Instituto Nacional de Estadística

Press Release

16 November 2021

Environmental accounts. Physical Energy Flow Accounts
Year 2019

The consumption of energy products by households as final consumers decreased by 0.6% in 2019

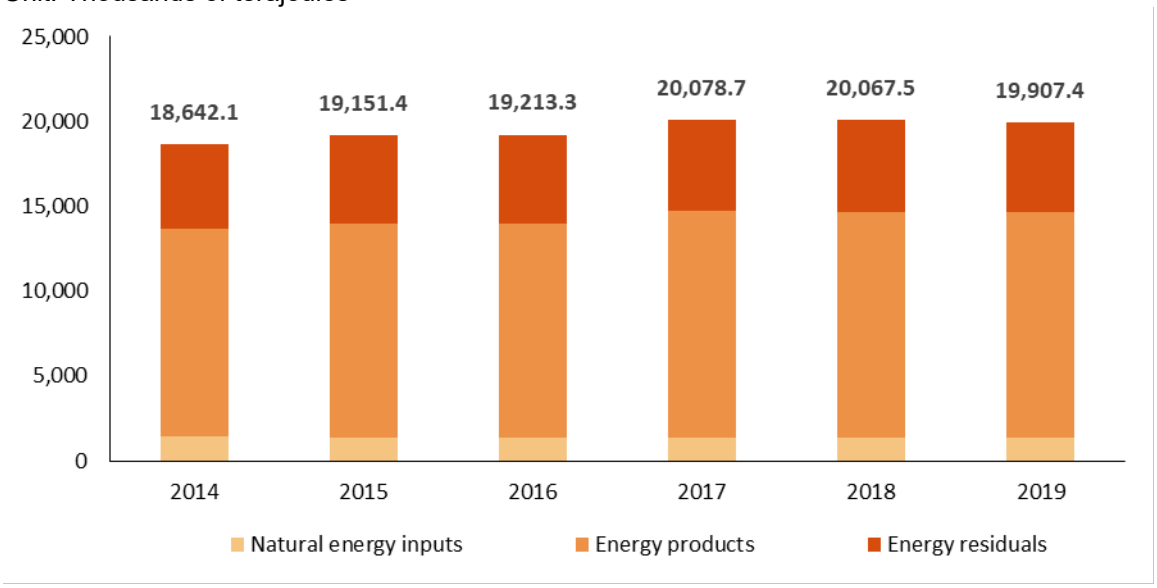
Indoor energy production increased by 1.0%

Total energy flows amounted to 19,907.4 thousand Terajoules (TJ) in 2019, which represented a decrease of 0.8% compared to the previous year.

Origin of physical energy flows

Physical energy flows originate in the environment (natural energy resources), in production and import (energy products) and in the consumption and accumulation of energy waste.

Origin of physical energy flows
Unit: Thousands of terajoules



In 2019, in regards to origin, natural energy resources extracted from the environment reached 1,393.0 thousand TJ, 0.6% more than in 2018. Of these, renewable energy resources (biomass, wind, solar and hydraulic) amounted to 765.3 thousand TJ, and non-renewable to 636.7 thousand TJ (fossil and nuclear fuels).

For its part, the supply of energy products amounted to 13,227.7 thousand TJ, 0.4% less than the previous year (of this figure, 7,676.0 thousand TJ corresponded to domestic production and 5,551.7 thousand TJ to imports).

Lastly, the energy waste produced (mostly heat dissipated in the combustion processes) increased by 2.1%, to 5,286.7 thousand TJ.

Origin of the energy. Year 2019

Unit: Thousand TJ

	Total	Over total %	Annual change %
TOTAL	19,907.4	100.0	-0.8
Natural energy inputs	1,393.0	7.0	0.6
Energy products	13,227.7	66.4	-0.4
Energy residuals	5,286.7	26.6	-2.1

Domestic production of energy products accounted for 58.0% of the total supply of this type of physical flow, 1.0% more than in 2018. On the other hand, imports represented 42.0%, with a decrease of 2.3%.

By type of energy product, the highest productions corresponded to *Coke and refined petroleum products* (55.0% of the total), *Extractive industry products* (25.1%) and *Electric power and heat* (14.7%).

Energy products by type and origin. Year 2019

Unit: Thousand TJ

	Domestic Production			Imports		
	Amount	Over total %	Annual change %	Amount	Over total %	Annual change %
Energy products	**7,676.1**	**100.0**	**1.0**	**5,551.7**	**100.0**	**-2.3**
Mining products	1,927.0	25.1	8.6	4,391.4	79.1	-3.0
Coke and oil - refined products	4,221.5	55.0	-2.4	1,022.4	18.4	2.1
Biofuels	399.3	5.2	3.2	70.5	1.3	0.6
Electricity and heat	1,128.3	14.7	1.3	67.4	1.2	-22.1

The energy products with the greatest weight in imports were *Extractive industry products* (79.1% of the total) and those of *Coke and refined petroleum products* (18.4%).

On the other hand, imports with the lowest weight were *Biofuels* (1.3%) and *Electricity and heat* (1.2%).

The destination of physical energy flows

The economic activity branches used 58.3% of the total energy supply in 2019, with a decrease of 0.3% compared to the previous year.

For their part, households as final consumers of energy products, consumed 6.5% of the total, with a decrease of 0.6%. Exports, which represented 8.8% of the total, were down 5.5%.

Destination of energy. Year 2019

Unit: Thousand TJ

	Total	Over total %	Annual change %
Total	19,907.4	100.0	-0.8
Industries	11,598.3	58.3	-0.3
Households	1,299.3	6.5	-0.6
Exports	1,745.8	8.8	-5.5
Environment (energy residuals)	5,025.0	25.2	-2.1
Accumulation[1] and statistical differences	239.0	1.2	..

1. Changes in stocks

Finally, the environment received 25.2% of the total physical energy flows, mostly energy losses (dissipated heat) due to different production processes and final consumption activities. These physical energy flows destined for the environment, decreased by 2.1% compared to 2018.

Destination of the energy by type of energy flow and industry. Year 2019

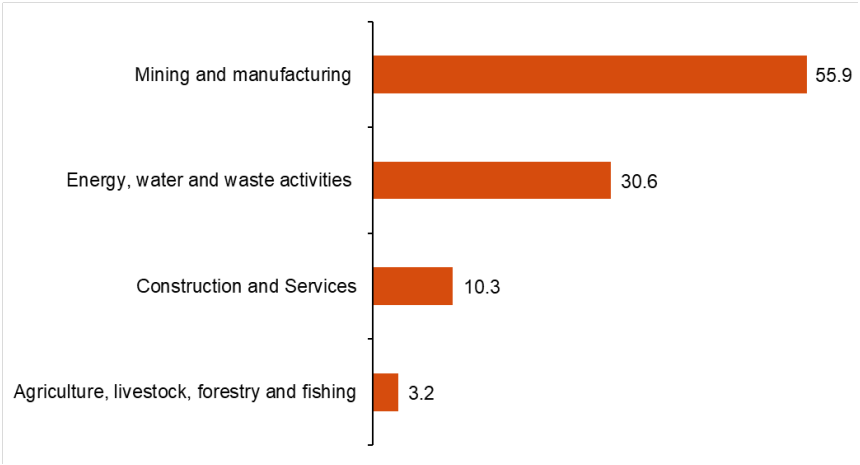
Unit: Thousand TJ

	Agriculture, livestock, forestry and fishing	Over total %	Mining and manufacturing	Over total %	Energy, water and waste activities	Over total %	Construction and Services	Over total %	Total
Total	**373.8**	**3.2**	**6,480.3**	**55.9**	**3,546.5**	**30.6**	**1,197.7**	**10.3**	**11,598.3**
Natural energy inputs	199.3	14.3	733.1	52.6	460.5	33.1	0.0	0.0	1,393.0
Energy products	174.5	1.7	5,715.1	56.4	3,053.2	30.1	1,197.3	11.8	10,140.1
Energy residuals	0.0	0.0	32.1	49.3	32.7	50.1	0.4	0.6	65.2

Of the total energy used by the branches of activity, 55.9% went to the *Mining and manufacturing industry,* 30.6% to the *Energy, water and waste sector* and 10.3% to *Services and construction.*

Destination of energy flows by branches of activity. Year 2019

Percentage



Physical trade balance of energy products

The physical trade balance of energy products (or the difference between exports and imports) presented a negative balance of 3,806.0 thousand TJ in 2019.

By components, imports of *Extractive Industry Products* represented 79.1% of the total and exports 4.5%, resulting in a negative balance of 4,312.6 thousand TJ.

The energy products that generated a positive trade balance were *Coke and refined petroleum products* (511.0 thousand TJ) and *Biofuels* (20.4 thousand TJ).

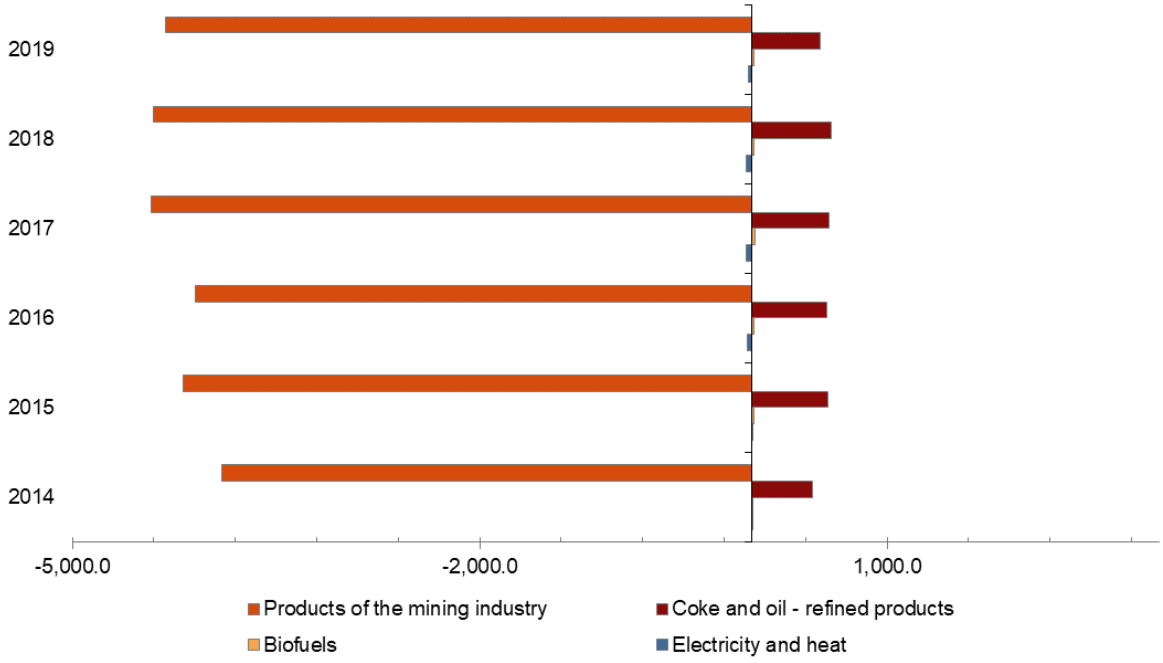
Components of the physical energy trade balance of energy products. Year 2019

Unit: Thousand TJ

	Physical trade balance	Imports	Over total %	Exports	Over total %
TOTAL	-3,806.0	5,551.8	100.0	1,745.8	100.0
Products of the mining industry	-4,312.6	4,391.4	79.1	78.8	4.5
Coke and oil - refined products	511.0	1,022.4	18.4	1,533.4	87.8
Biofuels	20.4	70.5	1.3	90.9	5.2
Electricity and heat	-24.7	67.4	1.2	42.7	2.4

Components of the physical trade balance of energy products

Unit: Thousands of terajoules



Data Review and Update

The data published today is provisional and will be revised when next year's data is released.

Methodological note

The objective of the Environmental Accounts (EA) is to coherently integrate environmental information into the central system of National Accounts. They include a set of satellite accounts, which are transmitted annually, compiled using the accounting formats applicable to the different sectoral and territorial areas, with a strong use of physical data. They show the interaction between the economy, households and environmental factors.

The Physical Energy Flow Accounts record flows of energy from the environment to the economic system of a country, within the economic system of a country, and from the economic system to the environment. It also calculates the flows of energy products with the rest of the world (imports and exports). These accounts make it possible to obtain a set of aggregate indicators on the origin and destination of natural energy resources, which enable the evaluation of energy and environmental sustainability in economic development.

For more information the methodology can be accessed at:
http://www.ine.es

The standardized methodological report is at:
http://www.ine.es/dynt3/metadatos/en/RespuestaDatos.html?oe=30063

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