GlobalData

GREECE POWER MARKET OUTLOOK TO 2030, MARKET TRENDS, REGULATIONS AND COMPETITIVE LANDSCAPE
Executive Summary

Gas-based Thermal Capacity Dominates Electricity Generation in Greece

Gas-based thermal power generation capacity accounted for a XX% share of Greece’s total installed capacity in 2013, followed by coal with XX%. Renewable sources constituted a total share of XX%, consisting of XX% from solar Photovoltaic (PV), XX% from onshore wind, and XX% from biogas. Installed capacity from hydropower amounted to XX%, and oil-based thermal capacity accounted for XX%.

Greece Power Consumption and Generation, 2000–2013

Power consumption in Greece was erratic between 2000 and 2013, and has been especially so since 2009, due primarily to the global recession and the 2011 eurozone crisis. During this period, annual generation also registered a steep decline. Annual power consumption amounted to XX Terawatt hours (TWh) in 2000, increasing at a Compound Annual Growth rate (CAGR) of XX% to XX TWh in 2013. Annual power generation also increased from XX TWh in 2000 at a CAGR of XX% to XX TWh in 2013.
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Introduction

2 Introduction

The International Monetary Fund (IMF) estimates that more than €XX billion ($XX billion) of investment will be required in 2020 in order to upgrade existing power plants, build new power plants, and establish new Transmission and Distribution (T&D) infrastructure and renewable energy facilities.

Greece has introduced a comprehensive energy policy, which seeks to establish a competitive, yet sustainable and secure energy market. This resulted in the creation of exceptional investment opportunities in the different energy sector verticals, which is further supported by the country’s investment-friendly regulatory framework.

The recent legislation (Law 2773/1999) deregulated the electrical energy market along with domestic production and T&D, giving increased scope to private investors by opening the energy sector. It transformed the electricity and energy market in Greece into a strong site of growth and opportunity in Europe. Prior to this, the Public Power Corporation (PPC) enjoyed monopoly in all electricity production and T&D. By contrast, Greece has now become a global platform inviting companies to invest in and benefit from this tremendous market opportunity, leaving no scope for PPC to avoid facing competition.

It would not be an exaggeration to say that Greece enjoys a central geo-economic position, marking it as an expanding hub between the east and the west. The initiation of crucial and major ventures into oil, gas and alternative sources puts Greece at the heart of the southeast European energy axis.
Introduction

2.1 GlobalData Report Guidance

- The executive summary captures key growth trends in the Greek power market.
- Chapter three provides a snapshot of the key parameters that affect the country’s power sector, as well as key points about the power market.
- Chapter four provides a power market analysis for Greece.
- Chapter five provides details of the regulatory scenario for the power market and the inward foreign investment scenario in Greece.
- Chapter six provides information regarding Greece’s cumulative installed capacity and annual generation trends, as a whole and by individual generation source.
- Chapter seven describes the power T&D infrastructure in Greece and includes information on interconnectors with neighboring countries. The section also covers electricity imports, exports and upcoming grid-related projects in Greece.

Note: all 2013 market numbers provided in the report are estimates, except where actual data were available.
4.4 Greece, Power Market, Demand Structure

Annual electricity consumption in Greece increased from XX TWh in 2000 to XX TWh in 2013, at a CAGR of XX%. During the forecast period from 2014 to 2030, this total is expected to increase minimally at a CAGR of XX% to reach XX TWh in 2030.

Although power consumption in Greece increased at a CAGR of XX% between 2000 and 2013, it also registered a decline during 2005, 2009 and from 2011 to 2013 at an annual negative rate of XX% in 2013 and a peak decline of negative XX% in 2009. However, for the forecast period from 2014 to 2030, consumption is expected to increase steadily at a CAGR of XX%.

Figure 3: Power Market, Greece, Annual Power Consumption (TWh), 2000–2030

Source: GlobalData, Power Database [Accessed on November 4, 2014]
4.4.1 Consumption by Sector, Q1 2014

The residential sector is the largest power-consuming sector in Greece, and in Q1 2014 accounted for an estimated XX% of total power consumption, followed by the commercial sector with XX%. The industrial sector, consisting of High-Voltage (HV), MV, and LV, accounted for XX% of total power consumption in Q1 2014. Agriculture and other services accounted for respective shares of XX% and XX% (PPC, 2014).

Figure 4: Power Market, Greece, Power Consumption by Sector (%), Q1 2014

Table 3: Power Market, Greece, Power Consumption by Sector (%), Q1 2014

<table>
<thead>
<tr>
<th>Sector</th>
<th>Share</th>
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<tr>
<td>Residential</td>
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<td>Commercial</td>
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Source: GlobalData
9 Appendix

9.1 Market Definitions

9.1.1 Power

Power refers to the rate of production, transfer or energy use, usually related to electricity. It is measured in Watts (W) and expressed in kilowatts (kW), Megawatts (MW) or Gigawatts (GW). It is also known as real or active power.

9.1.2 Installed Capacity

Installed capacity refers to the generator’s nameplate capacity as stated by the manufacturer, or the maximum rated output of a generator under given conditions. It is given in Megawatts (MW) on a nameplate affixed to the generator.

9.1.3 Electricity Generation

Electricity generation refers to the process of generating electricity from other forms of energy. It also refers to the amount of electricity produced, expressed in Gigawatt hours (GWh) or Terawatt hours (TWh).

9.1.4 Electricity Consumption

Electricity consumption is the sum of electricity generated, plus imports, minus exports and transmission and distribution losses. It is measured in Gigawatt hours (GWh) or Terawatt hours (TWh).

9.1.5 Thermal Power Plant

A thermal power plant is a plant in which turbine generators are driven by burning fossil fuels.

9.1.6 Hydropower Plant

A hydropower plant refers to a plant in which the turbine generators are driven by falling water.

9.1.7 Nuclear Power

Nuclear power refers to the electricity generated by the use of thermal energy, released from the fission of nuclear fuel in a reactor.
Appendix

9.1.8 Renewable Energy Resources

Renewable energy resources are those that provide energy that is naturally replenished but limited in the amount of energy that is available per unit of time. Biomass, geothermal, solar, small hydro and wind are examples of renewable resources.
## Appendix

### 9.2 Abbreviations

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<th>Table 20: Abbreviations</th>
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<td><strong>BRIC</strong></td>
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<td><strong>CAGR</strong></td>
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Source: GlobalData
9.3 Bibliography


9.4 GlobalData’s Methodology

GlobalData’s dedicated research and analysis teams consist of experienced professionals with backgrounds in marketing, market research and consulting in the power industry, and advanced statistical expertise.

GlobalData adheres to the codes of practice of the Market Research Society (www.mrs.org.uk) and the Strategic and Competitive Intelligence Professionals (www.scip.org).

The following research methodology is followed for all country outlook reports.

9.4.1 Coverage

This report gives detailed information on Greece’s power market. It examines Greece’s power market structure and provides historical and forecast numbers for generation, capacity and consumption up to 2030. The report provides insights into the market’s regulatory structure, import and export trends, competitive landscape and leading active and upcoming power projects.

9.4.2 Secondary Research and Analysis

The capacity, generation and consumption data is collected and validated using a number of secondary resources, including, but not limited to:

- Government agencies, ministerial websites, industry associations, the World Bank, statistical databases
- Company websites, annual reports, financial reports, broker reports and investor presentations
- Industry trade journals, market reports and other literature
- GlobalData’s proprietary databases, including the Capacity and Generation Database, the Power Plant Database and the Transmission and Distribution Database

In addition to this, the following secondary information is collected and analyzed to project Greece’s power market scenario through until 2030, analyzing factors such as the following:

- Greece’s macro-economic scenario
- Government regulations, policies and targets
- Government and private sector investments
Appendix

- Contract and deal announcements
- Utility expansion plans
- The sector’s historic track record
- Other qualitative insights built through secondary research and analysis of company websites, annual reports, investor presentations, industry and trade journals, and data from industry associations

9.4.3 Primary Research and Analysis

Secondary research is further complemented through primary interviews with industry participants to verify and fine-tune the market numbers obtained through secondary research and get first-hand information on industry trends.

The participants are drawn from a diverse set of backgrounds, including equipment manufacturers, industry associations, government bodies, utilities, distributors, and academia. The participants include, but are not limited to, C-level executives, industry consultants, academic experts, business development and sales managers, purchasing managers, plant managers, government officials, and industry spokespeople.

9.5 Disclaimer

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