	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Oferta Interna Bruta	46.350	5	1.186	5.084	4.872	864	7.661	1.398	15.607	1.219	514	84.760	-10.289	-3.271	-4.384	170	1.196	155	0	0	43	8.354	69	-1.900	265	0	-916	-941	-11.449	73.311	
Total da Transformação	-46.350	0	-1.186	-991	-4.872	-108	-7.661	-1.398	-283	-203	-405	-63.457	21.403	3.590	10.734	1.878	757	2.329	0	237	747	5.569	21	3.284	3.503	1.294	2.639	2.166	60.151	-3.306	
Refinarias de Petróleo	-46.350	0	0	0	0	0	0	0	0	0	0	-46.350	21.279	3.688	10.571	1.842	417	2.329	0	0	0	0	0	0	0	1.294	2.639	2.166	46.225	-125	
Plantas de Gás Natural	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Usinas de Gaseificação	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Coquearias	0	0	-1.186	0	0	0	0	0	0	0	0	-1.186	0	0	0	0	0	0	0	237	747	0	0	0	0	0	0	0	984	-202	
Cent. Elét. Serv. Público	0	0	0	-748	-4.692	0	0	0	0	0	0	-5.440	0	-78	0	0	0	0	0	0	0	0	4.692	0	0	0	0	0	0	4.614	-826
Cent. Elét. Auto Prod.	0	0	0	-243	-180	-25	0	0	-283	-203	-405	-1.339	-23	-20	0	0	0	0	0	0	0	877	0	0	0	0	0	0	0	834	-505
Carvoarias	0	0	0	0	0	-83	0	0	0	0	0	-83	0	0	0	0	0	0	0	0	0	0	21	0	0	0	0	0	0	21	-62
Destilarias	0	0	0	0	0	0	-7.661	-1.398	0	0	0	-9.059	0	0	0	0	0	0	0	0	0	0	0	3.284	3.503	0	0	0	0	6.787	-2.272
Outras Transforma.	0	0	0	0	0	0	0	0	0	0	0	0	147	0	163	36	340	0	0	0	0	0	0	0	0	0	0	0	0	686	686
Perdas Distr. Armaz.	0	0	0	-61	0	0	0	0	-1.561	0	0	-1.622	0	0	0	0	0	0	0	-4	0	-961	0	-11	-39	0	0	0	-1.015	-2.637	
Consumo Final	0	5	0	4.033	0	756	0	0	13.763	1.016	109	19.682	11.115	320	6.350	2.049	1.954	2.485	0	233	789	12.963	90	1.373	3.730	1.293	1.723	1.225	47.692	67.374	
Cons. Final Não Energ.	0	0	0	0	0	0	0	0	259	0	0	259	0	0	0	0	1.954	0	0	0	0	0	1	0	82	155	0	1.225	3.417	3.676	
Cons. Final Energético	0	5	0	4.033	0	756	0	0	13.504	1.016	109	19.423	11.115	320	6.350	2.049	0	2.485	0	233	789	12.963	89	1.373	3.648	1.138	1.723	0	44.275	63.698	
Setor Energético	0	0	0	0	0	0	0	0	1.555	0	0	1.555	259	3	0	13	0	0	0	3	0	259	0	0	0	1.130	0	0	1.667	3.222	
Residencial	0	0	0	176	0	151	0	0	0	0	0	327	0	0	0	1.405	0	1	0	0	0	3.393	1	0	0	0	0	0	4.800	5.127	
Comercial	0	0	0	104	0	51	0	0	0	0	0	155	35	10	0	190	0	0	0	0	0	2.545	6	0	0	0	0	0	2.786	2.941	
Público	0	0	0	18	0	0	0	0	0	0	0	18	36	0	0	71	0	0	0	0	0	1.014	0	0	0	0	0	0	1.121	1.139	
Agropecuário	0	0	0	0	0	9	0	0	0	0	0	9	501	0	0	3	0	0	0	0	0	285	0	0	0	0	0	0	789	798	
Transportes - Total	0	0	0	196	0	0	0	0	0	0	0	196	9.291	31	6.350	0	0	2.484	0	0	0	99	0	1.373	3.648	0	0	0	23.276	23.472	
Rodoviário	0	0	0	196	0	0	0	0	0	0	0	196	9.023	0	6.339	0	0	0	0	0	0	2	0	1.373	3.648	0	0	0	20.385	20.581	
Ferrovário	0	0	0	0	0	0	0	0	0	0	0	0	245	0	0	0	0	0	0	0	0	97	0	0	0	0	0	0	342	342	
Aéreo	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11	0	0	2.484	0	0	0	0	0	0	0	0	0	0	2.495	2.495	
Hidroviário	0	0	0	0	0	0	0	0	0	0	0	0	23	31	0	0	0	0	0	0	0	0	0	0	0	0	0	0	54	54	
Industrial - Total	0	5	0	3.539	0	545	0	0	11.949	1.016	109	17.163	993	276	0	367	0	0	0	230	789	5.368	82	0	0	8	1.723	0	9.836	26.999	
Cimento	0	5	0	0	0	0	0	0	0	0	0	5	29	2	0	0	0	0	0	0	0	154	2	0	0	0	535	0	722	727	
Ferro Gusa e Aço	0	0	0	439	0	1	0	0	0	0	0	440	9	10	0	51	0	0	0	230	789	410	69	0	0	0	0	0	1.568	2.008	
Ferro Ligas	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	83	4	0	0	0	0	0	0	87	87	
Mineração e Pelotiz.	0	0	0	0	0	0	0	0	0	0	0	0	101	9	0	0	0	0	0	0	0	44	0	0	0	0	0	0	154	154	
Não Ferr.*Out. Metal.	0	0	0	0	0	0	0	0	0	0	0	0	0	33	0	0	0	0	0	0	0	699	0	0	0	0	728	0	1.460	1.460	
Química	0	0	0	606	0	4	0	0	17	0	0	627	19	39	0	44	0	0	0	0	0	745	0	0	0	8	267	0	1.122	1.749	
Alimentos e Bebidas	0	0	0	371	0	117	0	0	11.882	0	9	12.379	570	58	0	59	0	0	0	0	0	670	0	0	0	0	0	0	1.357	13.736	
Têxtil	0	0	0	97	0	17	0	0	0	0	0	114	1	11	0	20	0	0	0	0	0	284	7	0	0	0	0	0	323	437	
Papel e Celulose	0	0	0	362	0	313	0	0	50	1.016	82	1.823	28	113	0	0	0	0	0	0	0	565	0	0	0	0	0	0	706	2.529	
Cerâmica	0	0	0	623	0	82	0	0	0	0	4	709	10	1	0	65	0	0	0	0	0	218	0	0	0	0	0	0	294	1.003	
Outros	0	0	0	1.041	0	11	0	0	0	0	14	1.066	226	0	0	128	0	0	0	0	0	1.496	0	0	0	0	193	0	2.043	3.109	
Cons. Não Identificado	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Ajustes	0	0	0	-1	0	0	0	0	0	0	0	-1	-1	-1	0	-1	-1	-1	0	0	1	-1	0	0	-1	1	0	0	-5	-6	

10.7. Consolidated Energy Balance Sheets

São Paulo Energy Balance - Consolidated 1980 - 10³ tOE

Energy Flow	Petro- leum	Steam Coal	Metal- lurgical Coal	Natural Gas	Hydraulic Energy	Firewood	Sugar Cane juice	Molasses	Sugar Cane Bagasse	Black Liquor	Others Primary Sources	Primary Energy	Diesel Oil	Fuel Oil	Gasoline	LPG	Naptha	Kerosene	Gaswor- sks gas	Gas Coke	Coal Coke	Electric- ity	Charcoal	Anhy- drous Ethanol	Hydrated Ethanol	Refinery Gas	Others	Non Energy Products	Second- ary Energy	Total	
Production	0	0	0	0	4.499	943	1.603	193	3.303	217	47	10.805	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10.805	
Imports	18.620	0	1.004	0	0	0	0	0	0	0	0	19.624	23	245	56	34	0	0	0	0	124	0	0	0	0	0	49	36	567	20.191	
State Imports	5.149	138	317	0	0	193	0	0	0	0	0	5.797	0	0	0	0	13	0	0	0	0	46	116	0	0	0	72	414	661	6.458	
Changes in stocks	0	-50	-73	0	0	0	0	0	0	0	0	-123	-301	196	63	-27	-139	-56	0	0	-49	0	0	269	-117	0	-5	174	8	-115	
Total Supply	23.769	88	1.248	0	4.499	1.136	1.603	193	3.303	217	47	36.103	-278	441	119	7	-126	-56	0	0	75	46	116	269	-117	0	116	624	1.236	37.339	
Exports	0	0	0	0	0	0	0	0	0	0	0	0	-347	-180	-189	0	0	0	0	0	0	0	0	-78	-45	0	0	-14	-853	-853	
State Exports	0	0	0	0	0	0	0	0	0	0	0	0	-2.703	-439	-572	-268	0	-142	0	0	0	0	0	-460	-175	0	0	0	-4.849	-4.849	
Non-Utilized Energy	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Re-injection	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Gross Domestic Supply	23.769	88	1.248	0	4.499	1.136	1.603	193	3.303	217	47	36.103	-3.328	-178	-642	-261	-126	-198	0	0	75	-44	116	-269	-337	0	116	610	-4.466	31.637	
Total Transformation	-23.768	0	-1.146	0	-4.500	-480	-1.603	-193	-39	-32	-35	-31.796	7.701	6.975	3.776	1.298	1.334	675	115	215	823	4.630	17	781	512	45	191	906	29.994	-1.802	
Petroleum Refinereries	-23.768	0	0	0	0	0	0	0	0	0	0	-23.768	7.705	7.074	3.672	1.227	1.643	675	0	0	0	0	0	0	0	45	191	906	23.138	-630	
Natural Gas Plants	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Gasification Plants	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-127	0	115	0	0	0	0	0	0	0	0	0	-12	-12	
Coking Plants	0	0	-1.146	0	0	0	0	0	0	0	0	-1.146	0	0	0	0	0	0	0	215	823	0	0	0	0	0	0	0	1.038	-108	
Public Util. Power Plants	0	0	0	0	-4.377	0	0	0	0	0	0	-4.377	0	-16	0	0	0	0	0	0	0	4.380	0	0	0	0	0	0	0	4.364	-13
Self-Prod. Power Plants	0	0	0	0	-123	-2	0	0	-39	-32	-35	-231	-4	-83	0	0	0	0	0	0	0	250	0	0	0	0	0	0	0	163	-68
Charcoal Plants	0	0	0	0	0	-478	0	0	0	0	0	-478	0	0	0	0	0	0	0	0	0	0	17	0	0	0	0	0	0	17	-461
Distilleries	0	0	0	0	0	0	-1.603	-193	0	0	0	-1.796	0	0	0	0	0	0	0	0	0	0	0	781	512	0	0	0	1.293	-503	
Other Transformations	0	0	0	0	0	0	0	0	0	0	0	0	0	0	104	71	-182	0	0	0	0	0	0	0	0	0	0	0	-7	-7	
Losses in Distrib./Storage	0	-2	-102	0	0	0	0	0	-370	0	0	-474	0	0	0	0	0	0	-17	0	0	-531	0	-8	-5	0	0	0	-561	-1.035	
Final Consumption	0	85	0	0	0	657	0	0	2.895	185	12	3.834	4.372	6.799	3.135	1.036	1.209	476	98	215	898	4.054	133	504	169	45	306	1.516	24.965	28.799	
Final Non-Ener. Consump.	0	0	0	0	0	0	0	0	68	0	0	68	0	0	0	0	1.209	0	0	0	0	0	1	0	65	0	0	1.516	2.791	2.859	
Final Energy Consumption	0	85	0	0	0	657	0	0	2.827	185	12	3.766	4.372	6.799	3.135	1.036	0	476	98	215	898	4.054	132	504	104	45	306	0	22.174	25.940	
Energy Sector	0	0	0	0	0	0	0	0	833	0	0	833	17	657	0	6	0	0	0	33	0	60	0	0	0	45	0	0	818	1.651	
Residential	0	0	0	0	0	148	0	0	0	0	0	148	0	0	0	844	0	56	34	0	0	777	2	0	0	0	0	0	1.713	1.861	
Commercial	0	0	0	0	0	66	0	0	0	0	0	66	52	150	0	66	0	0	15	0	0	406	7	0	0	0	0	0	696	762	
Public	0	0	0	0	0	3	0	0	0	0	0	3	15	0	0	2	0	2	1	0	0	316	0	0	0	0	0	0	336	339	
Agriculture	0	0	0	0	0	13	0	0	0	0	0	13	541	68	0	1	0	2	0	0	0	70	0	0	0	0	0	0	682	695	
Transportation - Total	0	0	0	0	0	0	0	0	0	0	0	0	3.597	411	3.135	0	0	344	0	0	0	50	0	504	104	0	0	0	8.145	8.145	
Highways	0	0	0	0	0	0	0	0	0	0	0	0	3.324	0	3.118	0	0	0	0	0	0	0	0	504	104	0	0	0	7.050	7.050	
Railroads	0	0	0	0	0	0	0	0	0	0	0	0	94	10	0	0	0	0	0	0	0	50	0	0	0	0	0	0	154	154	
Airways	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17	0	0	344	0	0	0	0	0	0	0	0	0	361	361	
Waterways	0	0	0	0	0	0	0	0	0	0	0	0	179	401	0	0	0	0	0	0	0	0	0	0	0	0	0	0	580	580	
Industrial - Total	0	85	0	0	0	427	0	0	1.994	185	12	2.703	150	5.513	0	117	0	72	48	182	898	2.375	123	0	0	0	306	0	9.784	12.487	
Cement	0	66	0	0	0	0	0	0	0	0	0	66	8	538	0	0	0	0	0	0	0	69	1	0	0	0	0	0	616	682	
Pig-Iron and Steel	0	0	0	0	0	1	0	0	0	0	3	4	2	408	0	19	0	13	0	182	898	186	105	0	0	0	0	0	1.813	1.817	
Ferro Alloys	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16	14	0	0	0	0	0	30	30	
Mining and Pelletization	0	0	0	0	0	0	0	0	0	0	0	0	19	326	0	0	0	1	0	0	0	26	0	0	0	0	0	0	372	372	
Non-Ferrous-Other Metal	0	0	0	0	0	0	0	0	0	0	0	0	0	274	0	0	0	5	13	0	0	372	0	0	0	0	290	0	954	954	
Chemical	0	0	0	0	0	1	0	0	14	0	0	15	17	1.011	0	38	0	2	0	0	0	276	2	0	0	0	0	0	1.346	1.361	
Foods and Beverages	0	1	0	0	0	159	0	0	1.980	0	2	2.142	37	674	0	5	0	7	9	0	0	244	0	0	0	0	0	0	0	976	3.118
Textiles	0	0	0	0	0	1	0	0	0	0	0	1	16	358	0	2	0	7	3	0	0	218	1	0	0	0	0	0	605	606	
Paper and Pulp	0	0	0	0	0	19	0	0	0	185	5	209	14	634	0	0	0	4	1	0	0	174	0	0	0	0	0	0	827	1.036	
Ceramics	0	17	0	0	0	169	0	0	0	0	0	186	14	291	0	16	0	3	4	0	0	50	0	0	0	0	0	0	378	564	
Others	0	1	0	0	0	77	0	0	0	0	2	80	23	999	0	37	0	30	18	0	0	744	0	0	0	0	16	0	1.867	1.947	
Unidentified Consumption	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Adjustments	1	1	0	0	-1	-1	0	0	-1	0	0	-1	1	-2	-1	1	-1	1	0	0	0	1	0	0	1	0	1	0	2	1	

São Paulo Energy Balance - Consolidated 1981 - 10³ tOE

Energy Flow	Petro- leum	Steam Coal	Metal- lurgical Coal	Natural Gas	Hydraulic Energy	Firewood	Sugar Cane juice	Molasses	Sugar Cane Bagasse	Black Liquor	Others Primary Sources	Primary Energy	Diesel Oil	Fuel Oil	Gasoline	LPG	Naphtha	Kerosene	Gaswor- sks gas	Gas Coke	Coal Coke	Electric- ity	Charcoal	Anhy- drous Ethanol	Hydrated Ethanol	Refinery Gas	Others	Non Energy Products	Second- ary Energy	Total	
Production	0	0	0	0	4.273	980	1.675	193	3.379	212	124	10.836	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10.836	
Imports	22.908	0	931	0	0	0	0	0	0	0	0	23.839	68	20	34	63	0	0	0	0	50	0	0	0	0	0	8	10	253	24.092	
State Imports	592	220	262	0	0	192	0	0	0	0	0	1.266	0	0	0	0	0	0	0	0	0	190	131	0	0	0	169	406	896	2.162	
Changes in stocks	0	-100	-10	0	0	0	0	0	0	0	0	-110	-123	31	128	-13	-8	-29	0	0	-50	0	0	85	-225	0	-221	256	-169	-279	
Total Supply	23.500	120	1.183	0	4.273	1.172	1.675	193	3.379	212	124	35.831	-55	51	162	50	-8	-29	0	0	0	190	131	85	-225	0	-44	672	980	36.811	
Exports	0	0	0	0	0	0	0	0	0	0	0	0	-173	-74	-471	-15	0	0	0	0	0	0	0	-16	-43	0	0	-25	-817	-817	
State Exports	0	0	0	0	0	0	0	0	0	0	0	0	-2.905	-991	-756	-300	-55	-261	0	0	0	-70	0	-280	-318	0	0	0	-5.936	-5.936	
Non-Utilized Energy	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Re-injection	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Gross Domestic Supply	23.500	120	1.183	0	4.273	1.172	1.675	193	3.379	212	124	35.831	-3.133	-1.014	-1.065	-265	-63	-290	0	0	0	120	131	-211	-586	0	-44	647	-5.773	30.058	
Total Transformation	-23.500	0	-1.091	0	-4.273	-461	-1.675	-193	-39	-31	-105	-31.368	7.367	6.646	4.136	1.345	1.457	758	110	194	834	4.400	19	441	948	52	256	659	29.622	-1.746	
Petroleum Refinereries	-23.500	0	0	0	0	0	0	0	0	0	0	-23.500	7.370	6.729	4.036	1.257	1.773	758	0	0	0	0	0	0	0	52	256	659	22.890	-610	
Natural Gas Plants	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Gasification Plants	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-119	0	110	0	0	0	0	0	0	0	0	0	-9	-9	
Coking Plants	0	0	-1.091	0	0	0	0	0	0	0	0	-1.091	0	0	0	0	0	0	0	194	834	0	0	0	0	0	0	0	1.028	-63	
Public Util. Power Plants	0	0	0	0	-4.158	0	0	0	0	0	0	-4.158	0	-12	0	0	0	0	0	0	0	4.160	0	0	0	0	0	0	0	4.148	-10
Self-Prod. Power Plants	0	0	0	0	-115	-5	0	0	-39	-31	-105	-295	-3	-71	0	0	0	0	0	0	0	240	0	0	0	0	0	0	0	166	-129
Charcoal Plants	0	0	0	0	0	-456	0	0	0	0	0	-456	0	0	0	0	0	0	0	0	0	0	19	0	0	0	0	0	0	19	-437
Distilleries	0	0	0	0	0	0	-1.675	-193	0	0	0	-1.868	0	0	0	0	0	0	0	0	0	0	0	441	948	0	0	0	1.389	-479	
Other Transformations	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100	88	-197	0	0	0	0	0	0	0	0	0	0	0	-9	-9	
Losses in Distrib./Storage	0	-3	-93	0	0	0	0	0	-378	0	0	-474	0	0	0	0	0	0	-9	0	0	-442	0	-5	-10	0	0	0	-466	-940	
Final Consumption	0	117	0	0	0	711	0	0	2.962	181	19	3.990	4.233	5.632	3.071	1.080	1.394	469	101	195	833	4.080	149	226	352	52	212	1.305	23.384	27.374	
Final Non-Ener. Consump.	0	0	0	0	0	0	0	0	69	0	0	69	0	0	0	0	1.394	0	0	0	0	0	1	0	56	0	0	1.305	2.756	2.825	
Final Energy Consumption	0	117	0	0	0	711	0	0	2.893	181	19	3.921	4.233	5.632	3.071	1.080	0	469	101	195	833	4.080	148	226	296	52	212	0	20.628	24.549	
Energy Sector	0	0	0	0	0	0	0	0	861	0	0	861	4	586	0	12	0	0	0	30	0	68	0	0	0	52	0	0	752	1.613	
Residential	0	0	0	0	0	149	0	0	0	0	0	149	0	0	0	859	0	50	36	0	0	825	2	0	0	0	0	0	1.772	1.921	
Commercial	0	0	0	0	0	65	0	0	0	0	0	65	58	116	0	114	0	0	16	0	0	423	7	0	0	0	0	0	734	799	
Public	0	0	0	0	0	3	0	0	0	0	0	3	16	0	0	2	0	3	1	0	0	335	0	0	0	0	0	0	357	360	
Agriculture	0	0	0	0	0	14	0	0	0	0	0	14	567	60	0	1	0	2	0	0	0	80	0	0	0	0	0	0	710	724	
Transportation - Total	0	0	0	0	0	0	0	0	0	0	0	0	3.471	611	3.071	0	0	352	0	0	0	52	0	226	296	0	0	0	8.079	8.079	
Highways	0	0	0	0	0	0	0	0	0	0	0	0	3.203	0	3.055	0	0	0	0	0	0	0	0	226	296	0	0	0	6.780	6.780	
Railroads	0	0	0	0	0	0	0	0	0	0	0	0	95	3	0	0	0	0	0	0	0	52	0	0	0	0	0	0	150	150	
Airways	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16	0	0	352	0	0	0	0	0	0	0	0	0	0	368	368	
Waterways	0	0	0	0	0	0	0	0	0	0	0	0	173	608	0	0	0	0	0	0	0	0	0	0	0	0	0	0	781	781	
Industrial - Total	0	117	0	0	0	480	0	0	2.032	181	19	2.829	117	4.259	0	92	0	62	48	165	833	2.297	139	0	0	0	212	0	8.224	11.053	
Cement	0	102	0	0	0	0	0	0	0	0	2	104	6	490	0	0	0	0	0	0	0	66	1	0	0	0	0	0	563	667	
Pig-Iron and Steel	0	1	0	0	0	1	0	0	0	0	4	6	3	277	0	15	0	10	0	165	833	193	119	0	0	0	0	0	1.615	1.621	
Ferro Alloys	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18	16	0	0	0	0	0	34	34	
Mining and Pelletization	0	0	0	0	0	0	0	0	0	0	0	0	15	228	0	0	0	1	0	0	0	29	0	0	0	0	0	0	273	273	
Non-Ferrous-Other Metal	0	0	0	0	0	0	0	0	0	0	0	0	0	113	0	0	0	5	13	0	0	346	0	0	0	0	199	0	676	676	
Chemical	0	1	0	0	0	2	0	0	14	0	0	17	13	908	0	29	0	1	0	0	0	260	2	0	0	0	0	0	1.213	1.230	
Foods and Beverages	0	5	0	0	0	161	0	0	2.018	0	4	2.188	29	634	0	4	0	6	10	0	0	256	0	0	0	0	0	0	939	3.127	
Textiles	0	2	0	0	0	4	0	0	0	0	0	6	12	307	0	2	0	5	2	0	0	205	1	0	0	0	0	0	534	540	
Paper and Pulp	0	0	0	0	0	38	0	0	0	181	6	225	10	478	0	0	0	0	1	0	0	173	0	0	0	0	0	0	662	887	
Ceramics	0	2	0	0	0	194	0	0	0	0	1	197	11	237	0	13	0	3	4	0	0	52	0	0	0	0	0	0	320	517	
Others	0	4	0	0	0	80	0	0	0	0	2	86	18	587	0	29	0	31	18	0	0	699	0	0	0	0	13	0	1.395	1.481	
Unidentified Consumption	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Adjustments	0	0	-1	0	0	0	0	0	0	0	0	-1	1	0	0	0	0	-1	0	-1	1	-2	1	-1	0	0	0	1	-1	-2	

São Paulo Energy Balance - Consolidated 1982 - 10³ tOE

Energy Flow	Petro- leum	Steam Coal	Metal- lurgical Coal	Natural Gas	Hydraulic Energy	Firewood	Sugar Cane juice	Molasses	Sugar Cane Bagasse	Black Liquor	Others Primary Sources	Primary Energy	Diesel Oil	Fuel Oil	Gasoline	LPG	Naphtha	Kerosene	Gaswor- ks gas	Gas Coke	Coal Coke	Electric- ity	Charcoal	Anhy- drous Ethanol	Hydrated Ethanol	Refinery Gas	Others	Non Energy Products	Second- ary Energy	Total
Production	0	0	0	0	4.706	1.102	2.492	207	4.457	221	136	13.321	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13.321
Imports	18.117	0	910	0	0	0	0	0	0	0	0	19.027	51	996	44	331	0	0	0	0	48	0	0	0	0	0	85	40	1.595	20.622
State Imports	5.540	150	218	0	0	190	0	0	0	0	0	6.098	0	0	0	0	0	0	0	0	88	158	0	0	0	93	174	513	6.611	
Changes in stocks	0	48	-24	0	0	0	0	0	0	0	0	24	102	-583	-57	-7	102	-21	0	0	-90	0	0	-367	110	0	-150	231	-730	-706
Total Supply	23.657	198	1.104	0	4.706	1.292	2.492	207	4.457	221	136	38.470	153	413	-13	324	102	-21	0	0	-42	88	158	-367	110	0	28	445	1.378	39.848
Exports	0	0	0	0	0	0	0	0	0	0	0	0	-165	-285	-309	0	0	-5	0	0	0	0	0	-18	-16	0	-3	-1	-802	-802
State Exports	0	0	0	0	0	0	0	0	0	0	0	0	-3.821	-1.803	-1.124	-493	-38	-355	0	0	0	-32	0	-451	-327	0	0	0	-8.444	-8.444
Non-Utilized Energy	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Re-injection	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gross Domestic Supply	23.657	198	1.104	0	4.706	1.292	2.492	207	4.457	221	136	38.470	-3.833	-1.675	-1.446	-169	64	-381	0	0	-42	56	158	-836	-233	0	25	444	-7.868	30.602
Total Transformation	-23.658	0	-1.101	0	-4.706	-432	-2.492	-207	-51	-32	-105	-32.784	8.049	6.500	4.359	1.345	1.522	803	124	206	782	4.844	23	1.253	639	94	203	693	31.439	-1.345
Petroleum Refinereries	-23.658	0	0	0	0	0	0	0	0	0	0	-23.658	8.050	6.591	4.256	1.266	1.848	803	0	0	0	0	0	0	0	94	203	693	23.804	146
Natural Gas Plants	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gasification Plants	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-131	0	124	0	0	0	0	0	0	0	0	0	-7	-7
Coking Plants	0	0	-1.101	0	0	0	0	0	0	0	0	-1.101	0	0	0	0	0	0	0	206	782	0	0	0	0	0	0	0	988	-113
Public Util. Power Plants	0	0	0	0	-4.592	0	0	0	0	0	0	-4.592	0	-4	0	0	0	0	0	0	0	4.592	0	0	0	0	0	0	4.588	-4
Self-Prod. Power Plants	0	0	0	0	-114	-9	0	0	-51	-32	-105	-311	-3	-87	0	0	0	0	0	0	0	252	0	0	0	0	0	0	162	-149
Charcoal Plants	0	0	0	0	0	-423	0	0	0	0	0	-423	0	0	0	0	0	0	0	0	0	0	23	0	0	0	0	0	23	-400
Distilleries	0	0	0	0	0	0	-2.492	-207	0	0	0	-2.699	0	0	0	0	0	0	0	0	0	0	0	1.253	639	0	0	0	1.892	-807
Other Transformations	0	0	0	0	0	0	0	0	0	0	0	0	2	0	103	79	-195	0	0	0	0	0	0	0	0	0	0	0	-11	-11
Losses in Distrib./Storage	0	-6	-3	0	0	0	0	0	-499	0	0	-508	0	0	0	0	0	0	-13	-3	0	-654	0	-13	-6	0	0	0	-689	-1.197
Final Consumption	0	192	0	0	0	862	0	0	3.907	189	30	5.180	4.215	4.825	2.913	1.175	1.586	422	110	203	739	4.245	183	404	399	93	228	1.137	22.877	28.057
Final Non-Ener. Consump.	0	0	0	0	0	0	0	0	90	0	0	90	0	0	0	0	1.586	0	0	0	0	0	2	0	56	14	0	1.137	2.795	2.885
Final Energy Consumption	0	192	0	0	0	862	0	0	3.817	189	30	5.090	4.215	4.825	2.913	1.175	0	422	110	203	739	4.245	181	404	343	79	228	0	20.082	25.172
Energy Sector	0	0	0	0	0	0	0	0	1.587	0	0	1.587	3	580	0	7	0	0	0	37	0	76	0	0	0	57	0	0	760	2.347
Residential	0	0	0	0	0	160	0	0	0	0	0	160	0	0	0	871	0	52	38	0	0	876	2	0	0	0	0	0	1.839	1.999
Commercial	0	0	0	0	0	66	0	0	0	0	0	66	70	147	0	173	0	0	19	0	0	446	8	0	0	0	0	0	863	929
Public	0	0	0	0	0	3	0	0	0	0	0	3	31	8	0	4	0	4	1	0	0	352	0	0	0	0	0	0	400	403
Agriculture	0	0	0	0	0	14	0	0	0	0	0	14	637	44	0	1	0	1	0	0	0	84	0	0	0	0	0	0	767	781
Transportation - Total	0	0	0	0	0	0	0	0	0	0	0	0	3.397	557	2.913	0	0	310	0	0	0	56	0	404	343	0	0	0	7.980	7.980
Highways	0	0	0	0	0	0	0	0	0	0	0	0	3.159	0	2.896	0	0	0	0	0	0	1	0	404	343	0	0	0	6.803	6.803
Railroads	0	0	0	0	0	0	0	0	0	0	0	0	96	3	0	0	0	0	0	0	0	55	0	0	0	0	0	0	154	154
Airways	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17	0	0	310	0	0	0	0	0	0	0	0	0	0	327	327
Waterways	0	0	0	0	0	0	0	0	0	0	0	0	142	554	0	0	0	0	0	0	0	0	0	0	0	0	0	0	696	696
Industrial - Total	0	192	0	0	0	619	0	0	2.230	189	30	3.260	77	3.489	0	119	0	55	52	166	739	2.355	171	0	0	22	228	0	7.473	10.733
Cement	0	183	0	0	0	1	0	0	0	0	7	191	6	346	0	0	0	0	0	0	0	60	6	0	0	0	0	0	418	609
Pig-Iron and Steel	0	0	0	0	0	1	0	0	0	0	5	6	3	182	0	16	0	13	0	166	739	177	139	0	0	0	0	0	1.435	1.441
Ferro Alloys	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	22	15	0	0	0	0	0	37	37	
Mining and Pelletization	0	0	0	0	0	0	0	0	0	0	0	0	11	139	0	0	0	1	0	0	0	30	0	0	0	0	0	0	181	181
Non-Ferrous-Other Metal	0	0	0	0	0	0	0	0	0	0	0	0	0	70	0	0	0	5	14	0	0	360	0	0	0	0	217	0	666	666
Chemical	0	0	0	0	0	7	0	0	14	0	0	21	10	840	0	38	0	2	0	0	0	276	2	0	0	22	0	0	1.190	1.211
Foods and Beverages	0	5	0	0	0	220	0	0	2.216	0	7	2.448	21	566	0	4	0	3	10	0	0	270	0	0	0	0	0	0	874	3.322
Textiles	0	1	0	0	0	13	0	0	0	0	0	14	3	310	0	2	0	4	2	0	0	215	8	0	0	0	0	0	544	558
Paper and Pulp	0	0	0	0	0	76	0	0	0	189	7	272	5	421	0	0	0	3	1	0	0	187	0	0	0	0	0	0	617	889
Ceramics	0	3	0	0	0	219	0	0	0	0	1	223	3	180	0	15	0	2	5	0	0	58	1	0	0	0	0	0	264	487
Others	0	0	0	0	0	82	0	0	0	0	3	85	15	435	0	44	0	22	20	0	0	700	0	0	0	0	11	0	1.247	1.332
Unidentified Consumption	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Adjustments	-1	0	0	0	0	-2	0	0	0	0	1	-2	1	0	0	1	0	0	1	0	1	1	-2	0	1	1	0	0	5	3

São Paulo Energy Balance - Consolidated 1983 - 10³ toE

Energy Flow	Petro- leum	Steam Coal	Metal- lurgical Coal	Natural Gas	Hydraulic Energy	Firewood	Sugar Cane juice	Molasses	Sugar Cane Bagasse	Black Liquor	Others Primary Sources	Primary Energy	Diesel Oil	Fuel Oil	Gasoline	LPG	Naphtha	Kerosene	Gaswor- ks gas	Gas Coke	Coal Coke	Electric- ity	Charcoal	Anhy- drous Ethanol	Hydrated Ethanol	Refinery Gas	Others	Non Energy Products	Second- ary Energy	Total
Production	0	0	0	0	4.676	1.279	3.492	207	5.326	230	64	15.274	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15.274
Imports	15.700	0	1.112	0	0	0	0	0	0	0	0	16.812	99	48	44	65	3	0	0	0	108	0	0	0	0	0	191	8	566	17.378
State Imports	5.769	289	235	0	0	188	0	0	0	0	0	6.481	0	0	0	0	0	0	0	0	441	159	0	0	0	283	310	1.193	7.674	
Changes in stocks	0	-16	-19	0	0	0	0	0	0	0	0	-35	-127	407	-10	94	93	-23	0	0	55	0	0	108	-501	0	-451	40	-315	-350
Total Supply	21.469	273	1.328	0	4.676	1.467	3.492	207	5.326	230	64	38.532	-28	455	34	159	96	-23	0	0	163	441	159	108	-501	0	23	358	1.444	39.976
Exports	0	0	0	0	0	0	0	0	0	0	0	0	-346	-353	-159	0	0	0	0	0	0	0	0	-161	-67	0	-19	-1	-1.106	-1.106
State Exports	0	0	0	0	0	0	0	0	0	0	0	0	-2.478	-1.162	-872	-379	-239	-342	0	0	0	-196	0	-358	-556	0	0	0	-6.582	-6.582
Non-Utilized Energy	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Re-injection	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gross Domestic Supply	21.469	273	1.328	0	4.676	1.467	3.492	207	5.326	230	64	38.532	-2.852	-1.060	-997	-220	-143	-365	0	0	163	245	159	-411	-1.124	0	4	357	-6.244	32.288
Total Transformation	-21.469	0	-1.314	0	-4.676	-409	-3.492	-207	-63	-34	-30	-31.694	7.115	5.356	3.462	1.408	1.556	755	127	261	930	4.814	23	848	1.792	79	249	563	29.338	-2.356
Petroleum Refinereries	-21.469	0	0	0	0	0	0	0	0	0	0	-21.469	7.114	5.433	3.358	1.320	1.898	755	0	0	0	0	0	0	0	79	249	563	20.769	-700
Natural Gas Plants	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gasification Plants	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-134	0	127	0	0	0	0	0	0	0	0	0	-7	-7
Coking Plants	0	0	-1.314	0	0	0	0	0	0	0	0	-1.314	0	0	0	0	0	0	0	261	930	0	0	0	0	0	0	0	1.191	-123
Public Util. Power Plants	0	0	0	0	-4.540	0	0	0	0	0	0	-4.540	0	-4	0	0	0	0	0	0	0	4.541	0	0	0	0	0	0	4.537	-3
Self-Prod. Power Plants	0	0	0	0	-136	-22	0	0	-63	-34	-30	-285	-2	-73	0	0	0	0	0	0	0	273	0	0	0	0	0	0	198	-87
Charcoal Plants	0	0	0	0	0	-387	0	0	0	0	0	-387	0	0	0	0	0	0	0	0	0	0	23	0	0	0	0	0	23	-364
Distilleries	0	0	0	0	0	0	-3.492	-207	0	0	0	-3.699	0	0	0	0	0	0	0	0	0	0	0	848	1.792	0	0	0	2.640	-1.059
Other Transformations	0	0	0	0	0	0	0	0	0	0	0	0	3	0	104	88	-208	0	0	0	0	0	0	0	0	0	0	0	-13	-13
Losses in Distrib./Storage	0	-8	-13	0	0	0	0	0	-559	0	0	-580	0	0	0	0	0	0	-8	-15	0	-527	0	-9	-18	0	0	0	-577	-1.157
Final Consumption	0	266	0	0	0	1.056	0	0	4.705	197	34	6.258	4.265	4.296	2.465	1.188	1.413	389	120	246	1.092	4.530	184	428	650	80	253	921	22.520	28.778
Final Non-Ener. Consump.	0	0	0	0	0	0	0	0	111	0	0	111	0	0	0	0	1.413	0	0	0	0	0	2	0	84	12	0	921	2.432	2.543
Final Energy Consumption	0	266	0	0	0	1.056	0	0	4.594	197	34	6.147	4.265	4.296	2.465	1.188	0	389	120	246	1.092	4.530	182	428	566	68	253	0	20.088	26.235
Energy Sector	0	0	0	0	0	0	0	0	2.343	0	0	2.343	20	478	0	5	0	0	0	38	0	110	0	0	0	34	0	0	685	3.028
Residential	0	0	0	0	0	161	0	0	0	0	0	161	0	0	0	857	0	46	41	0	0	948	2	0	0	0	0	0	1.894	2.055
Commercial	0	0	0	0	0	65	0	0	0	0	0	65	68	117	0	201	0	0	21	0	0	479	8	0	0	0	0	0	894	959
Public	0	0	0	0	0	2	0	0	0	0	0	2	27	17	0	4	0	2	1	0	0	376	0	0	0	0	0	0	427	429
Agriculture	0	0	0	0	0	13	0	0	0	0	0	13	606	31	0	1	0	1	0	0	0	91	0	0	0	0	0	0	730	743
Transportation - Total	0	0	0	0	0	0	0	0	0	0	0	0	3.480	499	2.465	0	0	288	0	0	0	54	0	428	566	0	0	0	7.780	7.780
Highways	0	0	0	0	0	0	0	0	0	0	0	0	3.209	0	2.452	0	0	0	0	0	0	0	0	428	566	0	0	0	6.655	6.655
Railroads	0	0	0	0	0	0	0	0	0	0	0	0	97	3	0	0	0	0	0	0	0	54	0	0	0	0	0	0	154	154
Airways	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13	0	0	288	0	0	0	0	0	0	0	0	0	0	301	301
Waterways	0	0	0	0	0	0	0	0	0	0	0	0	174	496	0	0	0	0	0	0	0	0	0	0	0	0	0	0	670	670
Industrial - Total	0	266	0	0	0	815	0	0	2.251	197	34	3.563	64	3.154	0	120	0	52	57	208	1.092	2.472	172	0	0	34	253	0	7.678	11.241
Cement	0	250	0	0	0	0	0	0	0	0	10	260	5	366	0	0	0	0	0	0	0	49	2	0	0	0	0	0	422	682
Pig-Iron and Steel	0	0	0	0	0	1	0	0	0	0	3	4	2	162	0	19	0	13	0	208	1.092	193	138	0	0	0	0	0	1.827	1.831
Ferro Alloys	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25	20	0	0	0	0	0	45	45	
Mining and Pelletization	0	0	0	0	0	0	0	0	0	0	0	0	9	59	0	0	0	1	0	0	0	29	0	0	0	0	0	0	98	98
Non-Ferrous-Other Metal	0	0	0	0	0	0	0	0	0	0	0	0	0	72	0	0	0	5	16	0	0	377	0	0	0	0	245	0	715	715
Chemical	0	0	0	0	0	16	0	0	14	0	0	30	8	756	0	43	0	1	0	0	0	309	2	0	0	34	0	0	1.153	1.183
Foods and Beverages	0	4	0	0	0	230	0	0	2.237	0	6	2.477	21	514	0	5	0	3	12	0	0	288	0	0	0	0	0	0	843	3.320
Textiles	0	2	0	0	0	24	0	0	0	0	0	26	2	294	0	3	0	3	2	0	0	189	9	0	0	0	0	0	502	528
Paper and Pulp	0	6	0	0	0	187	0	0	0	197	9	399	4	285	0	0	0	2	1	0	0	195	0	0	0	0	0	0	487	886
Ceramics	0	4	0	0	0	273	0	0	0	0	3	280	1	70	0	15	0	2	5	0	0	73	1	0	0	0	0	0	167	447
Others	0	0	0	0	0	84	0	0	0	0	3	87	12	576	0	35	0	22	21	0	0	745	0	0	0	0	8	0	1.419	1.506
Unidentified Consumption	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Adjustments	0	-1	1	0	0	2	0	0	-1	-1	0	0	-2	0	0	0	0	1	-1	0	1	2	-2	0	0	-1	0	-1	-3	-3

São Paulo Energy Balance - Consolidated 1984 - 10³ tOE

Energy Flow	Petro- leum	Steam Coal	Metal- lurgical Coal	Natural Gas	Hydraulic Energy	Firewood	Sugar Cane juice	Molasses	Sugar Cane Bagasse	Black Liquor	Others Primary Sources	Primary Energy	Diesel Oil	Fuel Oil	Gasoline	LPG	Naphtha	Kerosene	Gaswor- ks gas	Gas Coke	Coal Coke	Electric- ity	Charcoal	Anhy- drous Ethanol	Hydrated Ethanol	Refinery Gas	Others	Non Energy Products	Second- ary Energy	Total
Production	0	0	0	0	4.749	1.395	3.443	337	5.243	257	122	15.546	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15.546
Imports	12.584	0	1.331	0	0	0	0	0	0	0	0	13.915	56	33	37	89	3	0	0	0	10	0	0	0	0	0	84	1	313	14.228
State Imports	10.939	278	211	0	0	186	0	0	0	0	0	11.614	0	0	0	0	0	0	0	0	1.091	207	0	0	0	57	313	1.668	13.282	
Changes in stocks	0	-25	-89	0	0	0	0	0	0	0	0	-114	30	-62	-14	2	184	2	0	0	36	0	0	185	-279	0	-62	36	58	-56
Total Supply	23.523	253	1.453	0	4.749	1.581	3.443	337	5.243	257	122	40.961	86	-29	23	91	187	2	0	0	46	1.091	207	185	-279	0	79	350	2.039	43.000
Exports	0	0	0	0	0	0	0	0	0	0	0	0	-406	-535	-761	-18	0	-59	0	0	0	0	0	-250	-121	0	0	-1	-2.151	-2.151
State Exports	0	0	0	0	0	0	0	0	0	0	0	0	-3.695	-1.153	-954	-332	-382	-456	0	0	0	-274	0	-299	-778	0	0	0	-8.323	-8.323
Non-Utilized Energy	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Re-injection	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gross Domestic Supply	23.523	253	1.453	0	4.749	1.581	3.443	337	5.243	257	122	40.961	-4.015	-1.717	-1.692	-259	-195	-513	0	0	46	817	207	-364	-1.178	0	79	349	-8.435	32.526
Total Transformation	-23.523	0	-1.436	0	-4.749	-406	-3.443	-337	-63	-38	-86	-34.081	8.226	5.721	3.870	1.424	1.477	856	132	269	1.014	4.822	30	787	2.281	190	236	570	31.905	-2.176
Petroleum Refinereries	-23.523	0	0	0	0	0	0	0	0	0	0	-23.523	8.121	5.775	3.771	1.348	1.895	856	0	0	0	0	0	0	0	190	236	570	22.762	-761
Natural Gas Plants	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gasification Plants	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-142	0	132	0	0	0	0	0	0	0	0	0	-10	-10
Coking Plants	0	0	-1.436	0	0	0	0	0	0	0	0	-1.436	0	0	0	0	0	0	0	269	1.014	0	0	0	0	0	0	0	1.283	-153
Public Util. Power Plants	0	0	0	0	-4.600	0	0	0	0	0	0	-4.600	0	-4	0	0	0	0	0	0	0	4.600	0	0	0	0	0	0	4.596	-4
Self-Prod. Power Plants	0	0	0	0	-149	-31	0	0	-63	-38	-86	-367	-2	-50	0	0	0	0	0	0	0	222	0	0	0	0	0	0	170	-197
Charcoal Plants	0	0	0	0	0	-375	0	0	0	0	0	-375	0	0	0	0	0	0	0	0	0	0	30	0	0	0	0	0	30	-345
Distilleries	0	0	0	0	0	0	-3.443	-337	0	0	0	-3.780	0	0	0	0	0	0	0	0	0	0	0	787	2.281	0	0	0	3.068	-712
Other Transformations	0	0	0	0	0	0	0	0	0	0	0	0	107	0	99	76	-276	0	0	0	0	0	0	0	0	0	0	0	6	6
Losses in Distrib./Storage	0	-8	-16	0	0	0	0	0	-559	0	0	-583	0	0	0	0	0	0	-8	-5	0	-580	0	-8	-23	0	0	0	-624	-1.207
Final Consumption	0	245	0	0	0	1.174	0	0	4.621	220	36	6.296	4.211	4.005	2.178	1.165	1.282	343	123	264	1.060	5.062	236	416	1.080	190	315	920	22.850	29.146
Final Non-Ener. Consump.	0	0	0	0	0	0	0	0	111	0	0	111	0	0	0	0	1.282	0	0	0	0	0	2	0	227	28	0	920	2.459	2.570
Final Energy Consumption	0	245	0	0	0	1.174	0	0	4.510	220	36	6.185	4.211	4.005	2.178	1.165	0	343	123	264	1.060	5.062	234	416	853	162	315	0	20.391	26.576
Energy Sector	0	0	0	0	0	0	0	0	2.380	0	0	2.380	3	667	0	1	0	0	0	44	0	122	0	0	0	118	0	0	955	3.335
Residential	0	0	0	0	0	161	0	0	0	0	0	161	0	0	0	854	0	42	41	0	0	971	2	0	0	0	0	0	1.910	2.071
Commercial	0	0	0	0	0	66	0	0	0	0	0	66	69	129	0	184	0	0	21	0	0	506	8	0	0	0	0	0	917	983
Public	0	0	0	0	0	1	0	0	0	0	0	1	20	11	0	4	0	1	1	0	0	391	0	0	0	0	0	0	428	429
Agriculture	0	0	0	0	0	14	0	0	0	0	0	14	563	29	0	1	0	1	0	0	0	107	0	0	0	0	0	0	701	715
Transportation - Total	0	0	0	0	0	0	0	0	0	0	0	0	3.505	544	2.178	0	0	256	0	0	0	57	0	416	853	0	0	0	7.809	7.809
Highways	0	0	0	0	0	0	0	0	0	0	0	0	3.230	0	2.166	0	0	0	0	0	0	1	0	416	853	0	0	0	6.666	6.666
Railroads	0	0	0	0	0	0	0	0	0	0	0	0	95	1	0	0	0	0	0	0	0	56	0	0	0	0	0	0	152	152
Airways	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	0	0	256	0	0	0	0	0	0	0	0	0	0	268	268
Waterways	0	0	0	0	0	0	0	0	0	0	0	0	180	543	0	0	0	0	0	0	0	0	0	0	0	0	0	0	723	723
Industrial - Total	0	245	0	0	0	932	0	0	2.130	220	36	3.563	51	2.625	0	121	0	43	60	220	1.060	2.908	224	0	0	44	315	0	7.671	11.234
Cement	0	222	0	0	0	1	0	0	0	0	8	231	3	7	0	0	0	0	0	0	0	41	2	0	0	0	0	0	53	284
Pig-Iron and Steel	0	1	0	0	0	1	0	0	0	0	4	6	2	154	0	19	0	7	0	220	1.060	219	184	0	0	0	0	0	1.865	1.871
Ferro Alloys	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	31	25	0	0	0	0	0	0	56	56
Mining and Pelletization	0	0	0	0	0	0	0	0	0	0	0	0	9	27	0	0	0	1	0	0	0	32	0	0	0	0	0	0	69	69
Non-Ferrous-Other Metal	0	0	0	0	0	0	0	0	0	0	0	0	0	36	0	0	0	5	17	0	0	480	0	0	0	0	304	0	842	842
Chemical	0	0	0	0	0	20	0	0	14	0	0	34	6	733	0	44	0	1	0	0	0	354	3	0	0	44	0	0	1.185	1.219
Foods and Beverages	0	7	0	0	0	241	0	0	2.116	0	6	2.370	18	466	0	5	0	2	11	0	0	355	0	0	0	0	0	0	857	3.227
Textiles	0	4	0	0	0	43	0	0	0	0	0	47	2	188	0	3	0	2	2	0	0	265	9	0	0	0	0	0	471	518
Paper and Pulp	0	9	0	0	0	257	0	0	0	220	11	497	0	205	0	0	0	3	1	0	0	229	0	0	0	0	0	0	438	935
Ceramics	0	2	0	0	0	282	0	0	0	0	4	288	1	61	0	12	0	2	4	0	0	76	1	0	0	0	0	0	157	445
Others	0	0	0	0	0	87	0	0	0	0	3	90	10	748	0	38	0	20	25	0	0	826	0	0	0	0	11	0	1.678	1.768
Unidentified Consumption	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Adjustments	0	0	1	0	0	1	0	0	0	-1	0	1	0	-1	0	0	0	0	1	0	0	-3	1	-1	0	0	0	-1	-4	-3

São Paulo Energy Balance - Consolidated 1985 - 10³ tOE

Energy Flow	Petro- leum	Steam Coal	Metal- lurgical Coal	Natural Gas	Hydraulic Energy	Firewood	Sugar Cane juice	Molasses	Sugar Cane Bagasse	Black Liquor	Others Primary Sources	Primary Energy	Diesel Oil	Fuel Oil	Gasoline	LPG	Naphtha	Kerosene	Gaswor- ks gas	Gas Coke	Coal Coke	Electric- ity	Charcoal	Anhy- drous Ethanol	Hydrated Ethanol	Refinery Gas	Others	Non Energy Products	Second- ary Energy	Total	
Production	0	0	0	0	5.172	1.406	4.142	267	5.452	280	139	16.858	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16.858	
Imports	9.182	0	1.043	0	0	0	0	0	0	0	0	10.225	39	28	0	175	3	0	0	0	0	0	0	0	0	0	0	73	11	329	10.554
State Imports	14.581	227	272	0	0	184	0	0	0	0	0	15.264	0	0	0	0	0	0	0	0	0	1.345	242	0	0	0	4	286	1.877	17.141	
Changes in stocks	0	23	130	0	0	0	0	0	0	0	0	153	184	-145	69	-71	169	-77	0	0	-9	0	0	-357	-117	0	41	74	-239	-86	
Total Supply	23.763	250	1.445	0	5.172	1.590	4.142	267	5.452	280	139	42.500	223	-117	69	104	172	-77	0	0	-9	1.345	242	-357	-117	0	118	371	1.967	44.467	
Exports	0	0	0	0	0	0	0	0	0	0	0	0	-420	-445	-1.200	-46	0	-14	0	0	0	0	0	-124	-27	0	0	-22	-2.298	-2.298	
State Exports	0	0	0	0	0	0	0	0	0	0	0	0	-3.449	-1.249	-788	-290	-401	-304	0	0	0	-379	0	-363	-992	0	0	0	-8.215	-8.215	
Non-Utilized Energy	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Re-injection	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Gross Domestic Supply	23.763	250	1.445	0	5.172	1.590	4.142	267	5.452	280	139	42.500	-3.646	-1.811	-1.919	-232	-229	-395	0	0	-9	966	242	-844	-1.136	0	118	349	-8.546	33.954	
Total Transformation	-23.763	0	-1.435	0	-5.173	-373	-4.142	-267	-69	-41	-97	-35.360	8.010	5.592	4.045	1.476	1.858	801	139	275	1.018	5.258	35	1.263	2.480	119	266	638	33.273	-2.087	
Petroleum Refinereries	-23.763	0	0	0	0	0	0	0	0	0	0	-23.763	8.011	5.648	3.946	1.417	2.200	801	0	0	0	0	0	0	0	119	266	638	23.046	-717	
Natural Gas Plants	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Gasification Plants	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-176	0	139	0	0	0	0	0	0	0	0	0	-37	-37	
Coking Plants	0	0	-1.435	0	0	0	0	0	0	0	0	-1.435	0	0	0	0	0	0	0	275	1.018	0	0	0	0	0	0	0	0	1.293	-142
Public Util. Power Plants	0	0	0	0	-5.024	0	0	0	0	0	0	-5.024	0	-10	0	0	0	0	0	0	0	5.026	0	0	0	0	0	0	0	5.016	-8
Self-Prod. Power Plants	0	0	0	0	-149	-33	0	0	-69	-41	-97	-389	-2	-46	0	0	0	0	0	0	0	232	0	0	0	0	0	0	0	184	-205
Charcoal Plants	0	0	0	0	0	-340	0	0	0	0	0	-340	0	0	0	0	0	0	0	0	0	0	35	0	0	0	0	0	0	35	-305
Distilleries	0	0	0	0	0	0	-4.142	-267	0	0	0	-4.409	0	0	0	0	0	0	0	0	0	0	0	1.263	2.480	0	0	0	0	3.743	-666
Other Transformations	0	0	0	0	0	0	0	0	0	0	0	0	1	0	99	59	-166	0	0	0	0	0	0	0	0	0	0	0	0	-7	-7
Losses in Distrib./Storage	0	-7	-10	0	0	0	0	0	-555	0	0	-572	0	0	0	0	0	0	-8	-4	0	-772	0	-13	-25	0	0	0	0	-822	-1.394
Final Consumption	0	243	0	0	0	1.219	0	0	4.829	239	41	6.571	4.364	3.779	2.127	1.245	1.629	407	132	270	1.009	5.452	280	406	1.318	119	385	986	23.908	30.479	
Final Non-Ener. Consump.	0	0	0	0	0	0	0	0	118	0	0	118	0	0	0	0	1.629	0	0	0	0	0	3	0	227	18	0	986	2.863	2.981	
Final Energy Consumption	0	243	0	0	0	1.219	0	0	4.711	239	41	6.453	4.364	3.779	2.127	1.245	0	407	132	270	1.009	5.452	277	406	1.091	101	385	0	21.045	27.498	
Energy Sector	0	0	0	0	0	0	0	0	2.937	0	0	2.937	3	667	0	4	0	0	0	47	0	145	0	0	0	64	0	0	0	930	3.867
Residential	0	0	0	0	0	162	0	0	0	0	0	162	0	0	0	962	0	43	43	0	0	1.027	2	0	0	0	0	0	0	2.077	2.239
Commercial	0	0	0	0	0	66	0	0	0	0	0	66	65	48	0	184	0	0	22	0	0	533	9	0	0	0	0	0	0	861	927
Public	0	0	0	0	0	1	0	0	0	0	0	1	21	11	0	5	0	1	2	0	0	403	0	0	0	0	0	0	0	443	444
Agriculture	0	0	0	0	0	14	0	0	0	0	0	14	587	29	0	2	0	1	0	0	0	121	0	0	0	0	0	0	0	740	754
Transportation - Total	0	0	0	0	0	0	0	0	0	0	0	0	3.634	637	2.127	0	0	317	0	0	0	55	0	406	1.091	0	0	0	0	8.267	8.267
Highways	0	0	0	0	0	0	0	0	0	0	0	0	3.304	0	2.118	0	0	0	0	0	0	1	0	406	1.091	0	0	0	0	6.920	6.920
Railroads	0	0	0	0	0	0	0	0	0	0	0	0	99	1	0	0	0	0	0	0	0	54	0	0	0	0	0	0	0	154	154
Airways	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	0	0	0	317	0	0	0	0	0	0	0	0	0	0	326	326
Waterways	0	0	0	0	0	0	0	0	0	0	0	0	231	636	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	867	867
Industrial - Total	0	243	0	0	0	976	0	0	1.774	239	41	3.273	54	2.387	0	88	0	45	65	223	1.009	3.168	266	0	0	37	385	0	7.727	11.000	
Cement	0	230	0	0	0	1	0	0	0	0	7	238	3	4	0	0	0	0	0	0	0	40	6	0	0	0	0	0	0	53	291
Pig-Iron and Steel	0	0	0	0	0	1	0	0	0	0	4	5	2	160	0	19	0	5	0	223	1.009	221	200	0	0	0	0	0	0	1.839	1.844
Ferro Alloys	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	26	32	0	0	0	0	0	0	58	58
Mining and Pelletization	0	0	0	0	0	0	0	0	0	0	0	0	10	18	0	0	0	0	0	0	0	38	0	0	0	0	0	0	0	66	66
Non-Ferrous-Other Metal	0	0	0	0	0	0	0	0	0	0	0	0	0	53	0	0	0	0	16	0	0	536	0	0	0	0	382	0	987	987	
Chemical	0	0	0	0	0	21	0	0	14	0	0	35	6	811	0	43	0	22	0	0	0	402	6	0	0	37	0	0	0	1.327	1.362
Foods and Beverages	0	5	0	0	0	255	0	0	1.760	0	6	2.026	19	396	0	4	0	2	10	0	0	388	0	0	0	0	0	0	0	819	2.845
Textiles	0	0	0	0	0	44	0	0	0	0	0	44	2	135	0	3	0	2	3	0	0	288	21	0	0	0	0	0	0	454	498
Paper and Pulp	0	7	0	0	0	272	0	0	0	239	15	533	1	134	0	0	0	3	1	0	0	251	0	0	0	0	0	0	0	390	923
Ceramics	0	1	0	0	0	293	0	0	0	0	5	299	1	61	0	12	0	0	7	0	0	79	1	0	0	0	0	0	0	161	460
Others	0	0	0	0	0	89	0	0	0	0	4	93	10	615	0	7	0	11	28	0	0	899	0	0	0	0	3	0	1.573	1.666	
Unidentified Consumption	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Adjustments	0	0	0	0	-1	-2	0	0	-1	0	1	-3	0	2	-1	-1	0	-1	-1	1	0	0	-3	0	1	0	-1	1	-3	-6	

São Paulo Energy Balance - Consolidated 1986 - 10³ tOE

Energy Flow	Petro- leum	Steam Coal	Metal- lurgical Coal	Natural Gas	Hydraulic Energy	Firewood	Sugar Cane juice	Molasses	Sugar Cane Bagasse	Black Liquor	Others Primary Sources	Primary Energy	Diesel Oil	Fuel Oil	Gasoline	LPG	Naptha	Kerosene	Gaswor- ks gas	Gas Coke	Coal Coke	Electric- ity	Charcoal	Anhy- drous Ethanol	Hydrated Ethanol	Refinery Gas	Others	Non Energy Products	Second- ary Energy	Total
Production	0	0	0	0	4.761	1.470	3.780	267	5.249	292	224	16.043	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16.043
Imports	11.562	0	1.096	0	0	0	0	0	0	0	0	12.658	46	26	6	171	1	0	0	0	0	0	0	0	0	0	4	4	258	12.916
State Imports	13.267	281	183	0	0	182	0	0	0	0	0	13.913	0	0	0	0	0	0	0	0	0	1.761	257	0	0	0	0	412	2.430	16.343
Changes in stocks	0	7	52	0	0	0	0	0	0	0	0	59	-67	55	-32	-20	-1	-2	0	0	-73	0	0	-201	-43	0	2	-69	-451	-392
Total Supply	24.829	288	1.331	0	4.761	1.652	3.780	267	5.249	292	224	42.673	-21	81	-26	151	0	-2	0	0	-73	1.761	257	-201	-43	0	6	347	2.237	44.910
Exports	0	0	0	0	0	0	0	0	0	0	0	0	-107	-472	-922	-5	0	0	0	0	0	0	0	-21	-36	0	0	-2	-1.565	-1.565
State Exports	0	0	0	0	0	0	0	0	0	0	0	0	-3.818	-1.001	-1.078	-352	-43	-189	0	0	0	-412	0	-569	-746	0	-21	0	-8.229	-8.229
Non-Utilized Energy	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Re-injection	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gross Domestic Supply	24.829	288	1.331	0	4.761	1.652	3.780	267	5.249	292	224	42.673	-3.946	-1.392	-2.026	-206	-43	-191	0	0	-73	1.349	257	-791	-825	0	-15	345	-7.557	35.116
Total Transformation	-24.829	0	-1.317	0	-4.760	-401	-3.780	-267	-70	-43	-121	-35.588	8.652	5.474	4.388	1.492	1.483	685	150	263	934	5.014	36	1.256	2.307	289	302	837	33.562	-2.026
Petroleum Refinereries	-24.829	0	0	0	0	0	0	0	0	0	0	-24.829	8.655	6.029	4.303	1.418	1.818	685	0	0	0	0	0	0	0	289	302	837	24.336	-493
Natural Gas Plants	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gasification Plants	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-164	0	150	0	0	0	0	0	0	0	0	0	-14	-14
Coking Plants	0	0	-1.317	0	0	0	0	0	0	0	0	-1.317	0	0	0	0	0	0	0	263	934	0	0	0	0	0	0	0	1.197	-120
Public Util. Power Plants	0	0	0	0	-4.593	0	0	0	0	0	0	-4.593	0	-482	0	0	0	0	0	0	0	4.752	0	0	0	0	0	0	4.270	-323
Self-Prod. Power Plants	0	0	0	0	-167	-35	0	0	-70	-43	-121	-436	-3	-73	0	0	0	0	0	0	0	262	0	0	0	0	0	0	186	-250
Charcoal Plants	0	0	0	0	0	-366	0	0	0	0	0	-366	0	0	0	0	0	0	0	0	0	0	36	0	0	0	0	0	36	-330
Distilleries	0	0	0	0	0	0	-3.780	-267	0	0	0	-4.047	0	0	0	0	0	0	0	0	0	0	0	1.256	2.307	0	0	0	3.563	-484
Other Transformations	0	0	0	0	0	0	0	0	0	0	0	0	0	0	85	74	-171	0	0	0	0	0	0	0	0	0	0	0	-12	-12
Losses in Distrib./Storage	0	-4	-13	0	0	0	0	0	-489	0	0	-506	0	0	0	0	0	0	-7	-2	0	-611	0	-13	-23	0	0	0	-656	-1.162
Final Consumption	0	283	0	0	0	1.251	0	0	4.690	250	102	6.576	4.708	4.081	2.362	1.285	1.440	493	143	261	861	5.755	294	453	1.460	289	287	1.182	25.354	31.930
Final Non-Ener. Consump.	0	0	0	0	0	0	0	0	111	0	0	111	0	0	0	0	1.440	0	0	0	0	0	3	0	41	43	0	1.182	2.709	2.820
Final Energy Consumption	0	283	0	0	0	1.251	0	0	4.579	250	102	6.465	4.708	4.081	2.362	1.285	0	493	143	261	861	5.755	291	453	1.419	246	287	0	22.645	29.110
Energy Sector	0	0	0	0	0	0	0	0	2.701	0	0	2.701	5	692	0	2	0	0	0	41	0	152	0	0	0	160	0	0	1.052	3.753
Residential	0	0	0	0	0	163	0	0	0	0	0	163	0	0	0	991	0	43	43	0	0	1.106	2	0	0	0	0	0	2.185	2.348
Commercial	0	0	0	0	0	65	0	0	0	0	0	65	69	50	0	192	0	0	23	0	0	567	9	0	0	0	0	0	910	975
Public	0	0	0	0	0	1	0	0	0	0	0	1	31	12	0	6	0	1	2	0	0	410	0	0	0	0	0	0	462	463
Agriculture	0	0	0	0	0	14	0	0	0	0	0	14	668	29	0	2	0	1	0	0	0	127	0	0	0	0	0	0	827	841
Transportation - Total	0	0	0	0	0	0	0	0	0	0	0	0	3.874	655	2.362	0	0	387	0	0	0	58	0	453	1.419	0	0	0	9.208	9.208
Highways	0	0	0	0	0	0	0	0	0	0	0	0	3.525	0	2.350	0	0	0	0	0	0	1	0	453	1.419	0	0	0	7.748	7.748
Railroads	0	0	0	0	0	0	0	0	0	0	0	0	100	1	0	0	0	0	0	0	0	57	0	0	0	0	0	0	158	158
Airways	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	0	0	387	0	0	0	0	0	0	0	0	0	0	399	399
Waterways	0	0	0	0	0	0	0	0	0	0	0	0	249	654	0	0	0	0	0	0	0	0	0	0	0	0	0	0	903	903
Industrial - Total	0	283	0	0	0	1.008	0	0	1.878	250	102	3.521	61	2.643	0	92	0	61	75	220	861	3.335	280	0	0	86	287	0	8.001	11.522
Cement	0	270	0	0	0	1	0	0	0	0	15	286	4	6	0	0	0	0	0	0	0	51	6	0	0	0	0	0	67	353
Pig-Iron and Steel	0	0	0	0	0	1	0	0	0	0	4	5	3	176	0	20	0	5	0	220	861	243	211	0	0	0	0	0	1.739	1.744
Ferro Alloys	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	38	33	0	0	0	0	0	71	71
Mining and Pelletization	0	0	0	0	0	0	0	0	0	0	0	0	10	21	0	0	0	0	0	0	0	41	0	0	0	0	0	0	72	72
Non-Ferrous-Other Metal	0	0	0	0	0	0	0	0	0	0	0	0	0	60	0	0	0	0	19	0	0	567	0	0	0	0	283	0	929	929
Chemical	0	0	0	0	0	22	0	0	14	0	0	36	7	902	0	45	0	32	0	0	0	399	6	0	0	86	0	0	1.477	1.513
Foods and Beverages	0	5	0	0	0	265	0	0	1.864	0	6	2.140	22	448	0	5	0	2	11	0	0	389	0	0	0	0	0	0	877	3.017
Textiles	0	0	0	0	0	46	0	0	0	0	0	46	2	151	0	3	0	2	3	0	0	288	22	0	0	0	0	0	471	517
Paper and Pulp	0	7	0	0	0	274	0	0	0	250	67	598	2	240	0	0	0	2	1	0	0	244	0	0	0	0	0	0	489	1.087
Ceramics	0	1	0	0	0	308	0	0	0	0	5	314	1	68	0	12	0	0	8	0	0	85	2	0	0	0	0	0	176	490
Others	0	0	0	0	0	91	0	0	0	0	5	96	10	571	0	7	0	18	33	0	0	990	0	0	0	0	4	0	1.633	1.729
Unidentified Consumption	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Adjustments	0	1	1	0	1	0	0	0	0	-1	1	3	-2	1	0	1	0	1	0	0	0	-3	-1	-1	-1	0	0	0	-5	-2

São Paulo Energy Balance - Consolidated 1987 - 10³ toE

Energy Flow	Petro- leum	Steam Coal	Metal- lurgical Coal	Natural Gas	Hydraulic Energy	Firewood	Sugar Cane juice	Molasses	Sugar Cane Bagasse	Black Liquor	Others Primary Sources	Primary Energy	Diesel Oil	Fuel Oil	Gasoline	LPG	Naphtha	Kerosene	Gaswor- ks gas	Gas Coke	Coal Coke	Electric- ity	Charcoal	Anhy- drous Ethanol	Hydrated Ethanol	Refinery Gas	Others	Non Energy Products	Second- ary Energy	Total
Production	0	0	0	0	4.953	1.417	4.275	267	5.678	321	207	17.118	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17.118
Imports	10.139	0	1.299	0	0	0	0	0	0	0	0	11.438	55	41	5	279	0	0	0	0	0	0	0	0	0	0	0	5	385	11.823
State Imports	16.544	246	88	0	0	180	0	0	0	0	0	17.058	0	0	0	0	0	0	0	0	0	2.169	283	0	0	0	0	237	2.689	19.747
Changes in stocks	0	16	-59	0	0	0	0	0	0	0	0	-43	-63	150	9	-133	-29	-22	0	0	-66	0	0	-1	104	0	-25	78	2	-41
Total Supply	26.683	262	1.328	0	4.953	1.597	4.275	267	5.678	321	207	45.571	-8	191	14	146	-29	-22	0	0	-66	2.169	283	-1	104	0	-25	320	3.076	48.647
Exports	0	0	0	0	0	0	0	0	0	0	0	0	-182	-365	-1.920	-7	0	-58	0	0	0	0	0	-34	-10	0	0	0	-2.576	-2.576
State Exports	0	0	0	0	0	0	0	0	0	0	0	0	-4.475	-783	-597	-330	-84	-422	0	0	0	-823	0	-320	-1.296	0	-5	0	-9.135	-9.135
Non-Utilized Energy	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Re-injection	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gross Domestic Supply	26.683	262	1.328	0	4.953	1.597	4.275	267	5.678	321	207	45.571	-4.665	-957	-2.503	-191	-113	-502	0	0	-66	1.346	283	-355	-1.202	0	-30	320	-8.635	36.936
Total Transformation	-26.683	0	-1.315	0	-4.952	-363	-4.275	-267	-77	-47	-122	-38.101	9.656	5.396	4.682	1.529	1.595	1.012	157	262	934	5.138	33	762	2.799	356	421	814	35.546	-2.555
Petroleum Refinereries	-26.683	0	0	0	0	0	0	0	0	0	0	-26.683	9.659	5.681	4.606	1.461	1.921	1.012	0	0	0	0	0	0	0	356	421	814	25.931	-752
Natural Gas Plants	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gasification Plants	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-169	0	157	0	0	0	0	0	0	0	0	0	-12	-12
Coking Plants	0	0	-1.315	0	0	0	0	0	0	0	0	-1.315	0	0	0	0	0	0	0	262	934	0	0	0	0	0	0	0	1.196	-119
Public Util. Power Plants	0	0	0	0	-4.795	0	0	0	0	0	0	-4.795	0	-200	0	0	0	0	0	0	0	4.858	0	0	0	0	0	0	4.658	-137
Self-Prod. Power Plants	0	0	0	0	-157	-33	0	0	-77	-47	-122	-436	-3	-85	0	0	0	0	0	0	0	280	0	0	0	0	0	0	192	-244
Charcoal Plants	0	0	0	0	0	-330	0	0	0	0	0	-330	0	0	0	0	0	0	0	0	0	0	33	0	0	0	0	0	33	-297
Distilleries	0	0	0	0	0	0	-4.275	-267	0	0	0	-4.542	0	0	0	0	0	0	0	0	0	0	0	762	2.799	0	0	0	3.561	-981
Other Transformations	0	0	0	0	0	0	0	0	0	0	0	0	0	0	76	68	-157	0	0	0	0	0	0	0	0	0	0	0	-13	-13
Losses in Distrib./Storage	0	-4	-13	0	0	0	0	0	-529	0	0	-546	0	0	0	0	0	0	-3	-2	0	-610	0	-8	-28	0	0	0	-651	-1.197
Final Consumption	0	258	0	0	0	1.233	0	0	5.072	274	84	6.921	4.991	4.439	2.179	1.336	1.482	509	153	260	868	5.873	318	398	1.569	356	390	1.135	26.256	33.177
Final Non-Ener. Consump.	0	0	0	0	0	0	0	0	121	0	0	121	0	0	0	0	1.482	0	0	0	0	0	3	0	47	54	0	1.135	2.721	2.842
Final Energy Consumption	0	258	0	0	0	1.233	0	0	4.951	274	84	6.800	4.991	4.439	2.179	1.336	0	509	153	260	868	5.873	315	398	1.522	302	390	0	23.535	30.335
Energy Sector	0	0	0	0	0	0	0	0	3.041	0	0	3.041	6	735	0	7	0	0	0	44	0	129	0	0	0	197	0	0	1.118	4.159
Residential	0	0	0	0	0	163	0	0	0	0	0	163	0	0	0	1.032	0	53	46	0	0	1.189	2	0	0	0	0	0	2.322	2.485
Commercial	0	0	0	0	0	66	0	0	0	0	0	66	80	53	0	179	0	0	25	0	0	590	10	0	0	0	0	0	937	1.003
Public	0	0	0	0	0	1	0	0	0	0	0	1	40	14	0	13	0	1	2	0	0	424	0	0	0	0	0	0	494	495
Agriculture	0	0	0	0	0	13	0	0	0	0	0	13	709	29	0	2	0	1	0	0	0	141	0	0	0	0	0	0	882	895
Transportation - Total	0	0	0	0	0	0	0	0	0	0	0	0	4.090	722	2.179	0	0	392	0	0	0	61	0	398	1.522	0	0	0	9.364	9.364
Highways	0	0	0	0	0	0	0	0	0	0	0	0	3.724	0	2.167	0	0	0	0	0	0	1	0	398	1.522	0	0	0	7.812	7.812
Railroads	0	0	0	0	0	0	0	0	0	0	0	0	101	1	0	0	0	0	0	0	0	60	0	0	0	0	0	0	162	162
Airways	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	0	0	392	0	0	0	0	0	0	0	0	0	0	404	404
Waterways	0	0	0	0	0	0	0	0	0	0	0	0	265	721	0	0	0	0	0	0	0	0	0	0	0	0	0	0	986	986
Industrial - Total	0	258	0	0	0	990	0	0	1.910	274	84	3.516	66	2.886	0	103	0	62	80	216	868	3.339	303	0	0	105	390	0	8.418	11.934
Cement	0	243	0	0	0	12	0	0	0	0	19	274	1	89	0	0	0	0	0	0	0	58	2	0	0	0	0	0	150	424
Pig-Iron and Steel	0	0	0	0	0	1	0	0	0	0	4	5	4	185	0	23	0	5	0	216	868	247	245	0	0	0	0	0	1.793	1.798
Ferro Alloys	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	38	26	0	0	0	0	0	64	64
Mining and Pelletization	0	0	0	0	0	0	0	0	0	0	0	0	10	20	0	0	0	0	0	0	0	37	0	0	0	0	0	0	67	67
Non-Ferrous-Other Metal	0	0	0	0	0	0	0	0	0	0	0	0	0	60	0	0	0	0	21	0	0	549	0	0	0	0	386	0	1.016	1.016
Chemical	0	0	0	0	0	21	0	0	14	0	0	35	6	865	0	47	0	34	0	0	0	425	6	0	0	105	4	0	1.492	1.527
Foods and Beverages	0	6	0	0	0	265	0	0	1.874	0	8	2.153	25	437	0	5	0	2	13	0	0	434	0	0	0	0	0	0	916	3.069
Textiles	0	0	0	0	0	44	0	0	0	0	0	44	2	149	0	5	0	2	3	0	0	268	22	0	0	0	0	0	451	495
Paper and Pulp	0	8	0	0	0	277	0	0	22	274	42	623	2	299	0	0	0	2	1	0	0	224	0	0	0	0	0	0	528	1.151
Ceramics	0	1	0	0	0	284	0	0	0	0	5	290	2	98	0	15	0	1	8	0	0	87	2	0	0	0	0	0	213	503
Others	0	0	0	0	0	86	0	0	0	0	6	92	14	684	0	8	0	16	34	0	0	972	0	0	0	0	0	0	1.728	1.820
Unidentified Consumption	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Adjustments	0	0	0	0	1	1	0	0	0	0	1	3	0	0	0	2	0	1	1	0	0	1	-2	1	0	0	1	-1	4	7

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Energy Flow	Petro-leum	Steam Coal	Metal-lurgical Coal	Natural Gas	Hydraulic Energy	Firewood	Sugar Cane juice	Molasses	Sugar Cane Bagasse	Black Liquor	Others Primary Sources	Primary Energy	Diesel Oil	Fuel Oil	Gasoline	LPG	Naphtha	Kerosene	Gaswor- sks gas	Gas Coke	Coal Coke	Electric- ity	Charcoal	Anhy-drous Ethanol	Hydrated Ethanol	Refinery Gas	Others	Non Energy Products	Second-ary Energy	Total	
Production	0	0	0	0	5.016	1.314	4.288	267	5.878	344	201	17.308	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17.308	
Imports	11.845	0	1.307	0	0	0	0	0	0	0	0	13.152	41	273	12	614	2	0	0	0	0	0	0	0	0	0	0	9	951	14.103	
State Imports	15.378	260	123	0	0	179	0	0	0	0	0	15.940	0	0	0	0	0	0	0	0	0	1.848	255	0	0	0	0	313	2.416	18.356	
Changes in stocks	0	18	-13	0	0	0	0	0	0	0	0	5	42	-226	-142	-130	95	-37	0	0	35	0	0	-50	137	0	50	207	-19	-14	
Total Supply	27.223	278	1.417	0	5.016	1.493	4.288	267	5.878	344	201	46.405	83	47	-130	484	97	-37	0	0	35	1.848	255	-50	137	0	50	529	3.348	49.753	
Exports	0	0	0	0	0	0	0	0	0	0	0	0	-358	-507	-1.909	-5	0	-152	0	0	0	0	0	-46	-26	0	0	-5	-3.008	-3.008	
State Exports	0	0	0	0	0	0	0	0	0	0	0	0	-4.462	-693	-556	-538	-248	-497	0	0	0	-212	0	-264	-1.255	0	-6	0	-8.731	-8.731	
Non-Utilized Energy	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Re-injection	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Gross Domestic Supply	27.223	278	1.417	0	5.016	1.493	4.288	267	5.878	344	201	46.405	-4.737	-1.153	-2.595	-59	-151	-686	0	0	35	1.636	255	-360	-1.144	0	44	524	-8.391	38.014	
Total Transformation	-27.223	0	-1.403	0	-5.016	-342	-4.288	-267	-84	-50	-122	-38.795	9.971	5.415	4.703	1.455	1.765	1.105	162	308	1.084	5.190	31	764	2.992	341	364	761	36.411	-2.384	
Petroleum Refinereries	-27.223	0	0	0	0	0	0	0	0	0	0	-27.223	9.974	5.605	4.624	1.392	2.082	1.105	0	0	0	0	0	0	0	341	364	761	26.248	-975	
Natural Gas Plants	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Gasification Plants	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-177	0	162	0	0	0	0	0	0	0	0	0	-15	-15	
Coking Plants	0	0	-1.403	0	0	0	0	0	0	0	0	-1.403	0	0	0	0	0	0	0	308	1.084	0	0	0	0	0	0	0	1.392	-11	
Public Util. Power Plants	0	0	0	0	-4.861	0	0	0	0	0	0	-4.861	0	-105	0	0	0	0	0	0	0	4.891	0	0	0	0	0	0	0	4.786	-75
Self-Prod. Power Plants	0	0	0	0	-155	-32	0	0	-84	-50	-122	-443	-3	-85	0	0	0	0	0	0	0	299	0	0	0	0	0	0	211	-232	
Charcoal Plants	0	0	0	0	0	-310	0	0	0	0	0	-310	0	0	0	0	0	0	0	0	0	0	31	0	0	0	0	0	31	-279	
Distilleries	0	0	0	0	0	0	-4.288	-267	0	0	0	-4.555	0	0	0	0	0	0	0	0	0	0	0	764	2.992	0	0	0	3.756	-799	
Other Transformations	0	0	0	0	0	0	0	0	0	0	0	0	0	0	79	63	-140	0	0	0	0	0	0	0	0	0	0	0	2	2	
Losses in Distrib./Storage	0	-4	-13	0	0	0	0	0	-555	0	0	-572	0	0	0	0	0	0	0	-4	0	-623	0	-8	-36	0	0	0	-671	-1.243	
Final Consumption	0	273	0	0	0	1.150	0	0	5.239	293	78	7.033	5.233	4.261	2.107	1.395	1.614	420	162	305	1.118	6.206	287	397	1.812	341	408	1.285	27.351	34.384	
Final Non-Ener. Consump.	0	0	0	0	0	0	0	0	123	0	0	123	0	0	0	0	1.614	0	0	0	14	0	3	0	0	51	0	1.285	2.967	3.090	
Final Energy Consumption	0	273	0	0	0	1.150	0	0	5.116	293	78	6.910	5.233	4.261	2.107	1.395	0	420	162	305	1.104	6.206	284	397	1.812	290	408	0	24.384	31.294	
Energy Sector	0	0	0	0	0	0	0	0	3.015	0	0	3.015	7	650	0	4	0	0	0	59	0	124	0	0	0	262	0	0	1.106	4.121	
Residential	0	0	0	0	0	164	0	0	0	0	0	164	0	0	0	1.094	0	52	48	0	0	1.246	2	0	0	0	0	0	2.442	2.606	
Commercial	0	0	0	0	0	65	0	0	0	0	0	65	83	48	0	192	0	0	25	0	0	618	10	0	0	0	0	0	976	1.041	
Public	0	0	0	0	0	0	0	0	0	0	0	0	43	15	0	9	0	1	3	0	0	455	0	0	0	0	0	0	526	526	
Agriculture	0	0	0	0	0	13	0	0	0	0	0	13	711	29	0	2	0	1	0	0	0	148	0	0	0	0	0	0	891	904	
Transportation - Total	0	0	0	0	0	0	0	0	0	0	0	0	4.319	728	2.107	0	0	297	0	0	0	64	0	397	1.812	0	0	0	9.724	9.724	
Highways	0	0	0	0	0	0	0	0	0	0	0	0	3.944	0	2.096	0	0	0	0	0	0	1	0	397	1.812	0	0	0	8.250	8.250	
Railroads	0	0	0	0	0	0	0	0	0	0	0	0	105	1	0	0	0	0	0	0	0	63	0	0	0	0	0	0	169	169	
Airways	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11	0	0	297	0	0	0	0	0	0	0	0	0	0	308	308	
Waterways	0	0	0	0	0	0	0	0	0	0	0	0	270	727	0	0	0	0	0	0	0	0	0	0	0	0	0	0	997	997	
Industrial - Total	0	273	0	0	0	908	0	0	2.101	293	78	3.653	70	2.791	0	94	0	69	86	246	1.104	3.551	272	0	0	28	408	0	8.719	12.372	
Cement	0	257	0	0	0	4	0	0	0	0	4	265	1	48	0	0	0	0	0	0	0	59	2	0	0	0	35	0	145	410	
Pig-Iron and Steel	0	0	0	0	0	1	0	0	0	0	4	5	5	181	0	19	0	7	0	246	1.104	265	225	0	0	0	0	0	2.052	2.057	
Ferro Alloys	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	41	19	0	0	0	0	0	60	60	
Mining and Pelletization	0	0	0	0	0	0	0	0	0	0	0	0	10	19	0	0	0	0	0	0	0	38	0	0	0	0	0	0	67	67	
Non-Ferrous-Other Metal	0	0	0	0	0	0	0	0	0	0	0	0	0	59	0	0	0	0	21	0	0	589	0	0	0	0	360	0	1.029	1.029	
Chemical	0	0	0	0	0	18	0	0	14	0	0	32	6	850	0	41	0	37	0	0	0	452	5	0	0	28	13	0	1.432	1.464	
Foods and Beverages	0	6	0	0	0	249	0	0	2.062	0	11	2.328	25	429	0	4	0	2	12	0	0	465	0	0	0	0	0	0	937	3.265	
Textiles	0	0	0	0	0	38	0	0	0	0	0	38	2	147	0	5	0	2	4	0	0	314	20	0	0	0	0	0	494	532	
Paper and Pulp	0	9	0	0	0	280	0	0	25	293	45	652	3	287	0	0	0	2	1	0	0	245	0	0	0	0	0	0	538	1.190	
Ceramics	0	1	0	0	0	241	0	0	0	0	6	248	2	94	0	18	0	2	10	0	0	91	1	0	0	0	0	0	218	466	
Others	0	0	0	0	0	77	0	0	0	0	8	85	16	677	0	7	0	17	38	0	0	992	0	0	0	0	0	0	1.747	1.832	
Unidentified Consumption	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Adjustments	0	1	1	0	0	1	0	0	0	1	1	5	1	1	1	1	0	-1	0	-1	1	-3	-1	-1	0	0	0	0	-2	3	

São Paulo Energy Balance - Consolidated 1989 - 10³ toE

Energy Flow	Petro- leum	Steam Coal	Metal- lurgical Coal	Natural Gas	Hydraulic Energy	Firewood	Sugar Cane juice	Molasses	Sugar Cane Bagasse	Black Liquor	Others Primary Sources	Primary Energy	Diesel Oil	Fuel Oil	Gasoline	LPG	Naphtha	Kerosene	Gaswor- ks gas	Gas Coke	Coal Coke	Electric- ity	Charcoal	Anhy- drous Ethanol	Hydrated Ethanol	Refinery Gas	Others	Non Energy Products	Second- ary Energy	Total
Production	0	0	0	0	5.110	1.222	4.462	219	5.509	345	215	17.082	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17.082
Imports	10.612	0	1.433	0	0	0	0	0	0	0	0	12.045	68	186	10	585	1	0	0	0	227	0	0	0	0	0	0	11	1.088	13.133
State Imports	16.479	238	103	97	0	177	0	0	0	0	0	17.094	0	0	0	0	0	0	0	0	1.964	276	0	0	0	0	578	2.818	19.912	
Changes in stocks	0	-56	-27	0	0	0	0	0	0	0	0	-83	86	28	-43	-52	-5	35	0	0	-57	0	0	-37	-45	0	-4	-78	-172	-255
Total Supply	27.091	182	1.509	97	5.110	1.399	4.462	219	5.509	345	215	46.138	154	214	-33	533	-4	35	0	0	170	1.964	276	-37	-45	0	-4	511	3.734	49.872
Exports	0	0	0	0	0	0	0	0	0	0	0	0	-315	-747	-1.644	0	0	-4	0	0	0	0	0	-34	-29	0	0	-3	-2.776	-2.776
State Exports	0	0	0	0	0	0	0	0	0	0	0	0	-4.144	-371	-551	-664	-468	-774	0	0	0	-239	0	-198	-1.204	0	-27	0	-8.640	-8.640
Non-Utilized Energy	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Re-injection	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gross Domestic Supply	27.091	182	1.509	97	5.110	1.399	4.462	219	5.509	345	215	46.138	-4.305	-904	-2.228	-131	-472	-743	0	0	170	1.725	276	-269	-1.278	0	-31	508	-7.682	38.456
Total Transformation	-27.091	0	-1.495	0	-5.110	-301	-4.462	-219	-83	-50	-131	-38.942	9.668	5.271	4.551	1.580	1.901	1.281	147	300	1.070	5.275	31	575	3.181	329	442	717	36.319	-2.623
Petroleum Refinereries	-27.091	0	0	0	0	0	0	0	0	0	0	-27.091	9.671	5.447	4.467	1.537	2.190	1.281	0	0	0	0	0	0	0	329	442	717	26.081	-1.010
Natural Gas Plants	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gasification Plants	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-164	0	147	0	0	0	0	0	0	0	0	0	-17	-17
Coking Plants	0	0	-1.495	0	0	0	0	0	0	0	0	-1.495	0	0	0	0	0	0	0	300	1.070	0	0	0	0	0	0	0	1.370	-125
Public Util. Power Plants	0	0	0	0	-4.946	0	0	0	0	0	0	-4.946	0	-73	0	0	0	0	0	0	0	4.967	0	0	0	0	0	0	4.894	-52
Self-Prod. Power Plants	0	0	0	0	-164	-30	0	0	-83	-50	-131	-458	-3	-103	0	0	0	0	0	0	0	308	0	0	0	0	0	0	202	-256
Charcoal Plants	0	0	0	0	0	-271	0	0	0	0	0	-271	0	0	0	0	0	0	0	0	0	0	31	0	0	0	0	0	31	-240
Distilleries	0	0	0	0	0	0	-4.462	-219	0	0	0	-4.681	0	0	0	0	0	0	0	0	0	0	0	575	3.181	0	0	0	3.756	-925
Other Transformations	0	0	0	0	0	0	0	0	0	0	0	0	0	0	84	43	-125	0	0	0	0	0	0	0	0	0	0	0	2	2
Losses in Distrib./Storage	0	-4	-15	-11	0	0	0	0	-551	0	0	-581	0	0	0	0	0	0	0	-1	0	-625	0	-6	-37	0	0	0	-669	-1.250
Final Consumption	0	178	0	85	0	1.096	0	0	4.875	294	84	6.612	5.362	4.366	2.324	1.447	1.430	539	147	298	1.241	6.376	306	299	1.865	330	411	1.227	27.968	34.580
Final Non-Ener. Consump.	0	0	0	0	0	0	0	0	117	0	0	117	0	0	0	0	1.430	0	0	0	0	0	3	0	0	50	0	1.227	2.710	2.827
Final Energy Consumption	0	178	0	85	0	1.096	0	0	4.758	294	84	6.495	5.362	4.366	2.324	1.447	0	539	147	298	1.241	6.376	303	299	1.865	280	411	0	25.258	31.753
Energy Sector	0	0	0	0	0	0	0	0	3.141	0	0	3.141	11	634	0	4	0	0	0	59	0	128	0	0	0	261	0	0	1.097	4.238
Residential	0	0	0	0	0	165	0	0	0	0	0	165	0	0	0	1.148	0	56	52	0	0	1.321	1	0	0	0	0	0	2.578	2.743
Commercial	0	0	0	0	0	64	0	0	0	0	0	64	85	45	0	187	0	0	27	0	0	647	11	0	0	0	0	0	1.002	1.066
Public	0	0	0	0	0	0	0	0	0	0	0	0	44	14	0	10	0	1	4	0	0	457	0	0	0	0	0	0	530	530
Agriculture	0	0	0	0	0	11	0	0	0	0	0	11	726	29	0	3	0	1	0	0	0	146	0	0	0	0	0	0	905	916
Transportation - Total	0	0	0	0	0	0	0	0	0	0	0	0	4.424	673	2.324	0	0	425	0	0	0	64	0	299	1.865	0	0	0	10.074	10.074
Highways	0	0	0	0	0	0	0	0	0	0	0	0	4.040	0	2.313	0	0	0	0	0	0	1	0	299	1.865	0	0	0	8.518	8.518
Railroads	0	0	0	0	0	0	0	0	0	0	0	0	107	1	0	0	0	0	0	0	0	63	0	0	0	0	0	0	171	171
Airways	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11	0	0	425	0	0	0	0	0	0	0	0	0	0	436	436
Waterways	0	0	0	0	0	0	0	0	0	0	0	0	277	672	0	0	0	0	0	0	0	0	0	0	0	0	0	0	949	949
Industrial - Total	0	178	0	85	0	856	0	0	1.617	294	84	3.114	72	2.971	0	95	0	56	64	239	1.241	3.613	291	0	0	19	411	0	9.072	12.186
Cement	0	161	0	0	0	3	0	0	0	0	7	171	1	140	0	0	0	0	0	0	0	60	2	0	0	0	27	0	230	401
Pig-Iron and Steel	0	0	0	18	0	1	0	0	0	0	5	24	6	188	0	17	0	0	0	239	1.241	270	244	0	0	0	0	0	2.205	2.229
Ferro Alloys	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	42	20	0	0	0	0	0	62	62
Mining and Pelletization	0	0	0	0	0	0	0	0	0	0	0	0	10	15	0	0	0	0	0	0	0	39	0	0	0	0	0	0	64	64
Non-Ferrous-Other Metal	0	0	0	0	0	0	0	0	0	0	0	0	0	57	0	0	0	8	13	0	0	594	0	0	0	0	372	0	1.044	1.044
Chemical	0	0	0	5	0	16	0	0	14	0	0	35	7	894	0	35	0	31	4	0	0	462	3	0	0	19	4	0	1.459	1.494
Foods and Beverages	0	8	0	11	0	231	0	0	1.578	0	12	1.840	26	454	0	4	0	2	8	0	0	471	0	0	0	0	0	0	965	2.805
Textiles	0	0	0	2	0	37	0	0	0	0	0	39	2	155	0	4	0	2	2	0	0	319	20	0	0	0	0	0	504	543
Paper and Pulp	0	8	0	0	0	283	0	0	25	294	47	657	2	256	0	0	0	2	1	0	0	250	0	0	0	0	0	0	511	1.168
Ceramics	0	1	0	12	0	215	0	0	0	0	4	232	2	105	0	30	0	2	9	0	0	93	2	0	0	0	0	0	243	475
Others	0	0	0	37	0	70	0	0	0	0	9	116	16	707	0	5	0	9	27	0	0	1.013	0	0	0	0	8	0	1.785	1.901
Unidentified Consumption	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Adjustments	0	0	-1	1	0	2	0	0	0	1	0	3	1	1	-1	2	-1	-1	0	1	-1	-1	1	1	1	-1	0	-2	0	3

São Paulo Energy Balance - Consolidated 1990 - 10³ tOE

Energy Flow	Petro- leum	Steam Coal	Metal- lurgical Coal	Natural Gas	Hydraulic Energy	Firewood	Sugar Cane juice	Molasses	Sugar Cane Bagasse	Black Liquor	Others Primary Sources	Primary Energy	Diesel Oil	Fuel Oil	Gasoline	LPG	Naphtha	Kerosene	Gaswor- ks gas	Gas Coke	Coal Coke	Electric- ity	Charcoal	Anhy- drous Ethanol	Hydrated Ethanol	Refinery Gas	Others	Non Energy Products	Second- ary Energy	Total
Production	0	0	0	0	4.548	1.135	4.643	248	5.893	332	195	16.994	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16.994
Imports	8.962	0	1.413	0	0	0	0	0	0	0	0	10.375	30	51	9	604	4	0	0	0	220	0	0	0	0	0	0	10	928	11.303
State Imports	17.931	217	59	207	0	175	0	0	0	0	0	18.589	0	0	0	0	0	34	0	0	0	2.232	154	0	0	0	0	478	2.898	21.487
Changes in stocks	0	-59	10	0	0	0	0	0	0	0	0	-49	29	-42	-49	-43	-5	47	0	0	-55	0	0	-31	-48	0	-33	-144	-374	-423
Total Supply	26.893	158	1.482	207	4.548	1.310	4.643	248	5.893	332	195	45.909	59	9	-40	561	-1	81	0	0	165	2.232	154	-31	-48	0	-33	344	3.452	49.361
Exports	0	0	0	0	0	0	0	0	0	0	0	0	-313	-598	-1.719	0	0	-60	0	0	0	0	0	-28	-31	0	0	-2	-2.751	-2.751
State Exports	0	0	0	0	0	0	0	0	0	0	0	0	-4.118	-309	-521	-770	-448	-391	0	0	0	-7	0	-165	-1.162	0	-28	0	-7.919	-7.919
Non-Utilized Energy	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Re-injection	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gross Domestic Supply	26.893	158	1.482	207	4.548	1.310	4.643	248	5.893	332	195	45.909	-4.372	-898	-2.280	-209	-449	-370	0	0	165	2.225	154	-224	-1.241	0	-61	342	-7.218	38.691
Total Transformation	-26.893	0	-1.472	0	-4.548	-263	-4.643	-248	-88	-49	-119	-38.323	9.592	5.000	4.803	1.698	1.819	965	125	287	1.038	4.707	28	476	3.359	423	465	672	35.457	-2.866
Petroleum Refinereries	-26.893	0	0	0	0	0	0	0	0	0	0	-26.893	9.595	5.300	4.712	1.643	2.098	965	0	0	0	0	0	0	0	423	465	672	25.873	-1.020
Natural Gas Plants	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gasification Plants	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-140	0	125	0	0	0	0	0	0	0	0	0	-15	-15
Coking Plants	0	0	-1.472	0	0	0	0	0	0	0	0	-1.472	0	0	0	0	0	0	0	287	1.038	0	0	0	0	0	0	0	1.325	-147
Public Util. Power Plants	0	0	0	0	-4.390	0	0	0	0	0	0	-4.390	0	-43	0	0	0	0	0	0	0	4.401	0	0	0	0	0	0	4.358	-32
Self-Prod. Power Plants	0	0	0	0	-158	-28	0	0	-88	-49	-119	-442	-3	-257	0	0	0	0	0	0	0	306	0	0	0	0	0	0	46	-396
Charcoal Plants	0	0	0	0	0	-235	0	0	0	0	0	-235	0	0	0	0	0	0	0	0	0	0	28	0	0	0	0	0	28	-207
Distilleries	0	0	0	0	0	0	-4.643	-248	0	0	0	-4.891	0	0	0	0	0	0	0	0	0	0	0	476	3.359	0	0	0	3.835	-1.056
Other Transformations	0	0	0	0	0	0	0	0	0	0	0	0	0	0	91	55	-139	0	0	0	0	0	0	0	0	0	0	0	7	7
Losses in Distrib./Storage	0	-3	-10	-13	0	0	0	0	-589	0	0	-615	0	0	0	0	0	0	0	-3	0	-542	0	-5	-39	0	0	0	-589	-1.204
Final Consumption	0	155	0	195	0	1.047	0	0	5.216	283	75	6.971	5.221	4.100	2.522	1.489	1.369	596	124	284	1.204	6.389	184	248	2.078	424	404	1.014	27.650	34.621
Final Non-Ener. Consump.	0	0	0	0	0	0	0	0	126	0	0	126	0	0	0	0	1.369	0	0	0	0	0	2	0	109	63	0	1.014	2.557	2.683
Final Energy Consumption	0	155	0	195	0	1.047	0	0	5.090	283	75	6.845	5.221	4.100	2.522	1.489	0	596	124	284	1.204	6.389	182	248	1.969	361	404	0	25.093	31.938
Energy Sector	0	0	0	0	0	0	0	0	3.261	0	0	3.261	11	617	0	4	0	0	0	53	0	132	0	0	0	336	0	0	1.153	4.414
Residential	0	0	0	1	0	166	0	0	0	0	0	167	0	0	0	1.202	0	26	50	0	0	1.422	2	0	0	0	0	0	2.702	2.869
Commercial	0	0	0	1	0	63	0	0	0	0	0	64	83	45	0	171	0	0	30	0	0	690	11	0	0	0	0	0	1.030	1.094
Public	0	0	0	0	0	0	0	0	0	0	0	0	43	14	0	11	0	1	3	0	0	462	0	0	0	0	0	0	534	534
Agriculture	0	0	0	0	0	11	0	0	0	0	0	11	713	29	0	3	0	1	0	0	0	144	0	0	0	0	0	0	890	901
Transportation - Total	0	0	0	0	0	0	0	0	0	0	0	0	4.300	573	2.522	0	0	497	0	0	0	65	0	248	1.969	0	0	0	10.174	10.174
Highways	0	0	0	0	0	0	0	0	0	0	0	0	3.922	0	2.512	0	0	0	0	0	0	1	0	248	1.969	0	0	0	8.652	8.652
Railroads	0	0	0	0	0	0	0	0	0	0	0	0	106	1	0	0	0	0	0	0	0	64	0	0	0	0	0	0	171	171
Airways	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	0	0	497	0	0	0	0	0	0	0	0	0	0	507	507
Waterways	0	0	0	0	0	0	0	0	0	0	0	0	272	572	0	0	0	0	0	0	0	0	0	0	0	0	0	0	844	844
Industrial - Total	0	155	0	193	0	807	0	0	1.829	283	75	3.342	71	2.822	0	98	0	71	41	231	1.204	3.474	169	0	0	25	404	0	8.610	11.952
Cement	0	140	0	0	0	2	0	0	0	0	6	148	1	134	0	0	0	0	0	0	58	8	0	0	0	0	0	0	201	349
Pig-Iron and Steel	0	0	0	21	0	1	0	0	0	0	4	26	6	178	0	12	0	12	0	231	1.204	261	141	0	0	0	0	0	2.045	2.071
Ferro Alloys	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	41	2	0	0	0	0	0	43	43	
Mining and Pelletization	0	0	0	0	0	0	0	0	0	0	0	0	10	15	0	0	0	1	0	0	0	37	0	0	0	0	0	0	63	63
Non-Ferrous-Other Metal	0	0	0	0	0	0	0	0	0	0	0	0	0	54	0	0	0	6	9	0	0	560	0	0	0	0	392	0	1.021	1.021
Chemical	0	0	0	6	0	15	0	0	14	0	0	35	7	850	0	30	0	26	3	0	0	448	2	0	0	25	4	0	1.395	1.430
Foods and Beverages	0	7	0	40	0	210	0	0	1.789	0	11	2.057	25	431	0	4	0	2	5	0	0	448	0	0	0	0	0	0	915	2.972
Textiles	0	0	0	11	0	34	0	0	0	0	0	45	2	148	0	4	0	2	1	0	0	306	14	0	0	0	0	0	477	522
Paper and Pulp	0	7	0	0	0	286	0	0	26	283	42	644	2	242	0	0	0	2	0	0	243	0	0	0	0	0	0	489	1.133	
Ceramics	0	1	0	23	0	191	0	0	0	0	4	219	2	99	0	43	0	2	6	0	0	90	2	0	0	0	0	0	244	463
Others	0	0	0	92	0	68	0	0	0	0	8	168	16	671	0	5	0	18	17	0	0	982	0	0	0	0	8	0	1.717	1.885
Unidentified Consumption	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Adjustments	0	0	0	-1	0	0	0	0	0	0	1	0	-1	2	1	0	1	-1	1	0	-1	1	-2	-1	1	-1	0	0	0	0

São Paulo Energy Balance - Consolidated 1991 - 10³ toE

Energy Flow	Petro- leum	Steam Coal	Metal- lurgical Coal	Natural Gas	Hydraulic Energy	Firewood	Sugar Cane juice	Molasses	Sugar Cane Bagasse	Black Liquor	Others Primary Sources	Primary Energy	Diesel Oil	Fuel Oil	Gasoline	LPG	Naphtha	Kerosene	Gaswor- ks gas	Gas Coke	Coal Coke	Electric- ity	Charcoal	Anhy- drous Ethanol	Hydrated Ethanol	Refinery Gas	Others	Non Energy Products	Second- ary Energy	Total
Production	0	0	0	0	5.408	1.071	4.492	327	6.487	360	224	18.369	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18.369
Imports	8.937	0	1.421	0	0	0	0	0	0	0	0	10.358	322	209	7	473	3	61	0	0	238	0	0	0	0	0	0	10	1.323	11.681
State Imports	16.802	315	71	242	0	173	0	0	0	0	0	17.603	0	0	0	0	0	0	0	0	1.726	149	0	0	0	0	424	2.299	19.902	
Changes in stocks	0	-54	-15	0	0	0	0	0	0	0	0	-69	28	299	-26	-71	-21	21	0	0	21	0	0	-107	-48	0	22	33	151	82
Total Supply	25.739	261	1.477	242	5.408	1.244	4.492	327	6.487	360	224	46.261	350	508	-19	402	-18	82	0	0	259	1.726	149	-107	-48	0	22	467	3.773	50.034
Exports	0	0	0	0	0	0	0	0	0	0	0	0	-305	-621	-1.394	0	0	-61	0	0	0	0	0	-55	-34	0	0	-2	-2.472	-2.472
State Exports	0	0	0	0	0	0	0	0	0	0	0	0	-3.939	-224	-503	-489	-438	-290	0	0	0	-76	0	-269	-1.136	0	-27	0	-7.391	-7.391
Non-Utilized Energy	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Re-injection	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gross Domestic Supply	25.739	261	1.477	242	5.408	1.244	4.492	327	6.487	360	224	46.261	-3.894	-337	-1.916	-87	-456	-269	0	0	259	1.650	149	-431	-1.218	0	-5	465	-6.090	40.171
Total Transformation	-25.739	0	-1.463	0	-5.408	-256	-4.492	-327	-100	-54	-143	-37.982	9.357	4.233	4.721	1.608	1.815	976	121	286	1.031	5.580	27	772	3.377	483	429	505	35.321	-2.661
Petroleum Refinereries	-25.739	0	0	0	0	0	0	0	0	0	0	-25.739	9.360	4.536	4.639	1.565	2.050	976	0	0	0	0	0	0	0	483	429	505	24.543	-1.196
Natural Gas Plants	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gasification Plants	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-131	0	121	0	0	0	0	0	0	0	0	0	-10	-10
Coking Plants	0	0	-1.463	0	0	0	0	0	0	0	0	-1.463	0	0	0	0	0	0	0	286	1.031	0	0	0	0	0	0	0	1.317	-146
Public Util. Power Plants	0	0	0	0	-5.255	0	0	0	0	0	0	-5.255	0	-47	0	0	0	0	0	0	0	5.267	0	0	0	0	0	0	5.220	-35
Self-Prod. Power Plants	0	0	0	0	-153	-30	0	0	-100	-54	-143	-480	-3	-256	0	0	0	0	0	0	0	313	0	0	0	0	0	0	54	-426
Charcoal Plants	0	0	0	0	0	-226	0	0	0	0	0	-226	0	0	0	0	0	0	0	0	0	0	27	0	0	0	0	0	27	-199
Distilleries	0	0	0	0	0	0	-4.492	-327	0	0	0	-4.819	0	0	0	0	0	0	0	0	0	0	0	772	3.377	0	0	0	4.149	-670
Other Transformations	0	0	0	0	0	0	0	0	0	0	0	0	0	0	82	43	-104	0	0	0	0	0	0	0	0	0	0	0	21	21
Losses in Distrib./Storage	0	-4	-13	-15	0	0	0	0	-649	0	0	-681	0	0	0	0	0	0	-2	-2	0	-636	0	-7	-39	0	0	0	-686	-1.367
Final Consumption	0	256	0	227	0	988	0	0	5.740	306	81	7.598	5.461	3.896	2.804	1.522	1.360	709	118	285	1.290	6.594	177	335	2.119	482	424	970	28.546	36.144
Final Non-Ener. Consump.	0	0	0	0	0	0	0	0	136	0	0	136	0	0	0	0	1.360	0	0	0	0	0	2	0	142	72	0	970	2.546	2.682
Final Energy Consumption	0	256	0	227	0	988	0	0	5.604	306	81	7.462	5.461	3.896	2.804	1.522	0	709	118	285	1.290	6.594	175	335	1.977	410	424	0	26.000	33.462
Energy Sector	0	0	0	0	0	0	0	0	3.209	0	0	3.209	10	573	0	4	0	0	0	54	0	141	0	0	0	395	0	0	1.177	4.386
Residential	0	0	0	1	0	167	0	0	0	0	0	168	0	0	0	1.258	0	21	49	0	0	1.518	2	0	0	0	0	0	2.848	3.016
Commercial	0	0	0	1	0	64	0	0	0	0	0	65	80	41	0	128	0	0	31	0	0	723	11	0	0	0	0	0	1.014	1.079
Public	0	0	0	0	0	0	0	0	0	0	0	0	64	13	0	11	0	1	3	0	0	483	0	0	0	0	0	0	575	575
Agriculture	0	0	0	0	0	10	0	0	0	0	0	10	742	29	0	4	0	1	0	0	0	158	0	0	0	0	0	0	934	944
Transportation - Total	0	0	0	0	0	0	0	0	0	0	0	0	4.412	526	2.804	0	0	627	0	0	0	67	0	335	1.977	0	0	0	10.748	10.748
Highways	0	0	0	0	0	0	0	0	0	0	0	0	4.042	0	2.794	0	0	0	0	0	0	1	0	335	1.977	0	0	0	9.149	9.149
Railroads	0	0	0	0	0	0	0	0	0	0	0	0	87	1	0	0	0	0	0	0	0	66	0	0	0	0	0	0	154	154
Airways	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	0	0	627	0	0	0	0	0	0	0	0	0	0	637	637
Waterways	0	0	0	0	0	0	0	0	0	0	0	0	283	525	0	0	0	0	0	0	0	0	0	0	0	0	0	0	808	808
Industrial - Total	0	256	0	225	0	747	0	0	2.395	306	81	4.010	153	2.714	0	117	0	59	35	231	1.290	3.504	162	0	0	15	424	0	8.704	12.714
Cement	0	239	0	0	0	1	0	0	0	0	7	247	6	125	0	0	0	0	0	0	11	59	7	0	0	0	27	0	235	482
Pig-Iron and Steel	0	0	0	25	0	1	0	0	0	0	5	31	13	182	0	15	0	10	0	231	1.279	263	136	0	0	0	0	0	2.129	2.160
Ferro Alloys	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	41	2	0	0	0	0	0	0	43	43
Mining and Pelletization	0	0	0	0	0	0	0	0	0	0	0	0	29	17	0	0	0	1	0	0	0	38	0	0	0	0	0	0	85	85
Non-Ferrous-Other Metal	0	0	0	0	0	0	0	0	0	0	0	0	0	53	0	0	0	5	7	0	0	566	0	0	0	0	385	0	1.016	1.016
Chemical	0	0	0	7	0	13	0	0	14	0	0	34	30	646	0	24	0	21	2	0	0	451	2	0	0	15	4	0	1.195	1.229
Foods and Beverages	0	8	0	51	0	183	0	0	2.353	0	11	2.606	55	475	0	4	0	2	5	0	0	452	0	0	0	0	0	0	993	3.599
Textiles	0	0	0	14	0	32	0	0	0	0	0	46	2	143	0	4	0	2	1	0	0	309	13	0	0	0	0	0	474	520
Paper and Pulp	0	8	0	0	0	289	0	0	28	306	45	676	6	257	0	0	0	2	0	0	0	245	0	0	0	0	0	0	510	1.186
Ceramics	0	1	0	28	0	171	0	0	0	0	4	204	3	98	0	61	0	2	5	0	0	91	2	0	0	0	0	0	262	466
Others	0	0	0	100	0	57	0	0	0	0	9	166	9	718	0	9	0	14	15	0	0	989	0	0	0	0	8	0	1.762	1.928
Unidentified Consumption	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Adjustments	0	1	1	0	0	0	0	0	-2	0	0	0	2	0	1	-1	-1	-2	1	-1	0	0	-1	-1	1	1	0	0	-1	-1

São Paulo Energy Balance - Consolidated 1992 - 10³ toE

Energy Flow	Petro-leum	Steam Coal	Metal-lurgical Coal	Natural Gas	Hydraulic Energy	Firewood	Sugar Cane juice	Molasses	Sugar Cane Bagasse	Black Liquor	Others Primary Sources	Primary Energy	Diesel Oil	Fuel Oil	Gasoline	LPG	Naphtha	Kerosene	Gaswor- sks gas	Gas Coke	Coal Coke	Electric- ity	Charcoal	Anhy-drous Ethanol	Hydrated Ethanol	Refinery Gas	Others	Non Energy Products	Second-ary Energy	Total	
Production	0	0	0	0	5.314	992	4.462	327	6.432	380	245	18.152	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18.152	
Imports	7.669	0	1.355	0	0	0	0	0	0	0	0	9.024	353	340	21	371	3	20	0	0	236	0	0	0	0	0	0	11	1.355	10.379	
State Imports	18.718	235	67	320	0	172	0	0	0	0	0	19.512	0	0	0	0	0	0	0	0	1.884	144	0	0	0	5	432	2.465	21.977		
Changes in stocks	0	-101	48	0	0	0	0	0	0	0	0	-53	29	278	-26	-69	3	48	0	0	21	0	0	-115	84	0	25	50	328	275	
Total Supply	26.387	134	1.470	320	5.314	1.164	4.462	327	6.432	380	245	46.635	382	618	-5	302	6	68	0	0	257	1.884	144	-115	84	0	30	493	4.148	50.783	
Exports	0	0	0	0	0	0	0	0	0	0	0	0	-249	-646	-1.390	0	0	-58	0	0	0	0	0	-61	-30	0	0	-2	-2.436	-2.436	
State Exports	0	0	0	0	0	0	0	0	0	0	0	0	-4.137	-447	-520	-423	-731	-275	0	0	0	-52	0	-302	-933	0	-34	0	-7.854	-7.854	
Non-Utilized Energy	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Re-injection	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Gross Domestic Supply	26.387	134	1.470	320	5.314	1.164	4.462	327	6.432	380	245	46.635	-4.004	-475	-1.915	-121	-725	-265	0	0	257	1.832	144	-478	-879	0	-4	491	-6.142	40.493	
Total Transformation	-26.387	0	-1.457	0	-5.314	-219	-4.462	-327	-99	-62	-156	-38.483	9.548	4.475	4.744	1.669	1.817	1.013	101	290	1.023	5.486	26	868	2.991	559	461	531	35.602	-2.881	
Petroleum Refinereries	-26.387	0	0	0	0	0	0	0	0	0	0	-26.387	9.551	4.795	4.661	1.625	2.019	1.013	0	0	0	0	0	0	0	559	461	531	25.215	-1.172	
Natural Gas Plants	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Gasification Plants	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-111	0	101	0	0	0	0	0	0	0	0	0	-10	-10	
Coking Plants	0	0	-1.457	0	0	0	0	0	0	0	0	-1.457	0	0	0	0	0	0	0	290	1.023	0	0	0	0	0	0	0	1.313	-144	
Public Util. Power Plants	0	0	0	0	-5.158	0	0	0	0	0	0	-5.158	0	-50	0	0	0	0	0	0	0	5.171	0	0	0	0	0	0	0	5.121	-37
Self-Prod. Power Plants	0	0	0	0	-156	-28	0	0	-99	-62	-156	-501	-3	-270	0	0	0	0	0	0	0	315	0	0	0	0	0	0	0	42	-459
Charcoal Plants	0	0	0	0	0	-191	0	0	0	0	0	-191	0	0	0	0	0	0	0	0	0	0	26	0	0	0	0	0	0	26	-165
Distilleries	0	0	0	0	0	0	-4.462	-327	0	0	0	-4.789	0	0	0	0	0	0	0	0	0	0	0	868	2.991	0	0	0	3.859	-930	
Other Transformations	0	0	0	0	0	0	0	0	0	0	0	0	0	0	83	44	-91	0	0	0	0	0	0	0	0	0	0	0	36	36	
Losses in Distrib./Storage	0	-3	-13	-17	0	0	0	0	-643	0	0	-676	0	0	0	0	0	0	-2	-2	0	-682	0	-8	-38	0	0	0	-732	-1.408	
Final Consumption	0	132	0	303	0	945	0	0	5.690	319	88	7.477	5.543	4.000	2.830	1.548	1.091	750	100	288	1.279	6.634	171	382	2.074	559	457	1.022	28.728	36.205	
Final Non-Ener. Consump.	0	0	0	0	0	0	0	0	137	0	0	137	0	0	0	0	1.091	0	0	0	0	0	2	0	197	84	0	1.022	2.396	2.533	
Final Energy Consumption	0	132	0	303	0	945	0	0	5.553	319	88	7.340	5.543	4.000	2.830	1.548	0	750	100	288	1.279	6.634	169	382	1.877	475	457	0	26.332	33.672	
Energy Sector	0	0	0	0	0	0	0	0	2.965	0	0	2.965	6	608	0	4	0	0	0	55	0	143	0	0	0	463	0	0	1.279	4.244	
Residential	0	0	0	2	0	168	0	0	0	0	0	170	0	0	0	1.288	0	19	41	0	0	1.548	1	0	0	0	0	0	2.897	3.067	
Commercial	0	0	0	4	0	65	0	0	0	0	0	69	78	44	0	112	0	0	26	0	0	765	11	0	0	0	0	0	1.036	1.105	
Public	0	0	0	0	0	0	0	0	0	0	0	0	61	14	0	9	0	1	2	0	0	493	0	0	0	0	0	0	580	580	
Agriculture	0	0	0	0	0	10	0	0	0	0	0	10	781	29	0	3	0	1	0	0	0	152	0	0	0	0	0	0	966	976	
Transportation - Total	0	0	0	2	0	0	0	0	0	0	0	2	4.459	528	2.830	0	0	680	0	0	0	69	0	382	1.877	0	0	0	10.825	10.827	
Highways	0	0	0	2	0	0	0	0	0	0	0	2	4.149	0	2.821	0	0	0	0	0	0	1	0	382	1.877	0	0	0	9.230	9.232	
Railroads	0	0	0	0	0	0	0	0	0	0	0	0	78	1	0	0	0	0	0	0	0	68	0	0	0	0	0	0	147	147	
Airways	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	0	0	680	0	0	0	0	0	0	0	0	0	689	689	
Waterways	0	0	0	0	0	0	0	0	0	0	0	0	232	527	0	0	0	0	0	0	0	0	0	0	0	0	0	0	759	759	
Industrial - Total	0	132	0	295	0	702	0	0	2.588	319	88	4.124	158	2.777	0	132	0	49	31	233	1.279	3.464	157	0	0	12	457	0	8.749	12.873	
Cement	0	115	0	0	0	1	0	0	0	0	7	123	8	154	0	0	0	0	0	0	11	58	7	0	0	0	29	0	267	390	
Pig-Iron and Steel	0	0	0	33	0	1	0	0	0	0	5	39	12	186	0	16	0	8	0	233	1.268	260	131	0	0	0	0	0	2.114	2.153	
Ferro Alloys	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	40	2	0	0	0	0	0	0	42	42	
Mining and Pelletization	0	0	0	0	0	0	0	0	0	0	0	0	29	17	0	0	0	1	0	0	0	37	0	0	0	0	0	0	84	84	
Non-Ferrous-Other Metal	0	0	0	0	0	0	0	0	0	0	0	0	0	53	0	0	0	4	6	0	0	560	0	0	0	0	416	0	1.039	1.039	
Chemical	0	0	0	10	0	12	0	0	14	0	0	36	36	636	0	18	0	18	2	0	0	446	2	0	0	12	4	0	1.174	1.210	
Foods and Beverages	0	9	0	67	0	162	0	0	2.546	0	12	2.796	49	487	0	6	0	1	4	0	0	448	0	0	0	0	0	0	995	3.791	
Textiles	0	0	0	18	0	30	0	0	0	0	0	48	2	146	0	4	0	1	1	0	0	305	13	0	0	0	0	0	472	520	
Paper and Pulp	0	7	0	0	0	292	0	0	28	319	49	695	8	264	0	0	0	2	0	0	0	242	0	0	0	0	0	0	516	1.211	
Ceramics	0	1	0	37	0	151	0	0	0	0	4	193	5	100	0	73	0	2	5	0	0	90	2	0	0	0	0	0	277	470	
Others	0	0	0	130	0	53	0	0	0	0	11	194	9	734	0	15	0	12	13	0	0	978	0	0	0	0	8	0	1.769	1.963	
Unidentified Consumption	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Adjustments	0	-1	0	0	0	0	0	0	0	-1	1	-1	1	0	-1	0	1	-2	-1	0	1	2	-1	0	0	0	0	0	0	-1	

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Energy Flow	Petro- leum	Steam Coal	Metal- lurgical Coal	Natural Gas	Hydraulic Energy	Firewood	Sugar Cane juice	Molasses	Sugar Cane Bagasse	Black Liquor	Others Primary Sources	Primary Energy	Diesel Oil	Fuel Oil	Gasoline	LPG	Naphtha	Kerosene	Gaswor- ks gas	Gas Coke	Coal Coke	Electric- ity	Charcoal	Anhy- drous Ethanol	Hydrated Ethanol	Refinery Gas	Others	Non Energy Products	Second- ary Energy	Total	
Production	0	0	0	0	5.400	975	4.568	370	6.780	459	263	18.815	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18.815	
Imports	10.899	0	1.594	0	0	0	0	0	0	0	0	12.493	795	828	21	304	0	22	0	0	139	0	0	0	0	0	0	11	2.120	14.613	
State Imports	15.100	87	0	408	0	170	0	0	0	0	0	15.765	0	0	0	0	0	8	0	0	0	3.617	139	0	0	0	4	226	3.994	19.759	
Changes in stocks	0	14	30	0	0	0	0	0	0	0	0	44	-17	225	33	33	0	20	0	0	17	0	0	-353	72	0	22	-11	41	85	
Total Supply	25.999	101	1.624	408	5.400	1.145	4.568	370	6.780	459	263	47.117	778	1.053	54	337	0	50	0	0	156	3.617	139	-353	72	0	26	226	6.155	53.272	
Exports	0	0	0	0	0	0	0	0	0	0	0	0	-216	-843	-2.029	0	0	-30	0	0	0	0	0	-12	-45	0	0	0	-3.175	-3.175	
State Exports	0	0	0	0	0	0	0	0	0	0	0	0	-3.774	-225	-495	-403	-109	-234	0	0	0	-647	0	-176	-930	0	-25	0	-7.018	-7.018	
Non-Utilized Energy	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Re-injection	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Gross Domestic Supply	25.999	101	1.624	408	5.400	1.145	4.568	370	6.780	459	263	47.117	-3.212	-15	-2.470	-66	-109	-214	0	0	156	2.970	139	-541	-903	0	1	226	-4.038	43.079	
Total Transformation	-25.999	0	-1.609	0	-5.400	-229	-4.568	-370	-113	-77	-177	-38.542	8.778	4.073	5.343	1.702	1.576	1.123	104	302	1.088	4.942	26	1.092	2.947	703	405	756	34.960	-3.582	
Petroleum Refinereries	-25.999	0	0	0	0	0	0	0	0	0	0	-25.999	8.781	4.385	5.257	1.655	1.797	1.123	0	0	0	0	0	0	0	703	405	756	24.862	-1.137	
Natural Gas Plants	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Gasification Plants	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-113	0	104	0	0	0	0	0	0	0	0	0	-9	-9	
Coking Plants	0	0	-1.609	0	0	0	0	0	0	0	0	-1.609	0	0	0	0	0	0	0	302	1.088	0	0	0	0	0	0	0	0	1.390	-219
Public Util. Power Plants	0	0	0	0	-5.240	0	0	0	0	0	0	-5.240	0	-34	0	0	0	0	0	0	0	4.561	0	0	0	0	0	0	0	4.527	-713
Self-Prod. Power Plants	0	0	0	0	-160	-27	0	0	-113	-77	-177	-554	-3	-278	0	0	0	0	0	0	0	381	0	0	0	0	0	0	0	100	-454
Charcoal Plants	0	0	0	0	0	-202	0	0	0	0	0	-202	0	0	0	0	0	0	0	0	0	0	26	0	0	0	0	0	0	26	-176
Distilleries	0	0	0	0	0	0	-4.568	-370	0	0	0	-4.938	0	0	0	0	0	0	0	0	0	0	0	1.092	2.947	0	0	0	0	4.039	-899
Other Transformations	0	0	0	0	0	0	0	0	0	0	0	0	0	0	86	47	-108	0	0	0	0	0	0	0	0	0	0	0	0	25	25
Losses in Distrib./Storage	0	-3	-15	-21	0	0	0	0	-678	0	0	-717	0	0	0	0	0	0	-10	-3	0	-848	0	-8	-35	0	0	0	0	-904	-1.621
Final Consumption	0	99	0	387	0	916	0	0	5.989	382	85	7.858	5.567	4.058	2.873	1.636	1.467	911	93	299	1.244	7.064	163	542	2.009	702	407	983	30.018	37.876	
Final Non-Ener. Consump.	0	0	0	0	0	0	0	0	146	0	0	146	0	0	0	0	1.467	0	0	0	0	0	2	0	130	105	0	983	2.687	2.833	
Final Energy Consumption	0	99	0	387	0	916	0	0	5.843	382	85	7.712	5.567	4.058	2.873	1.636	0	911	93	299	1.244	7.064	161	542	1.879	597	407	0	27.331	35.043	
Energy Sector	0	0	0	0	0	0	0	0	2.916	0	0	2.916	9	556	0	4	0	0	1	57	0	172	0	0	0	0	597	0	0	1.396	4.312
Residential	0	0	0	2	0	169	0	0	0	0	0	171	0	0	0	1.319	0	19	48	0	0	1.603	1	0	0	0	0	0	0	2.990	3.161
Commercial	0	0	0	3	0	66	0	0	0	0	0	69	76	39	0	145	0	0	28	0	0	813	10	0	0	0	0	0	0	1.111	1.180
Public	0	0	0	0	0	0	0	0	0	0	0	0	58	10	0	11	0	1	3	0	0	544	0	0	0	0	0	0	0	627	627
Agriculture	0	0	0	0	0	11	0	0	0	0	0	11	790	29	0	4	0	1	0	0	0	155	0	0	0	0	0	0	0	979	990
Transportation - Total	0	0	0	9	0	0	0	0	0	0	0	9	4.445	546	2.873	0	0	843	0	0	0	76	0	542	1.879	0	0	0	0	11.204	11.213
Highways	0	0	0	9	0	0	0	0	0	0	0	9	4.121	0	2.864	0	0	0	0	0	0	4	0	542	1.879	0	0	0	0	9.410	9.419
Railroads	0	0	0	0	0	0	0	0	0	0	0	0	79	1	0	0	0	0	0	0	0	72	0	0	0	0	0	0	0	152	152
Airways	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	0	0	843	0	0	0	0	0	0	0	0	0	0	852	852
Waterways	0	0	0	0	0	0	0	0	0	0	0	0	245	545	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	790	790
Industrial - Total	0	99	0	373	0	670	0	0	2.927	382	85	4.536	189	2.878	0	153	0	47	13	242	1.244	3.701	150	0	0	0	407	0	0	9.024	13.560
Cement	0	88	0	1	0	0	0	0	0	0	0	89	6	188	0	0	0	0	0	0	0	64	7	0	0	0	27	0	0	292	381
Pig-Iron and Steel	0	0	0	24	0	1	0	0	0	0	0	25	12	193	0	16	0	8	0	242	1.244	280	126	0	0	0	0	0	0	2.121	2.146
Ferro Alloys	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	45	2	0	0	0	0	0	0	47	47
Mining and Pelletization	0	0	0	0	0	0	0	0	0	0	0	0	29	17	0	0	0	1	0	0	0	42	0	0	0	0	0	0	0	89	89
Non-Ferrous-Other Metal	0	0	0	0	0	0	0	0	0	0	0	0	0	55	0	0	0	4	8	0	0	602	0	0	0	0	369	0	0	1.038	1.038
Chemical	0	0	0	52	0	11	0	0	14	0	0	77	48	640	0	12	0	17	0	0	0	493	2	0	0	0	4	0	0	1.216	1.293
Foods and Beverages	0	9	0	34	0	153	0	0	2.885	0	14	3.095	72	506	0	9	0	1	5	0	0	475	0	0	0	0	0	0	0	1.068	4.163
Textiles	0	0	0	21	0	28	0	0	0	0	0	49	2	152	0	4	0	1	0	0	0	322	12	0	0	0	0	0	0	493	542
Paper and Pulp	0	0	0	49	0	295	0	0	28	382	52	806	7	271	0	0	0	2	0	0	0	265	0	0	0	0	0	0	0	545	1.351
Ceramics	0	2	0	52	0	133	0	0	0	0	4	191	4	104	0	91	0	2	0	0	0	104	1	0	0	0	0	0	0	306	497
Others	0	0	0	140	0	49	0	0	0	0	15	204	9	752	0	21	0	11	0	0	0	1.009	0	0	0	0	7	0	0	1.809	2.013
Unidentified Consumption	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Adjustments	0	-1	0	0	0	0	0	0	0	0	1	0	-1	0	0	0	0	-2	1	0	0	0	2	1	0	1	-1	-1	0	0	0

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Energy Flow	Petro-leum	Steam Coal	Metal-lurgical Coal	Natural Gas	Hydraulic Energy	Firewood	Sugar Cane juice	Molasses	Sugar Cane Bagasse	Black Liquor	Others Primary Sources	Primary Energy	Diesel Oil	Fuel Oil	Gasoline	LPG	Naphta	Kerosene	Gaswor- sks gas	Gas Coke	Coal Coke	Electric- ity	Charcoal	Anhy-drous Ethanol	Hydrated Ethanol	Refinery Gas	Others	Non Energy Products	Second-ary Energy	Total	
Production	0	0	0	468	5.120	903	4.407	444	6.757	506	333	18.938	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18.938	
Imports	12.319	0	1.660	0	0	0	0	0	0	0	0	13.979	655	1.088	26	215	0	40	0	0	457	0	0	0	0	0	0	13	2.494	16.473	
State Imports	17.590	92	0	109	0	169	0	0	0	0	0	17.960	0	0	0	0	0	20	0	0	3.744	134	0	0	0	0	245	4.143	22.103		
Changes in stocks	0	-10	-30	0	0	0	0	0	0	0	0	-40	-203	-150	27	40	0	32	0	0	-86	0	0	120	-61	0	-27	-13	-321	-361	
Total Supply	29.909	82	1.630	577	5.120	1.072	4.407	444	6.757	506	333	50.837	452	938	53	255	0	92	0	0	371	3.744	134	120	-61	0	-27	245	6.316	57.153	
Exports	0	0	0	0	0	0	0	0	0	0	0	0	-452	-791	-1.490	0	0	-38	0	0	0	0	0	-16	-50	0	0	0	-2.837	-2.837	
State Exports	0	0	0	0	0	0	0	0	0	0	0	0	-5.217	-142	-1.088	-491	-288	-232	0	0	0	-710	0	-664	-807	0	-24	0	-9.663	-9.663	
Non-Utilized Energy	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Re-injection	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Gross Domestic Supply	29.909	82	1.630	577	5.120	1.072	4.407	444	6.757	506	333	50.837	-5.217	5	-2.525	-236	-288	-178	0	0	371	3.034	134	-560	-918	0	-51	245	-6.184	44.653	
Total Transformation	-29.908	0	-1.614	0	-5.120	-229	-4.407	-444	-117	-86	-243	-42.168	11.015	4.212	5.996	1.903	1.714	1.215	70	291	1.041	5.005	25	1.170	3.074	836	500	814	38.881	-3.287	
Petroleum Refinereries	-29.908	0	0	0	0	0	0	0	0	0	0	-29.908	11.018	4.563	5.823	1.781	1.898	1.215	0	0	0	0	0	0	0	836	500	814	28.448	-1.460	
Natural Gas Plants	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Gasification Plants	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-81	0	70	0	0	0	0	0	0	0	0	0	-11	-11	
Coking Plants	0	0	-1.614	0	0	0	0	0	0	0	0	-1.614	0	0	0	0	0	0	0	291	1.041	0	0	0	0	0	0	0	1.332	-282	
Public Util. Power Plants	0	0	0	0	-4.965	0	0	0	0	0	0	-4.965	0	-65	0	0	0	0	0	0	0	4.639	0	0	0	0	0	0	0	4.574	-391
Self-Prod. Power Plants	0	0	0	0	-155	-28	0	0	-117	-86	-243	-629	-3	-286	0	0	0	0	0	0	0	366	0	0	0	0	0	0	0	77	-552
Charcoal Plants	0	0	0	0	0	-201	0	0	0	0	0	-201	0	0	0	0	0	0	0	0	0	0	25	0	0	0	0	0	0	25	-176
Distilleries	0	0	0	0	0	0	-4.407	-444	0	0	0	-4.851	0	0	0	0	0	0	0	0	0	0	0	1.170	3.074	0	0	0	0	4.244	-607
Other Transformations	0	0	0	0	0	0	0	0	0	0	0	0	0	0	173	122	-103	0	0	0	0	0	0	0	0	0	0	0	192	192	
Losses in Distrib./Storage	0	-2	-16	-19	0	0	0	0	-676	0	0	-713	0	0	0	0	0	0	-5	0	0	-727	0	-12	-36	0	0	0	0	-780	-1.493
Final Consumption	0	80	0	557	0	841	0	0	5.964	420	89	7.951	5.798	4.217	3.472	1.667	1.426	1.039	64	290	1.411	7.312	159	598	2.121	835	449	1.059	31.917	39.868	
Final Non-Ener. Consump.	0	0	0	0	0	0	0	0	157	0	0	157	0	0	0	0	1.426	0	0	0	0	0	2	0	174	125	0	1.059	2.786	2.943	
Final Energy Consumption	0	80	0	557	0	841	0	0	5.807	420	89	7.794	5.798	4.217	3.472	1.667	0	1.039	64	290	1.411	7.312	157	598	1.947	710	449	0	29.131	36.925	
Energy Sector	0	0	0	0	0	0	0	0	2.475	0	0	2.475	9	591	0	4	0	0	0	64	0	169	0	0	0	0	710	0	0	1.547	4.022
Residential	0	0	0	12	0	170	0	0	0	0	0	182	0	0	0	1.321	0	20	35	0	0	1.677	1	0	0	0	0	0	0	3.054	3.236
Commercial	0	0	0	11	0	67	0	0	0	0	0	78	75	38	0	143	0	0	22	0	0	858	10	0	0	0	0	0	0	1.146	1.224
Public	0	0	0	0	0	0	0	0	0	0	0	0	58	5	0	10	0	1	2	0	0	589	0	0	0	0	0	0	0	665	665
Agriculture	0	0	0	0	0	11	0	0	0	0	0	11	835	29	0	5	0	1	0	0	0	165	0	0	0	0	0	0	0	1.035	1.046
Transportation - Total	0	0	0	15	0	0	0	0	0	0	0	15	4.629	626	3.472	0	0	977	0	0	0	65	0	598	1.947	0	0	0	0	12.314	12.329
Highways	0	0	0	15	0	0	0	0	0	0	0	15	4.295	0	3.462	0	0	0	0	0	0	5	0	598	1.947	0	0	0	0	10.307	10.322
Railroads	0	0	0	0	0	0	0	0	0	0	0	0	83	1	0	0	0	0	0	0	0	60	0	0	0	0	0	0	0	144	144
Airways	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	0	0	977	0	0	0	0	0	0	0	0	0	0	0	987	987
Waterways	0	0	0	0	0	0	0	0	0	0	0	0	251	625	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	876	876
Industrial - Total	0	80	0	519	0	593	0	0	3.332	420	89	5.033	192	2.928	0	184	0	40	5	226	1.411	3.789	146	0	0	0	449	0	9.370	14.403	
Cement	0	76	0	2	0	0	0	0	0	0	0	78	5	195	0	0	0	0	0	0	33	65	7	0	0	0	31	0	336	414	
Pig-Iron and Steel	0	0	0	120	0	1	0	0	0	0	0	121	14	199	0	17	0	7	0	226	1.378	304	122	0	0	0	0	0	2.267	2.388	
Ferro Alloys	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	48	2	0	0	0	0	0	0	50	50
Mining and Pelletization	0	0	0	0	0	0	0	0	0	0	0	0	29	18	0	0	0	1	0	0	0	44	0	0	0	0	0	0	0	92	92
Non-Ferrous-Other Metal	0	0	0	0	0	0	0	0	0	0	0	0	0	57	0	0	0	3	3	0	0	627	0	0	0	0	0	0	1.097	1.097	
Chemical	0	0	0	115	0	9	0	0	14	0	0	138	55	609	0	9	0	14	0	0	0	500	2	0	0	0	4	0	0	1.193	1.331
Foods and Beverages	0	2	0	42	0	136	0	0	3.288	0	14	3.482	66	525	0	11	0	1	2	0	0	486	0	0	0	0	0	0	0	1.091	4.573
Textiles	0	0	0	26	0	23	0	0	0	0	0	49	1	157	0	4	0	1	0	0	0	314	12	0	0	0	0	0	0	489	538
Paper and Pulp	0	0	0	47	0	266	0	0	30	420	54	817	10	280	0	0	0	2	0	0	0	264	0	0	0	0	0	0	0	556	1.373
Ceramics	0	2	0	45	0	115	0	0	0	0	5	167	3	108	0	110	0	2	0	0	0	106	1	0	0	0	0	0	0	330	497
Others	0	0	0	122	0	43	0	0	0	0	16	181	9	780	0	33	0	9	0	0	0	1.031	0	0	0	0	7	0	1.869	2.050	
Unidentified Consumption	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Adjustments	1	0	0	1	0	2	0	0	0	0	1	5	0	0	-1	0	0	-2	1	1	1	0	0	0	-1	1	0	0	0	5	

São Paulo Energy Balance - Consolidated 1995 - 10³ toE

Energy Flow	Petro- leum	Steam Coal	Metal- lurgical Coal	Natural Gas	Hydraulic Energy	Firewood	Sugar Cane juice	Molasses	Sugar Cane Bagasse	Black Liquor	Others Primary Sources	Primary Energy	Diesel Oil	Fuel Oil	Gasoline	LPG	Naphtha	Kerosene	Gaswor- ks gas	Gas Coke	Coal Coke	Electric- ity	Charcoal	Anhy- drous Ethanol	Hydrated Ethanol	Refinery Gas	Others	Non Energy Products	Second- ary Energy	Total	
Production	0	0	0	455	5.483	870	3.620	479	6.757	551	392	18.607	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18.607	
Imports	8.169	0	1.685	0	0	0	0	0	0	0	0	9.854	839	366	101	121	0	34	0	0	297	0	0	0	0	0	0	135	1.893	11.747	
State Imports	22.741	112	0	313	0	168	0	0	0	0	0	23.334	0	0	0	0	0	25	0	0	3.931	129	0	0	0	0	263	4.348	27.682		
Changes in stocks	0	-6	-30	0	0	0	0	0	0	0	0	-36	157	114	-57	-3	0	25	0	0	-93	0	0	134	-53	0	27	27	278	242	
Total Supply	30.910	106	1.655	768	5.483	1.038	3.620	479	6.757	551	392	51.759	996	480	44	118	0	84	0	0	204	3.931	129	134	-53	0	27	425	6.519	58.278	
Exports	0	0	0	0	0	0	0	0	0	0	0	0	-598	-988	-545	0	0	-27	0	0	0	0	0	-5	-65	0	0	0	-2.228	-2.228	
State Exports	0	0	0	0	0	0	0	0	0	0	0	0	-5.547	-166	-1.809	-277	-175	-187	0	0	0	-680	0	-560	-580	0	-27	0	-10.008	-10.008	
Non-Utilized Energy	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Re-injection	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Gross Domestic Supply	30.910	106	1.655	768	5.483	1.038	3.620	479	6.757	551	392	51.759	-5.149	-674	-2.310	-159	-175	-130	0	0	204	3.251	129	-431	-698	0	0	425	-5.717	46.042	
Total Transformation	-30.909	0	-1.637	0	-5.483	-214	-3.620	-479	-119	-95	-292	-42.848	11.198	4.821	6.106	1.858	1.662	1.444	36	304	1.098	5.215	24	1.138	2.828	839	462	744	39.777	-3.071	
Petroleum Refinereries	-30.909	0	0	0	0	0	0	0	0	0	0	-30.909	11.201	5.091	5.942	1.724	1.835	1.444	0	0	0	0	0	0	0	839	462	744	29.282	-1.627	
Natural Gas Plants	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Gasification Plants	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-77	0	36	0	0	0	0	0	0	0	0	0	-41	-41	
Coking Plants	0	0	-1.637	0	0	0	0	0	0	0	0	-1.637	0	0	0	0	0	0	0	304	1.098	0	0	0	0	0	0	0	0	1.402	-235
Public Util. Power Plants	0	0	0	0	-5.328	0	0	0	0	0	0	-5.328	0	-24	0	0	0	0	0	0	0	4.838	0	0	0	0	0	0	0	4.814	-514
Self-Prod. Power Plants	0	0	0	0	-155	-29	0	0	-119	-95	-292	-690	-3	-246	0	0	0	0	0	0	0	377	0	0	0	0	0	0	0	128	-562
Charcoal Plants	0	0	0	0	0	-185	0	0	0	0	0	-185	0	0	0	0	0	0	0	0	0	0	24	0	0	0	0	0	0	24	-161
Distilleries	0	0	0	0	0	0	-3.620	-479	0	0	0	-4.099	0	0	0	0	0	0	0	0	0	0	0	1.138	2.828	0	0	0	0	3.966	-133
Other Transformations	0	0	0	0	0	0	0	0	0	0	0	0	0	0	164	134	-96	0	0	0	0	0	0	0	0	0	0	0	0	202	202
Losses in Distrib./Storage	0	-3	-19	-20	0	0	0	0	-676	0	0	-718	0	0	0	0	0	0	-3	-1	0	-790	0	-10	-39	0	0	0	0	-843	-1.561
Final Consumption	0	103	0	745	0	824	0	0	5.962	456	99	8.189	6.051	4.145	3.796	1.699	1.487	1.317	32	303	1.303	7.676	152	697	2.092	839	462	1.168	33.219	41.408	
Final Non-Ener. Consump.	0	0	0	0	0	0	0	0	157	0	0	157	0	0	0	0	1.487	0	0	0	0	0	2	0	165	126	0	1.168	2.948	3.105	
Final Energy Consumption	0	103	0	745	0	824	0	0	5.805	456	99	8.032	6.051	4.145	3.796	1.699	0	1.317	32	303	1.303	7.676	150	697	1.927	713	462	0	30.271	38.303	
Energy Sector	0	0	0	0	0	0	0	0	2.117	0	0	2.117	9	637	0	4	0	0	0	72	0	179	0	0	0	0	713	0	0	1.614	3.731
Residential	0	0	0	32	0	172	0	0	0	0	0	204	0	0	0	1.322	0	24	15	0	0	1.876	1	0	0	0	0	0	0	3.238	3.442
Commercial	0	0	0	24	0	68	0	0	0	0	0	92	74	21	0	146	0	0	15	0	0	959	9	0	0	0	0	0	0	1.224	1.316
Public	0	0	0	0	0	0	0	0	0	0	0	0	56	5	0	10	0	1	0	0	0	603	0	0	0	0	0	0	0	675	675
Agriculture	0	0	0	0	0	12	0	0	0	0	0	12	878	32	0	5	0	1	0	0	0	176	0	0	0	0	0	0	0	1.092	1.104
Transportation - Total	0	0	0	12	0	0	0	0	0	0	0	12	4.833	563	3.796	0	0	1.249	0	0	0	73	0	697	1.927	0	0	0	0	13.138	13.150
Highways	0	0	0	12	0	0	0	0	0	0	0	12	4.492	0	3.784	0	0	0	0	0	0	5	0	697	1.927	0	0	0	0	10.905	10.917
Railroads	0	0	0	0	0	0	0	0	0	0	0	0	81	1	0	0	0	0	0	0	0	68	0	0	0	0	0	0	0	150	150
Airways	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	0	0	1.249	0	0	0	0	0	0	0	0	0	0	1.261	1.261
Waterways	0	0	0	0	0	0	0	0	0	0	0	0	260	562	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	822	822
Industrial - Total	0	103	0	677	0	572	0	0	3.688	456	99	5.595	201	2.887	0	212	0	42	2	231	1.303	3.810	140	0	0	0	462	0	0	9.290	14.885
Cement	0	99	0	0	0	0	0	0	0	0	0	99	5	198	0	0	0	0	0	0	36	71	6	0	0	0	31	0	0	347	446
Pig-Iron and Steel	0	0	0	127	0	2	0	0	0	0	0	129	12	180	0	18	0	8	0	231	1.267	295	118	0	0	0	0	0	0	2.129	2.258
Ferro Alloys	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	46	2	0	0	0	0	0	0	0	48	48
Mining and Pelletization	0	0	0	0	0	0	0	0	0	0	0	0	29	19	0	0	0	1	0	0	0	46	0	0	0	0	0	0	0	95	95
Non-Ferrous-Other Metal	0	0	0	0	0	0	0	0	0	0	0	0	0	57	0	0	0	6	1	0	0	615	0	0	0	0	420	0	0	1.099	1.099
Chemical	0	0	0	152	0	10	0	0	14	0	0	176	56	629	0	8	0	14	0	0	0	488	2	0	0	0	0	4	0	1.201	1.377
Foods and Beverages	0	2	0	62	0	134	0	0	3.644	0	15	3.857	75	466	0	12	0	1	1	0	0	500	0	0	0	0	0	0	0	1.055	4.912
Textiles	0	0	0	29	0	22	0	0	0	0	0	51	1	137	0	3	0	1	0	0	0	295	11	0	0	0	0	0	0	448	499
Paper and Pulp	0	0	0	71	0	254	0	0	30	456	59	870	11	381	0	0	0	2	0	0	0	249	0	0	0	0	0	0	0	643	1.513
Ceramics	0	2	0	49	0	109	0	0	0	0	5	165	3	115	0	128	0	2	0	0	0	115	1	0	0	0	0	0	0	364	529
Others	0	0	0	187	0	41	0	0	0	0	20	248	9	705	0	43	0	7	0	0	0	1.090	0	0	0	0	7	0	0	1.861	2.109
Unidentified Consumption	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Adjustments	1	0	-1	3	0	0	0	0	0	0	1	4	-2	2	0	0	0	-3	1	0	-1	0	1	0	-1	0	0	1	-2	2	

São Paulo Energy Balance - Consolidated 1996 - 10³ tOE

Energy Flow	Petro-leum	Steam Coal	Metal-lurgical Coal	Natural Gas	Hydraulic Energy	Firewood	Sugar Cane juice	Molasses	Sugar Cane Bagasse	Black Liquor	Others Primary Sources	Primary Energy	Diesel Oil	Fuel Oil	Gasoline	LPG	Naphtha	Kerosene	Gaswor-sks gas	Gas Coke	Coal Coke	Electric-ity	Charcoal	Anhy-drous Ethanol	Hydrated Ethanol	Refinery Gas	Others	Non Energy Products	Second-ary Energy	Total
Production	0	0	0	522	5.390	880	3.303	526	7.571	576	478	19.246	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	19.246
Imports	10.394	0	1.641	0	0	0	0	0	0	0	0	12.035	308	191	118	481	109	83	0	0	130	0	0	0	0	0	0	190	1.610	13.645
State Imports	20.472	98	0	377	0	166	0	0	0	0	0	21.113	0	0	0	0	242	75	0	0	0	4.032	124	0	0	0	0	346	4.819	25.932
Changes in stocks	0	12	18	0	0	0	0	0	0	0	0	30	-106	-155	-58	11	-119	-51	0	0	-26	0	0	-161	-53	0	-27	7	-738	-708
Total Supply	30.866	110	1.659	899	5.390	1.046	3.303	526	7.571	576	478	52.424	202	36	60	492	232	107	0	0	104	4.032	124	-161	-53	0	-27	543	5.691	58.115
Exports	0	0	0	0	0	0	0	0	0	0	0	0	-40	-379	-225	0	0	-25	0	0	0	0	0	-10	-65	0	0	0	-744	-744
State Exports	0	0	0	0	0	0	0	0	0	0	0	0	-4.340	-191	-1.524	-211	0	-16	0	0	0	0	0	-607	-582	0	-27	0	-8.196	-8.196
Non-Utilized Energy	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Re-injection	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gross Domestic Supply	30.866	110	1.659	899	5.390	1.046	3.303	526	7.571	576	478	52.424	-4.178	-534	-1.689	281	232	66	0	0	104	3.334	124	-778	-700	0	-54	543	-3.249	49.175
Total Transformation	-30.865	0	-1.642	0	-5.389	-220	-3.303	-526	-133	-102	-361	-42.541	10.824	5.053	6.132	1.674	1.277	1.483	13	322	1.188	5.426	23	1.586	2.828	843	508	735	39.915	-2.626
Petroleum Refinereries	-30.865	0	0	0	0	0	0	0	0	0	0	-30.865	10.827	5.498	5.937	1.552	1.642	1.483	0	0	0	0	0	0	0	843	508	735	29.025	-1.840
Natural Gas Plants	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gasification Plants	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-23	0	13	0	0	0	0	0	0	0	0	0	-10	-10
Coking Plants	0	0	-1.642	0	0	0	0	0	0	0	0	-1.642	0	0	0	0	0	0	0	322	1.188	0	0	0	0	0	0	0	1.510	-132
Public Util. Power Plants	0	0	0	0	-5.230	0	0	0	0	0	0	-5.230	0	-251	0	0	0	0	0	0	0	5.000	0	0	0	0	0	0	4.749	-481
Self-Prod. Power Plants	0	0	0	0	-159	-30	0	0	-133	-102	-361	-785	-3	-194	0	0	0	0	0	0	0	426	0	0	0	0	0	0	229	-556
Charcoal Plants	0	0	0	0	0	-190	0	0	0	0	0	-190	0	0	0	0	0	0	0	0	0	0	23	0	0	0	0	0	23	-167
Distilleries	0	0	0	0	0	0	-3.303	-526	0	0	0	-3.829	0	0	0	0	0	0	0	0	0	0	0	1.586	2.828	0	0	0	4.414	585
Other Transformations	0	0	0	0	0	0	0	0	0	0	0	0	0	0	195	122	-342	0	0	0	0	0	0	0	0	0	0	0	-25	-25
Losses in Distrib./Storage	0	-2	-17	-10	0	0	0	0	-757	0	0	-786	0	0	0	0	0	0	-1	-1	0	-886	0	-13	-39	0	0	0	-940	-1.726
Final Consumption	0	108	0	890	0	826	0	0	6.680	473	117	9.094	6.646	4.519	4.444	1.955	1.508	1.551	11	321	1.292	7.877	147	794	2.090	842	455	1.278	35.730	44.824
Final Non-Ener. Consump.	0	0	0	0	0	0	0	0	157	0	0	157	0	0	0	0	1.508	0	0	0	0	0	2	0	165	126	0	1.278	3.079	3.236
Final Energy Consumption	0	108	0	890	0	826	0	0	6.523	473	117	8.937	6.646	4.519	4.444	1.955	0	1.551	11	321	1.292	7.877	145	794	1.925	716	455	0	32.651	41.588
Energy Sector	0	0	0	0	0	0	0	0	2.547	0	0	2.547	10	658	0	6	0	0	0	80	0	183	0	0	0	716	0	0	1.653	4.200
Residential	0	0	0	47	0	173	0	0	0	0	0	220	0	0	0	1.518	0	16	4	0	0	2.037	1	0	0	0	0	0	3.576	3.796
Commercial	0	0	0	32	0	63	0	0	0	0	0	95	35	26	0	165	0	0	5	0	0	1.038	9	0	0	0	0	0	1.278	1.373
Public	0	0	0	0	0	0	0	0	0	0	0	0	61	16	0	12	0	1	2	0	0	620	0	0	0	0	0	0	712	712
Agriculture	0	0	0	0	0	12	0	0	0	0	0	12	953	70	0	7	0	1	0	0	0	181	0	0	0	0	0	0	1.212	1.224
Transportation - Total	0	0	0	11	0	0	0	0	0	0	0	11	5.385	672	4.444	0	0	1.515	0	0	0	74	0	794	1.925	0	0	0	14.809	14.820
Highways	0	0	0	11	0	0	0	0	0	0	0	11	5.031	0	4.428	0	0	0	0	0	0	5	0	794	1.925	0	0	0	12.183	12.194
Railroads	0	0	0	0	0	0	0	0	0	0	0	0	85	1	0	0	0	0	0	0	0	69	0	0	0	0	0	0	155	155
Airways	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16	0	0	1.515	0	0	0	0	0	0	0	0	0	0	1.531	1.531
Waterways	0	0	0	0	0	0	0	0	0	0	0	0	269	671	0	0	0	0	0	0	0	0	0	0	0	0	0	0	940	940
Industrial - Total	0	108	0	800	0	578	0	0	3.976	473	117	6.052	202	3.077	0	247	0	18	0	241	1.292	3.744	135	0	0	0	455	0	9.411	15.463
Cement	0	106	0	1	0	0	0	0	0	0	0	107	4	167	0	0	0	0	0	0	35	76	6	0	0	0	86	0	374	481
Pig-Iron and Steel	0	0	0	192	0	2	0	0	0	0	0	194	13	217	0	18	0	4	0	241	1.257	266	113	0	0	0	0	0	2.129	2.323
Ferro Alloys	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	42	2	0	0	0	0	0	44	44
Mining and Pelletization	0	0	0	0	0	0	0	0	0	0	0	0	17	29	0	0	0	0	0	0	0	48	0	0	0	0	0	0	94	94
Non-Ferrous-Other Metal	0	0	0	0	0	0	0	0	0	0	0	0	0	67	0	0	0	1	0	0	0	584	0	0	0	0	335	0	987	987
Chemical	0	0	0	159	0	10	0	0	14	0	0	183	62	691	0	7	0	7	0	0	0	493	2	0	0	0	4	0	1.266	1.449
Foods and Beverages	0	1	0	64	0	131	0	0	3.929	0	19	4.144	78	538	0	18	0	1	0	0	0	491	0	0	0	0	0	0	1.126	5.270
Textiles	0	0	0	32	0	21	0	0	0	0	0	53	2	122	0	1	0	0	0	0	0	260	11	0	0	0	0	0	396	449
Paper and Pulp	0	0	0	70	0	268	0	0	33	473	66	910	12	491	0	0	0	2	0	0	0	248	0	0	0	0	0	0	753	1.663
Ceramics	0	1	0	32	0	106	0	0	0	0	5	144	3	125	0	148	0	1	0	0	0	124	1	0	0	0	0	0	402	546
Others	0	0	0	250	0	40	0	0	0	0	27	317	11	630	0	55	0	2	0	0	0	1.112	0	0	0	0	30	0	1.840	2.157
Unidentified Consumption	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Adjustments	1	0	0	-1	1	0	0	0	1	1	0	3	0	0	-1	0	1	-2	1	0	0	-3	0	1	-1	1	-1	0	-4	-1

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Energy Flow	Petro- leum	Steam Coal	Metal- lurgical Coal	Natural Gas	Hydraulic Energy	Firewood	Sugar Cane juice	Molasses	Sugar Cane Bagasse	Black Liquor	Others Primary Sources	Primary Energy	Diesel Oil	Fuel Oil	Gasoline	LPG	Naphtha	Kerosene	Gaswor- sks gas	Gas Coke	Coal Coke	Electric- ity	Charcoal	Anhy- drous Ethanol	Hydrated Ethanol	Refinery Gas	Others	Non Energy Products	Second- ary Energy	Total
Production	0	0	0	560	5.766	868	5.179	576	8.064	605	485	22.103	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	22.103
Imports	12.873	0	1.620	0	0	0	0	0	0	0	0	14.493	773	0	114	324	0	31	0	0	198	0	0	0	0	0	0	55	1.495	15.988
State Imports	20.146	60	88	450	0	165	0	0	0	0	0	20.909	0	0	0	0	22	74	0	0	0	4.196	120	0	0	0	0	397	4.809	25.718
Changes in stocks	0	-8	-39	0	0	0	0	0	0	0	0	-47	87	104	46	-13	15	21	0	0	-97	0	0	-104	-87	0	6	33	11	-36
Total Supply	33.019	52	1.669	1.010	5.766	1.033	5.179	576	8.064	605	485	57.458	860	104	160	311	37	126	0	0	101	4.196	120	-104	-87	0	6	485	6.315	63.773
Exports	0	0	0	0	0	0	0	0	0	0	0	0	-1	-129	-87	0	0	-16	0	0	0	0	0	-10	-65	0	19	-36	-325	-325
State Exports	0	0	0	0	0	0	0	0	0	0	0	0	-5.309	-1.634	-2.725	-126	0	-9	0	0	0	-689	0	-869	-812	0	-84	0	-12.257	-12.257
Non-Utilized Energy	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Re-injection	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gross Domestic Supply	33.019	52	1.669	1.010	5.766	1.033	5.179	576	8.064	605	485	57.458	-4.450	-1.659	-2.652	185	37	101	0	0	101	3.507	120	-983	-964	0	-59	449	-6.267	51.191
Total Transformation	-33.019	0	-1.657	0	-5.765	-207	-5.179	-576	-142	-108	-360	-47.013	11.776	6.524	7.391	1.841	1.956	1.548	0	321	1.207	5.633	22	1.814	2.847	810	545	982	45.217	-1.796
Petroleum Refinereries	-33.019	0	0	0	0	0	0	0	0	0	0	-33.019	11.789	6.860	7.159	1.710	1.943	1.548	0	0	0	0	0	0	0	810	545	982	33.346	327
Natural Gas Plants	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gasification Plants	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Coking Plants	0	0	-1.657	0	0	0	0	0	0	0	0	-1.657	0	0	0	0	0	0	0	321	1.207	0	0	0	0	0	0	0	1.528	-129
Public Util. Power Plants	0	0	0	0	-5.629	0	0	0	0	0	0	-5.629	0	-117	0	0	0	0	0	0	0	5.145	0	0	0	0	0	0	5.028	-601
Self-Prod. Power Plants	0	0	0	0	-136	-28	0	0	-142	-108	-360	-774	-13	-219	0	0	0	0	0	0	0	488	0	0	0	0	0	0	256	-518
Charcoal Plants	0	0	0	0	0	-179	0	0	0	0	0	-179	0	0	0	0	0	0	0	0	0	0	22	0	0	0	0	0	22	-157
Distilleries	0	0	0	0	0	0	-5.179	-576	0	0	0	-5.755	0	0	0	0	0	0	0	0	0	0	0	1.814	2.847	0	0	0	4.661	-1.094
Other Transformations	0	0	0	0	0	0	0	0	0	0	0	0	0	0	232	131	13	0	0	0	0	0	0	0	0	0	0	0	376	376
Losses in Distrib./Storage	0	-2	-11	-11	0	0	0	0	-806	0	0	-830	0	0	0	0	0	0	0	-1	0	-946	0	-13	-39	0	0	0	-999	-1.829
Final Consumption	0	50	0	998	0	827	0	0	7.115	497	124	9.611	7.327	4.863	4.739	2.024	1.992	1.649	0	320	1.308	8.195	143	819	1.844	809	486	1.430	37.948	47.559
Final Non-Ener. Consump.	0	0	0	0	0	0	0	0	157	0	0	157	0	0	0	0	1.992	0	0	0	0	0	2	0	186	121	0	1.430	3.731	3.888
Final Energy Consumption	0	50	0	998	0	827	0	0	6.958	497	124	9.454	7.327	4.863	4.739	2.024	0	1.649	0	320	1.308	8.195	141	819	1.658	688	486	0	34.217	43.671
Energy Sector	0	0	0	0	0	0	0	0	2.594	0	0	2.594	12	700	0	9	0	0	0	74	0	197	0	0	0	688	0	0	1.680	4.274
Residential	0	0	0	53	0	175	0	0	0	0	0	228	0	0	0	1.475	0	17	0	0	0	2.156	1	0	0	0	0	0	3.649	3.877
Commercial	0	0	0	36	0	62	0	0	0	0	0	98	35	28	0	181	0	0	0	0	0	1.135	9	0	0	0	0	0	1.388	1.486
Public	0	0	0	5	0	0	0	0	0	0	0	5	68	22	0	13	0	1	0	0	0	674	0	0	0	0	0	0	778	783
Agriculture	0	0	0	0	0	12	0	0	0	0	0	12	1.012	57	0	9	0	1	0	0	0	192	0	0	0	0	0	0	1.271	1.283
Transportation - Total	0	0	0	11	0	0	0	0	0	0	0	11	5.967	857	4.739	0	0	1.612	0	0	0	64	0	819	1.658	0	0	0	15.716	15.727
Highways	0	0	0	11	0	0	0	0	0	0	0	11	5.601	0	4.718	0	0	0	0	0	0	5	0	819	1.658	0	0	0	12.801	12.812
Railroads	0	0	0	0	0	0	0	0	0	0	0	0	91	1	0	0	0	0	0	0	0	59	0	0	0	0	0	0	151	151
Airways	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21	0	0	1.612	0	0	0	0	0	0	0	0	0	0	1.633	1.633
Waterways	0	0	0	0	0	0	0	0	0	0	0	0	275	856	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1.131	1.131
Industrial - Total	0	50	0	893	0	578	0	0	4.364	497	124	6.506	233	3.199	0	337	0	18	0	246	1.308	3.777	131	0	0	0	486	0	9.735	16.241
Cement	0	48	0	1	0	0	0	0	0	0	0	49	8	180	0	0	0	0	0	0	38	85	6	0	0	0	100	0	417	466
Pig-Iron and Steel	0	0	0	232	0	2	0	0	0	0	0	234	11	270	0	24	0	4	0	246	1.270	239	104	0	0	0	0	0	2.168	2.402
Ferro Alloys	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	35	7	0	0	0	0	0	0	42	42
Mining and Pelletization	0	0	0	0	0	0	0	0	0	0	0	0	28	33	0	0	0	0	0	0	0	60	0	0	0	0	0	0	121	121
Non-Ferrous-Other Metal	0	0	0	0	0	0	0	0	0	0	0	0	0	78	0	0	0	1	0	0	0	522	0	0	0	0	4	0	947	947
Chemical	0	0	0	192	0	9	0	0	14	0	0	215	80	651	0	7	0	7	0	0	0	590	2	0	0	0	0	0	1.341	1.556
Foods and Beverages	0	1	0	67	0	128	0	0	4.316	0	21	4.533	76	559	0	20	0	1	0	0	0	524	0	0	0	0	0	0	1.180	5.713
Textiles	0	0	0	33	0	19	0	0	0	0	0	52	3	109	0	2	0	0	0	0	0	273	11	0	0	0	0	0	398	450
Paper and Pulp	0	0	0	68	0	282	0	0	34	497	68	949	12	464	0	0	0	2	0	0	0	294	0	0	0	0	0	0	772	1.721
Ceramics	0	1	0	29	0	100	0	0	0	0	5	135	3	116	0	204	0	1	0	0	0	146	1	0	0	0	0	0	471	606
Others	0	0	0	271	0	38	0	0	0	0	30	339	12	739	0	80	0	2	0	0	0	1.009	0	0	0	0	36	0	1.878	2.217
Unidentified Consumption	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Adjustments	0	0	1	1	1	-1	0	0	1	0	1	4	-1	2	0	2	1	0	0	0	0	-1	-1	-1	0	1	0	1	3	7

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Energy Flow	Petro-leum	Steam Coal	Metal-lurgical Coal	Natural Gas	Hydraulic Energy	Firewood	Sugar Cane juice	Molasses	Sugar Cane Bagasse	Black Liquor	Others Primary Sources	Primary Energy	Diesel Oil	Fuel Oil	Gasoline	LPG	Naphtha	Kerosene	Gaswor-sks gas	Gas Coke	Coal Coke	Electric-ity	Charcoal	Anhy-drous Ethanol	Hydrated Ethanol	Refinery Gas	Others	Non Energy Products	Second-ary Energy	Total
Production	0	0	0	528	5.844	853	4.912	633	8.864	559	510	22.703	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	22.703
Imports	14.395	0	1.475	0	0	0	0	0	0	0	0	15.870	612	0	0	362	0	43	0	0	214	0	0	0	0	0	0	26	1.257	17.127
State Imports	21.244	36	111	457	0	163	0	0	0	0	0	22.011	0	0	0	0	32	168	0	0	0	4.342	116	0	0	0	19	0	4.677	26.688
Changes in stocks	0	8	-46	0	0	0	0	0	0	0	0	-38	113	2	135	41	10	-6	0	0	0	0	0	-101	-72	0	3	22	147	109
Total Supply	35.639	44	1.540	985	5.844	1.016	4.912	633	8.864	559	510	60.546	725	2	135	403	42	205	0	0	214	4.342	116	-101	-72	0	22	48	6.081	66.627
Exports	0	0	0	0	0	0	0	0	0	0	0	0	-1	-448	-350	0	0	0	0	0	0	0	0	-10	-65	0	-17	-24	-915	-915
State Exports	0	0	0	0	0	0	0	0	0	0	0	0	-5.928	-1.580	-3.152	-249	0	0	0	0	0	-705	0	-820	-1.215	0	0	0	-13.649	-13.649
Non-Utilized Energy	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Re-injection	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gross Domestic Supply	35.639	44	1.540	985	5.844	1.016	4.912	633	8.864	559	510	60.546	-5.204	-2.026	-3.367	154	42	205	0	0	214	3.637	116	-931	-1.352	0	5	24	-8.483	52.063
Total Transformation	-35.639	0	-1.535	0	-5.844	-189	-4.912	-633	-156	-102	-388	-49.398	12.623	6.845	8.188	1.882	1.965	1.706	0	297	1.110	5.804	21	1.717	2.743	744	524	1.410	47.579	-1.819
Petroleum Refinereries	-35.639	0	0	0	0	0	0	0	0	0	0	-35.639	12.665	7.133	7.946	1.803	1.938	1.706	0	0	0	0	0	0	0	744	524	1.410	35.869	230
Natural Gas Plants	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gasification Plants	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Coking Plants	0	0	-1.535	0	0	0	0	0	0	0	0	-1.535	0	0	0	0	0	0	0	297	1.110	0	0	0	0	0	0	0	1.407	-128
Public Util. Power Plants	0	0	0	0	-5.683	0	0	0	0	0	0	-5.683	0	-139	0	0	0	0	0	0	0	5.293	0	0	0	0	0	0	5.154	-529
Self-Prod. Power Plants	0	0	0	0	-161	-25	0	0	-156	-102	-388	-832	-42	-149	0	0	0	0	0	0	0	511	0	0	0	0	0	0	320	-512
Charcoal Plants	0	0	0	0	0	-164	0	0	0	0	0	-164	0	0	0	0	0	0	0	0	0	0	21	0	0	0	0	0	21	-143
Distilleries	0	0	0	0	0	0	-4.912	-633	0	0	0	-5.545	0	0	0	0	0	0	0	0	0	0	0	1.717	2.743	0	0	0	4.460	-1.085
Other Transformations	0	0	0	0	0	0	0	0	0	0	0	0	0	0	242	79	27	0	0	0	0	0	0	0	0	0	0	0	348	348
Losses in Distrib./Storage	0	-2	-4	-11	0	0	0	0	-886	0	0	-903	0	0	0	0	0	0	0	0	0	-961	0	-13	-39	0	0	0	-1.013	-1.916
Final Consumption	0	42	0	975	0	828	0	0	7.822	457	122	10.246	7.421	4.820	4.821	2.037	2.006	1.912	0	296	1.324	8.480	138	773	1.352	744	529	1.434	38.087	48.333
Final Non-Ener. Consump.	0	0	0	0	0	0	0	0	157	0	0	157	0	0	0	0	2.006	0	0	0	0	0	2	0	193	93	0	1.434	3.728	3.885
Final Energy Consumption	0	42	0	975	0	828	0	0	7.665	457	122	10.089	7.421	4.820	4.821	2.037	0	1.912	0	296	1.324	8.480	136	773	1.159	651	529	0	34.359	44.448
Energy Sector	0	0	0	0	0	0	0	0	1.702	0	0	1.702	22	658	0	11	0	0	0	50	0	181	0	0	0	619	0	0	1.541	3.243
Residential	0	0	0	56	0	176	0	0	0	0	0	232	0	0	0	1.526	0	20	0	0	0	2.260	1	0	0	0	0	0	3.807	4.039
Commercial	0	0	0	42	0	61	0	0	0	0	0	103	36	26	0	122	0	0	0	0	0	1.231	9	0	0	0	0	0	1.424	1.527
Public	0	0	0	5	0	0	0	0	0	0	0	5	52	14	0	18	0	1	0	0	0	720	0	0	0	0	0	0	805	810
Agriculture	0	0	0	0	0	12	0	0	0	0	0	12	940	26	0	1	0	1	0	0	0	193	0	0	0	0	0	0	1.161	1.173
Transportation - Total	0	0	0	16	0	0	0	0	0	0	0	16	6.043	912	4.821	0	0	1.870	0	0	0	57	0	773	1.159	0	0	0	15.635	15.651
Highways	0	0	0	16	0	0	0	0	0	0	0	16	5.721	0	4.800	0	0	0	0	0	0	4	0	773	1.159	0	0	0	12.457	12.473
Railroads	0	0	0	0	0	0	0	0	0	0	0	0	72	1	0	0	0	0	0	0	53	0	0	0	0	0	0	126	126	
Airways	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21	0	0	1.870	0	0	0	0	0	0	0	0	0	0	1.891	1.891
Waterways	0	0	0	0	0	0	0	0	0	0	0	0	250	911	0	0	0	0	0	0	0	0	0	0	0	0	0	1.161	1.161	
Industrial - Total	0	42	0	856	0	579	0	0	5.963	457	122	8.019	328	3.184	0	359	0	20	0	246	1.324	3.838	126	0	0	32	529	0	9.986	18.005
Cement	0	40	0	0	0	1	0	0	0	0	0	41	8	317	0	0	0	0	0	0	39	70	6	0	0	0	237	0	677	718
Pig-Iron and Steel	0	0	0	164	0	2	0	0	0	0	0	166	14	215	0	21	0	2	0	246	1.285	264	100	0	0	0	0	0	2.147	2.313
Ferro Alloys	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	45	7	0	0	0	0	0	52	52	
Mining and Pelletization	0	0	0	0	0	0	0	0	0	0	0	0	29	40	0	0	0	6	0	0	0	49	0	0	0	0	0	0	124	124
Non-Ferrous-Other Metal	0	0	0	0	0	0	0	0	0	0	0	0	0	109	0	0	0	2	0	0	0	644	0	0	0	0	252	0	1.007	1.007
Chemical	0	0	0	243	0	9	0	0	15	0	0	267	47	624	0	5	0	2	0	0	0	508	2	0	0	32	6	0	1.226	1.493
Foods and Beverages	0	1	0	69	0	128	0	0	5.914	0	20	6.132	67	537	0	13	0	1	0	0	0	512	0	0	0	0	0	0	1.130	7.262
Textiles	0	0	0	35	0	19	0	0	0	0	0	54	5	113	0	4	0	1	0	0	0	237	10	0	0	0	0	0	370	424
Paper and Pulp	0	0	0	43	0	308	0	0	34	457	66	908	9	485	0	0	0	0	0	0	0	242	0	0	0	0	0	0	736	1.644
Ceramics	0	1	0	43	0	99	0	0	0	0	5	148	3	112	0	99	0	0	0	0	0	113	1	0	0	0	0	0	328	476
Others	0	0	0	259	0	13	0	0	0	0	31	303	146	632	0	217	0	6	0	0	0	1.154	0	0	0	0	34	0	2.189	2.492
Unidentified Consumption	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Adjustments	0	0	1	-1	0	-1	0	0	0	0	0	-1	-2	-1	0	-1	1	-1	0	1	0	0	-1	0	0	0	0	0	-4	-5

São Paulo Energy Balance - Consolidated 1999 - 10³ toE

Energy Flow	Petro- leum	Steam Coal	Metal- lurgical Coal	Natural Gas	Hydraulic Energy	Firewood	Sugar Cane juice	Molasses	Sugar Cane Bagasse	Black Liquor	Others Primary Sources	Primary Energy	Diesel Oil	Fuel Oil	Gasoline	LPG	Naphtha	Kerosene	Gaswor- sks gas	Gas Coke	Coal Coke	Electric- ity	Charcoal	Anhy- drous Ethanol	Hydrated Ethanol	Refinery Gas	Others	Non Energy Products	Second- ary Energy	Total	
Production	0	0	0	453	6.211	823	4.411	831	8.629	622	525	22.505	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	22.505	
Imports	6.849	0	1.377	0	0	0	0	0	0	0	0	8.226	544	46	49	944	0	0	0	0	26	0	0	0	0	0	0	15	1.624	9.850	
State Imports	27.551	34	0	662	0	162	0	0	0	0	0	28.409	0	0	0	0	38	164	0	0	0	4.493	112	0	0	0	0	0	4.807	33.216	
Changes in stocks	0	8	42	0	0	0	0	0	0	0	0	50	-120	138	5	-5	-64	2	0	0	15	0	0	-123	-8	0	0	-4	-164	-114	
Total Supply	34.400	42	1.419	1.115	6.211	985	4.411	831	8.629	622	525	59.190	424	184	54	939	-26	166	0	0	41	4.493	112	-123	-8	0	0	11	6.267	65.457	
Exports	0	0	0	0	0	0	0	0	0	0	0	0	0	-599	-698	0	0	-16	0	0	0	0	0	-14	-113	0	-88	-20	-1.548	-1.548	
State Exports	0	0	0	0	0	0	0	0	0	0	0	0	-6.393	-1.515	-1.768	-568	0	0	0	0	0	-679	0	-698	-675	0	0	0	-12.296	-12.296	
Non-Utilized Energy	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Re-injection	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Gross Domestic Supply	34.400	42	1.419	1.115	6.211	985	4.411	831	8.629	622	525	59.190	-5.969	-1.930	-2.412	371	-26	150	0	0	41	3.814	112	-835	-796	0	-88	-9	-7.577	51.613	
Total Transformation	-34.400	0	-1.401	-15	-6.211	-148	-4.411	-831	-152	-112	-408	-48.089	13.557	6.312	7.357	1.834	2.136	1.622	0	241	1.111	5.993	20	1.804	2.175	823	765	1.387	47.137	-952	
Petroleum Refinereries	-34.400	0	0	0	0	0	0	0	0	0	0	-34.400	13.573	6.918	7.127	1.818	2.123	1.622	0	0	0	0	0	0	0	823	765	1.387	36.156	1.756	
Natural Gas Plants	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Gasification Plants	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Coking Plants	0	0	-1.401	0	0	0	0	0	0	0	0	-1.401	0	0	0	0	0	0	0	241	1.111	0	0	0	0	0	0	0	1.352	-49	
Public Util. Power Plants	0	0	0	0	-6.046	0	0	0	0	0	0	-6.046	0	-425	0	0	0	0	0	0	0	5.460	0	0	0	0	0	0	5.035	-1.011	
Self-Prod. Power Plants	0	0	0	-15	-165	-25	0	0	-152	-112	-408	-877	-16	-181	0	0	0	0	0	0	0	533	0	0	0	0	0	0	336	-541	
Charcoal Plants	0	0	0	0	0	-123	0	0	0	0	0	-123	0	0	0	0	0	0	0	0	0	0	20	0	0	0	0	0	20	-103	
Distilleries	0	0	0	0	0	0	-4.411	-831	0	0	0	-5.242	0	0	0	0	0	0	0	0	0	0	0	1.804	2.175	0	0	0	3.979	-1.263	
Other Transformations	0	0	0	0	0	0	0	0	0	0	0	0	0	0	230	16	13	0	0	0	0	0	0	0	0	0	0	0	259	259	
Losses in Distrib./Storage	0	-2	-18	-54	0	0	0	0	-863	0	0	-937	0	0	0	0	0	0	0	0	0	-1.032	0	-5	-22	0	0	0	-1.059	-1.996	
Final Consumption	0	40	0	1.045	0	837	0	0	7.614	510	117	10.163	7.588	4.382	4.944	2.203	2.109	1.771	0	240	1.152	8.774	132	964	1.356	822	677	1.377	38.491	48.654	
Final Non-Ener. Consump.	0	0	0	0	0	0	0	0	157	0	0	157	0	0	0	0	2.109	0	0	0	0	0	1	0	15	116	0	1.377	3.618	3.775	
Final Energy Consumption	0	40	0	1.045	0	837	0	0	7.457	510	117	10.006	7.588	4.382	4.944	2.203	0	1.771	0	240	1.152	8.774	131	964	1.341	706	677	0	34.873	44.879	
Energy Sector	0	0	0	0	0	0	0	0	1.103	0	0	1.103	23	629	0	13	0	0	0	7	0	228	0	0	0	0	661	0	0	1.561	2.664
Residential	0	0	0	59	0	177	0	0	0	0	0	236	0	0	0	1.543	0	21	0	0	0	2.312	1	0	0	0	0	0	3.877	4.113	
Commercial	0	0	0	44	0	61	0	0	0	0	0	105	36	22	0	183	0	0	0	0	0	1.303	8	0	0	0	0	0	1.552	1.657	
Public	0	0	0	2	0	0	0	0	0	0	0	2	63	11	0	26	0	1	0	0	0	739	0	0	0	0	0	0	840	842	
Agriculture	0	0	0	0	0	12	0	0	0	0	0	12	958	56	0	4	0	1	0	0	0	205	0	0	0	0	0	0	1.224	1.236	
Transportation - Total	0	0	0	26	0	0	0	0	0	0	0	26	6.139	955	4.944	0	0	1.731	0	0	0	57	0	964	1.341	0	0	0	16.131	16.157	
Highways	0	0	0	26	0	0	0	0	0	0	0	26	5.804	0	4.924	0	0	0	0	0	0	4	0	964	1.341	0	0	0	13.037	13.063	
Railroads	0	0	0	0	0	0	0	0	0	0	0	0	66	1	0	0	0	0	0	0	0	53	0	0	0	0	0	0	120	120	
Airways	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20	0	0	1.731	0	0	0	0	0	0	0	0	0	1.751	1.751	
Waterways	0	0	0	0	0	0	0	0	0	0	0	0	269	954	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1.223	1.223	
Industrial - Total	0	40	0	914	0	587	0	0	6.354	510	117	8.522	369	2.709	0	434	0	17	0	233	1.152	3.930	122	0	0	45	677	0	9.688	18.210	
Cement	0	38	0	0	0	1	0	0	0	0	0	39	8	169	0	0	0	0	0	0	35	88	6	0	0	0	338	0	644	683	
Pig-Iron and Steel	0	0	0	168	0	2	0	0	0	0	0	170	16	250	0	49	0	2	0	233	1.117	249	97	0	0	0	0	0	2.013	2.183	
Ferro Alloys	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	36	7	0	0	0	0	0	43	43	
Mining and Pelletization	0	0	0	0	0	0	0	0	0	0	0	0	30	45	0	0	0	3	0	0	0	62	0	0	0	0	0	0	140	140	
Non-Ferrous-Other Metal	0	0	0	0	0	0	0	0	0	0	0	0	0	111	0	0	0	2	0	0	0	543	0	0	0	0	275	0	931	931	
Chemical	0	0	0	305	0	8	0	0	15	0	0	328	60	584	0	12	0	2	0	0	0	614	1	0	0	45	9	0	1.327	1.655	
Foods and Beverages	0	1	0	55	0	128	0	0	6.305	0	17	6.506	69	498	0	32	0	1	0	0	0	545	0	0	0	0	0	0	1.145	7.651	
Textiles	0	0	0	41	0	19	0	0	0	0	0	60	5	109	0	7	0	0	0	0	0	284	10	0	0	0	0	0	415	475	
Paper and Pulp	0	0	0	94	0	317	0	0	34	510	68	1.023	12	456	0	0	0	0	0	0	0	306	0	0	0	0	0	0	774	1.797	
Ceramics	0	1	0	41	0	99	0	0	0	0	5	146	2	119	0	184	0	0	0	0	0	152	1	0	0	0	0	0	458	604	
Others	0	0	0	210	0	13	0	0	0	0	27	250	167	368	0	150	0	7	0	0	0	1.051	0	0	0	0	55	0	1.798	2.048	
Unidentified Consumption	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Adjustments	0	0	0	1	0	0	0	0	0	0	0	1	0	0	1	2	1	1	0	1	0	1	0	0	1	1	0	1	10	11	

São Paulo Energy Balance - Consolidated 2000 - 10³ tOE

Energy Flow	Petro- leum	Steam Coal	Metal- lurgical Coal	Natural Gas	Hydraulic Energy	Firewood	Sugar Cane juice	Molasses	Sugar Cane Bagasse	Black Liquor	Others Primary Sources	Primary Energy	Diesel Oil	Fuel Oil	Gasoline	LPG	Naphtha	Kerosene	Gaswor- sks gas	Gas Coke	Coal Coke	Electric- ity	Charcoal	Anhy- drous Ethanol	Hydrated Ethanol	Refinery Gas	Others	Non Energy Products	Second- ary Energy	Total
Production	0	0	0	263	5.927	851	3.343	639	6.586	713	548	18.870	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18.870
Imports	5.199	0	1.319	0	0	0	0	0	0	0	0	6.518	916	0	0	626	0	0	0	0	83	0	0	0	0	0	50	50	1.725	8.243
State Imports	33.531	42	0	1.066	0	161	0	0	0	0	0	34.800	0	0	0	0	19	0	0	0	0	4.719	108	0	0	0	97	0	4.943	39.743
Changes in stocks	0	-4	20	0	0	0	0	0	0	0	0	16	-14	-18	-191	0	-41	-7	0	0	63	0	0	-51	-44	0	-12	-12	-327	-311
Total Supply	38.730	38	1.339	1.329	5.927	1.012	3.343	639	6.586	713	548	60.204	902	-18	-191	626	-22	-7	0	0	146	4.719	108	-51	-44	0	135	38	6.341	66.545
Exports	0	0	0	0	0	0	0	0	0	0	0	0	-667	-1.451	0	0	-214	0	0	0	0	0	0	0	-11	0	-345	-8	-2.696	-2.696
State Exports	0	0	0	0	0	0	0	0	0	0	0	0	-6.267	-2.052	-1.949	-534	0	0	0	0	0	-665	0	-971	-377	0	0	0	-12.815	-12.815
Non-Utilized Energy	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Re-injection	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gross Domestic Supply	38.730	38	1.339	1.329	5.927	1.012	3.343	639	6.586	713	548	60.204	-5.365	-2.737	-3.591	92	-22	-221	0	0	146	4.054	108	-1.022	-432	0	-210	30	-9.170	51.034
Total Transformation	-38.730	0	-1.336	-75	-5.926	-144	-3.343	-639	-116	-130	-433	-50.872	13.030	6.168	8.168	2.105	2.206	1.805	0	245	919	6.221	20	1.805	1.384	962	1.267	1.316	47.621	-3.251
Petroleum Refinereries	-38.730	0	0	0	0	0	0	0	0	0	0	-38.730	13.052	6.798	7.934	2.025	2.199	1.805	0	0	0	0	0	0	0	962	1.267	1.316	37.358	-1.372
Natural Gas Plants	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gasification Plants	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Coking Plants	0	0	-1.336	0	0	0	0	0	0	0	0	-1.336	0	0	0	0	0	0	0	245	919	0	0	0	0	0	0	0	1.164	-172
Public Util. Power Plants	0	0	0	-40	-5.759	0	0	0	0	0	0	-5.799	0	-445	0	0	0	0	0	0	0	5.662	0	0	0	0	0	0	5.217	-582
Self-Prod. Power Plants	0	0	0	-35	-167	-25	0	0	-116	-130	-433	-906	-22	-185	0	0	0	0	0	0	0	559	0	0	0	0	0	0	352	-554
Charcoal Plants	0	0	0	0	0	-119	0	0	0	0	0	-119	0	0	0	0	0	0	0	0	0	0	20	0	0	0	0	0	20	-99
Distilleries	0	0	0	0	0	0	-3.343	-639	0	0	0	-3.982	0	0	0	0	0	0	0	0	0	0	0	1.805	1.384	0	0	0	3.189	-793
Other Transformations	0	0	0	0	0	0	0	0	0	0	0	0	0	0	234	80	7	0	0	0	0	0	0	0	0	0	0	0	321	321
Losses in Distrib./Storage	0	-2	-3	0	0	0	0	0	-659	0	0	-664	0	0	0	0	0	0	0	-2	-2	-1.058	0	-5	-39	0	0	0	-1.106	-1.770
Final Consumption	0	36	0	1.253	0	868	0	0	5.811	583	113	8.664	7.666	3.430	4.577	2.197	2.184	1.585	0	243	1.063	9.218	128	779	920	962	1.057	1.346	37.355	46.019
Final Non-Ener. Consump.	0	0	0	0	0	0	0	0	157	0	0	157	0	0	0	0	2.184	0	0	0	0	0	2	0	9	145	0	1.346	3.686	3.843
Final Energy Consumption	0	36	0	1.253	0	868	0	0	5.654	583	113	8.507	7.666	3.430	4.577	2.197	0	1.585	0	243	1.063	9.218	126	779	911	817	1.057	0	33.669	42.176
Energy Sector	0	0	0	0	0	0	0	0	799	0	0	799	13	420	0	15	0	0	0	8	0	192	0	0	0	749	0	0	1.397	2.196
Residential	0	0	0	59	0	179	0	0	0	0	0	238	0	0	0	1.504	0	23	0	0	0	2.369	1	0	0	0	0	0	3.897	4.135
Commercial	0	0	0	46	0	60	0	0	0	0	0	106	36	14	0	181	0	0	0	0	0	1.442	8	0	0	0	0	0	1.681	1.787
Public	0	0	0	0	0	0	0	0	0	0	0	0	58	13	0	30	0	1	0	0	0	765	0	0	0	0	0	0	867	867
Agriculture	0	0	0	0	0	12	0	0	0	0	0	12	844	72	0	5	0	1	0	0	0	204	0	0	0	0	0	0	1.126	1.138
Transportation - Total	0	0	0	52	0	0	0	0	0	0	0	52	6.366	716	4.577	0	0	1.543	0	0	0	58	0	779	911	0	0	0	14.950	15.002
Highways	0	0	0	52	0	0	0	0	0	0	0	52	6.049	0	4.557	0	0	0	0	0	0	4	0	779	911	0	0	0	12.300	12.352
Railroads	0	0	0	0	0	0	0	0	0	0	0	0	74	1	0	0	0	0	0	0	0	54	0	0	0	0	0	0	129	129
Airways	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20	0	0	1.543	0	0	0	0	0	0	0	0	0	0	1.563	1.563
Waterways	0	0	0	0	0	0	0	0	0	0	0	0	243	715	0	0	0	0	0	0	0	0	0	0	0	0	0	0	958	958
Industrial - Total	0	36	0	1.096	0	617	0	0	4.855	583	113	7.300	349	2.195	0	462	0	17	0	235	1.063	4.188	117	0	0	68	1.057	0	9.751	17.051
Cement	0	34	0	1	0	1	0	0	0	0	0	36	7	76	0	0	0	0	0	0	29	90	5	0	0	0	541	0	748	784
Pig-Iron and Steel	0	0	0	197	0	2	0	0	0	0	0	199	15	283	0	52	0	2	0	235	1.034	330	94	0	0	0	0	0	2.045	2.244
Ferro Alloys	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	50	6	0	0	0	0	0	0	56	56
Mining and Pelletization	0	0	0	0	0	0	0	0	0	0	0	0	28	46	0	0	0	1	0	0	0	64	0	0	0	0	0	0	139	139
Non-Ferrous-Other Metal	0	0	0	0	0	0	0	0	0	0	0	0	0	125	0	0	1	0	0	0	596	0	0	0	0	372	0	1.094	1.094	
Chemical	0	0	0	369	0	8	0	0	15	0	0	392	42	515	0	9	0	2	0	0	0	576	1	0	0	68	14	0	1.227	1.619
Foods and Beverages	0	1	0	75	0	128	0	0	4.806	0	16	5.026	80	510	0	33	0	0	0	0	0	587	0	0	0	0	0	0	1.210	6.236
Textiles	0	0	0	50	0	21	0	0	0	0	0	71	4	101	0	20	0	0	0	0	0	295	10	0	0	0	0	0	430	501
Paper and Pulp	0	0	0	99	0	339	0	0	34	583	68	1.123	12	246	0	0	0	0	0	0	312	0	0	0	0	0	0	0	570	1.693
Ceramics	0	1	0	56	0	104	0	0	0	0	5	166	2	67	0	228	0	0	0	0	0	155	1	0	0	0	0	0	453	619
Others	0	0	0	249	0	14	0	0	0	0	24	287	159	226	0	120	0	11	0	0	0	1.133	0	0	0	0	130	0	1.779	2.066
Unidentified Consumption	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Adjustments	0	0	0	1	1	0	0	0	0	0	2	4	-1	1	0	0	0	-1	0	0	0	-1	0	-1	-7	0	0	0	-10	-6

São Paulo Energy Balance - Consolidated 2001 - 10³ toE

Energy Flow	Petro-leum	Steam Coal	Metal-lurgical Coal	Natural Gas	Hydraulic Energy	Firewood	Sugar Cane juice	Molasses	Sugar Cane Bagasse	Black Liquor	Others Primary Sources	Primary Energy	Diesel Oil	Fuel Oil	Gasoline	LPG	Naphtha	Kerosene	Gaswor- sks gas	Gas Coke	Coal Coke	Electric- ity	Charcoal	Anhy-drous Ethanol	Hydrated Ethanol	Refinery Gas	Others	Non Energy Products	Second-ary Energy	Total
Production	0	0	0	279	5.118	837	3.702	814	8.158	709	492	20.109	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20.109
Imports	6.702	0	1.442	0	0	0	0	0	0	0	0	8.144	522	0	0	371	0	0	0	0	201	0	0	0	0	0	0	52	1.146	9.290
State Imports	31.681	40	0	1.541	0	159	0	0	0	0	0	33.421	0	0	0	0	7	0	0	0	0	4.310	107	0	0	0	70	0	4.494	37.915
Changes in stocks	0	-4	47	0	0	0	0	0	0	0	0	43	-64	93	-187	-10	-50	-7	0	0	-19	0	0	-51	-20	0	-31	-11	-357	-314
Total Supply	38.383	36	1.489	1.820	5.118	996	3.702	814	8.158	709	492	61.717	458	93	-187	361	-43	-7	0	0	182	4.310	107	-51	-20	0	39	41	5.283	67.000
Exports	0	0	0	0	0	0	0	0	0	0	0	0	-10	-1.495	-1.493	0	0	-281	0	0	0	0	0	-4	-208	0	-408	-12	-3.911	-3.911
State Exports	0	0	0	0	0	0	0	0	0	0	0	0	-6.416	-1.872	-1.670	-245	0	-255	0	0	0	-752	0	-1.242	-495	0	0	0	-12.947	-12.947
Non-Utilized Energy	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Re-injection	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gross Domestic Supply	38.383	36	1.489	1.820	5.118	996	3.702	814	8.158	709	492	61.717	-5.968	-3.274	-3.350	116	-43	-543	0	0	182	3.558	107	-1.297	-723	0	-369	29	-11.575	50.142
Total Transformation	-38.382	0	-1.487	-252	-5.119	-125	-3.702	-814	-138	-129	-386	-50.534	13.874	6.340	7.845	2.036	2.616	1.876	0	243	816	5.652	20	2.154	1.386	965	1.204	1.243	48.270	-2.264
Petroleum Refinereries	-38.382	0	0	0	0	0	0	0	0	0	0	-38.382	13.888	6.900	7.682	1.958	2.612	1.876	0	0	0	0	0	0	0	965	1.204	1.243	38.328	-54
Natural Gas Plants	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gasification Plants	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Coking Plants	0	0	-1.487	0	0	0	0	0	0	0	0	-1.487	0	0	0	0	0	0	0	243	816	0	0	0	0	0	0	0	1.059	-428
Public Util. Power Plants	0	0	0	-179	-4.958	0	0	0	0	0	0	-5.137	0	-364	0	0	0	0	0	0	0	5.112	0	0	0	0	0	0	4.748	-389
Self-Prod. Power Plants	0	0	0	-73	-161	-25	0	0	-138	-129	-386	-912	-14	-196	0	0	0	0	0	0	0	540	0	0	0	0	0	0	330	-582
Charcoal Plants	0	0	0	0	0	-100	0	0	0	0	0	-100	0	0	0	0	0	0	0	0	0	0	20	0	0	0	0	0	20	-80
Distilleries	0	0	0	0	0	0	-3.702	-814	0	0	0	-4.516	0	0	0	0	0	0	0	0	0	0	0	2.154	1.386	0	0	0	3.540	-976
Other Transformations	0	0	0	0	0	0	0	0	0	0	0	0	0	0	163	78	4	0	0	0	0	0	0	0	0	0	0	0	245	245
Losses in Distrib./Storage	0	-2	-1	0	0	0	0	0	-816	0	0	-819	0	0	0	0	0	0	0	-2	0	-792	0	-46	-23	0	0	0	-863	-1.682
Final Consumption	0	34	0	1.567	0	872	0	0	7.203	580	105	10.361	7.906	3.063	4.495	2.151	2.574	1.333	0	242	998	8.417	126	812	641	966	835	1.273	35.832	46.193
Final Non-Ener. Consump.	0	0	0	0	0	0	0	0	157	0	0	157	0	0	0	0	2.574	0	0	0	0	0	1	0	8	125	0	1.273	3.981	4.138
Final Energy Consumption	0	34	0	1.567	0	872	0	0	7.046	580	105	10.204	7.906	3.063	4.495	2.151	0	1.333	0	242	998	8.417	125	812	633	841	835	0	31.851	42.055
Energy Sector	0	0	0	0	0	0	0	0	1.004	0	0	1.004	21	362	0	15	0	0	0	15	0	189	0	0	0	767	0	0	1.369	2.373
Residential	0	0	0	59	0	180	0	0	0	0	0	239	0	0	0	1.498	0	22	0	0	0	1.998	1	0	0	0	0	0	3.519	3.758
Commercial	0	0	0	44	0	60	0	0	0	0	0	104	37	19	0	173	0	0	0	0	0	1.314	9	0	0	0	0	0	1.552	1.656
Public	0	0	0	6	0	0	0	0	0	0	0	6	59	13	0	33	0	1	0	0	0	697	0	0	0	0	0	0	803	809
Agriculture	0	0	0	0	0	12	0	0	0	0	0	12	754	76	0	5	0	0	0	0	0	186	0	0	0	0	0	0	1.021	1.033
Transportation - Total	0	0	0	91	0	0	0	0	0	0	0	91	6.649	525	4.495	0	0	1.299	0	0	0	59	0	812	633	0	0	0	14.472	14.563
Highways	0	0	0	91	0	0	0	0	0	0	0	91	6.239	0	4.473	0	0	0	0	0	0	4	0	812	633	0	0	0	12.161	12.252
Railroads	0	0	0	0	0	0	0	0	0	0	0	0	107	0	0	0	0	0	0	0	0	55	0	0	0	0	0	0	162	162
Airways	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	22	0	0	1.299	0	0	0	0	0	0	0	0	0	1.321	1.321
Waterways	0	0	0	0	0	0	0	0	0	0	0	0	303	525	0	0	0	0	0	0	0	0	0	0	0	0	0	0	828	828
Industrial - Total	0	34	0	1.367	0	620	0	0	6.042	580	105	8.748	386	2.068	0	427	0	11	0	227	998	3.974	115	0	0	74	835	0	9.115	17.863
Cement	0	32	0	0	0	1	0	0	0	0	0	33	8	74	0	0	0	0	0	0	27	96	5	0	0	0	478	0	688	721
Pig-Iron and Steel	0	0	0	225	0	2	0	0	0	0	0	227	20	243	0	58	0	1	0	227	971	282	93	0	0	0	0	0	1.895	2.122
Ferro Alloys	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	48	5	0	0	0	0	0	53	53
Mining and Pelletization	0	0	0	0	0	0	0	0	0	0	0	0	23	26	0	0	0	1	0	0	0	63	0	0	0	0	0	0	113	113
Non-Ferrous-Other Metal	0	0	0	0	0	0	0	0	0	0	0	0	0	98	0	0	0	1	0	0	0	475	0	0	0	0	303	0	877	877
Chemical	0	0	0	317	0	8	0	0	15	0	0	340	59	537	0	12	0	2	0	0	0	535	1	0	0	74	13	0	1.233	1.573
Foods and Beverages	0	1	0	160	0	133	0	0	5.993	0	13	6.300	107	488	0	35	0	0	0	0	0	427	0	0	0	0	0	0	1.057	7.357
Textiles	0	0	0	82	0	21	0	0	0	0	0	103	2	75	0	18	0	0	0	0	0	243	10	0	0	0	0	0	348	451
Paper and Pulp	0	0	0	157	0	336	0	0	34	580	68	1.175	13	221	0	0	0	0	0	0	0	304	0	0	0	0	0	0	538	1.713
Ceramics	0	1	0	118	0	104	0	0	0	0	5	228	1	57	0	184	0	0	0	0	0	158	1	0	0	0	0	0	401	629
Others	0	0	0	308	0	15	0	0	0	0	19	342	153	249	0	120	0	6	0	0	0	1.343	0	0	0	0	41	0	1.912	2.254
Unidentified Consumption	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Adjustments	1	0	1	1	-1	-1	0	0	1	0	1	3	0	3	0	1	-1	0	0	-1	0	1	1	-1	-1	-1	0	-1	0	3

São Paulo Energy Balance - Consolidated 2002 - 10³ tOE

Energy Flow	Petro- leum	Steam Coal	Metal- lurgical Coal	Natural Gas	Hydraulic Energy	Firewood	Sugar Cane juice	Molasses	Sugar Cane Bagasse	Black Liquor	Others Primary Sources	Primary Energy	Diesel Oil	Fuel Oil	Gasoline	LPG	Naphtha	Kerosene	Gaswor- ks gas	Gas Coke	Coal Coke	Electric- ity	Charcoal	Anhy- drous Ethanol	Hydrated Ethanol	Refinery Gas	Others	Non Energy Products	Second- ary Energy	Total
Production	0	0	0	320	5.724	817	3.691	905	8.469	748	503	21.177	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21.177
Imports	5.006	0	1.354	0	0	0	0	0	0	0	0	6.360	585	8	0	760	0	0	0	0	324	0	0	0	0	0	0	15	1.692	8.052
State Imports	32.267	40	0	2.091	0	158	0	0	0	0	0	34.556	0	0	0	0	1	175	0	0	0	4.409	103	0	0	0	61	0	4.749	39.305
Changes in stocks	0	-4	31	0	0	0	0	0	0	0	0	27	331	-37	34	24	-109	30	0	0	-123	0	0	-31	-20	0	4	-7	96	123
Total Supply	37.273	36	1.385	2.411	5.724	975	3.691	905	8.469	748	503	62.120	916	-29	34	784	-108	205	0	0	201	4.409	103	-31	-20	0	65	8	6.537	68.657
Exports	0	0	0	0	0	0	0	0	0	0	0	0	-13	-1.451	-1.454	0	0	-137	0	0	0	0	0	-7	-223	0	-421	-19	-3.725	-3.725
State Exports	0	0	0	0	0	0	0	0	0	0	0	0	-6.532	-2.379	-1.568	-784	0	-463	0	0	0	-749	0	-1.428	-445	0	0	0	-14.348	-14.348
Non-Utilized Energy	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Re-injection	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gross Domestic Supply	37.273	36	1.385	2.411	5.724	975	3.691	905	8.469	748	503	62.120	-5.629	-3.859	-2.988	0	-108	-395	0	0	201	3.660	103	-1.466	-688	0	-356	-11	-11.536	50.584
Total Transformation	-37.273	0	-1.381	-352	-5.724	-116	-3.691	-905	-149	-137	-403	-50.131	13.674	6.202	7.213	2.023	1.978	1.802	0	226	809	5.931	21	2.323	1.492	1.068	1.220	1.208	47.190	-2.941
Petroleum Refinereries	-37.273	0	0	0	0	0	0	0	0	0	0	-37.273	13.690	6.422	7.066	1.969	1.968	1.802	0	0	0	0	0	0	0	1.068	1.220	1.208	36.413	-860
Natural Gas Plants	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gasification Plants	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Coking Plants	0	0	-1.381	0	0	0	0	0	0	0	0	-1.381	0	0	0	0	0	0	0	226	809	0	0	0	0	0	0	0	1.035	-346
Public Util. Power Plants	0	0	0	-268	-5.531	0	0	0	0	0	0	-5.799	0	-44	0	0	0	0	0	0	0	5.273	0	0	0	0	0	0	5.229	-570
Self-Prod. Power Plants	0	0	0	-84	-193	-28	0	0	-149	-137	-403	-994	-16	-176	0	0	0	0	0	0	0	658	0	0	0	0	0	0	466	-528
Charcoal Plants	0	0	0	0	0	-88	0	0	0	0	0	-88	0	0	0	0	0	0	0	0	0	0	21	0	0	0	0	0	21	-67
Distilleries	0	0	0	0	0	0	-3.691	-905	0	0	0	-4.596	0	0	0	0	0	0	0	0	0	0	0	2.323	1.492	0	0	0	3.815	-781
Other Transformations	0	0	0	0	0	0	0	0	0	0	0	0	0	0	147	54	10	0	0	0	0	0	0	0	0	0	0	0	211	211
Losses in Distrib./Storage	0	-2	-4	-1	0	0	0	0	-847	0	0	-854	0	0	0	0	0	0	0	0	-7	-980	0	-5	-22	0	0	0	-1.014	-1.868
Final Consumption	0	34	0	2.057	0	858	0	0	7.472	611	99	11.131	8.045	2.341	4.225	2.023	1.871	1.407	0	226	1.003	8.610	122	853	782	1.068	864	1.197	34.637	45.768
Final Non-Ener. Consump.	0	0	0	0	0	0	0	0	165	0	0	165	0	0	0	0	1.871	0	0	0	0	0	1	0	6	137	0	1.197	3.212	3.377
Final Energy Consumption	0	34	0	2.057	0	858	0	0	7.307	611	99	10.966	8.045	2.341	4.225	2.023	0	1.407	0	226	1.003	8.610	121	853	776	931	864	0	31.425	42.391
Energy Sector	0	0	0	0	0	0	0	0	483	0	0	483	18	277	0	13	0	0	0	4	0	207	0	0	0	850	0	0	1.369	1.852
Residential	0	0	0	67	0	165	0	0	0	0	0	232	0	0	0	1.507	0	14	0	0	0	1.957	1	0	0	0	0	0	3.479	3.711
Commercial	0	0	0	50	0	59	0	0	0	0	0	109	40	25	0	152	0	0	0	0	0	1.320	8	0	0	0	0	0	1.545	1.654
Public	0	0	0	7	0	0	0	0	0	0	0	7	77	9	0	40	0	0	0	0	0	728	0	0	0	0	0	0	854	861
Agriculture	0	0	0	0	0	12	0	0	0	0	0	12	836	75	0	6	0	0	0	0	0	182	0	0	0	0	0	0	1.099	1.111
Transportation - Total	0	0	0	161	0	0	0	0	0	0	0	161	6.709	324	4.225	0	0	1.382	0	0	0	60	0	853	776	0	0	0	14.329	14.490
Highways	0	0	0	161	0	0	0	0	0	0	0	161	6.392	0	4.212	0	0	0	0	0	0	4	0	853	776	0	0	0	12.237	12.398
Railroads	0	0	0	0	0	0	0	0	0	0	0	0	118	0	0	0	0	0	0	0	0	56	0	0	0	0	0	0	174	174
Airways	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13	0	0	1.382	0	0	0	0	0	0	0	0	0	0	1.395	1.395
Waterways	0	0	0	0	0	0	0	0	0	0	0	0	199	324	0	0	0	0	0	0	0	0	0	0	0	0	0	0	523	523
Industrial - Total	0	34	0	1.772	0	622	0	0	6.824	611	99	9.962	365	1.631	0	305	0	11	0	222	1.003	4.156	112	0	0	81	864	0	8.750	18.712
Cement	0	32	0	0	0	1	0	0	0	0	0	33	9	64	0	0	0	0	0	0	25	99	5	0	0	0	522	0	724	757
Pig-Iron and Steel	0	0	0	223	0	2	0	0	0	0	0	225	16	197	0	42	0	1	0	222	978	294	91	0	0	0	0	0	1.841	2.066
Ferro Alloys	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	50	5	0	0	0	0	0	0	55	55
Mining and Pelletization	0	0	0	0	0	0	0	0	0	0	0	0	30	23	0	0	0	1	0	0	0	66	0	0	0	0	0	0	120	120
Non-Ferrous-Other Metal	0	0	0	0	0	0	0	0	0	0	0	0	0	83	0	0	0	0	0	0	496	0	0	0	0	283	0	862	862	
Chemical	0	0	0	336	0	7	0	0	15	0	0	358	73	448	0	10	0	2	0	0	0	560	1	0	0	81	14	0	1.189	1.547
Foods and Beverages	0	1	0	156	0	137	0	0	6.774	0	10	7.078	90	435	0	35	0	0	0	0	0	446	0	0	0	0	0	0	1.006	8.084
Textiles	0	0	0	77	0	20	0	0	0	0	0	97	1	72	0	8	0	0	0	0	0	254	9	0	0	0	0	0	344	441
Paper and Pulp	0	0	0	243	0	342	0	0	35	611	70	1.301	6	202	0	0	0	0	0	0	0	318	0	0	0	0	0	0	526	1.827
Ceramics	0	1	0	282	0	99	0	0	0	0	5	387	2	53	0	119	0	0	0	0	0	166	1	0	0	0	0	0	341	728
Others	0	0	0	455	0	14	0	0	0	0	14	483	138	54	0	91	0	7	0	0	0	1.407	0	0	0	0	45	0	1.742	2.225
Unidentified Consumption	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Adjustments	0	0	0	1	0	1	0	0	1	0	1	4	0	2	0	0	-1	0	0	0	0	1	2	-1	0	0	0	0	3	7

São Paulo Energy Balance - Consolidated 2003 - 10³ toe

Energy Flow	Petro- leum	Steam Coal	Metal- lurgical Coal	Natural Gas	Hydraulic Energy	Firewood	Sugar Cane juice	Molasses	Sugar Cane Bagasse	Black Liquor	Others Primary Sources	Primary Energy	Diesel Oil	Fuel Oil	Gasoline	LPG	Naphtha	Kerosene	Gaswor- ks-gas	Gas Coke	Coal Coke	Electric- ity	Charcoal	Anhy- drous Ethanol	Hydrated Ethanol	Refinery Gas	Others	Non Energy Products	Second- ary Energy	Total
Production	0	0	0	315	6.170	795	4.113	968	9.037	818	516	22.732	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	22.732
Imports	4.604	0	1.194	0	0	0	0	0	0	0	0	5.798	566	19	0	534	0	0	0	0	595	0	0	0	0	0	0	80	1.794	7.592
State Imports	32.545	35	0	2.524	0	156	0	0	0	0	0	35.260	0	0	0	0	14	43	0	0	0	4.677	100	0	0	0	0	0	4.834	40.094
Changes in stocks	0	-4	137	0	0	0	0	0	0	0	0	133	-249	-45	-7	10	4	-23	0	0	-48	0	0	-56	-36	0	13	75	-362	-229
Total Supply	37.149	31	1.331	2.839	6.170	951	4.113	968	9.037	818	516	63.923	317	-26	-7	544	18	20	0	0	547	4.677	100	-56	-36	0	13	155	6.266	70.189
Exports	0	0	0	0	0	0	0	0	0	0	0	0	-43	-1.725	-1.131	0	0	0	0	0	0	0	0	-49	-208	0	-222	-53	-3.431	-3.431
State Exports	0	0	0	0	0	0	0	0	0	0	0	0	-7.010	-2.452	-1.606	-645	0	-228	0	0	0	-675	0	-2.087	-438	0	0	0	-15.141	-15.141
Non-Utilized Energy	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Re-injection	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gross Domestic Supply	37.149	31	1.331	2.839	6.170	951	4.113	968	9.037	818	516	63.923	-6.736	-4.203	-2.744	-101	18	-208	0	0	547	4.002	100	-2.192	-682	0	-209	102	-12.306	51.617
Total Transformation	-37.149	0	-1.331	-200	-6.170	-119	-4.113	-968	-162	-149	-421	-50.782	14.485	5.994	6.738	2.096	1.952	1.796	0	206	747	6.138	20	3.004	1.383	1.059	1.187	1.402	48.207	-2.575
Petroleum Refinereries	-37.149	0	0	0	0	0	0	0	0	0	0	-37.149	14.506	6.220	6.547	2.013	1.936	1.796	0	0	0	0	0	0	0	1.059	1.187	1.402	36.666	-483
Natural Gas Plants	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gasification Plants	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Coking Plants	0	0	-1.331	0	0	0	0	0	0	0	0	-1.331	0	0	0	0	0	0	0	206	747	0	0	0	0	0	0	0	953	-378
Public Util. Power Plants	0	0	0	-108	-5.918	0	0	0	0	0	0	-6.026	0	-84	0	0	0	0	0	0	0	5.437	0	0	0	0	0	0	5.353	-673
Self-Prod. Power Plants	0	0	0	-92	-252	-27	0	0	-162	-149	-421	-1.103	-21	-142	0	0	0	0	0	0	0	701	0	0	0	0	0	0	538	-565
Charcoal Plants	0	0	0	0	0	-92	0	0	0	0	0	-92	0	0	0	0	0	0	0	0	0	0	20	0	0	0	0	0	20	-72
Distilleries	0	0	0	0	0	0	-4.113	-968	0	0	0	-5.081	0	0	0	0	0	0	0	0	0	0	0	3.004	1.383	0	0	0	4.387	-694
Other Transformations	0	0	0	0	0	0	0	0	0	0	0	0	0	0	191	83	16	0	0	0	0	0	0	0	0	0	0	0	290	290
Losses in Distrib./Storage	0	-2	0	-1	0	0	0	0	-904	0	0	-907	0	0	0	0	0	0	0	-1	0	-1.005	0	-4	-23	0	0	0	-1.033	-1.940
Final Consumption	0	30	0	2.639	0	835	0	0	7.970	669	94	12.237	7.748	1.791	3.994	1.994	1.969	1.588	0	205	1.295	9.135	119	808	678	1.059	978	1.503	34.864	47.101
Final Non-Ener. Consump.	0	0	0	0	0	0	0	0	176	0	0	176	0	0	0	0	1.969	0	0	0	0	0	1	0	7	131	0	1.503	3.611	3.787
Final Energy Consumption	0	30	0	2.639	0	835	0	0	7.794	669	94	12.061	7.748	1.791	3.994	1.994	0	1.588	0	205	1.295	9.135	118	808	671	928	978	0	31.253	43.314
Energy Sector	0	0	0	0	0	0	0	0	459	0	0	459	16	136	0	14	0	0	0	3	0	217	0	0	0	874	0	0	1.260	1.719
Residential	0	0	0	76	0	152	0	0	0	0	0	228	0	0	0	1.537	0	11	0	0	0	2.048	1	0	0	0	0	0	3.597	3.825
Commercial	0	0	0	59	0	59	0	0	0	0	0	118	56	23	0	128	0	0	0	0	0	1.403	8	0	0	0	0	0	1.618	1.736
Public	0	0	0	7	0	0	0	0	0	0	0	7	72	8	0	43	0	0	0	0	0	780	0	0	0	0	0	0	903	910
Agriculture	0	0	0	0	0	12	0	0	0	0	0	12	775	72	0	6	0	0	0	0	0	194	0	0	0	0	0	0	1.047	1.059
Transportation - Total	0	0	0	281	0	0	0	0	0	0	0	281	6.426	241	3.994	0	0	1.564	0	0	0	61	0	808	671	0	0	0	13.765	14.046
Highways	0	0	0	281	0	0	0	0	0	0	0	281	6.122	0	3.986	0	0	0	0	0	0	4	0	808	671	0	0	0	11.591	11.872
Railroads	0	0	0	0	0	0	0	0	0	0	0	0	128	0	0	0	0	0	0	0	0	57	0	0	0	0	0	0	185	185
Airways	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	0	1.564	0	0	0	0	0	0	0	0	0	0	1.572	1.572
Waterways	0	0	0	0	0	0	0	0	0	0	0	0	176	241	0	0	0	0	0	0	0	0	0	0	0	0	0	0	417	417
Industrial - Total	0	30	0	2.216	0	612	0	0	7.335	669	94	10.956	403	1.311	0	266	0	13	0	202	1.295	4.432	109	0	0	54	978	0	9.063	20.019
Cement	0	28	0	0	0	1	0	0	0	0	0	29	10	42	0	0	0	0	0	0	22	103	5	0	0	0	513	0	695	724
Pig-Iron and Steel	0	0	0	252	0	2	0	0	0	0	0	254	18	76	0	43	0	0	0	202	1.273	305	88	0	0	0	0	0	2.005	2.259
Ferro Alloys	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	52	5	0	0	0	0	0	0	57	57
Mining and Pelletization	0	0	0	0	0	0	0	0	0	0	0	0	39	18	0	0	0	1	0	0	0	74	0	0	0	0	0	0	132	132
Non-Ferrous-Other Metal	0	0	0	0	0	0	0	0	0	0	0	0	0	150	0	0	0	0	0	0	524	0	0	0	0	54	14	0	1.029	1.029
Chemical	0	0	0	363	0	7	0	0	15	0	0	385	77	357	0	12	0	2	0	0	0	605	1	0	0	0	0	0	1.122	1.507
Foods and Beverages	0	1	0	154	0	136	0	0	7.285	0	7	7.583	107	365	0	35	0	0	0	0	0	458	0	0	0	0	0	0	965	8.548
Textiles	0	0	0	76	0	20	0	0	0	0	0	96	1	49	0	4	0	0	0	0	0	257	9	0	0	0	0	0	320	416
Paper and Pulp	0	0	0	276	0	336	0	0	35	669	72	1.388	13	187	0	0	0	0	0	0	0	372	0	0	0	0	0	0	572	1.960
Ceramics	0	1	0	309	0	96	0	0	0	0	5	411	3	49	0	95	0	0	0	0	0	173	1	0	0	0	0	0	321	732
Others	0	0	0	786	0	14	0	0	0	0	10	810	135	18	0	77	0	10	0	0	0	1.509	0	0	0	0	96	0	1.845	2.655
Unidentified Consumption	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Adjustments	0	-1	0	-1	0	-3	0	0	1	0	1	-3	1	0	0	1	1	0	0	0	-1	0	1	0	0	0	0	1	4	1

São Paulo Energy Balance - Consolidated 2004 - 10³ toE

Energy Flow	Petro-leum	Steam Coal	Metal-lurgical Coal	Natural Gas	Hydraulic Energy	Firewood	Sugar Cane juice	Molasses	Sugar Cane Bagasse	Black Liquor	Others Primary Sources	Primary Energy	Diesel Oil	Fuel Oil	Gasoline	LPG	Naptha	Kerosene	Gaswor- sks gas	Gas Coke	Coal Coke	Electric- ity	Charcoal	Anhy-drous Ethanol	Hydrated Ethanol	Refinery Gas	Others	Non Energy Products	Second-ary Energy	Total
Production	0	0	0	311	6.019	806	4.674	1.054	10.436	861	549	24.710	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24.710
Imports	8.031	0	1.654	0	0	0	0	0	0	0	0	9.685	605	23	0	433	0	0	0	0	297	0	0	0	0	0	115	87	1.560	11.245
State Imports	33.052	38	0	2.998	0	154	0	0	0	0	0	36.242	0	0	0	0	32	20	0	0	0	5.027	103	0	0	0	0	0	5.182	41.424
Changes in stocks	0	-4	24	0	0	0	0	0	0	0	0	20	254	-99	-33	-10	-28	4	0	0	28	0	0	-61	-45	0	36	83	129	149
Total Supply	41.083	34	1.678	3.309	6.019	960	4.674	1.054	10.436	861	549	70.657	859	-76	-33	423	4	24	0	0	325	5.027	103	-61	-45	0	151	170	6.871	77.528
Exports	0	0	0	0	0	0	0	0	0	0	0	0	-52	-1.792	-890	0	0	0	0	0	0	0	0	-282	-357	0	-374	-32	-3.779	-3.779
State Exports	0	0	0	0	0	0	0	0	0	0	0	0	-8.857	-2.647	-1.550	-709	0	-362	0	0	0	-595	0	-1.536	-366	0	0	0	-16.622	-16.622
Non-Utilized Energy	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Re-injection	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gross Domestic Supply	41.083	34	1.678	3.309	6.019	960	4.674	1.054	10.436	861	549	70.657	-8.050	-4.515	-2.473	-286	4	-338	0	0	325	4.432	103	-1.879	-768	0	-223	138	-13.530	57.127
Total Transformation	-41.083	0	-1.678	-149	-6.019	-122	-4.674	-1.054	-180	-157	-443	-55.559	16.098	5.985	6.506	2.286	2.350	1.976	0	231	859	6.250	21	2.693	1.821	1.050	1.250	1.525	50.901	-4.658
Petroleum Refinereries	-41.083	0	0	0	0	0	0	0	0	0	0	-41.083	16.123	6.247	6.331	2.206	2.326	1.976	0	0	0	0	0	0	0	1.050	1.250	1.525	39.034	-2.049
Natural Gas Plants	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gasification Plants	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Coking Plants	0	0	-1.678	0	0	0	0	0	0	0	0	-1.678	0	0	0	0	0	0	0	231	859	0	0	0	0	0	0	0	1.090	-588
Public Util. Power Plants	0	0	0	-61	-5.758	0	0	0	0	0	0	-5.819	0	-176	0	0	0	0	0	0	0	5.500	0	0	0	0	0	0	5.324	-495
Self-Prod. Power Plants	0	0	0	-88	-261	-29	0	0	-180	-157	-443	-1.158	-25	-86	0	0	0	0	0	0	0	750	0	0	0	0	0	0	639	-519
Charcoal Plants	0	0	0	0	0	-93	0	0	0	0	0	-93	0	0	0	0	0	0	0	0	0	0	21	0	0	0	0	0	21	-72
Distilleries	0	0	0	0	0	0	-4.674	-1.054	0	0	0	-5.728	0	0	0	0	0	0	0	0	0	0	0	2.693	1.821	0	0	0	4.514	-1.214
Other Transformations	0	0	0	0	0	0	0	0	0	0	0	0	0	0	175	80	24	0	0	0	0	0	0	0	0	0	0	0	279	279
Losses in Distrib./Storage	0	-2	0	-1	0	0	0	0	-1.044	0	0	-1.047	0	0	0	0	0	0	0	-4	0	-1.055	0	-3	-19	0	0	0	-1.081	-2.128
Final Consumption	0	32	0	3.161	0	839	0	0	9.211	704	106	14.053	8.047	1.470	4.031	2.000	2.355	1.639	0	228	1.184	9.629	123	811	1.034	1.051	1.026	1.663	36.291	50.344
Final Non-Ener. Consump.	0	0	0	0	0	0	0	0	200	0	0	200	0	0	0	0	2.355	0	0	0	0	0	1	0	10	125	0	1.663	4.154	4.354
Final Energy Consumption	0	32	0	3.161	0	839	0	0	9.011	704	106	13.853	8.047	1.470	4.031	2.000	0	1.639	0	228	1.184	9.629	122	811	1.024	926	1.026	0	32.137	45.990
Energy Sector	0	0	0	0	0	0	0	0	743	0	0	743	25	105	0	13	0	0	0	3	0	222	0	0	0	874	0	0	1.242	1.985
Residential	0	0	0	87	0	154	0	0	0	0	0	241	0	0	0	1.523	0	10	0	0	0	2.133	1	0	0	0	0	0	3.667	3.908
Commercial	0	0	0	65	0	58	0	0	0	0	0	123	52	21	0	128	0	0	0	0	0	1.463	8	0	0	0	0	0	1.672	1.795
Public	0	0	0	15	0	0	0	0	0	0	0	15	68	7	0	67	0	0	0	0	0	775	0	0	0	0	0	0	917	932
Agriculture	0	0	0	0	0	12	0	0	0	0	0	12	832	69	0	6	0	0	0	0	0	202	0	0	0	0	0	0	1.109	1.121
Transportation - Total	0	0	0	330	0	0	0	0	0	0	0	330	6.585	205	4.031	0	0	1.617	0	0	0	62	0	811	1.024	0	0	0	14.335	14.665
Highways	0	0	0	330	0	0	0	0	0	0	0	330	6.303	0	4.021	0	0	0	0	0	0	5	0	811	1.024	0	0	0	12.164	12.494
Railroads	0	0	0	0	0	0	0	0	0	0	0	0	123	0	0	0	0	0	0	0	0	57	0	0	0	0	0	0	180	180
Airways	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	0	0	1.617	0	0	0	0	0	0	0	0	0	0	1.627	1.627
Waterways	0	0	0	0	0	0	0	0	0	0	0	0	159	205	0	0	0	0	0	0	0	0	0	0	0	0	0	0	364	364
Industrial - Total	0	32	0	2.664	0	615	0	0	8.268	704	106	12.389	485	1.063	0	263	0	12	0	225	1.184	4.772	113	0	0	52	1.026	0	9.195	21.584
Cement	0	30	0	0	0	0	0	0	0	0	0	30	13	26	0	0	0	0	0	0	22	111	6	0	0	0	539	0	717	747
Pig-Iron and Steel	0	0	0	284	0	2	0	0	0	0	0	286	20	49	0	41	0	0	0	225	1.162	336	91	0	0	0	0	0	1.924	2.210
Ferro Alloys	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	63	5	0	0	0	0	0	0	68	68
Mining and Pelletization	0	0	0	0	0	0	0	0	0	0	0	0	45	10	0	0	0	1	0	0	0	96	0	0	0	0	0	0	152	152
Non-Ferrous-Other Metal	0	0	0	0	0	0	0	0	0	0	0	0	0	120	0	0	0	0	0	0	597	0	0	0	0	0	364	0	1.081	1.081
Chemical	0	0	0	423	0	6	0	0	16	0	0	445	95	295	0	12	0	1	0	0	0	636	1	0	0	52	15	0	1.107	1.552
Foods and Beverages	0	1	0	171	0	135	0	0	8.215	0	10	8.532	163	266	0	37	0	0	0	0	0	475	0	0	0	0	0	0	941	9.473
Textiles	0	0	0	84	0	19	0	0	0	0	0	103	1	56	0	6	0	0	0	0	0	251	9	0	0	0	0	0	323	426
Paper and Pulp	0	0	0	321	0	346	0	0	37	704	77	1.485	10	175	0	0	0	0	0	0	0	456	0	0	0	0	0	0	641	2.126
Ceramics	0	1	0	340	0	96	0	0	0	0	5	442	3	45	0	71	0	0	0	0	0	201	1	0	0	0	0	0	321	763
Others	0	0	0	1.041	0	11	0	0	0	0	14	1.066	135	21	0	96	0	10	0	0	0	1.550	0	0	0	0	108	0	1.920	2.986
Unidentified Consumption	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Adjustments	0	0	0	-2	0	-1	0	0	1	0	0	-2	1	0	2	0	-1	-1	0	-1	0	-2	1	0	0	-1	1	0	-1	-3

São Paulo Energy Balance - Consolidated 2005 - 10³ toE

Energy Flow	Petro- leum	Steam Coal	Metal- lurgical Coal	Natural Gas	Hydraulic Energy	Firewood	Sugar Cane Juice	Molasses	Sugar Cane Bagasse	Black Liquor	Others Primary Sources	Primary Energy	Diesel Oil	Fuel Oil	Gasoline	LPG	Naphtha	Kerosene	Gaswor- sks gas	Gas Coke	Coal Coke	Electric- ity	Charcoal	Anhy- drous Ethanol	Hydrated Ethanol	Refinery Gas	Others	Non Energy Products	Second- ary Energy	Total	
Production	0	0	0	308	5.878	828	5.154	1.069	11.003	906	556	25.702	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25.702	
Imports	4.758	0	1.549	0	0	0	0	0	0	0	0	6.307	583	26	0	278	0	0	0	0	97	0	0	0	0	0	0	34	1.018	7.325	
State Imports	34.824	39	0	3.537	0	152	0	0	0	0	0	38.552	0	0	0	0	25	2	0	0	0	5.377	104	0	0	0	0	0	5.508	44.060	
Changes in stocks	0	-4	11	0	0	0	0	0	0	0	0	7	94	95	-62	-2	-18	26	0	0	28	0	0	-12	-6	0	-6	84	221	228	
Total Supply	39.582	35	1.560	3.845	5.878	980	5.154	1.069	11.003	906	556	70.568	677	121	-62	276	7	28	0	0	125	5.377	104	-12	-6	0	-6	118	6.747	77.315	
Exports	0	0	0	0	0	0	0	0	0	0	0	0	-35	-1.458	-1.131	0	0	0	0	0	0	0	0	0	-241	-552	0	-319	-5	-3.741	-3.741
State Exports	0	0	0	0	0	0	0	0	0	0	0	0	-8.536	-1.996	-1.955	-766	0	-138	0	0	0	-602	0	-1.637	-436	0	0	0	-16.066	-16.066	
Non-Utilized Energy	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Re-injection	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Gross Domestic Supply	39.582	35	1.560	3.845	5.878	980	5.154	1.069	11.003	906	556	70.568	-7.894	-3.333	-3.148	-490	7	-110	0	0	125	4.775	104	-1.890	-994	0	-325	113	-13.060	57.508	
Total Transformation	-39.581	0	-1.560	-284	-5.878	-126	-5.154	-1.069	-190	-165	-456	-54.463	15.938	4.483	7.314	2.439	1.721	1.831	0	263	985	6.348	21	2.745	2.177	928	1.473	1.299	49.965	-4.498	
Petroleum Refinereries	-39.581	0	0	0	0	0	0	0	0	0	0	-39.581	15.967	4.784	7.138	2.370	1.690	1.831	0	0	0	0	0	0	0	928	1.473	1.299	37.480	-2.101	
Natural Gas Plants	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Gasification Plants	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Coking Plants	0	0	-1.560	0	0	0	0	0	0	0	0	-1.560	0	0	0	0	0	0	0	263	985	0	0	0	0	0	0	0	1.248	-312	
Public Util. Power Plants	0	0	0	-120	-5.538	0	0	0	0	0	0	-5.658	0	-234	0	0	0	0	0	0	0	5.538	0	0	0	0	0	0	5.304	-354	
Self-Prod. Power Plants	0	0	0	-164	-340	-30	0	0	-190	-165	-456	-1.345	-29	-67	0	0	0	0	0	0	0	810	0	0	0	0	0	0	714	-631	
Charcoal Plants	0	0	0	0	0	-96	0	0	0	0	0	-96	0	0	0	0	0	0	0	0	0	0	21	0	0	0	0	0	21	-75	
Distilleries	0	0	0	0	0	0	-5.154	-1.069	0	0	0	-6.223	0	0	0	0	0	0	0	0	0	0	0	2.745	2.177	0	0	0	4.922	-1.301	
Other Transformations	0	0	0	0	0	0	0	0	0	0	0	0	0	0	176	69	31	0	0	0	0	0	0	0	0	0	0	0	276	276	
Losses in Distrib./Storage	0	-2	0	-1	0	0	0	0	-1.100	0	0	-1.103	0	0	0	0	0	0	0	-4	0	-1.094	0	-13	-30	0	0	0	-1.141	-2.244	
Final Consumption	0	33	0	3.561	0	854	0	0	9.713	741	100	15.002	8.045	1.151	4.165	1.948	1.727	1.720	0	259	1.110	10.031	125	842	1.141	929	1.148	1.412	35.753	50.755	
Final Non-Ener. Consump.	0	0	0	0	0	0	0	0	210	0	0	210	0	0	0	0	1.727	0	0	0	0	0	2	0	30	112	0	1.412	3.283	3.493	
Final Energy Consumption	0	33	0	3.561	0	854	0	0	9.503	741	100	14.792	8.045	1.151	4.165	1.948	0	1.720	0	259	1.110	10.031	123	842	1.111	817	1.148	0	32.470	47.262	
Energy Sector	0	0	0	0	0	0	0	0	797	0	0	797	28	81	0	12	0	0	0	3	0	233	0	0	0	775	0	0	1.132	1.929	
Residential	0	0	0	89	0	158	0	0	0	0	0	247	0	0	0	1.463	0	8	0	0	0	2.245	1	0	0	0	0	0	3.717	3.964	
Commercial	0	0	0	79	0	57	0	0	0	0	0	136	27	18	0	133	0	0	0	0	0	1.537	8	0	0	0	0	0	1.723	1.859	
Public	0	0	0	17	0	0	0	0	0	0	0	17	73	6	0	67	0	0	0	0	0	799	0	0	0	0	0	0	945	962	
Agriculture	0	0	0	0	0	12	0	0	0	0	0	12	714	65	0	6	0	0	0	0	0	216	0	0	0	0	0	0	1.001	1.013	
Transportation - Total	0	0	0	389	0	0	0	0	0	0	0	389	6.652	152	4.165	0	0	1.699	0	0	0	65	0	842	1.111	0	0	0	14.686	15.075	
Highways	0	0	0	389	0	0	0	0	0	0	0	389	6.376	0	4.152	0	0	0	0	0	0	5	0	842	1.111	0	0	0	12.486	12.875	
Railroads	0	0	0	0	0	0	0	0	0	0	0	0	130	0	0	0	0	0	0	0	0	60	0	0	0	0	0	0	190	190	
Airways	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13	0	0	1.699	0	0	0	0	0	0	0	0	0	0	1.712	1.712	
Waterways	0	0	0	0	0	0	0	0	0	0	0	0	146	152	0	0	0	0	0	0	0	0	0	0	0	0	0	0	298	298	
Industrial - Total	0	33	0	2.987	0	627	0	0	8.706	741	100	13.194	551	829	0	267	0	13	0	256	1.110	4.936	114	0	0	42	1.148	0	9.266	22.460	
Cement	0	31	0	0	0	0	0	0	0	0	0	31	16	11	0	0	0	0	0	0	23	118	5	0	0	0	368	0	541	572	
Pig-Iron and Steel	0	0	0	383	0	2	0	0	0	0	0	385	18	41	0	43	0	0	0	256	1.087	349	93	0	0	0	0	0	1.887	2.272	
Ferro Alloys	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	73	5	0	0	0	0	0	0	78	78	
Mining and Pelletization	0	0	0	0	0	0	0	0	0	0	0	0	44	11	0	0	0	0	0	0	0	95	0	0	0	0	0	0	150	150	
Non-Ferrous-Other Metal	0	0	0	0	0	0	0	0	0	0	0	0	0	103	0	0	0	0	0	0	0	588	0	0	0	0	623	0	1.314	1.314	
Chemical	0	0	0	714	0	6	0	0	17	0	0	737	134	174	0	12	0	2	0	0	0	685	1	0	0	42	107	0	1.157	1.894	
Foods and Beverages	0	1	0	224	0	136	0	0	8.650	0	7	9.018	197	208	0	35	0	0	0	0	0	494	0	0	0	0	0	0	934	9.952	
Textiles	0	0	0	134	0	19	0	0	0	0	0	153	1	48	0	5	0	0	0	0	0	283	9	0	0	0	0	0	346	499	
Paper and Pulp	0	0	0	367	0	354	0	0	39	741	79	1.580	5	169	0	0	0	0	0	0	0	511	0	0	0	0	0	0	685	2.265	
Ceramics	0	1	0	457	0	98	0	0	0	0	5	561	2	41	0	63	0	0	0	0	0	245	1	0	0	0	0	0	352	913	
Others	0	0	0	708	0	12	0	0	0	0	9	729	134	23	0	109	0	11	0	0	0	1.495	0	0	0	0	50	0	1.822	2.551	
Unidentified Consumption	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Adjustments	1	0	0	-1	0	0	0	0	0	0	0	0	-1	-1	1	1	1	1	0	0	0	-2	0	0	12	-1	0	0	11	11	

São Paulo Energy Balance - Consolidated 2006 - 10³ tOE

Energy Flow	Petro- leum	Steam Coal	Metal- lurgical Coal	Natural Gas	Hydraulic Energy	Firewood	Sugar Cane Juice	Molasses	Sugar Cane Bagasse	Black Liquor	Others Primary Sources	Primary Energy	Diesel Oil	Fuel Oil	Gasoline	LPG	Naphta	Kerosene	Gaswor- sks gas	Gas Coke	Coal Coke	Electric- ity	Charcoal	Anhy- drous Ethanol	Hydrated Ethanol	Refinery Gas	Others	Non Energy Products	Second- ary Energy	Total	
Production	0	0	0	290	6.228	854	5.174	1.244	11.743	956	588	27.077	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	27.077	
Imports	6.071	0	1.665	0	0	0	0	0	0	0	0	7.736	72	11	0	396	0	0	0	0	31	0	0	0	0	0	0	0	8	518	8.254
State Imports	33.665	20	0	4.010	0	150	0	0	0	0	0	37.845	0	0	0	0	52	47	0	0	0	5.620	76	0	0	0	0	0	0	5.795	43.640
Changes in stocks	0	4	-5	0	0	0	0	0	0	0	0	-1	-134	-82	23	1	9	-17	0	0	41	0	0	-77	-47	0	32	-38	-289	-290	
Total Supply	39.736	24	1.660	4.300	6.228	1.004	5.174	1.244	11.743	956	588	72.657	-62	-71	23	397	61	30	0	0	72	5.620	76	-77	-47	0	32	-30	6.024	78.681	
Exports	0	0	0	0	0	0	0	0	0	0	0	0	-67	-1.622	-1.397	0	0	0	0	0	0	0	0	-991	-384	0	-401	-3	-4.865	-4.865	
State Exports	0	0	0	0	0	0	0	0	0	0	0	0	-8.411	-1.949	-2.397	-663	0	-74	0	0	0	-637	0	-721	-481	0	0	0	-15.333	-15.333	
Non-Utilized Energy	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Re-injection	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Gross Domestic Supply	39.736	24	1.660	4.300	6.228	1.004	5.174	1.244	11.743	956	588	72.657	-8.540	-3.642	-3.771	-266	61	-44	0	0	72	4.983	76	-1.789	-912	0	-369	-33	-14.174	58.483	
Total Transformation	-39.736	0	-1.659	-221	-6.228	-135	-5.174	-1.244	-207	-174	-481	-55.259	16.513	4.428	7.954	2.226	1.889	1.680	0	249	1.034	6.765	49	2.670	2.734	994	1.770	1.290	52.245	-3.014	
Petroleum Refinereries	-39.736	0	0	0	0	0	0	0	0	0	0	-39.736	16.530	4.552	7.790	2.154	1.820	1.680	0	0	0	0	0	0	0	994	1.770	1.290	38.580	-1.156	
Natural Gas Plants	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Gasification Plants	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Coking Plants	0	0	-1.659	0	0	0	0	0	0	0	0	-1.659	0	0	0	0	0	0	0	249	1.034	0	0	0	0	0	0	0	0	1.283	-376
Public Util. Power Plants	0	0	0	-52	-5.850	0	0	0	0	0	0	-5.902	0	-95	0	0	0	0	0	0	0	5.850	0	0	0	0	0	0	0	5.755	-147
Self-Prod. Power Plants	0	0	0	-169	-378	-32	0	0	-207	-174	-481	-1.441	-35	-29	0	0	0	0	0	0	0	915	0	0	0	0	0	0	0	851	-590
Charcoal Plants	0	0	0	0	0	-103	0	0	0	0	0	-103	0	0	0	0	0	0	0	0	0	0	49	0	0	0	0	0	0	49	-54
Distilleries	0	0	0	0	0	0	-5.174	-1.244	0	0	0	-6.418	0	0	0	0	0	0	0	0	0	0	0	2.670	2.734	0	0	0	0	5.404	-1.014
Other Transformations	0	0	0	0	0	0	0	0	0	0	0	0	18	0	164	72	69	0	0	0	0	0	0	0	0	0	0	0	0	323	323
Losses in Distrib./Storage	0	-1	0	-1	0	0	0	0	-1.174	0	0	-1.176	0	0	0	0	0	0	0	-2	0	-1.166	0	-25	-35	0	0	0	-1.228	-2.404	
Final Consumption	0	24	0	4.079	0	870	0	0	10.363	782	106	16.224	7.974	785	4.183	1.959	1.950	1.637	0	248	1.106	10.582	125	855	1.786	994	1.402	1.258	36.844	53.068	
Final Non-Ener. Consump.	0	0	0	0	0	0	0	0	218	0	0	218	0	0	0	0	1.950	0	0	0	0	0	2	0	46	119	0	1.258	3.375	3.593	
Final Energy Consumption	0	24	0	4.079	0	870	0	0	10.145	782	106	16.006	7.974	785	4.183	1.959	0	1.637	0	248	1.106	10.582	123	855	1.740	875	1.402	0	33.469	49.475	
Energy Sector	0	0	0	0	0	0	0	0	876	0	0	876	30	53	0	16	0	0	0	3	0	250	0	0	0	825	0	0	1.177	2.053	
Residential	0	0	0	97	0	163	0	0	0	0	0	260	0	0	0	1.426	0	6	0	0	0	2.380	1	0	0	0	0	0	3.813	4.073	
Commercial	0	0	0	83	0	57	0	0	0	0	0	140	26	14	0	145	0	0	0	0	0	1.624	8	0	0	0	0	0	1.817	1.957	
Public	0	0	0	19	0	0	0	0	0	0	0	19	73	9	0	50	0	0	0	0	0	824	0	0	0	0	0	0	956	975	
Agriculture	0	0	0	0	0	12	0	0	0	0	0	12	823	16	0	6	0	0	0	0	0	227	0	0	0	0	0	0	1.072	1.084	
Transportation - Total	0	0	0	463	0	0	0	0	0	0	0	463	6.392	101	4.183	0	0	1.621	0	0	0	68	0	855	1.740	0	0	0	14.960	15.423	
Highways	0	0	0	463	0	0	0	0	0	0	0	463	6.176	0	4.169	0	0	0	0	0	0	5	0	855	1.740	0	0	0	12.945	13.408	
Railroads	0	0	0	0	0	0	0	0	0	0	0	0	129	0	0	0	0	0	0	0	0	63	0	0	0	0	0	0	192	192	
Airways	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14	0	0	1.621	0	0	0	0	0	0	0	0	0	0	1.635	1.635	
Waterways	0	0	0	0	0	0	0	0	0	0	0	0	87	101	0	0	0	0	0	0	0	0	0	0	0	0	0	0	188	188	
Industrial - Total	0	24	0	3.417	0	638	0	0	9.269	782	106	14.236	630	592	0	316	0	10	0	245	1.106	5.209	114	0	0	50	1.402	0	9.674	23.910	
Cement	0	22	0	0	0	0	0	0	0	0	0	22	16	7	0	0	0	0	0	0	12	146	6	0	0	0	392	0	579	601	
Pig-Iron and Steel	0	0	0	453	0	1	0	0	0	0	0	454	18	33	0	56	0	0	0	245	1.094	366	92	0	0	0	0	0	1.904	2.358	
Ferro Alloys	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	81	5	0	0	0	0	0	0	86	86	
Mining and Pelletization	0	0	0	0	0	0	0	0	0	0	0	0	44	11	0	0	0	0	0	0	0	46	0	0	0	0	0	0	101	101	
Non-Ferrous-Other Metal	0	0	0	0	0	0	0	0	0	0	0	0	0	80	0	0	0	0	0	0	0	665	0	0	0	0	707	0	1.452	1.452	
Chemical	0	0	0	733	0	6	0	0	15	0	0	754	141	92	0	48	0	1	0	0	0	690	1	0	0	50	166	0	1.189	1.943	
Foods and Beverages	0	1	0	273	0	138	0	0	9.213	0	8	9.633	253	147	0	36	0	0	0	0	0	512	0	0	0	0	0	0	948	10.581	
Textiles	0	0	0	163	0	20	0	0	0	0	0	183	1	26	0	5	0	0	0	0	0	310	9	0	0	0	0	0	351	534	
Paper and Pulp	0	0	0	418	0	359	0	0	41	782	83	1.683	8	141	0	0	0	0	0	0	0	524	0	0	0	0	0	0	673	2.356	
Ceramics	0	1	0	473	0	99	0	0	0	0	5	578	2	36	0	74	0	0	0	0	0	257	1	0	0	0	0	0	370	948	
Others	0	0	0	904	0	15	0	0	0	0	10	929	147	19	0	97	0	9	0	0	0	1.612	0	0	0	0	137	0	2.021	2.950	
Unidentified Consumption	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Adjustments	0	-1	1	-1	0	-1	0	0	-1	0	1	-2	-1	1	0	1	0	-1	0	-1	0	0	0	1	1	0	-1	-1	-1	-1	-3

São Paulo Energy Balance - Consolidated 2007 - 10³ tOE

Energy Flow	Petro- leum	Steam Coal	Metal- lurgical Coal	Natural Gas	Hydraulic Energy	Firewood	Sugar Cane juice	Molasses	Sugar Cane Bagasse	Black Liquor	Others Primary Sources	Primary Energy	Diesel Oil	Fuel Oil	Gasoline	LPG	Naphtha	Kerosene	Gaswor- ks gas	Gas Coke	Coal Coke	Electric- ity	Charcoal	Anhy- drous Ethanol	Hydrated Ethanol	Refinery Gas	Others	Non Energy Products	Second- ary Energy	Total
Production	0	0	0	263	6.259	866	6.759	1.219	13.164	994	612	30.136	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	30.136
Imports	7.267	0	1.589	0	0	0	0	0	0	0	0	8.856	618	0	0	530	0	0	0	0	161	0	0	0	0	0	0	30	1.339	10.195
State Imports	33.503	20	0	4.333	0	149	0	0	0	0	0	38.005	0	0	0	0	88	176	0	0	0	6.186	98	0	0	0	0	0	6.548	44.553
Changes in stocks	0	2	-27	0	0	0	0	0	0	0	0	-25	-70	40	54	-13	24	-15	0	0	-22	0	0	-56	-53	0	34	69	-8	-33
Total Supply	40.770	22	1.562	4.596	6.259	1.015	6.759	1.219	13.164	994	612	76.972	548	40	54	517	112	161	0	0	139	6.186	98	-56	-53	0	34	99	7.879	84.851
Exports	0	0	0	0	0	0	0	0	0	0	0	0	-90	-1.597	-1.883	0	0	0	0	0	0	0	0	-516	-548	0	-392	-4	-5.030	-5.030
State Exports	0	0	0	0	0	0	0	0	0	0	0	0	-8.887	-2.323	-2.031	-909	0	-190	0	0	0	-567	0	-1.054	-667	0	0	0	-16.628	-16.628
Non-Utilized Energy	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Re-injection	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gross Domestic Supply	40.770	22	1.562	4.596	6.259	1.015	6.759	1.219	13.164	994	612	76.972	-8.429	-3.880	-3.860	-392	112	-29	0	0	139	5.619	98	-1.626	-1.268	0	-358	95	-13.779	63.193
Total Transformation	-40.770	0	-1.562	-219	-6.259	-137	-6.759	-1.219	-232	-181	-500	-57.838	16.910	4.607	8.103	2.358	1.924	1.779	0	259	1.032	6.808	29	2.504	4.043	994	1.824	1.393	54.567	-3.271
Petroleum Refinereries	-40.770	0	0	0	0	0	0	0	0	0	0	-40.770	16.915	4.714	7.933	2.300	1.839	1.779	0	0	0	0	0	0	0	994	1.824	1.393	39.691	-1.079
Natural Gas Plants	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gasification Plants	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Coking Plants	0	0	-1.562	0	0	0	0	0	0	0	0	-1.562	0	0	0	0	0	0	0	259	1.032	0	0	0	0	0	0	0	1.291	-271
Public Util. Power Plants	0	0	0	-41	-5.834	0	0	0	0	0	0	-5.875	0	-76	0	0	0	0	0	0	0	5.834	0	0	0	0	0	0	5.758	-117
Self-Prod. Power Plants	0	0	0	-178	-425	-31	0	0	-232	-181	-500	-1.547	-37	-31	0	0	0	0	0	0	0	974	0	0	0	0	0	0	906	-641
Charcoal Plants	0	0	0	0	0	-106	0	0	0	0	0	-106	0	0	0	0	0	0	0	0	0	0	29	0	0	0	0	0	29	-77
Distilleries	0	0	0	0	0	0	-6.759	-1.219	0	0	0	-7.978	0	0	0	0	0	0	0	0	0	0	0	2.504	4.043	0	0	0	6.547	-1.431
Other Transformations	0	0	0	0	0	0	0	0	0	0	0	0	32	0	170	58	85	0	0	0	0	0	0	0	0	0	0	0	345	345
Losses in Distrib./Storage	0	-1	0	-3	0	0	0	0	-1.316	0	0	-1.320	0	0	0	0	0	0	0	-3	0	-1.221	0	-9	-37	0	0	0	-1.270	-2.590
Final Consumption	0	22	0	4.373	0	879	0	0	11.616	812	112	17.814	8.482	725	4.244	1.965	2.037	1.750	0	256	1.171	11.207	127	869	2.738	994	1.467	1.487	39.519	57.333
Final Non-Ener. Consump.	0	0	0	0	0	0	0	0	238	0	0	238	0	0	0	0	2.037	0	0	0	0	0	2	0	69	119	0	1.487	3.714	3.952
Final Energy Consumption	0	22	0	4.373	0	879	0	0	11.378	812	112	17.576	8.482	725	4.244	1.965	0	1.750	0	256	1.171	11.207	125	869	2.669	875	1.467	0	35.805	53.381
Energy Sector	0	0	0	0	0	0	0	0	992	0	0	992	32	35	0	16	0	0	0	3	0	262	0	0	0	825	0	0	1.173	2.165
Residential	0	0	0	101	0	165	0	0	0	0	0	266	0	0	0	1.441	0	2	0	0	0	2.525	1	0	0	0	0	0	3.969	4.235
Commercial	0	0	0	82	0	57	0	0	0	0	0	139	28	13	0	145	0	0	0	0	0	1.716	9	0	0	0	0	0	1.911	2.050
Public	0	0	0	19	0	0	0	0	0	0	0	19	74	9	0	50	0	0	0	0	0	849	0	0	0	0	0	0	982	1.001
Agriculture	0	0	0	0	0	13	0	0	0	0	0	13	875	15	0	5	0	0	0	0	0	238	0	0	0	0	0	0	1.133	1.146
Transportation - Total	0	0	0	500	0	0	0	0	0	0	0	500	6.864	80	4.244	0	0	1.746	0	0	0	73	0	869	2.669	0	0	0	16.545	17.045
Highways	0	0	0	500	0	0	0	0	0	0	0	500	6.653	0	4.235	0	0	0	0	0	0	5	0	869	2.669	0	0	0	14.431	14.931
Railroads	0	0	0	0	0	0	0	0	0	0	0	0	130	0	0	0	0	0	0	0	0	68	0	0	0	0	0	0	198	198
Airways	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	0	0	1.746	0	0	0	0	0	0	0	0	0	0	1.755	1.755
Waterways	0	0	0	0	0	0	0	0	0	0	0	0	81	80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	161	161
Industrial - Total	0	22	0	3.671	0	644	0	0	10.386	812	112	15.647	609	573	0	308	0	2	0	253	1.171	5.544	115	0	0	50	1.467	0	10.092	25.739
Cement	0	20	0	0	0	0	0	0	0	0	0	20	16	8	0	0	0	0	0	0	0	161	6	0	0	0	396	0	587	607
Pig-Iron and Steel	0	0	0	419	0	1	0	0	0	0	0	420	18	32	0	48	0	0	0	253	1.171	379	93	0	0	0	0	0	1.994	2.414
Ferro Alloys	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	83	5	0	0	0	0	0	88	88
Mining and Pelletization	0	0	0	0	0	0	0	0	0	0	0	0	44	10	0	0	0	0	0	0	0	58	0	0	0	0	0	0	112	112
Non-Ferrous-Other Metal	0	0	0	0	0	0	0	0	0	0	0	0	0	80	0	0	0	0	0	0	0	750	0	0	0	0	658	0	1.488	1.488
Chemical	0	0	0	812	0	6	0	0	16	0	0	834	87	85	0	48	0	1	0	0	0	732	1	0	0	50	232	0	1.236	2.070
Foods and Beverages	0	1	0	329	0	140	0	0	10.327	0	9	10.806	256	144	0	36	0	0	0	0	0	544	0	0	0	0	0	0	980	11.786
Textiles	0	0	0	152	0	20	0	0	0	0	0	172	1	25	0	5	0	0	0	0	0	320	9	0	0	0	0	0	360	532
Paper and Pulp	0	0	0	474	0	370	0	0	43	812	86	1.785	8	139	0	0	0	0	0	0	0	532	0	0	0	0	0	0	679	2.464
Ceramics	0	1	0	523	0	94	0	0	0	0	6	624	2	32	0	74	0	0	0	0	0	269	1	0	0	0	0	0	378	1.002
Others	0	0	0	962	0	13	0	0	0	0	11	986	177	18	0	97	0	1	0	0	0	1.716	0	0	0	0	181	0	2.190	3.176
Unidentified Consumption	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Adjustments	0	-1	0	1	0	-1	0	0	0	1	0	0	-1	2	-1	1	-1	0	0	0	0	-1	0	0	0	0	-1	1	-1	-1

São Paulo Energy Balance - Consolidated 2008 - 10³ toE

Energy Flow	Petro-leum	Steam Coal	Metal-lurgical Coal	Natural Gas	Hydraulic Energy	Firewood	Sugar Cane juice	Molasses	Sugar Cane Bagasse	Black Liquor	Others Primary Sources	Primary Energy	Diesel Oil	Fuel Oil	Gasoline	LPG	Naphtha	Kerosene	Gaswor- sks gas	Gas Coke	Coal Coke	Electric- ity	Charcoal	Anhy-drous Ethanol	Hydrated Ethanol	Refinery Gas	Others	Non Energy Products	Second-ary Energy	Total
Production	0	0	0	196	6.398	883	8.823	1.255	15.692	1.039	619	34.905	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	34.905
Imports	5.977	0	1.612	0	0	0	0	0	0	0	0	7.589	1.639	147	0	756	0	0	0	0	2	0	0	0	0	0	0	42	2.586	10.175
State Imports	32.860	20	0	4.678	0	151	0	0	0	0	0	37.709	0	0	0	0	122	682	0	0	0	6.092	95	0	0	0	0	0	6.991	44.700
Changes in stocks	0	3	-27	0	0	0	0	0	0	0	0	-24	0	35	-8	9	7	35	0	0	-26	0	0	-30	-22	0	-14	-83	-97	-121
Total Supply	38.837	23	1.585	4.874	6.398	1.034	8.823	1.255	15.692	1.039	619	80.179	1.639	182	-8	765	129	717	0	0	-24	6.092	95	-30	-22	0	-14	-41	9.480	89.659
Exports	0	0	0	0	0	0	0	0	0	0	0	0	-106	-793	-1.141	0	0	-8	0	0	0	0	0	-889	-673	0	-243	-5	-3.858	-3.858
State Exports	0	0	0	0	0	0	0	0	0	0	0	0	-9.517	-2.697	-2.758	-950	0	-262	0	0	0	-477	0	-1.228	-834	0	0	0	-18.723	-18.723
Non-Utilized Energy	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Re-injection	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gross Domestic Supply	38.837	23	1.585	4.874	6.398	1.034	8.823	1.255	15.692	1.039	619	80.179	-7.984	-3.308	-3.907	-185	129	447	0	0	-24	5.615	95	-2.147	-1.529	0	-257	-46	-13.101	67.078
Total Transformation	-38.837	0	-1.586	-516	-6.398	-140	-8.823	-1.255	-290	-189	-507	-58.541	17.130	3.931	8.072	2.222	1.518	1.442	0	270	1.061	6.995	31	3.041	5.159	978	1.789	1.517	55.156	-3.385
Petroleum Refinereries	-38.837	0	0	0	0	0	0	0	0	0	0	-38.837	17.006	4.049	7.929	2.168	1.363	1.442	0	0	0	0	0	0	0	978	1.789	1.517	38.241	-596
Natural Gas Plants	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gasification Plants	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Coking Plants	0	0	-1.586	0	0	0	0	0	0	0	0	-1.586	0	0	0	0	0	0	0	270	1.061	0	0	0	0	0	0	0	1.331	-255
Public Util. Power Plants	0	0	0	-265	-5.949	0	0	0	0	0	0	-6.214	0	-91	0	0	0	0	0	0	0	5.949	0	0	0	0	0	0	5.858	-356
Self-Prod. Power Plants	0	0	0	-251	-449	-32	0	0	-290	-189	-507	-1.718	-37	-27	0	0	0	0	0	0	0	1.046	0	0	0	0	0	0	982	-736
Charcoal Plants	0	0	0	0	0	-108	0	0	0	0	0	-108	0	0	0	0	0	0	0	0	0	0	31	0	0	0	0	0	31	-77
Distilleries	0	0	0	0	0	0	-8.823	-1.255	0	0	0	-10.078	0	0	0	0	0	0	0	0	0	0	0	3.041	5.159	0	0	0	8.200	-1.878
Other Transformations	0	0	0	0	0	0	0	0	0	0	0	0	161	0	143	54	155	0	0	0	0	0	0	0	0	0	0	0	513	513
Losses in Distrib./Storage	0	-1	0	-1	0	0	0	0	-1.569	0	0	-1.571	0	0	0	0	0	0	0	-6	0	-965	0	-40	-48	0	0	0	-1.059	-2.630
Final Consumption	0	22	0	4.356	0	895	0	0	13.832	849	112	20.066	9.148	625	4.165	2.035	1.648	1.891	0	264	1.036	11.643	125	853	3.582	978	1.531	1.470	40.994	61.060
Final Non-Ener. Consump.	0	0	0	0	0	0	0	0	259	0	0	259	0	0	0	0	1.648	0	0	0	0	0	2	0	91	117	0	1.470	3.328	3.587
Final Energy Consumption	0	22	0	4.356	0	895	0	0	13.573	849	112	19.807	9.148	625	4.165	2.035	0	1.891	0	264	1.036	11.643	123	853	3.491	861	1.531	0	37.666	57.473
Energy Sector	0	0	0	0	0	0	0	0	1.936	0	0	1.936	34	18	0	17	0	0	0	4	0	294	0	0	0	816	0	0	1.183	3.119
Residential	0	0	0	114	0	168	0	0	0	0	0	282	0	0	0	1.487	0	2	0	0	0	2.692	1	0	0	0	0	0	4.182	4.464
Commercial	0	0	0	84	0	57	0	0	0	0	0	141	29	10	0	149	0	0	0	0	0	1.787	8	0	0	0	0	0	1.983	2.124
Public	0	0	0	20	0	0	0	0	0	0	0	20	94	10	0	51	0	0	0	0	0	877	0	0	0	0	0	0	1.032	1.052
Agriculture	0	0	0	0	0	13	0	0	0	0	0	13	836	14	0	6	0	0	0	0	0	220	0	0	0	0	0	0	1.076	1.089
Transportation - Total	0	0	0	458	0	0	0	0	0	0	0	458	7.453	67	4.165	0	0	1.887	0	0	0	78	0	853	3.491	0	0	0	17.994	18.452
Highways	0	0	0	458	0	0	0	0	0	0	0	458	7.219	0	4.156	0	0	0	0	0	0	5	0	853	3.491	0	0	0	15.724	16.182
Railroads	0	0	0	0	0	0	0	0	0	0	0	0	149	0	0	0	0	0	0	0	0	73	0	0	0	0	0	0	222	222
Airways	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	0	0	1.887	0	0	0	0	0	0	0	0	0	0	1.896	1.896
Waterways	0	0	0	0	0	0	0	0	0	0	0	0	85	67	0	0	0	0	0	0	0	0	0	0	0	0	0	0	152	152
Industrial - Total	0	22	0	3.680	0	657	0	0	11.637	849	112	16.957	702	506	0	325	0	2	0	260	1.036	5.695	114	0	0	45	1.531	0	10.216	27.173
Cement	0	20	0	0	0	0	0	0	0	0	0	20	19	8	0	0	0	0	0	0	0	156	6	0	0	0	426	0	615	635
Pig-Iron and Steel	0	0	0	448	0	1	0	0	0	0	0	449	23	25	0	57	0	0	0	260	1.036	392	93	0	0	0	0	0	1.886	2.335
Ferro Alloys	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	80	4	0	0	0	0	0	84	84
Mining and Pelletization	0	0	0	0	0	0	0	0	0	0	0	0	53	10	0	0	0	0	0	0	0	55	0	0	0	0	0	0	118	118
Non-Ferrous-Other Metal	0	0	0	0	0	0	0	0	0	0	0	0	0	69	0	0	0	0	0	0	0	735	0	0	0	0	697	0	1.501	1.501
Chemical	0	0	0	799	0	6	0	0	16	0	0	821	55	79	0	50	0	0	0	0	0	741	1	0	0	45	267	0	1.238	2.059
Foods and Beverages	0	1	0	346	0	143	0	0	11.575	0	10	12.075	307	146	0	37	0	0	0	0	0	555	0	0	0	0	0	0	1.045	13.120
Textiles	0	0	0	154	0	20	0	0	0	0	0	174	2	26	0	5	0	0	0	0	0	325	9	0	0	0	0	0	367	541
Paper and Pulp	0	0	0	496	0	378	0	0	46	849	90	1.859	10	94	0	0	0	0	0	0	0	542	0	0	0	0	0	0	646	2.505
Ceramics	0	1	0	573	0	97	0	0	0	0	4	675	3	30	0	74	0	0	0	0	0	251	1	0	0	0	0	0	359	1.034
Others	0	0	0	864	0	12	0	0	0	0	8	884	230	19	0	102	0	2	0	0	0	1.863	0	0	0	0	141	0	2.357	3.241
Unidentified Consumption	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Adjustments	0	0	-1	1	0	-1	0	0	1	1	0	1	-2	-2	0	2	-1	-2	0	0	1	2	1	1	0	0	1	1	2	3

São Paulo Energy Balance - Consolidated 2009 - 10³ toe

Energy Flow	Petro- leum	Steam Coal	Metal- lurgical Coal	Natural Gas	Hydraulic Energy	Firewood	Sugar Cane juice	Molasses	Sugar Cane Bagasse	Black Liquor	Others Primary Sources	Primary Energy	Diesel Oil	Fuel Oil	Gasoline	LPG	Naphtha	Kerosene	Gaswor- ks gas	Gas Coke	Coal Coke	Electric- ity	Charcoal	Anhy- drous Ethanol	Hydrated Ethanol	Refinery Gas	Others	Non Energy Products	Second- ary Energy	Total
Production	0	0	0	177	6.475	836	9.120	1.325	16.691	1.018	589	36.231	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	36.231
Imports	6.380	0	1.311	0	0	0	0	0	0	0	0	7.691	611	15	0	440	0	0	0	0	4	0	0	0	0	0	0	20	1.090	8.781
State Imports	34.947	16	0	3.856	0	145	0	0	0	0	0	38.964	0	0	0	0	52	299	0	0	0	6.044	84	0	0	0	0	0	6.479	45.443
Changes in stocks	0	2	6	0	0	0	0	0	0	0	0	8	26	-57	-95	-9	-4	-32	0	0	1	0	0	-29	-20	0	-33	-73	-325	-317
Total Supply	41.327	18	1.317	4.033	6.475	981	9.120	1.325	16.691	1.018	589	82.894	637	-42	-95	431	48	267	0	0	5	6.044	84	-29	-20	0	-33	-53	7.244	90.138
Exports	0	0	0	0	0	0	0	0	0	0	0	0	-113	-648	-1.000	0	0	-2	0	0	0	0	0	-358	-634	0	-191	-4	-2.950	-2.950
State Exports	0	0	0	0	0	0	0	0	0	0	0	0	-9.751	-3.450	-2.705	-368	0	-151	0	0	0	-486	0	-854	-184	0	0	0	-17.949	-17.949
Non-Utilized Energy	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Re-injection	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gross Domestic Supply	41.327	18	1.317	4.033	6.475	981	9.120	1.325	16.691	1.018	589	82.894	-9.227	-4.140	-3.800	63	48	114	0	0	5	5.558	84	-1.241	-838	0	-224	-57	-13.655	69.239
Total Transformation	-41.326	0	-1.317	-300	-6.476	-127	-9.120	-1.325	-303	-186	-481	-60.961	18.235	4.805	7.723	1.928	2.020	1.751	0	253	831	7.095	23	2.137	5.146	985	1.864	1.706	56.502	-4.459
Petroleum Refinereries	-41.326	0	0	0	0	0	0	0	0	0	0	-41.326	18.066	4.926	7.522	1.859	1.899	1.751	0	0	0	0	0	0	0	985	1.864	1.706	40.578	-748
Natural Gas Plants	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gasification Plants	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Coking Plants	0	0	-1.317	0	0	0	0	0	0	0	0	-1.317	0	0	0	0	0	0	0	253	831	0	0	0	0	0	0	0	1.084	-233
Public Util. Power Plants	0	0	0	-47	-6.034	0	0	0	0	0	0	-6.081	0	-94	0	0	0	0	0	0	0	6.034	0	0	0	0	0	0	5.940	-141
Self-Prod. Power Plants	0	0	0	-253	-442	-30	0	0	-303	-186	-481	-1.695	-35	-27	0	0	0	0	0	0	0	1.061	0	0	0	0	0	0	999	-696
Charcoal Plants	0	0	0	0	0	-97	0	0	0	0	0	-97	0	0	0	0	0	0	0	0	0	0	23	0	0	0	0	0	23	-74
Distilleries	0	0	0	0	0	0	-9.120	-1.325	0	0	0	-10.445	0	0	0	0	0	0	0	0	0	0	0	2.137	5.146	0	0	0	7.283	-3.162
Other Transformations	0	0	0	0	0	0	0	0	0	0	0	0	204	0	201	69	121	0	0	0	0	0	0	0	0	0	0	0	595	595
Losses in Distrib./Storage	0	0	0	-2	0	0	0	0	-1.669	0	0	-1.671	0	0	0	0	0	0	0	-7	0	-1.059	0	-48	-78	0	0	0	-1.192	-2.863
Final Consumption	0	18	0	3.732	0	853	0	0	14.718	832	107	20.260	9.010	666	3.923	1.991	2.067	1.865	0	246	837	11.594	106	847	4.230	984	1.641	1.648	41.655	61.915
Final Non-Ener. Consump.	0	0	0	0	0	0	0	0	269	0	0	269	0	0	0	0	2.067	0	0	0	0	0	1	0	85	118	0	1.648	3.919	4.188
Final Energy Consumption	0	18	0	3.732	0	853	0	0	14.449	832	107	19.991	9.010	666	3.923	1.991	0	1.865	0	246	837	11.594	105	847	4.145	866	1.641	0	37.736	57.727
Energy Sector	0	0	0	0	0	0	0	0	2.056	0	0	2.056	25	10	0	16	0	0	0	3	0	302	0	0	0	820	0	0	1.176	3.232
Residential	0	0	0	121	0	167	0	0	0	0	0	288	0	0	0	1.479	0	1	0	0	0	2.828	1	0	0	0	0	0	4.309	4.597
Commercial	0	0	0	82	0	56	0	0	0	0	0	138	26	10	0	145	0	0	0	0	0	1.871	7	0	0	0	0	0	2.059	2.197
Public	0	0	0	17	0	0	0	0	0	0	0	17	87	9	0	49	0	0	0	0	0	890	0	0	0	0	0	0	1.035	1.052
Agriculture	0	0	0	0	0	11	0	0	0	0	0	11	692	17	0	5	0	0	0	0	0	213	0	0	0	0	0	0	927	938
Transportation - Total	0	0	0	324	0	0	0	0	0	0	0	324	7.473	60	3.923	0	0	1.864	0	0	0	78	0	847	4.145	0	0	0	18.390	18.714
Highways	0	0	0	324	0	0	0	0	0	0	0	324	7.225	0	3.914	0	0	0	0	0	0	3	0	847	4.145	0	0	0	16.134	16.458
Railroads	0	0	0	0	0	0	0	0	0	0	0	0	162	0	0	0	0	0	0	0	0	75	0	0	0	0	0	0	237	237
Airways	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	0	0	1.864	0	0	0	0	0	0	0	0	0	0	1.873	1.873
Waterways	0	0	0	0	0	0	0	0	0	0	0	0	86	60	0	0	0	0	0	0	0	0	0	0	0	0	0	0	146	146
Industrial - Total	0	18	0	3.188	0	619	0	0	12.393	832	107	17.157	707	560	0	297	0	0	0	243	837	5.412	97	0	0	46	1.641	0	9.840	26.997
Cement	0	18	0	0	0	0	0	0	0	0	0	18	22	9	0	0	0	0	0	0	0	151	5	0	0	0	422	0	609	627
Pig-Iron and Steel	0	0	0	477	0	1	0	0	0	0	0	478	21	30	0	54	0	0	0	243	837	363	79	0	0	0	0	0	1.627	2.105
Ferro Alloys	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	79	3	0	0	0	0	0	0	82	82
Mining and Pelletization	0	0	0	0	0	0	0	0	0	0	0	0	66	12	0	0	0	0	0	0	0	47	0	0	0	0	0	0	125	125
Non-Ferrous-Other Metal	0	0	0	0	0	0	0	0	0	0	0	0	0	74	0	0	0	0	0	0	0	718	0	0	0	0	752	0	1.544	1.544
Chemical	0	0	0	680	0	5	0	0	17	0	0	702	24	81	0	47	0	0	0	0	0	715	1	0	0	46	267	0	1.181	1.883
Foods and Beverages	0	0	0	254	0	135	0	0	12.327	0	9	12.725	315	159	0	33	0	0	0	0	0	533	0	0	0	0	0	0	1.040	13.765
Textiles	0	0	0	129	0	19	0	0	0	0	0	148	2	27	0	5	0	0	0	0	0	303	8	0	0	0	0	0	345	493
Paper and Pulp	0	0	0	318	0	355	0	0	49	832	87	1.641	14	105	0	0	0	0	0	0	0	497	0	0	0	0	0	0	616	2.257
Ceramics	0	0	0	482	0	93	0	0	0	0	4	579	3	31	0	70	0	0	0	0	0	234	1	0	0	0	0	0	339	918
Others	0	0	0	848	0	11	0	0	0	0	7	866	240	32	0	88	0	0	0	0	0	1.772	0	0	0	0	200	0	2.332	3.198
Unidentified Consumption	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Adjustments	1	0	0	-1	-1	1	0	0	1	0	1	2	-2	-1	0	0	1	0	0	0	-1	0	1	1	0	1	-1	1	0	2

São Paulo Energy Balance - Consolidated 2010 - 10³ tOE

Energy Flow	Petro-leum	Steam Coal	Metal-lurgical Coal	Natural Gas	Hydraulic Energy	Firewood	Sugar Cane juice	Molasses	Sugar Cane Bagasse	Black Liquor	Others Primary Sources	Primary Energy	Diesel Oil	Fuel Oil	Gasoline	LPG	Naptha	Kerosene	Gaswor-sks gas	Gas Coke	Coal Coke	Electric-ity	Charcoal	Anhy-drous Ethanol	Hydrated Ethanol	Refinery Gas	Others	Non Energy Products	Second-ary Energy	Total
Production	0	0	0	277	6.729	818	8.108	1.496	16.610	1.106	583	35.727	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	35.727
Imports	5.056	0	1.614	0	0	0	0	0	0	0	0	6.670	1.009	136	0	281	0	0	0	0	20	0	0	0	0	0	0	26	1.472	8.142
State Imports	34.489	7	0	4.400	0	109	0	0	0	0	0	39.005	0	0	0	0	208	434	0	0	0	6.948	76	0	0	0	0	0	7.666	46.671
Changes in stocks	0	0	-12	0	0	0	0	0	0	0	0	-12	9	-21	-52	-23	34	-12	0	0	-52	0	0	-19	-7	0	-23	-241	-407	-419
Total Supply	39.545	7	1.602	4.677	6.729	927	8.108	1.496	16.610	1.106	583	81.390	1.018	115	-52	258	242	422	0	0	-32	6.948	76	-19	-7	0	-23	-215	8.731	90.121
Exports	0	0	0	0	0	0	0	0	0	0	0	0	-120	-591	-1.032	0	0	-13	0	0	0	0	0	-355	-666	0	-181	-409	-3.367	-3.367
State Exports	0	0	0	0	0	0	0	0	0	0	0	0	-7.483	-3.340	-2.696	-87	0	-111	0	0	0	-954	0	-1.270	-104	0	0	0	-16.045	-16.045
Non-Utilized Energy	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Re-injection	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gross Domestic Supply	39.545	7	1.602	4.677	6.729	927	8.108	1.496	16.610	1.106	583	81.390	-6.585	-3.816	-3.780	171	242	298	0	0	-32	5.994	76	-1.644	-777	0	-204	-624	-10.681	70.709
Total Transformation	-39.545	0	-1.602	-507	-6.729	-120	-8.108	-1.496	-301	-185	-473	-59.066	16.493	4.360	8.137	1.868	2.009	1.804	0	301	1.014	7.341	21	2.591	4.928	1.114	1.777	2.059	55.817	-3.249
Petroleum Refinereries	-39.545	0	0	0	0	0	0	0	0	0	0	-39.545	16.238	4.475	7.929	1.817	1.561	1.804	0	0	0	0	0	0	0	1.114	1.777	2.059	38.774	-771
Natural Gas Plants	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gasification Plants	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Coking Plants	0	0	-1.602	0	0	0	0	0	0	0	0	-1.602	0	0	0	0	0	0	0	301	1.014	0	0	0	0	0	0	0	1.315	-287
Public Util. Power Plants	0	0	0	-230	-6.319	0	0	0	0	0	0	-6.549	0	-90	0	0	0	0	0	0	0	6.319	0	0	0	0	0	0	6.229	-320
Self-Prod. Power Plants	0	0	0	-277	-410	-27	0	0	-301	-185	-473	-1.673	-28	-25	0	0	0	0	0	0	0	1.022	0	0	0	0	0	0	969	-704
Charcoal Plants	0	0	0	0	0	-93	0	0	0	0	0	-93	0	0	0	0	0	0	0	0	0	0	21	0	0	0	0	0	21	-72
Distilleries	0	0	0	0	0	0	-8.108	-1.496	0	0	0	-9.604	0	0	0	0	0	0	0	0	0	0	0	2.591	4.928	0	0	0	7.519	-2.085
Other Transformations	0	0	0	0	0	0	0	0	0	0	0	0	283	0	208	51	448	0	0	0	0	0	0	0	0	0	0	0	990	990
Losses in Distrib./Storage	0	0	0	-31	0	0	0	0	-1.661	0	0	-1.692	0	0	0	0	0	0	0	-18	0	-1.167	0	-7	-39	0	0	0	-1.231	-2.923
Final Consumption	0	7	0	4.141	0	807	0	0	14.647	921	110	20.633	9.908	546	4.357	2.039	2.250	2.102	0	283	982	12.171	99	941	4.113	1.115	1.571	1.434	43.911	64.544
Final Non-Ener. Consump.	0	0	0	0	0	0	0	0	280	0	0	280	0	0	0	0	2.250	0	0	0	0	0	1	0	82	134	0	1.434	3.901	4.181
Final Energy Consumption	0	7	0	4.141	0	807	0	0	14.367	921	110	20.353	9.908	546	4.357	2.039	0	2.102	0	283	982	12.171	98	941	4.031	981	1.571	0	40.010	60.363
Energy Sector	0	0	0	0	0	0	0	0	1.168	0	0	1.168	36	5	0	18	0	0	0	4	0	309	0	0	0	887	0	0	1.259	2.427
Residential	0	0	0	136	0	154	0	0	0	0	0	290	0	0	0	1.503	0	2	0	0	0	2.943	1	0	0	0	0	0	4.449	4.739
Commercial	0	0	0	87	0	52	0	0	0	0	0	139	33	11	0	173	0	0	0	0	0	1.967	7	0	0	0	0	0	2.191	2.330
Public	0	0	0	18	0	0	0	0	0	0	0	18	100	0	0	54	0	0	0	0	0	918	0	0	0	0	0	0	1.072	1.090
Agriculture	0	0	0	0	0	10	0	0	0	0	0	10	707	0	0	5	0	0	0	0	0	241	0	0	0	0	0	0	953	963
Transportation - Total	0	0	0	281	0	0	0	0	0	0	0	281	8.149	56	4.357	0	0	2.100	0	0	0	86	0	941	4.031	0	0	0	19.720	20.001
Highways	0	0	0	281	0	0	0	0	0	0	0	281	7.941	0	4.345	0	0	0	0	0	0	2	0	941	4.031	0	0	0	17.260	17.541
Railroads	0	0	0	0	0	0	0	0	0	0	0	0	150	0	0	0	0	0	0	0	0	84	0	0	0	0	0	0	234	234
Airways	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	0	0	2.100	0	0	0	0	0	0	0	0	0	0	2.112	2.112
Waterways	0	0	0	0	0	0	0	0	0	0	0	0	58	56	0	0	0	0	0	0	0	0	0	0	0	0	0	0	114	114
Industrial - Total	0	7	0	3.619	0	591	0	0	13.199	921	110	18.447	883	474	0	286	0	0	0	279	982	5.707	90	0	0	94	1.571	0	10.366	28.813
Cement	0	7	0	0	0	0	0	0	0	0	0	7	31	2	0	0	0	0	0	0	0	162	5	0	0	0	403	0	603	610
Pig-Iron and Steel	0	0	0	603	0	1	0	0	0	0	0	604	24	25	0	49	0	0	0	279	982	378	72	0	0	0	0	0	1.809	2.413
Ferro Alloys	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	83	4	0	0	0	0	0	87	87
Mining and Pelletization	0	0	0	0	0	0	0	0	0	0	0	0	83	6	0	0	0	0	0	0	0	49	0	0	0	0	0	0	138	138
Non-Ferrous-Other Metal	0	0	0	0	0	0	0	0	0	0	0	0	0	63	0	0	0	0	0	0	0	751	0	0	0	0	760	0	1.574	1.574
Chemical	0	0	0	711	0	5	0	0	18	0	0	734	20	93	0	43	0	0	0	0	0	740	1	0	0	94	249	0	1.240	1.974
Foods and Beverages	0	0	0	341	0	127	0	0	13.129	0	9	13.606	410	96	0	44	0	0	0	0	0	573	0	0	0	0	0	0	1.123	14.729
Textiles	0	0	0	146	0	19	0	0	0	0	0	165	1	26	0	7	0	0	0	0	0	312	8	0	0	0	0	0	354	519
Paper and Pulp	0	0	0	484	0	342	0	0	52	921	82	1.881	19	134	0	0	0	0	0	0	0	531	0	0	0	0	0	0	684	2.565
Ceramics	0	0	0	593	0	88	0	0	0	0	4	685	3	26	0	70	0	0	0	0	0	241	0	0	0	0	0	0	340	1.025
Others	0	0	0	741	0	9	0	0	0	0	15	765	292	3	0	73	0	0	0	0	0	1.887	0	0	0	0	159	0	2.414	3.179
Unidentified Consumption	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Adjustments	0	0	0	-2	0	0	0	0	1	0	0	-1	0	-2	0	0	1	0	0	0	0	-3	-2	-1	-1	-1	2	1	-6	-7

São Paulo Energy Balance - Consolidated 2011 - 10³ toE

Energy Flow	Petro- leum	Steam Coal	Metal- lurgical Coal	Natural Gas	Hydraulic Energy	Firewood	Sugar Cane juice	Molasses	Sugar Cane Bagasse	Black Liquor	Others Primary Sources	Primary Energy	Diesel Oil	Fuel Oil	Gasoline	LPG	Naphtha	Kerosene	Gaswor- sks gas	Gas Coke	Coal Coke	Electric- ity	Charcoal	Anhy- drous Ethanol	Hydrated Ethanol	Refinery Gas	Others	Non Energy Products	Second- ary Energy	Total
Production	0	0	0	1.059	6.465	794	6.435	1.344	14.056	1.109	561	31.823	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	31.823
Imports	5.694	0	1.810	0	0	0	0	0	0	0	0	7.504	858	38	0	122	0	0	0	0	105	0	0	0	0	0	0	15	1.138	8.642
State Imports	36.429	6	0	3.665	0	106	0	0	0	0	0	40.206	0	0	0	0	199	94	0	0	0	7.506	72	0	0	0	0	0	7.871	48.077
Changes in stocks	0	0	7	0	0	0	0	0	0	0	0	7	109	-15	-129	-18	-47	-29	0	0	-136	0	0	188	188	0	-8	-276	-173	-166
Total Supply	42.123	6	1.817	4.724	6.465	900	6.435	1.344	14.056	1.109	561	79.540	967	23	-129	104	152	65	0	0	-31	7.506	72	188	188	0	-8	-261	8.836	88.376
Exports	0	0	0	0	0	0	0	0	0	0	0	0	-213	-670	-989	0	0	-6	0	0	0	0	0	-330	-155	0	-630	-469	-3.462	-3.462
State Exports	0	0	0	0	0	0	0	0	0	0	0	0	-8.103	-2.413	-2.215	-149	0	-61	0	0	0	-650	0	-1.061	-87	0	0	0	-14.739	-14.739
Non-Utilized Energy	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Re-injection	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gross Domestic Supply	42.123	6	1.817	4.724	6.465	900	6.435	1.344	14.056	1.109	561	79.540	-7.349	-3.060	-3.333	-45	152	-2	0	0	-31	6.856	72	-1.203	-54	0	-638	-730	-9.365	70.175
Total Transformation	-42.123	0	-1.817	-323	-6.466	-117	-6.435	-1.344	-255	-185	-455	-59.520	17.661	3.558	8.861	1.989	1.708	2.279	0	284	916	7.029	21	2.407	3.294	1.203	2.353	1.892	55.455	-4.065
Petroleum Refinereries	-42.123	0	0	0	0	0	0	0	0	0	0	-42.123	17.428	3.653	8.677	1.952	1.290	2.279	0	0	0	0	0	0	0	1.203	2.353	1.892	40.727	-1.396
Natural Gas Plants	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gasification Plants	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Coking Plants	0	0	-1.817	0	0	0	0	0	0	0	0	-1.817	0	0	0	0	0	0	0	284	916	0	0	0	0	0	0	0	1.200	-617
Public Util. Power Plants	0	0	0	-66	-6.027	0	0	0	0	0	0	-6.093	0	-74	0	0	0	0	0	0	0	6.027	0	0	0	0	0	0	5.953	-140
Self-Prod. Power Plants	0	0	0	-257	-439	-26	0	0	-255	-185	-455	-1.617	-23	-21	0	0	0	0	0	0	0	1.002	0	0	0	0	0	0	958	-659
Charcoal Plants	0	0	0	0	0	-91	0	0	0	0	0	-91	0	0	0	0	0	0	0	0	0	0	21	0	0	0	0	0	21	-70
Distilleries	0	0	0	0	0	0	-6.435	-1.344	0	0	0	-7.779	0	0	0	0	0	0	0	0	0	0	0	2.407	3.294	0	0	0	5.701	-2.078
Other Transformations	0	0	0	0	0	0	0	0	0	0	0	0	256	0	184	37	418	0	0	0	0	0	0	0	0	0	0	0	895	895
Losses in Distrib./Storage	0	0	0	-126	0	0	0	0	-1.406	0	0	-1.532	0	0	0	0	0	0	0	-14	0	-1.339	0	-7	-34	0	0	0	-1.394	-2.926
Final Consumption	0	6	0	4.276	0	783	0	0	12.395	924	106	18.490	10.312	500	5.528	1.943	1.860	2.278	0	270	885	12.546	94	1.197	3.205	1.203	1.716	1.163	44.700	63.190
Final Non-Ener. Consump.	0	0	0	0	0	0	0	0	238	0	0	238	0	0	0	0	1.860	0	0	0	0	0	1	0	81	144	0	1.163	3.249	3.487
Final Energy Consumption	0	6	0	4.276	0	783	0	0	12.157	924	106	18.252	10.312	500	5.528	1.943	0	2.278	0	270	885	12.546	93	1.197	3.124	1.059	1.716	0	41.451	59.703
Energy Sector	0	0	0	0	0	0	0	0	938	0	0	938	56	3	0	14	0	0	0	4	0	278	0	0	0	1.005	0	0	1.360	2.298
Residential	0	0	0	152	0	150	0	0	0	0	0	302	0	0	0	1.436	0	2	0	0	0	3.090	1	0	0	0	0	0	4.529	4.831
Commercial	0	0	0	92	0	50	0	0	0	0	0	142	29	6	0	129	0	0	0	0	0	2.086	6	0	0	0	0	0	2.256	2.398
Public	0	0	0	19	0	0	0	0	0	0	0	19	54	0	0	57	0	0	0	0	0	957	0	0	0	0	0	0	1.068	1.087
Agriculture	0	0	0	0	0	10	0	0	0	0	0	10	682	0	0	2	0	0	0	0	0	244	0	0	0	0	0	0	928	938
Transportation - Total	0	0	0	255	0	0	0	0	0	0	0	255	8.549	45	5.528	0	0	2.276	0	0	0	97	0	1.197	3.124	0	0	0	20.816	21.071
Highways	0	0	0	255	0	0	0	0	0	0	0	255	8.334	0	5.515	0	0	0	0	0	0	2	0	1.197	3.124	0	0	0	18.172	18.427
Railroads	0	0	0	0	0	0	0	0	0	0	0	0	204	0	0	0	0	0	0	0	0	95	0	0	0	0	0	0	299	299
Airways	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13	0	0	2.276	0	0	0	0	0	0	0	0	0	0	2.289	2.289
Waterways	0	0	0	0	0	0	0	0	0	0	0	0	11	45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	56	56
Industrial - Total	0	6	0	3.758	0	573	0	0	11.219	924	106	16.586	942	446	0	305	0	0	0	266	885	5.794	86	0	0	54	1.716	0	10.494	27.080
Cement	0	6	0	0	0	0	0	0	0	0	0	6	34	2	0	0	0	0	0	0	0	158	5	0	0	0	468	0	667	673
Pig-Iron and Steel	0	0	0	489	0	1	0	0	0	0	0	490	19	30	0	44	0	0	0	266	885	427	69	0	0	0	0	0	1.740	2.230
Ferro Alloys	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	84	4	0	0	0	0	0	88	88
Mining and Pelletization	0	0	0	0	0	0	0	0	0	0	0	0	84	7	0	0	0	0	0	0	0	47	0	0	0	0	0	0	138	138
Non-Ferrous-Other Metal	0	0	0	0	0	0	0	0	0	0	0	0	0	68	0	0	0	0	0	0	0	737	0	0	0	0	805	0	1.610	1.610
Chemical	0	0	0	666	0	5	0	0	15	0	0	686	25	80	0	38	0	0	0	0	0	754	1	0	0	54	266	0	1.218	1.904
Foods and Beverages	0	0	0	357	0	119	0	0	11.159	0	9	11.644	442	106	0	31	0	0	0	0	0	642	0	0	0	0	0	0	1.221	12.865
Textiles	0	0	0	122	0	18	0	0	0	0	0	140	1	21	0	7	0	0	0	0	0	320	7	0	0	0	0	0	356	496
Paper and Pulp	0	0	0	397	0	335	0	0	45	924	79	1.780	9	125	0	0	0	0	0	0	0	577	0	0	0	0	0	0	711	2.491
Ceramics	0	0	0	616	0	86	0	0	0	0	4	706	13	4	0	76	0	0	0	0	0	245	0	0	0	0	0	0	338	1.044
Others	0	0	0	1.111	0	9	0	0	0	0	14	1.134	315	3	0	109	0	0	0	0	0	1.803	0	0	0	0	177	0	2.407	3.541
Unidentified Consumption	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Adjustments	0	0	0	-1	-1	0	0	0	0	0	0	-2	0	-2	0	1	0	-1	0	0	0	0	-1	0	1	0	-1	-1	-4	-6

São Paulo Energy Balance - Consolidated 2012 - 10³ tOE

Energy Flow	Petro- leum	Steam Coal	Metal- lurgical Coal	Natural Gas	Hydraulic Energy	Firewood	Sugar Cane juice	Molasses	Sugar Cane Bagasse	Black Liquor	Others Primary Sources	Primary Energy	Diesel Oil	Fuel Oil	Gasoline	LPG	Naphtha	Kerosene	Gaswor- sks gas	Gas Coke	Coal Coke	Electric- ity	Charcoal	Anhy- drous Ethanol	Hydrated Ethanol	Refinery Gas	Others	Non Energy Products	Second- ary Energy	Total	
Production	0	0	0	1.616	6.750	816	6.824	1.486	15.243	1.107	545	34.387	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	34.387	
Imports	6.795	0	1.460	0	0	0	0	0	0	0	0	8.255	1.273	86	0	522	0	0	0	0	102	0	0	0	0	0	0	10	1.993	10.248	
State Imports	38.086	5	0	3.280	0	120	0	0	0	0	0	41.491	0	0	0	0	839	153	0	0	0	7.225	70	0	0	0	0	0	8.287	49.778	
Changes in stocks	0	0	5	0	0	0	0	0	0	0	0	5	-88	-62	51	-4	13	-29	0	0	-106	0	0	-46	-19	0	7	-270	-553	-548	
Total Supply	44.881	5	1.465	4.896	6.750	936	6.824	1.486	15.243	1.107	545	84.138	1.185	24	51	518	852	124	0	0	-4	7.225	70	-46	-19	0	7	-260	9.727	93.865	
Exports	0	0	0	0	0	0	0	0	0	0	0	0	-45	-1.249	-1.212	0	0	-6	0	0	0	0	0	-720	-48	0	-631	-552	-4.463	-4.463	
State Exports	0	0	0	0	0	0	0	0	0	0	0	0	-10.029	-1.974	-2.633	-638	0	-6	0	0	0	0	-458	0	-1.016	-19	0	0	-16.773	-16.773	
Non-Utilized Energy	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Re-injection	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Gross Domestic Supply	44.881	5	1.465	4.896	6.750	936	6.824	1.486	15.243	1.107	545	84.138	-8.889	-3.199	-3.794	-120	852	112	0	0	-4	6.767	70	-1.782	-86	0	-624	-812	-11.509	72.629	
Total Transformation	-44.880	0	-1.464	-652	-6.751	-122	-6.824	-1.486	-277	-185	-442	-63.083	19.753	3.629	10.233	2.160	1.091	2.213	0	260	946	7.430	22	2.835	3.002	1.245	2.593	1.965	59.377	-3.706	
Petroleum Refinereries	-44.880	0	0	0	0	0	0	0	0	0	0	-44.880	19.638	3.739	10.054	2.122	963	2.213	0	0	0	0	0	0	0	1.245	2.593	1.965	44.532	-348	
Natural Gas Plants	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Gasification Plants	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Coking Plants	0	0	-1.464	0	0	0	0	0	0	0	0	-1.464	0	0	0	0	0	0	0	260	946	0	0	0	0	0	0	0	0	1.206	-258
Public Util. Power Plants	0	0	0	-359	-6.366	0	0	0	0	0	0	-6.725	0	-86	0	0	0	0	0	0	0	6.366	0	0	0	0	0	0	6.280	-445	
Self-Prod. Power Plants	0	0	0	-293	-385	-28	0	0	-277	-185	-442	-1.610	-23	-24	0	0	0	0	0	0	0	1.064	0	0	0	0	0	0	1.017	-593	
Charcoal Plants	0	0	0	0	0	-94	0	0	0	0	0	-94	0	0	0	0	0	0	0	0	0	0	22	0	0	0	0	0	22	-72	
Distilleries	0	0	0	0	0	0	-6.824	-1.486	0	0	0	-8.310	0	0	0	0	0	0	0	0	0	0	0	2.835	3.002	0	0	0	5.837	-2.473	
Other Transformations	0	0	0	0	0	0	0	0	0	0	0	0	138	0	179	38	128	0	0	0	0	0	0	0	0	0	0	0	483	483	
Losses in Distrib./Storage	0	0	0	-54	0	0	0	0	-1.524	0	0	-1.578	0	0	0	0	0	0	0	-1	0	-1.267	0	-9	-36	0	0	0	-1.313	-2.891	
Final Consumption	0	5	0	4.191	0	814	0	0	13.443	922	102	19.477	10.864	431	6.438	2.037	1.944	2.326	0	259	943	12.930	92	1.044	2.878	1.244	1.969	1.153	46.552	66.029	
Final Non-Ener. Consump.	0	0	0	0	0	0	0	0	255	0	0	255	0	0	0	0	1.944	0	0	0	0	0	1	0	70	149	0	1.153	3.317	3.572	
Final Energy Consumption	0	5	0	4.191	0	814	0	0	13.188	922	102	19.222	10.864	431	6.438	2.037	0	2.326	0	259	943	12.930	91	1.044	2.808	1.095	1.969	0	43.235	62.457	
Energy Sector	0	0	0	0	0	0	0	0	1.183	0	0	1.183	61	4	0	16	0	0	0	3	0	297	0	0	0	1.045	0	0	1.426	2.609	
Residential	0	0	0	165	0	157	0	0	0	0	0	322	0	0	0	1.491	0	1	0	0	0	3.242	1	0	0	0	0	0	4.735	5.057	
Commercial	0	0	0	95	0	52	0	0	0	0	0	147	33	8	0	160	0	0	0	0	0	2.225	6	0	0	0	0	0	2.432	2.579	
Public	0	0	0	16	0	0	0	0	0	0	0	16	49	0	0	61	0	0	0	0	0	990	0	0	0	0	0	0	1.100	1.116	
Agriculture	0	0	0	0	0	10	0	0	0	0	0	10	675	0	0	2	0	0	0	0	0	235	0	0	0	0	0	0	912	922	
Transportation - Total	0	0	0	227	0	0	0	0	0	0	0	227	9.038	37	6.438	0	0	2.325	0	0	0	99	0	1.044	2.808	0	0	0	21.789	22.016	
Highways	0	0	0	227	0	0	0	0	0	0	0	227	8.768	0	6.424	0	0	0	0	0	0	2	0	1.044	2.808	0	0	0	19.046	19.273	
Railroads	0	0	0	0	0	0	0	0	0	0	0	0	254	0	0	0	0	0	0	0	0	97	0	0	0	0	0	0	351	351	
Airways	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14	0	0	2.325	0	0	0	0	0	0	0	0	0	0	2.339	2.339	
Waterways	0	0	0	0	0	0	0	0	0	0	0	0	16	37	0	0	0	0	0	0	0	0	0	0	0	0	0	0	53	53	
Industrial - Total	0	5	0	3.688	0	595	0	0	12.005	922	102	17.317	1.008	382	0	307	0	0	0	256	943	5.842	84	0	0	50	1.969	0	10.841	28.158	
Cement	0	5	0	0	0	0	0	0	0	0	0	5	30	2	0	0	0	0	0	0	0	158	5	0	0	0	501	0	696	701	
Pig-Iron and Steel	0	0	0	481	0	1	0	0	0	0	0	482	11	30	0	47	0	0	0	256	943	424	68	0	0	0	0	0	1.779	2.261	
Ferro Alloys	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	85	3	0	0	0	0	0	88	88	
Mining and Pelletization	0	0	0	0	0	0	0	0	0	0	0	0	85	4	0	0	0	0	0	0	0	46	0	0	0	0	0	0	135	135	
Non-Ferrous-Other Metal	0	0	0	0	0	0	0	0	0	0	0	0	0	58	0	0	0	0	0	0	0	732	0	0	0	0	807	0	1.597	1.597	
Chemical	0	0	0	634	0	5	0	0	16	0	0	655	27	56	0	38	0	0	0	0	0	788	0	0	0	50	347	0	1.306	1.961	
Foods and Beverages	0	0	0	333	0	127	0	0	11.941	0	9	12.410	472	93	0	45	0	0	0	0	0	683	0	0	0	0	0	0	1.293	13.703	
Textiles	0	0	0	114	0	19	0	0	0	0	0	133	1	15	0	8	0	0	0	0	0	318	8	0	0	0	0	0	350	483	
Paper and Pulp	0	0	0	379	0	344	0	0	48	922	75	1.768	29	118	0	0	0	0	0	0	0	597	0	0	0	0	0	0	744	2.512	
Ceramics	0	0	0	611	0	89	0	0	0	0	4	704	11	3	0	75	0	0	0	0	0	240	0	0	0	0	0	0	329	1.033	
Others	0	0	0	1.136	0	10	0	0	0	0	14	1.160	342	3	0	94	0	0	0	0	0	1.771	0	0	0	0	314	0	2.524	3.684	
Unidentified Consumption	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Adjustments	1	0	1	-1	-1	0	0	0	-1	0	1	0	0	-1	1	3	-1	-1	0	0	-1	0	0	0	2	1	0	0	3	3	

São Paulo Energy Balance - Consolidated 2013 - 10³ tOE

Energy Flow	Petro- leum	Steam Coal	Metal- lurgical Coal	Natural Gas	Hydraulic Energy	Firewood	Sugar Cane juice	Molasses	Sugar Cane Bagasse	Black Liquor	Others Primary Sources	Primary Energy	Diesel Oil	Fuel Oil	Gasoline	LPG	Naphtha	Kerosene	Gaswor- ks gas	Gas Coke	Coal Coke	Electric- ity	Charcoal	Anhy- drous Ethanol	Hydrated Ethanol	Refinery Gas	Others	Non Energy Products	Second- ary Energy	Total
Production	0	0	0	2.261	6.171	791	8.280	1.529	16.970	1.161	529	37.692	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	37.692
Imports	8.439	0	1.391	0	0	0	0	0	0	0	0	9.830	3.407	23	0	491	0	0	0	0	97	0	0	0	0	0	0	0	4.018	13.848
State Imports	37.563	6	0	2.938	0	105	0	0	0	0	0	40.612	0	0	0	0	1.410	292	0	0	0	7.816	69	0	0	0	0	0	9.587	50.199
Changes in stocks	0	0	-25	0	0	0	0	0	0	0	0	-25	314	96	107	1	-15	56	0	0	68	0	0	-63	-22	0	-19	-355	168	143
Total Supply	46.002	6	1.366	5.199	6.171	896	8.280	1.529	16.970	1.161	529	88.109	3.721	119	107	492	1.395	348	0	0	165	7.816	69	-63	-22	0	-19	-355	13.773	101.882
Exports	0	0	0	0	0	0	0	0	0	0	0	0	-49	-1.411	-1.710	0	0	-11	0	0	0	0	0	-863	-23	0	-603	-642	-5.312	-5.312
State Exports	0	0	0	0	0	0	0	0	0	0	0	0	-13.264	-1.979	-3.143	-428	0	-41	0	0	0	-405	0	-1.260	-5	0	0	0	-20.525	-20.525
Non-Utilized Energy	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Re-injection	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gross Domestic Supply	46.002	6	1.366	5.199	6.171	896	8.280	1.529	16.970	1.161	529	88.109	-9.592	-3.271	-4.746	64	1.395	296	0	0	165	7.411	69	-2.186	-50	0	-622	-997	-12.064	76.045
Total Transformation	-46.002	0	-1.365	-888	-6.171	-114	-8.280	-1.529	-308	-194	-422	-65.273	20.878	3.615	10.873	2.017	652	2.050	0	264	711	6.888	21	3.522	3.361	1.289	2.637	2.106	60.884	-4.389
Petroleum Refinereries	-46.002	0	0	0	0	0	0	0	0	0	0	-46.002	20.759	3.715	10.682	1.982	526	2.050	0	0	0	0	0	0	0	1.289	2.637	2.106	45.746	-256
Natural Gas Plants	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gasification Plants	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Coking Plants	0	0	-1.365	0	0	0	0	0	0	0	0	-1.365	0	0	0	0	0	0	0	264	711	0	0	0	0	0	0	0	975	-390
Public Util. Power Plants	0	0	0	-624	-5.820	0	0	0	0	0	0	-6.444	0	-79	0	0	0	0	0	0	0	5.820	0	0	0	0	0	0	5.741	-703
Self-Prod. Power Plants	0	0	0	-264	-351	-26	0	0	-308	-194	-422	-1.565	-23	-21	0	0	0	0	0	0	0	1.068	0	0	0	0	0	0	1.024	-541
Charcoal Plants	0	0	0	0	0	-88	0	0	0	0	0	-88	0	0	0	0	0	0	0	0	0	0	21	0	0	0	0	0	21	-67
Distilleries	0	0	0	0	0	0	-8.280	-1.529	0	0	0	-9.809	0	0	0	0	0	0	0	0	0	0	0	3.522	3.361	0	0	0	6.883	-2.926
Other Transformations	0	0	0	0	0	0	0	0	0	0	0	0	142	0	191	35	126	0	0	0	0	0	0	0	0	0	0	0	494	494
Losses in Distrib./Storage	0	0	0	-110	0	0	0	0	-1.697	0	0	-1.807	0	0	0	0	0	0	0	-10	0	-1.128	0	-11	-38	0	0	0	-1.187	-2.994
Final Consumption	0	6	0	4.201	0	781	0	0	14.965	968	107	21.028	11.289	343	6.127	2.083	2.046	2.347	0	254	877	13.172	90	1.325	3.274	1.289	2.014	1.110	47.640	68.668
Final Non-Ener. Consump.	0	0	0	0	0	0	0	0	273	0	0	273	0	0	0	0	2.046	0	0	0	0	0	1	0	69	155	0	1.110	3.381	3.654
Final Energy Consumption	0	6	0	4.201	0	781	0	0	14.692	968	107	20.755	11.289	343	6.127	2.083	0	2.347	0	254	877	13.172	89	1.325	3.205	1.134	2.014	0	44.259	65.014
Energy Sector	0	0	0	0	0	0	0	0	1.847	0	0	1.847	282	1	0	10	0	0	0	3	0	299	0	0	0	1.086	0	0	1.681	3.528
Residential	0	0	0	187	0	156	0	0	0	0	0	343	0	0	0	1.503	0	1	0	0	0	3.333	1	0	0	0	0	0	4.838	5.181
Commercial	0	0	0	101	0	52	0	0	0	0	0	153	37	4	0	173	0	0	0	0	0	2.344	6	0	0	0	0	0	2.564	2.717
Public	0	0	0	21	0	0	0	0	0	0	0	21	42	0	0	58	0	0	0	0	0	996	0	0	0	0	0	0	1.096	1.117
Agriculture	0	0	0	0	0	9	0	0	0	0	0	9	522	0	0	2	0	0	0	0	0	266	0	0	0	0	0	0	790	799
Transportation - Total	0	0	0	220	0	0	0	0	0	0	0	220	9.322	33	6.127	0	0	2.346	0	0	0	98	0	1.325	3.205	0	0	0	22.456	22.676
Highways	0	0	0	220	0	0	0	0	0	0	0	220	9.071	0	6.115	0	0	0	0	0	0	2	0	1.325	3.205	0	0	0	19.718	19.938
Railroads	0	0	0	0	0	0	0	0	0	0	0	0	229	0	0	0	0	0	0	0	0	96	0	0	0	0	0	0	325	325
Airways	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	0	0	2.346	0	0	0	0	0	0	0	0	0	0	2.358	2.358
Waterways	0	0	0	0	0	0	0	0	0	0	0	0	22	33	0	0	0	0	0	0	0	0	0	0	0	0	0	0	55	55
Industrial - Total	0	6	0	3.672	0	564	0	0	12.845	968	107	18.162	1.084	305	0	337	0	0	0	251	877	5.836	82	0	0	48	2.014	0	10.834	28.996
Cement	0	6	0	0	0	0	0	0	0	0	0	6	31	2	0	0	0	0	0	0	0	158	4	0	0	0	526	0	721	727
Pig-Iron and Steel	0	0	0	475	0	1	0	0	0	0	0	476	10	12	0	43	0	0	0	251	877	438	67	0	0	0	0	0	1.698	2.174
Ferro Alloys	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	88	4	0	0	0	0	0	92	92
Mining and Pelletization	0	0	0	0	0	0	0	0	0	0	0	0	95	4	0	0	0	0	0	0	0	47	0	0	0	0	0	0	146	146
Non-Ferrous-Other Metal	0	0	0	0	0	0	0	0	0	0	0	0	0	47	0	0	0	0	0	0	0	747	0	0	0	0	822	0	1.616	1.616
Chemical	0	0	0	634	0	5	0	0	18	0	0	657	22	44	0	41	0	0	0	0	0	799	0	0	0	48	313	0	1.267	1.924
Foods and Beverages	0	0	0	368	0	122	0	0	12.776	0	9	13.275	651	64	0	52	0	0	0	0	0	718	0	0	0	0	0	0	1.485	14.760
Textiles	0	0	0	105	0	18	0	0	0	0	0	123	1	16	0	17	0	0	0	0	0	303	7	0	0	0	0	0	344	467
Paper and Pulp	0	0	0	401	0	326	0	0	51	968	80	1.826	23	113	0	0	0	0	0	0	0	601	0	0	0	0	0	0	737	2.563
Ceramics	0	0	0	632	0	85	0	0	0	0	4	721	10	3	0	60	0	0	0	0	0	227	0	0	0	0	0	0	300	1.021
Others	0	0	0	1.057	0	7	0	0	0	0	14	1.078	241	0	0	124	0	0	0	0	0	1.710	0	0	0	0	353	0	2.428	3.506
Unidentified Consumption	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Adjustments	0	0	1	0	0	1	0	0	0	-1	0	1	-3	1	0	-2	1	-1	0	0	-1	-1	0	0	-1	0	1	-1	-7	-6

São Paulo Energy Balance - Consolidated 2014 - 10³ tOE

Energy Flow	Petro-leum	Steam Coal	Metal-lurgical Coal	Natural Gas	Hydraulic Energy	Firewood	Sugar Cane juice	Molasses	Sugar Cane Bagasse	Black Liquor	Others Primary Sources	Primary Energy	Diesel Oil	Fuel Oil	Gasoline	LPG	Naphtha	Kerosene	Gaswor- sks gas	Gas Coke	Coal Coke	Electric- ity	Charcoal	Anhy-drous Ethanol	Hydrated Ethanol	Refinery Gas	Others	Non Energy Products	Second-ary Energy	Total
Production	0	0	0	3.377	4.872	760	7.661	1.398	15.607	1.219	514	35.408	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	35.408
Imports	8.542	0	1.192	0	0	0	0	0	0	0	0	9.734	2.615	134	0	198	0	0	0	0	26	0	0	0	0	0	0	0	2.973	12.707
State Imports	37.808	5	0	1.707	0	104	0	0	0	0	0	39.624	0	0	0	0	1.206	388	0	0	0	8.663	69	0	314	0	0	0	10.640	50.264
Changes in stocks	0	0	-6	0	0	0	0	0	0	0	0	-6	100	53	36	4	-10	65	0	0	17	0	0	-37	-32	0	0	10	206	200
Total Supply	46.350	5	1.186	5.084	4.872	864	7.661	1.398	15.607	1.219	514	84.760	2.715	187	36	202	1.196	453	0	0	43	8.663	69	-37	282	0	0	10	13.819	98.579
Exports	0	0	0	0	0	0	0	0	0	0	0	0	-48	-1.225	-1.366	0	0	-7	0	0	0	0	0	-762	-12	0	-916	-951	-5.287	-5.287
State Exports	0	0	0	0	0	0	0	0	0	0	0	0	-12.956	-2.233	-3.054	-32	0	-291	0	0	0	0	-309	0	-1.101	-5	0	0	-19.981	-19.981
Non-Utilized Energy	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Re-injection	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gross Domestic Supply	46.350	5	1.186	5.084	4.872	864	7.661	1.398	15.607	1.219	514	84.760	-10.289	-3.271	-4.384	170	1.196	155	0	0	43	8.354	69	-1.900	265	0	-916	-941	-11.449	73.311
Total Transformation	-46.350	0	-1.186	-991	-4.872	-108	-7.661	-1.398	-283	-203	-405	-63.457	21.403	3.590	10.734	1.878	757	2.329	0	237	747	5.569	21	3.284	3.503	1.294	2.639	2.166	60.151	-3.306
Petroleum Refinereries	-46.350	0	0	0	0	0	0	0	0	0	0	-46.350	21.279	3.688	10.571	1.842	417	2.329	0	0	0	0	0	0	0	1.294	2.639	2.166	46.225	-125
Natural Gas Plants	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gasification Plants	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Coking Plants	0	0	-1.186	0	0	0	0	0	0	0	0	-1.186	0	0	0	0	0	0	0	237	747	0	0	0	0	0	0	0	984	-202
Public Util. Power Plants	0	0	0	-748	-4.692	0	0	0	0	0	0	-5.440	0	-78	0	0	0	0	0	0	0	4.692	0	0	0	0	0	0	4.614	-826
Self-Prod. Power Plants	0	0	0	-243	-180	-25	0	0	-283	-203	-405	-1.339	-23	-20	0	0	0	0	0	0	0	877	0	0	0	0	0	0	834	-505
Charcoal Plants	0	0	0	0	0	-83	0	0	0	0	0	-83	0	0	0	0	0	0	0	0	0	0	21	0	0	0	0	0	21	-62
Distilleries	0	0	0	0	0	0	-7.661	-1.398	0	0	0	-9.059	0	0	0	0	0	0	0	0	0	0	0	3.284	3.503	0	0	0	6.787	-2.272
Other Transformations	0	0	0	0	0	0	0	0	0	0	0	0	147	0	163	36	340	0	0	0	0	0	0	0	0	0	0	0	686	686
Losses in Distrib./Storage	0	0	0	-61	0	0	0	0	-1.561	0	0	-1.622	0	0	0	0	0	0	0	-4	0	-961	0	-11	-39	0	0	0	-1.015	-2.637
Final Consumption	0	5	0	4.033	0	756	0	0	13.763	1.016	109	19.682	11.115	320	6.350	2.049	1.954	2.485	0	233	789	12.963	90	1.373	3.730	1.293	1.723	1.225	47.692	67.374
Final Non-Ener. Consump.	0	0	0	0	0	0	0	0	259	0	0	259	0	0	0	0	1.954	0	0	0	0	0	1	0	82	155	0	1.225	3.417	3.676
Final Energy Consumption	0	5	0	4.033	0	756	0	0	13.504	1.016	109	19.423	11.115	320	6.350	2.049	0	2.485	0	233	789	12.963	89	1.373	3.648	1.138	1.723	0	44.275	63.698
Energy Sector	0	0	0	0	0	0	0	0	1.555	0	0	1.555	259	3	0	13	0	0	0	3	0	259	0	0	0	1.130	0	0	1.667	3.222
Residential	0	0	0	176	0	151	0	0	0	0	0	327	0	0	0	1.405	0	1	0	0	0	3.393	1	0	0	0	0	0	4.800	5.127
Commercial	0	0	0	104	0	51	0	0	0	0	0	155	35	10	0	190	0	0	0	0	0	2.545	6	0	0	0	0	0	2.786	2.941
Public	0	0	0	18	0	0	0	0	0	0	0	18	36	0	0	71	0	0	0	0	0	1.014	0	0	0	0	0	0	1.121	1.139
Agriculture	0	0	0	0	0	9	0	0	0	0	0	9	501	0	0	3	0	0	0	0	0	285	0	0	0	0	0	0	789	798
Transportation - Total	0	0	0	196	0	0	0	0	0	0	0	196	9.291	31	6.350	0	0	2.484	0	0	0	99	0	1.373	3.648	0	0	0	23.276	23.472
Highways	0	0	0	196	0	0	0	0	0	0	0	196	9.023	0	6.339	0	0	0	0	0	0	2	0	1.373	3.648	0	0	0	20.385	20.581
Railroads	0	0	0	0	0	0	0	0	0	0	0	0	245	0	0	0	0	0	0	0	97	0	0	0	0	0	0	342	342	
Airways	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11	0	0	2.484	0	0	0	0	0	0	0	0	0	0	2.495	2.495
Waterways	0	0	0	0	0	0	0	0	0	0	0	0	23	31	0	0	0	0	0	0	0	0	0	0	0	0	0	0	54	54
Industrial - Total	0	5	0	3.539	0	545	0	0	11.949	1.016	109	17.163	993	276	0	367	0	0	0	230	789	5.368	82	0	0	8	1.723	0	9.836	26.999
Cement	0	5	0	0	0	0	0	0	0	0	0	5	29	2	0	0	0	0	0	0	0	154	2	0	0	0	535	0	722	727
Pig-Iron and Steel	0	0	0	439	0	1	0	0	0	0	0	440	9	10	0	51	0	0	0	230	789	410	69	0	0	0	0	0	1.568	2.008
Ferro Alloys	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	83	4	0	0	0	0	0	87	87
Mining and Pelletization	0	0	0	0	0	0	0	0	0	0	0	0	101	9	0	0	0	0	0	0	0	44	0	0	0	0	0	0	154	154
Non-Ferrous-Other Metal	0	0	0	0	0	0	0	0	0	0	0	0	0	33	0	0	0	0	0	0	0	699	0	0	0	0	728	0	1.460	1.460
Chemical	0	0	0	606	0	4	0	0	17	0	0	627	19	39	0	44	0	0	0	0	0	745	0	0	0	8	267	0	1.122	1.749
Foods and Beverages	0	0	0	371	0	117	0	0	11.882	0	9	12.379	570	58	0	59	0	0	0	0	0	670	0	0	0	0	0	0	1.357	13.736
Textiles	0	0	0	97	0	17	0	0	0	0	0	114	1	11	0	20	0	0	0	0	0	284	7	0	0	0	0	0	323	437
Paper and Pulp	0	0	0	362	0	313	0	0	50	1.016	82	1.823	28	113	0	0	0	0	0	0	0	565	0	0	0	0	0	0	706	2.529
Ceramics	0	0	0	623	0	82	0	0	0	0	4	709	10	1	0	65	0	0	0	0	0	218	0	0	0	0	0	0	294	1.003
Others	0	0	0	1.041	0	11	0	0	0	0	14	1.066	226	0	0	128	0	0	0	0	0	1.496	0	0	0	0	193	0	2.043	3.109
Unidentified Consumption	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Adjustments	0	0	0	-1	0	0	0	0	0	0	0	-1	-1	-1	0	-1	-1	-1	0	0	1	-1	0	0	-1	1	0	0	-5	-6

