Instituto Nacional de Estadística

Press Release

14 November 2022

Environmental accounts. Physical Energy Flow Accounts
Year 2020

Domestic energy production decreased by 11.0% in 2020

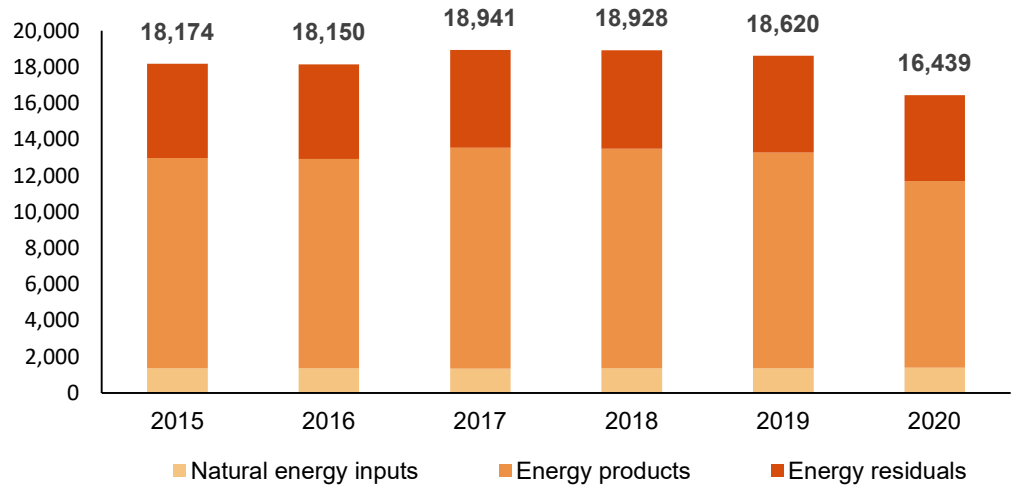
The consumption of energy products by households as final consumers fell by 11.2%

Total general and used energy flows amounted to 16,439.4 thousand Terajoules (TJ) in 2020, which represented a decrease of 11.7% 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 2020, in regards to origin, natural energy resources extracted from the environment reached 1,407.9 thousand TJ, 2.5% more than in 2019. Of these, renewable energy resources (wind, solar and hydraulic, and biomass) amounted to 775.3 thousand TJ, and non-renewable energy resources to 632.6 thousand TJ (fossil and nuclear fuels).

For its part, the supply of energy products amounted to 10,297.9 thousand TJ, 13.6% less than the previous year. Of this figure, 5,665.0 thousand TJ corresponded to domestic production and 4,632.9 thousand TJ to imports.

Lastly, the energy waste produced (mostly heat dissipated in the combustion processes) increased by 11.2%, to 4,733.2 thousand TJ.

Origin of the energy. Year 2020
Unit: Thousand TJ

	Total	Over total %	Annual change %
Total	**16,439.0**	**100.0**	**-11.7**
Natural energy inputs	1,407.9	8.6	2.5
Energy products	10,297.9	62.6	-13.6
Energy residuals	4,733.2	28.8	-11.2

Domestic production of energy products accounted for 55.0% of the total supply of this type of physical flow, 11.0% less than in 2019. On the other hand, imports represented 45.0%, with a decrease of 16.5%.

By type of energy product, the largest productions corresponded to Coke and petroleum refining products (63.3% of the total), Electricity and heat (19.1%), and Products from the mining industry (11.2%). %).

Energy products by type and origin.Year 2020
Unit: Thousand TJ

	Domestic production			Imports		
	Amount	Over total %	Annual change%	Amount	Over total %	Annual change%
Energy products	**5,665.0**	**100.0**	**-11.0**	**4,632.9**	**100.0**	**-16.5**
Mining products	632.9	11.2	-0.7	3.620.6	78.1	-17.5
Coke and oil - refined products	3,583.4	63.3	-15.1	894.1	19.3	-12.3
Biofuels	364.5	6.4	-4.0	53.7	1.2	-23.8
Electricity and heat	1,084.2	19.1	-3.7	64.5	1.4	-4.3

The energy products with the greatest weight in imports were *Extractive industry products* (78.1% of the total) and those of *Coke and refined petroleum products* (19.3%).

On the other hand, the imports with the lowest weight were *Electric power and heat* (1.4%) and *Biofuels* (1.2%).

The destination of physical energy flows

The economic activity branches used 55.5% of the total energy supply in 2020, with a decrease of 11.1% compared to the previous year.

For their part, households as final consumers of energy products, consumed 7.3% of the total, with a decrease of 11.2%. Exports, which represented 9.5% of the total, were down 8.4%.

Destination of energy. Year 2020
Unit:Thousand TJ

	Total	Over total %	Annual change%
Total	**16,439.0**	**100.0**	**-11.7**
Industries	9,129.7	55.5	-11.1
Households	1,198.5	7.3	-11.2
Exports	1,560.6	9.5	-8.4
Environment (energy residuals)	4,437.6	27.0	-12.3
Accumulation[1] and statistical differences	112.6	0.7	..

(1) Changes in stocks

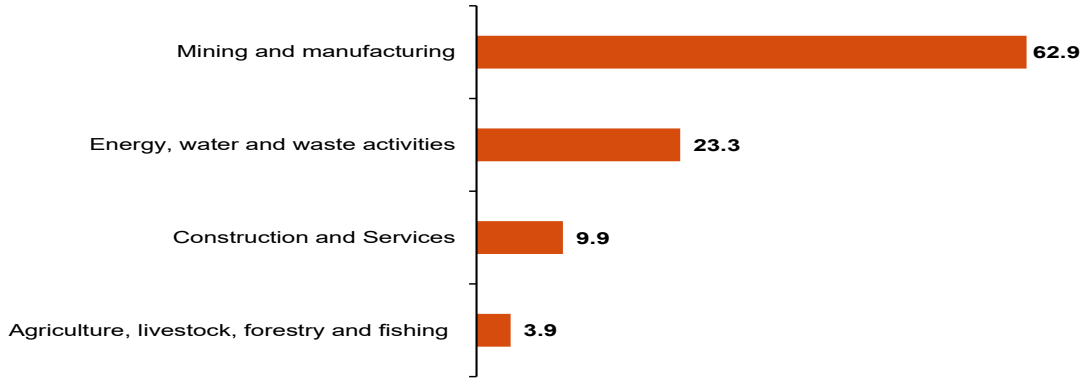
Finally, the environment received 27.0% of the total physical energy flows, mostly energy losses (dissipated heat) due to different production processes and final consumption activities. These physical energy flows destined for the environment, decreased by 12.3% compared to 2019.

Destination of the energy by type of energy flow and industry. Year 2020
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	**356.3**	**3.9**	**5,741.6**	**62.9**	**2,123.9**	**23.3**	**907.9**	**9.9**	**9,129.7**
Natural energy products	185.1	13.1	714.3	50.8	508.5	36.1	0.0	0.0	1,407.9
Energy products	171.2	2.2	4,992.9	65.2	1,580.1	20.7	907.5	11.9	7,651.7
Energy residuals	0.0	0.0	34.4	49.0	35.3	50.4	0.4	0.6	70.1

Of the total energy used by the activity branches, 62.9% was allocated to the *Mining and manufacturing industry,* 23.3% to *the Energy, Water and Waste Sector*, 9.9% to *Services* and *Construction* and 3.9% to *Agriculture, Livestock, Forestry and Fishing.*

Destination of energy flows by branches of activity. Year 2020 Percentage by groups of economic activities



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 3,072.3 thousand TJ in 2020.

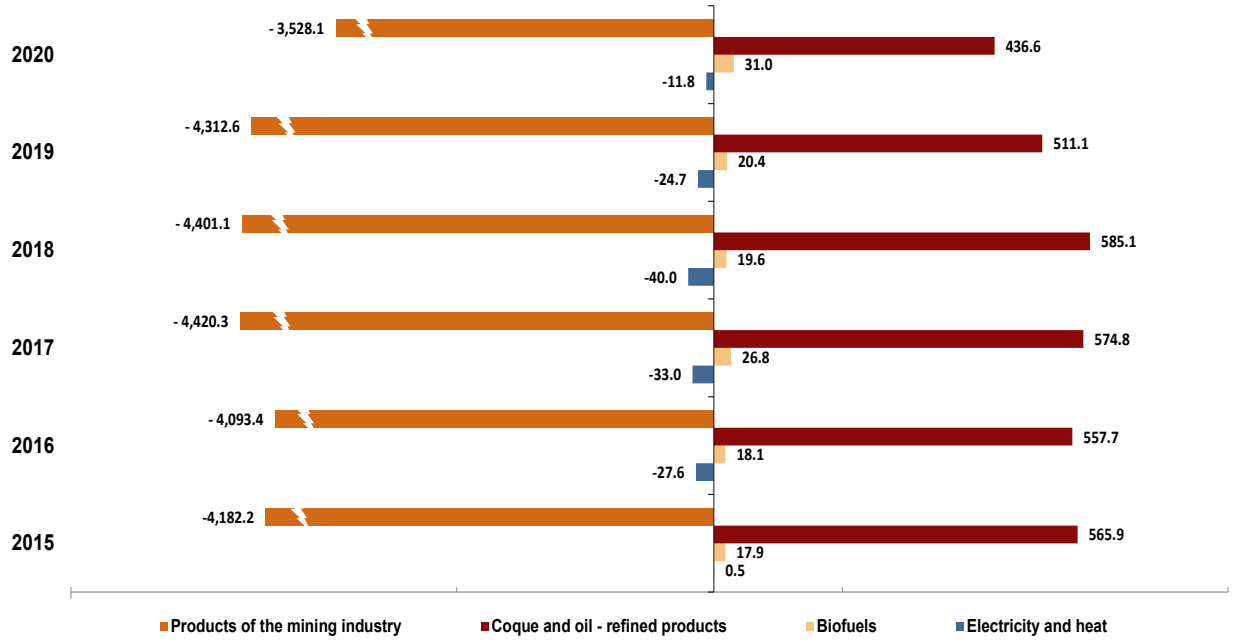
By components, imports of *Extractive Industry Products* represented 78.1% of the total and exports 5.9%, resulting in a negative balance of 3,528.1 thousand TJ.

The energy products that generated a positive trade balance were *Coke and refined petroleum products* (436.6 thousand TJ) and *Biofuels* (31.0 thousand TJ).

Components of the physical energy trade balance of energy products. Year 2020
Unit: Thousand TJ

	Physical trade balance	Imports	Over total %	Exports	Over total %
Total	**-3,072.3**	**4,632.9**	**100.0**	**1,560.6**	**100.0**
Products of the mining industry	-3,528.1	3,620.6	78.1	92.5	5.9
Coque and oil - refined products	436.6	894.0	19.3	1,330.6	85.3
Biofuels	31.0	53.8	1.2	84.8	5.4
Electricity and heat	-11.8	64.5	1.4	52.7	3.4

Components of the physical energy trade balance of energy products.
Unit: Thousand TJ



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:
https://www.ine.es/dyngs/INEbase/es/operacion.htm?c=Estadistica_C&cid=1254736177046&menu=ultiDatos&idp=1254735976603

The standardized methodological report is at:
https://www.ine.es/dynt3/metadatos/es/RespuestaDatos.html?oe=30090

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