

Country: Greece Population: 10.9 mln GDP: €184 bln (2017) Unemployment rate: 21.4% (2017) Inflation Rate: 1.1% (2017) Net Power Consumption: 51,501 GWh (2017) Net Power Generation: 45,538 GWh (2017) Gas Demand: 4.8 bcm (2017) LNG Imports: 1.04 mln t (2017)

> Crude Oil Imports: 172.04 mln bbl (2017)

Sources: World Bank, Bank of Greece, DESFA, EC. LAGIE. IMF



#### Infrastructure Update

- Public Power Corporation (PPC) is engaged in talks with Terna Energy for a possible partnership concerning the latter's plan to develop pumped-storage hydroelectricity facilities in Western Greece (680 MW) and Crete (93 MW).
- Greek TSO DESFA has announced that a third storage tank at Revithoussa LNG terminal will become commercially available in after mid November 2018, a prospect that eases any concerns of an energy supply shortage in Greece this winter. The addition of the third storage tank will increase Revithoussa's overall capacity to 225,000 cubic meters.
- IGB consortium has initiated a tender for the selection of the Project Manager for the construction of the pipeline. Binding offers are due on 26th November 2018.

#### Regulation Update

- EC has approved the Greek proposal for remuneration of flexible electricity capacity, which will be implemented by the TSO and will enable the provision of flexible generation by gas-fired and hydro units. At a second stage, demand response and storage will also be included.
- The Regulator introduced improvements in the auction process for Renewables Support, addressing the issues of uncontrolled clustering and effective bidding. The Ministry also decided the abolishment of two levies on electricity prices, namely: supplier's levy for RES and producers' one for lignite.
- CNG framework for virtual pipeline applications is now complete, having already achieved the gasification of two cities.

#### Politics & Macroeconomic Update

- TAIPED, the state privatization fund, is extending the deadline for the 50.1% sale of Hellenic Petroleum (ELPE), and also delaying the privatization launch of DEPA, the Greek gas utility. An October deadline faced by Glencore and Vitol, ELPE's two prospective buyers, for binding bids now appears set to be shifted to November. Similarly, DEPA's privatization launch has moved from November to the first quarter of 2019.
- A trilateral meeting between Greek Foreign Minister, Cyprus Foreign Minister, and Israeli Prime Minister and Foreign Minister held on September in Israel focused on expanding cooperation in energy. They emphasised their strong interest in developing the "East Med" pipeline as one of the major submarine pipelines worldwide.

#### **GEF Forward View**

Both the electricity and gas markets remain "hot" going forward, maintaining significant traction from upstream all the way down to retail level. Within H1 2019, the launch of the new "Target Model", together with the successful completion of PPC's lignite units divestment should be expected. By that time, lignite-fired capacity will have come closer to decommissioning, enabling even more space for gas in power generation. Gas demand remains strong and above medium-term projections, allowing for LNG imports to hold (30% supplied by LNG in 2017). On the background, regional I/C's progress as planned.

#### **Market Update**

- An agreement reached at a Brussels meeting now paves the way for the Crete-Athens grid interconnection project, that is crucial to ensure power sufficiency on Crete as of 2020. Greek power grid operator IPTO will remain at the forefront as its project promoter, while the decision to have the tender in early 2019 will facilitate the launch of work first on the Crete-Athens link.
- In September 2018, the Hellenic Competition Authority approved the acquisition of NRG Trading House S.A. from Motoroil Hellas. This is considered to facilitate further consolidation in the Greek electricity market, as well as the provision of supplementary services in the electricity, gas and petroleum markets.
- Two initial agreements awarding the exploration and development for hydrocarbons for the sea block off Crete were signed by the Energy & Environment Minister and the joint venture of Total, ExxonMobil and Hellenic Petroleum, while the contract in Kyparissia was awarded to Hellenic Petroleum. The agreements are to be checked by the Audit Council, before being approved by the parliament.
- "Double-play" in Gas & Power Retail is now a reality in the Greek market. Already at least five suppliers have started offering a bundle of gas and power at very competitive prices.
- DEPA's CEO has announced that the company is very close towards securing an LNG supply contract with Cheniere. This should pave the way for the first ever US LNG cargo landing in Greece and signal a very interesting development, ahead of the ongoing market test of FSRU Alexandroupolis, the completed expansion and upgrade of Revithoussa terminal and the substantial progress towards the completion of the IGB pipeline construction tender.

All individuals involved in the Greek Energy Forum - including the Management Committee, Branch Heads/Deputy Heads, Steering Committee, Project Managers, Associates, as well as standard members - are serving in their personal capacity The analysis and opinions they express through the Greek Energy Forum are their own and do not reflect the view of their respective employers.



# **Greek energy market snapshot**

October 2018

## **Greece: Oil consumption**

2.5

2.5

2.0

1.5

1.0

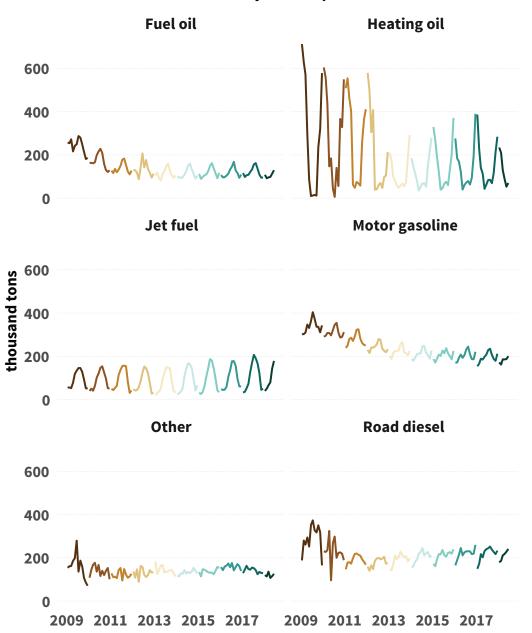
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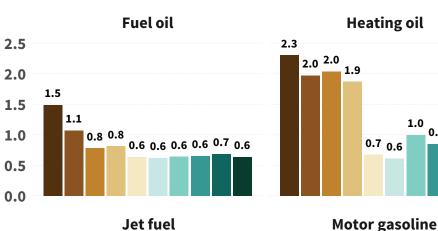
### data through June 2018

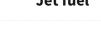
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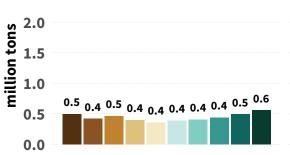
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#### Monthly consumption

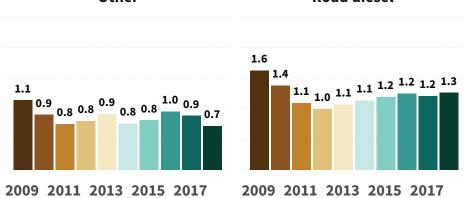












2.0

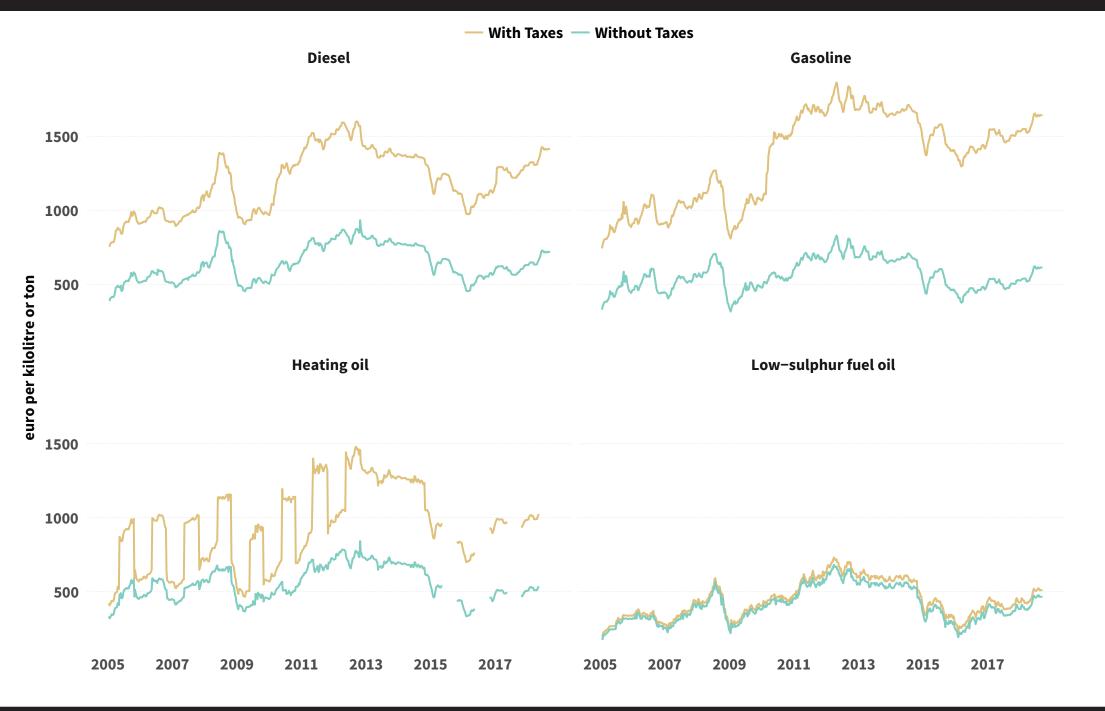
1.6 1.4

#### Year-to-date consumption

Data from Eurostat, Supply and transformation of oil - monthly data (nrg\_102m)

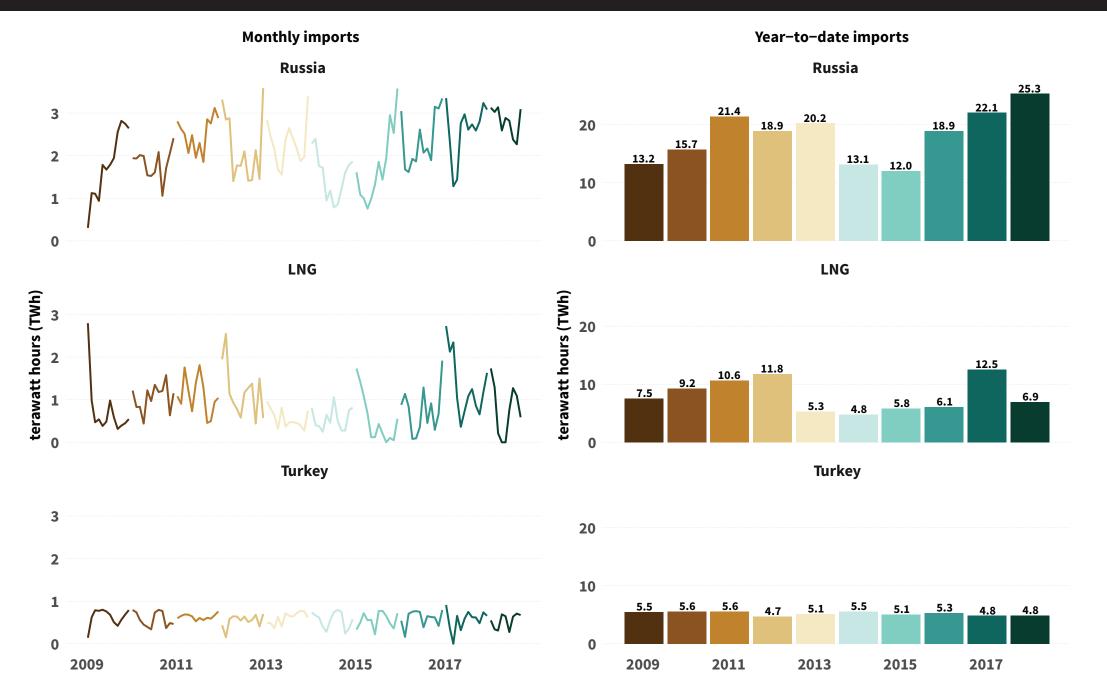
# **Greece: Oil prices**

data through September 3, 2018



## **Greece: Gas imports**

## data through September 2018



Data from DESFA, Historical Data of Natural Gas Deliveries / Off – Takes

#### powered by enalytica

# **Greece: Gas consumption**

## data through September 2018

**ALOYMINION** 

6.6 6.2

ELPE

4.7

**OTHER** 

7.0 7.0

1.7 1.3

8.2

6.9

3.8 4.3 4.4

8.7 8.1

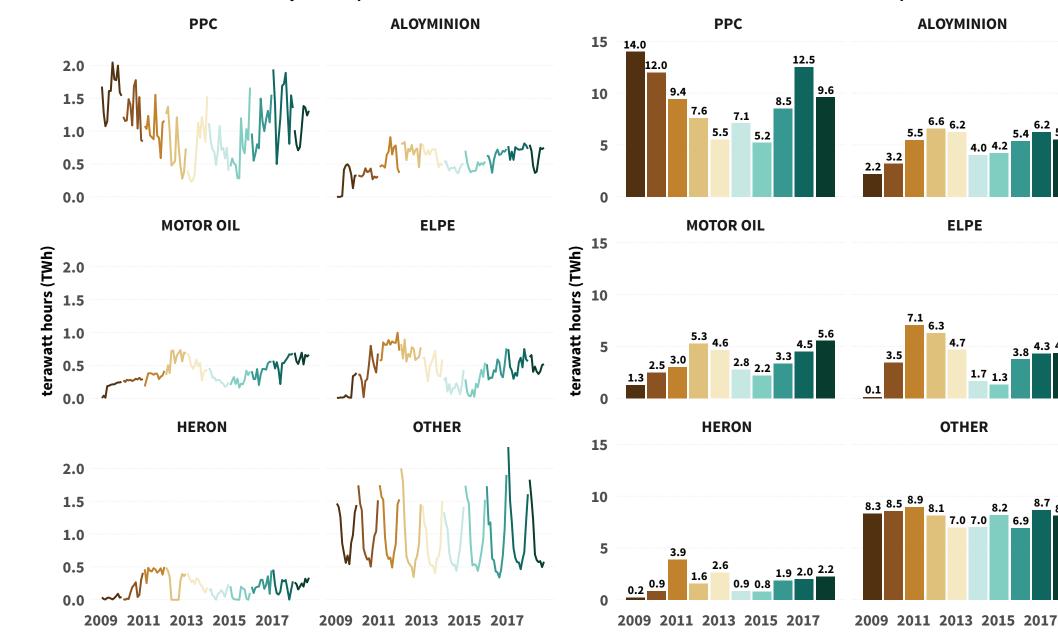
4.0 4.2

5.5

7.1 6.3

3.5

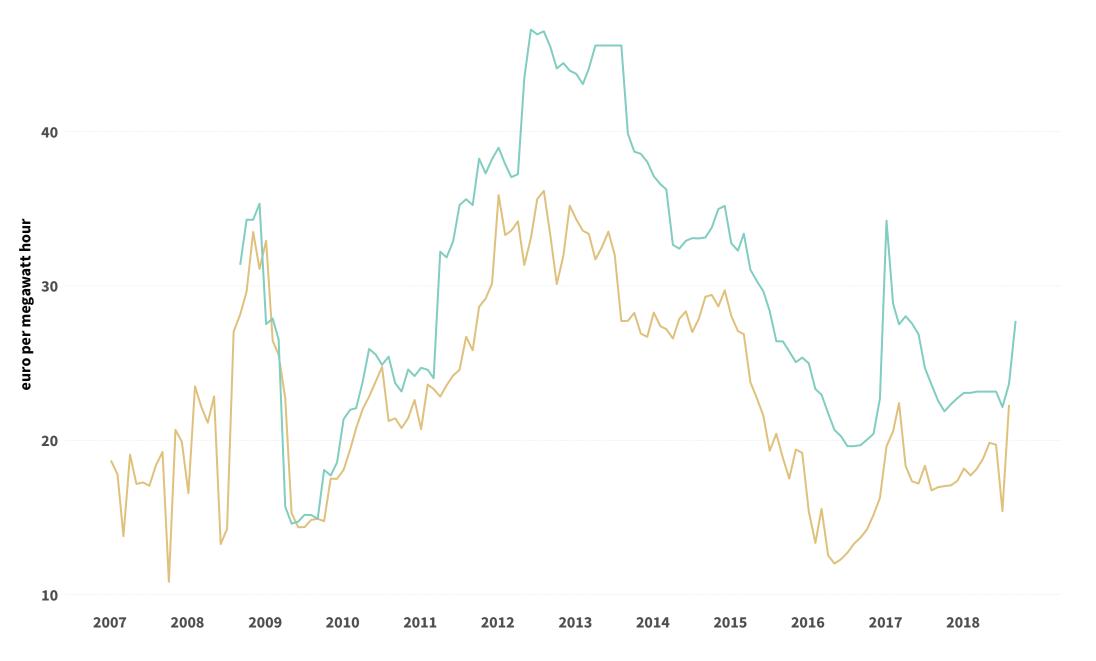
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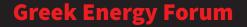


Year-to-date consumption

**Monthly consumption** 

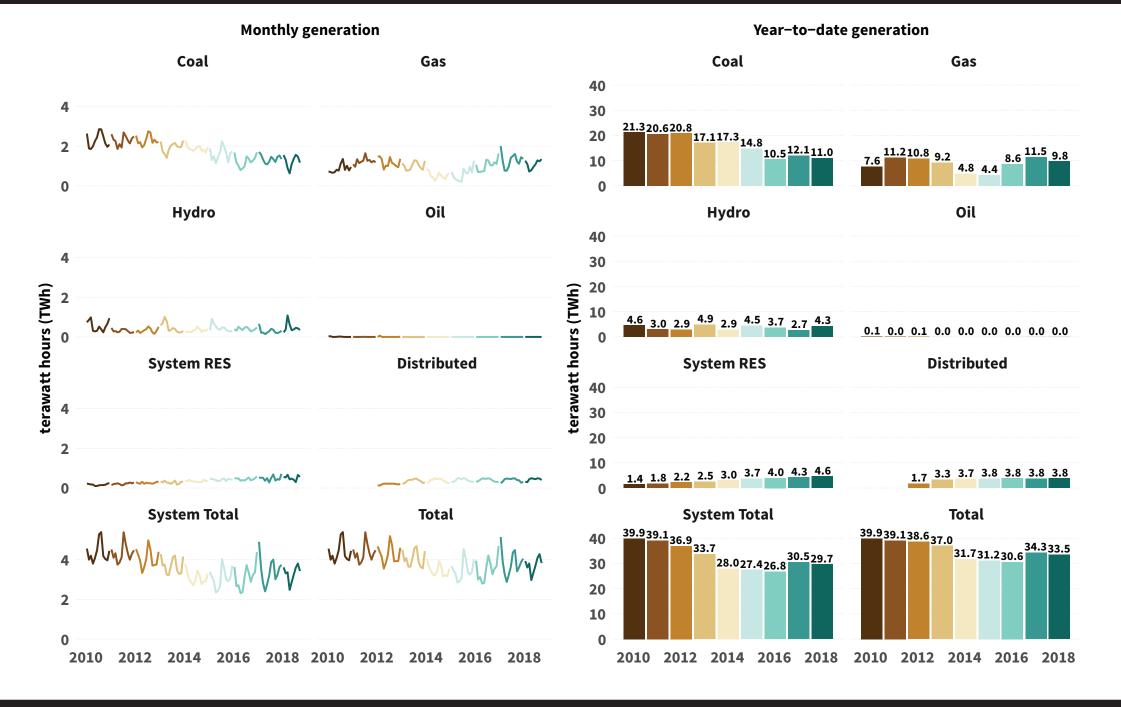
- Average import price — Gas balancing price (DESFA)



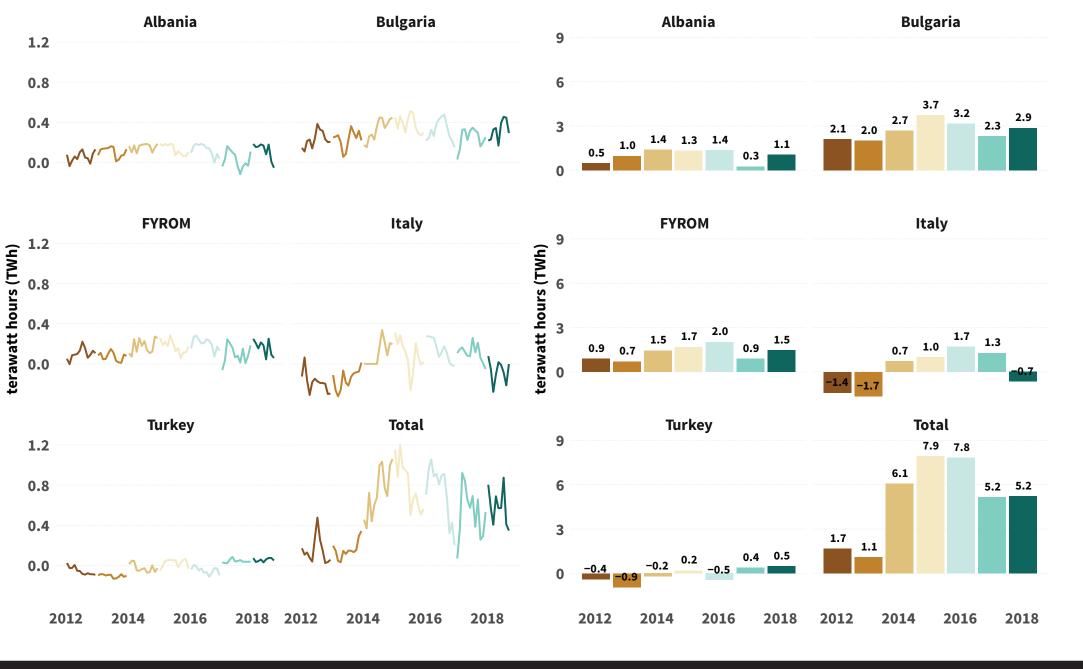


## **Greece:** Power generation

#### data through September 2018



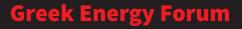
#### Data from ADMIE (Independent Power Transmission Operator), Monthly Energy Balance



Year-to-date net imports

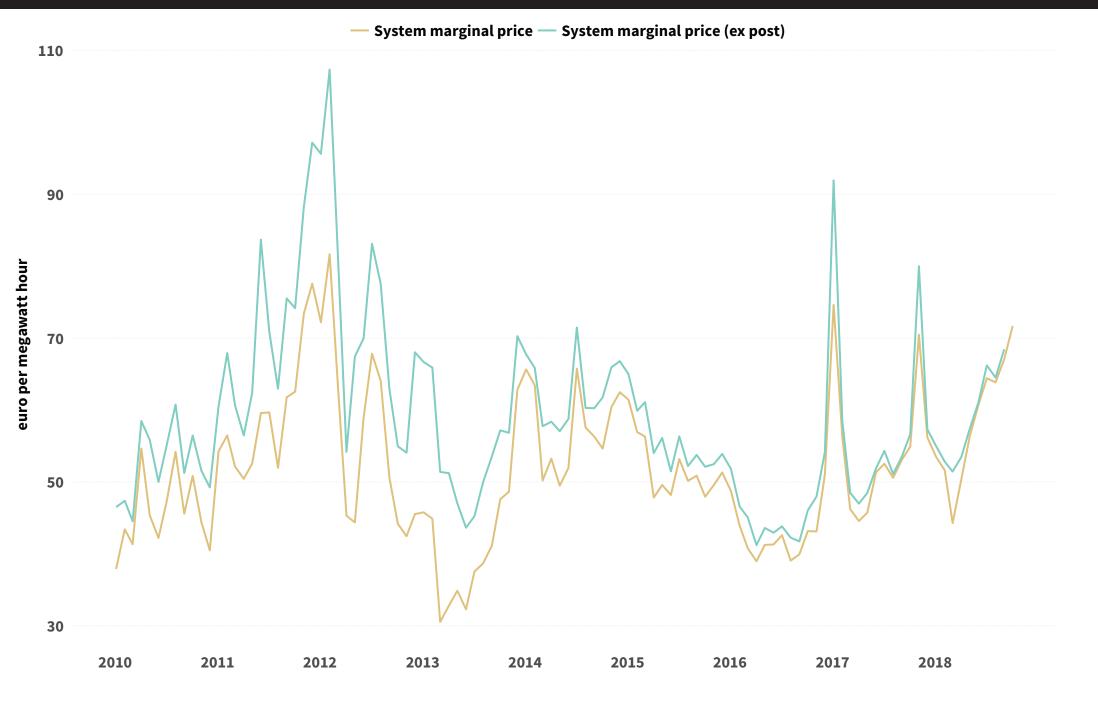
Data from ADMIE (Independent Power Transmission Operator), Monthly Energy Balance

powered by enalytica



**Greece:** Power prices

data through September 2018



Data from ADMIE (Independent Power Transmission Operator), Electricity / Power Market Participation (Market Data) powered by enalytica

Greek Energy Forum	Sources and notes
Oil consumption	Eurostat, Supply and transformation of oil - monthly data (nrg_102m) Parent URL: http://ec.europa.eu/eurostat/data/database File URL: http://ec.europa.eu/eurostat/estat-navtree-portlet-prod/Bulk- DownloadListing?sort=1&downfile=data%2Fnrg_102m.tsv.gz Other includes refinery gas, ethane, liquified petroleum gas (LPG), aviation gasoline, other kerosene, gasoline type jet fuel, naphtha, petroleum coke, other products. All fuels include blending with bio components. Jet fuel refers only to kerosense jet fuel (gasoline type jet fuel shown in other).
Oil prices	European Commission, Weekly oil bulletin Parent URL: https://ec.europa.eu/energy/en/data-analysis/weekly-oil-bulletin File URL: http://ec.europa.eu/energy/observatory/reports/Oil_Bulletin_Prices_History.xls
Gas balance	DESFA, Historical Data of Natural Gas Deliveries / Off – Takes Parent URL: http://www.desfa.gr/en/regulatory-services/transmission/pliroforisimetaforas-page/historical-data File URL: http://www.desfa.gr/userfiles/pdflist/DDRA/Flows.xlsx For import locations: AGIA TRIADA is LNG, SIDIROKASTRO is Russia, and KIPI is Turkey. For domestic consumption: PPC includes ALIVERI, KERATSINI, KOMOTINI, LAVRIO, MEGALOPOLIS. ALOYMINION includes ALOYMINION, ALOYMINION II and ALOYMINION III. ELPE includes ELPE, ELPE HAR, and THISVI. HERON includes HERON II and HERONAS. MOTOR OIL includes MOTOR OIL and MOTOR OIL II. All other exit points grouped under OTHER.
Gas prices	DESFA, Daily gas balancing price Parent URL: http://www.desfa.gr/regulatory-services/balancing/daily-price File URL (2018): http://www.desfa.gr/userfiles/pdflist/DERY/TT/2018_%CE%97%CE%A4%CE%91%CE%95.xlsx From July 2018: http://www.xnmxafd0dp.gr/scada/balancing-hourly.php?la=GR Import prices calculated from Eurostat, Com Ext database (available from http://ec.europa.eu/eurostat/data/database). Total calculated by adding all values under codes 27111100 and 27112100. Volumes are reported in terajoules; conver- sion from terajoules to megawatt hours based on a 1 KWh = 3,600 KJ rate.
Electricity balance	ADMIE, Electricity market report Parent URL: http://www.admie.gr/deltia-agoras/miniaia-deltia-energeias/
Electrictiry prices	ADMIE, System marginal prices Parent URL: http://www.admie.gr/leitoyrgia-dedomena/leitoyrgia-agoras-ilektrikis-energeias/anafores-dimosieyseis-agoras/