

Energy Regulatory Office

<https://www.ure.gov.pl/en/markets/electricity/elctricitymrket/292,2019-Electricity-Market-Characteristics.html>
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2019 Electricity Market Characteristics

Wholesale market

The volume of gross domestic electricity generation in 2019 was at a lower level compared to the previous year, and amounted to 158,767 GWh (a decrease of 3.9% compared to 2018). In the same period, gross domestic electricity consumption amounted to 169,391 GWh and decreased by 0.9% compared to 2018. The growth rate of domestic electricity consumption was lower (negative) than the GDP growth rate in 2019, which according to preliminary estimates of Statistics Poland amounted to 4.0%.

The structure of electricity production in 2019 did not change significantly compared to 2018. The vast majority of generation is still based on conventional fuels, i.e. hard coal and lignite, although their share decreased from 80% to 75%.

In 2019, the share of imports in the domestic balance of physical flows constituted 10.1% of total electricity fed into the grid, while the share of exports constituted 4.1% of electricity off-taken. As compared to 2018, share of imports increased by 2.4 percentage point, while share of exports declined by 0.4 percentage point.

Structure of electricity generation, domestic balance of physical flows in cross-border exchange, and electricity consumption in 2018-2019 [GWh]

	2018	2019	Dynamics (2019/2018; 2018=100)
Total electricity production	165,214	158,767	96.10
including: hard coal-based power plants	82,375	78,190	94.92
lignite-based power plants	49,072	41,502	84.57
gas-based power plants	9,590	12,099	126.16
industrial power plants	10,022	10,178	101.56
water-based utility power plants	2,197	2,454	111.70
wind sources	11,678	13,903	119.05
other RES	280	441	157.50
cross-border exchange balance	5,718	10,624	185.80
Domestic electricity consumption	170,932	169,391	99.10

Source: URE on the basis of PSE S.A.'s data.

In 2019, installed capacity in national electricity system amounted to 46,799 MW, and generating capacity totalled 46,991 MW, which is an increase by 1.9% and 2.9%, respectively, as compared to 2018. An average annual capacity demand was 23,082 MW, against maximum demand of 26,504.4 MW, which is a decrease by 1% and increase by 0.2%, respectively, as compared to 2018. The ratio of available capacity to generating capacity in 2019 was 64.5% (decrease by 1.6 percentage points as compared to 2018).

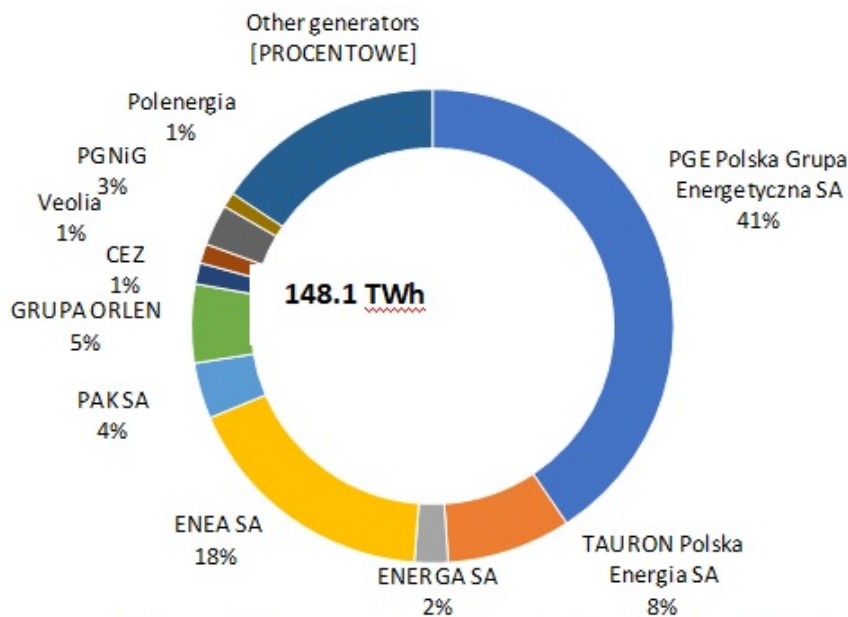
Installed capacity of domestic power plants (at the end of the year)

	Installed capacity [MW]		
	2018	2019	dynamics (year/year)
Installed capacity of domestic power plants:	45,939	46,799	1.87%
In utility power plants:	36,638	36,674	0.10%
In hydroelectric utility power plants:	2,341	2,346	0.21%
In thermal utility power plants:	34,296	34,328	0.09%
Hard coal based:	23,215	23,159	-0.24%
Lignite based:	8,752	8,382	-4.23%
Gas-fired:	2,330	2,788	19.66%
In wind sources and other RES:	6,621	7,490	13.12%
In industrial power plants:	2,680	2,634	-1.72%
Installed capacity in centrally-dispatched generation units	29,128	29,333	0.70%
Installed capacity in not centrally-dispatched generation units:	16,811	17,466	3.90%

Source: URE on the basis of PSE S.A.'s data.

The biggest share in electricity generation subsector in 2019, which totalled 40.6%, was still held by the group PGE Polska Grupa Energetyczna S.A. (decrease by 2.3 percentage point in comparison to the previous year). This group, having acquired the energy companies of EDF group, took a leading position also on the market of sale to final customers, and maintained it in 2019.

Share of groups in the volume of electricity fed into the grid in 2019 (considering the entity structure as at 31 Dec. 2019)



NB. The group "Other generators" includes both generators which are part of groups (e.g. Azoty, Innogy, FORTUM) and generators operating individually on the electricity generation market – outside groups.

Source: Own analysis based on data of the Ministry of State Assets and URE

Sales of electricity

The structure and mechanisms of market operation do not differ from the corresponding structures and mechanisms, which formed in a majority of other European states deemed competitive markets. Market participants have, on a non-discriminatory basis, wide access to various forms of electricity sales and access to information on volumes and prices at

which electricity is contracted and sold on the wholesale market.

The tables below present shaping the directions of electricity sales in segments of generation and trading in the years 2018-2019.

Directions of electricity sales by generators in 2018-2019 [TWh]

Year	Trading companies	Regulated markets, including power exchange	Balancing market	Exports	End users	Other sales*
2018	101.7	35.1	8.6	0.0	3.2	1.9
2019	62.7	77.0	8.8	0.0	2.0	1.9

Source: Data of Ministry of State Assets and URE.

Directions of electricity sales by trading companies in 2018-2019 [TWh]

Year	Trading companies	Regulated markets, including power exchange	Balancing market	Exports	End users	Other sales*
2018	131.9	71.7	6.6	2.6	127.0	24.2
2019	122.7	103.5	7.4	2.4	127.1	17.8

Source: Data of Ministry of State Assets and URE.

* "Other sales" includes electricity sold to TSO and DSOs, and sales to small local distributors.

As a result of significant drop in trading on power exchange in 2017 as compared to 2016, obligation for the electricity generators to sell electricity via power exchange was increased from 15% in 2017 to 30% in 2018, and to 100% from 1 January 2019. Hence, in 2019 significant growth of electricity sales through power exchange is observed both among generators and trading companies.

Total electricity volume in all transaction concluded in 2019 on all sales markets of TGE S.A. (Polish power exchange) amounted to 229 TWh, which is an increase by 1.3% compared to 2018 (226.1 TWh). In 2019, TGE S.A. operated the following electricity sales markets:

- Intraday Market - from 19 November 2019 in the XBID model,
- Day Ahead Market (DAM) and
- Commodity Forward Instruments Market (CFIM, including in the auction system).

At the end of 2019, 78 entities had the status of a member of the TGE S.A.'s Exchange Commodity Market, of which 41 actively participated in trading on electricity markets operated by TGE S.A.

The largest volume of electricity is traded at CFIM. In 2019 45,041 transactions were concluded on that market (together with auctions), and the total volume of electricity trading was 195 TWh. The volume-weighted average transaction price of BASE Y-20

contract in the entire year 2019 was at the level of 266.40 PLN/MWh, while in 2018 the volume weighted average transaction price of the corresponding BASE_Y-19 forward contracts amounted to 242.40 PLN/MWh.

In 2019, 1,269,811 transactions were concluded on the day ahead market. Total volume of electricity traded on DAM amounted to 33.7 TWh, what means an increase by 22.1% compared to 2018. Volume-weighted average price of electricity on DAM in 2019 amounted to 229.62 PLN/MWh and was higher by 4.91% in comparison to 2018 when this price was 224.71 PLN/MWh.

On the intraday market, 35,927 transactions were concluded in 2019, and total volume of traded electricity amounted to 174.5 GWh.

In 2019, volume of electricity in contracts concluded on the OTC market, excluding intra-group contracts, amounted to 19.4 TWh and was lower by 48.7% in comparison to 2018 (37.8 TWh).

Retail market

In 2019, there were 5 big DSOs operating on the electricity market which are subject to unbundling obligation. In addition, there were 184 vertically integrated undertakings designated as DSOs, which do not fall under unbundling obligation.

In 2019, 5 incumbent (default) suppliers and 136 alternative suppliers selling electricity to final customers, operated on the electricity market. In 2019, there were some 17.8 m end users, of which 91% (16.2 m) were consumers in G tariff group that purchase electricity to consume it for living purposes (mainly households). The rest of final customers are consumers of the A, B and C tariff groups. Groups A and B comprise consumers supplied from the high and medium voltage grids, which are so-called industrial customers, while C group comprises consumers connected to the low voltage grid, consuming electricity for the purpose of conducted business activity, the so-called commercial customers.

On 1 January 2019 the so-called "Act on electricity prices" entered into force, which froze electricity prices. The main goal of this act was to ensure lack of electricity price increase in 2019, comparing to 2018, by applying 3 mechanisms: reduction of excise tax rate, reduction of transitional fee rate and obligation for suppliers to keep electricity prices for all end customers at the level of mid-2018. With respect to household consumers under regulated prices, suppliers were obliged to use the level of regulated prices as on 31 December 2018; in relation to households with market offers – suppliers had to apply prices not higher than applied on 30 June 2018. At the same time suppliers were entitled to apply for relevant compensation.

Between the 4th quarter of 2018 and the 4th quarter of 2019, electricity prices increased in A and B tariff groups, while for C tariff group a slight increase in electricity prices was observed. In this period electricity prices for G tariff group dropped significantly – by 4.05%, in case of households a decrease by 4.75% was observed. This was an intended

consequence of the introduction of the Act on electricity prices.

In 2019, distribution fees decreased for the consumers in all tariff groups. The highest drop of distribution fee was for A tariff group - by 11%, and the lowest for C tariff group consumers - by 2.6%. For consumers in G tariff group the distribution fee decreased by 7.18%, including by 7.95% for households.

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