

# Greek Energy Newsletter

January 2012

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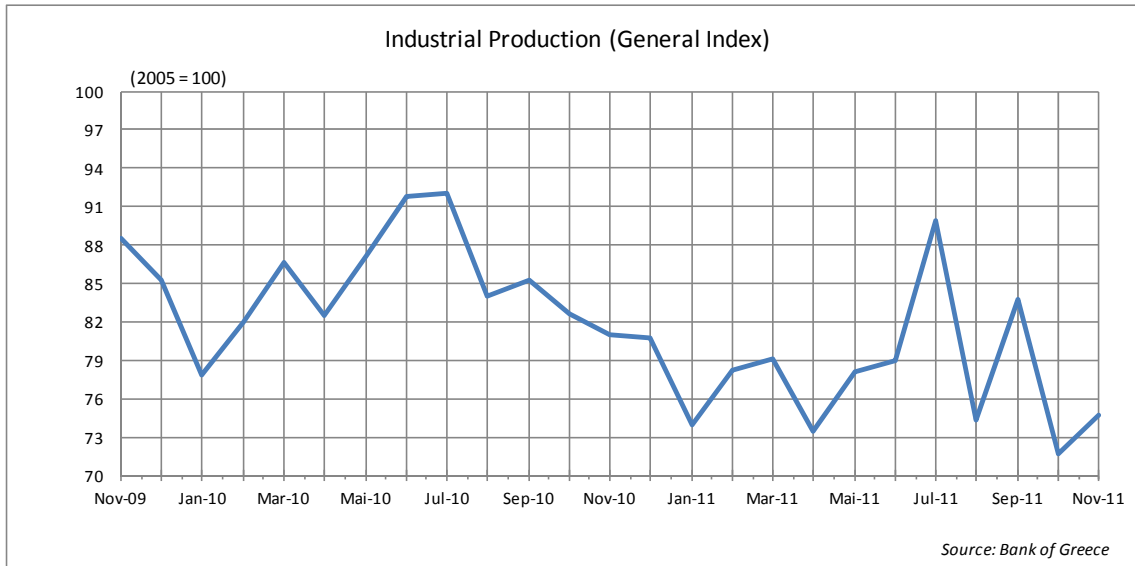
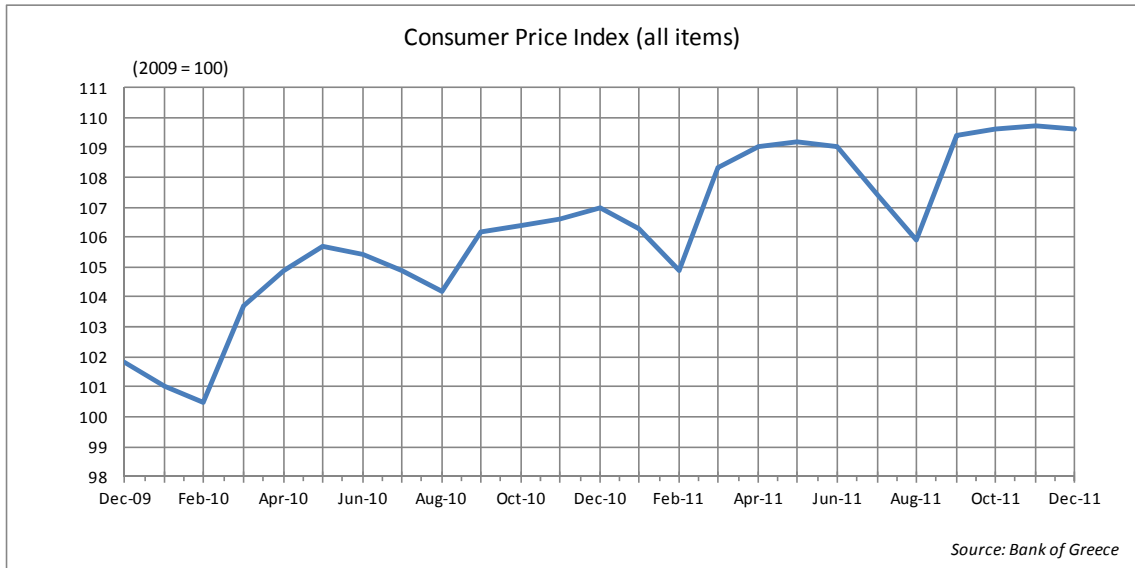
Greek Economy .....	2
Oil .....	3
Natural Gas .....	6
Electricity & RES .....	9
CO <sub>2</sub> Emissions.....	14
Energy Units.....	16

Newsletter editing: **N. Kontinakis, Dr. F. Thomaidis**

“Valuation and Research Specialists” –104 Eolou, 10564 Athens, +30-210-3219557

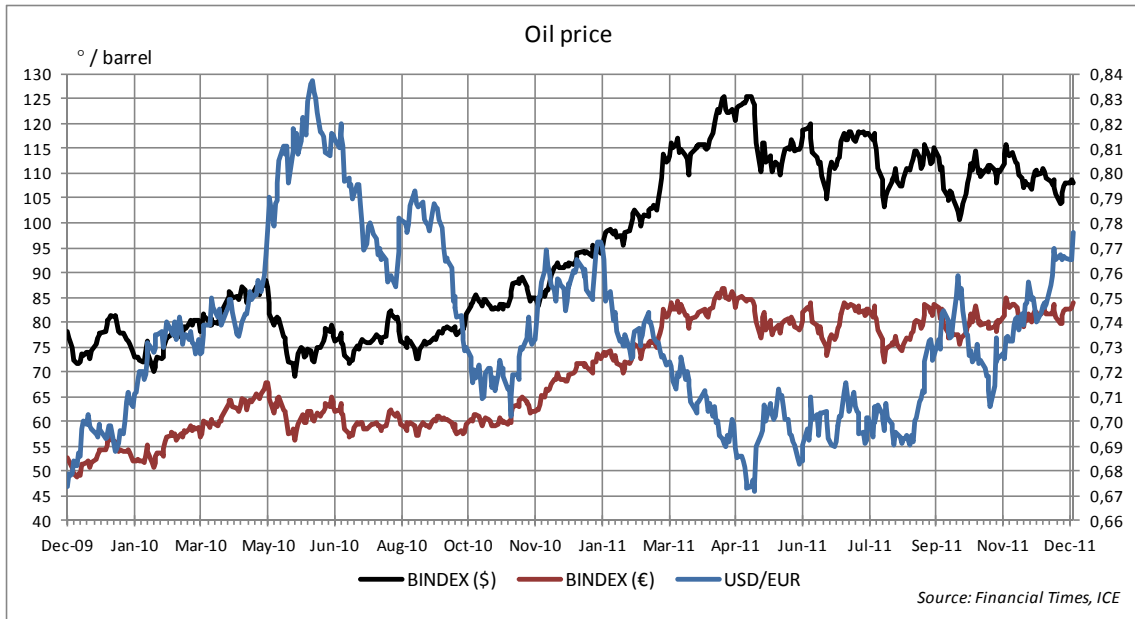
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## Greek Economy

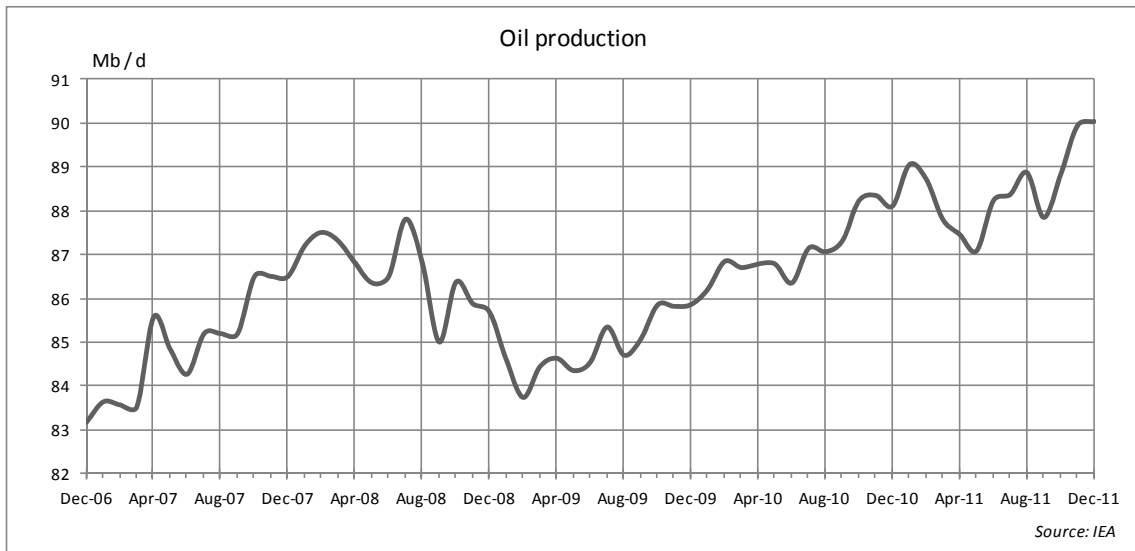


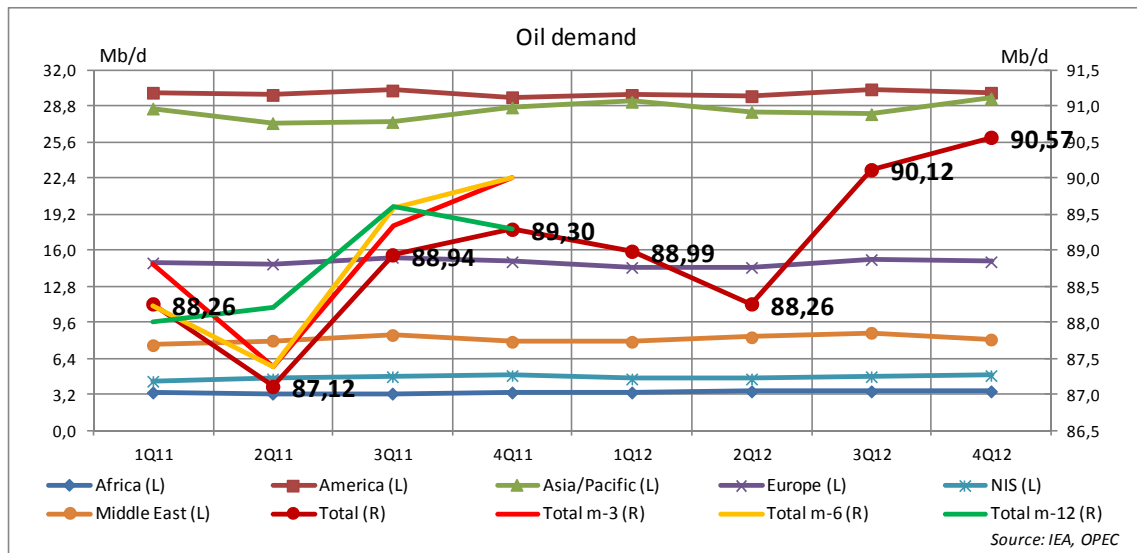
# Oil

In December 2011, price of crude oil ranged between 105 \$/b and 110 \$/b.

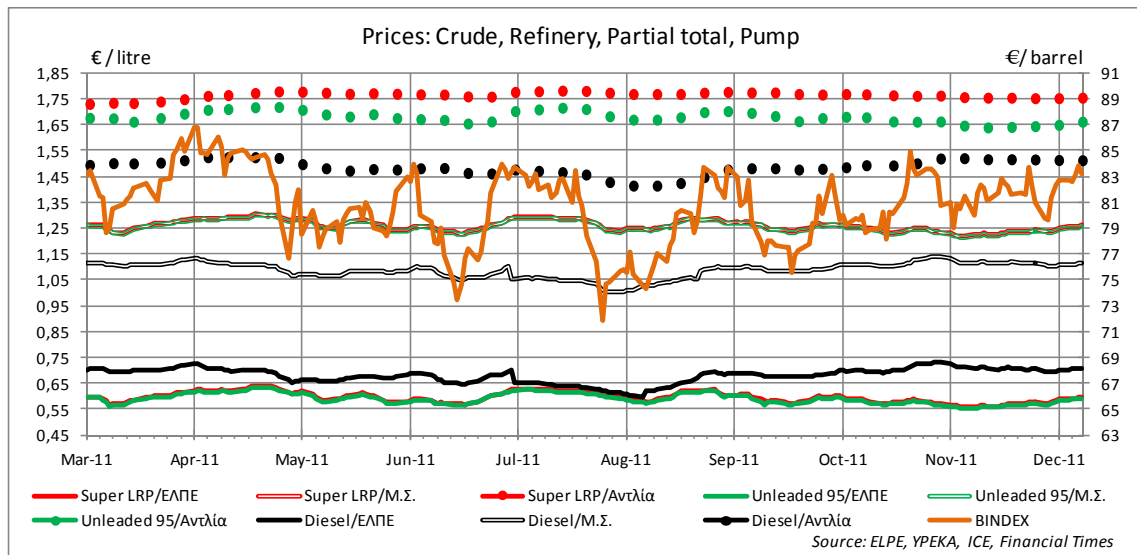


In the same time, crude oil production reached 90 Mb/d. Estimations for crude oil demand, in 2012, are almost 1 Mb/d larger compared to demand in 2011 for all quarters of the year. To allow for comparisons, estimations on oil demand made 3, 6 and 12 months ago, are included in the demand diagram.





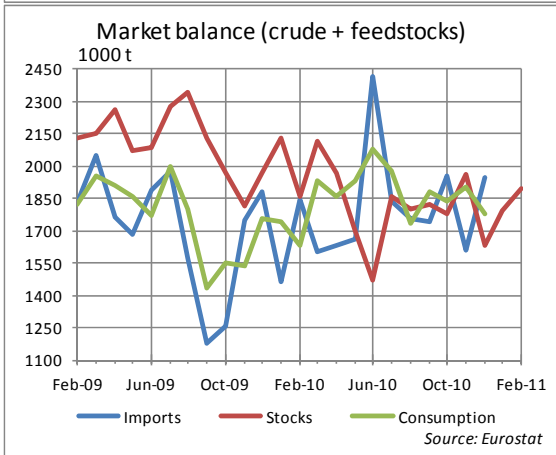
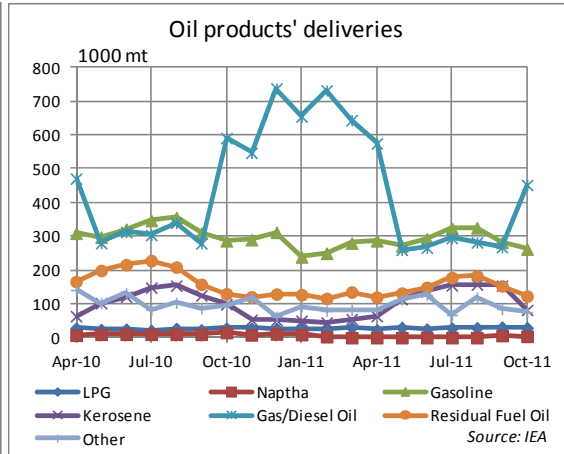
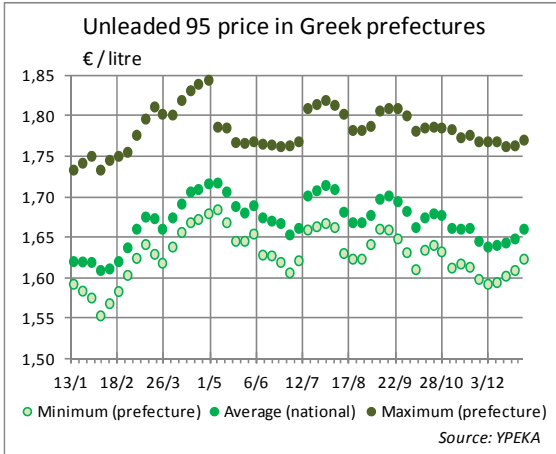
Price of gasoline was in the area of 1,65 - 1,80 €/lt (pump price), while the following diagram clearly depicts the effect of taxes and VAT in the final price of oil products.



It is reminded that ELPE prices (bold lines in the bottom of the diagram) include the value of the product, special services (loading charges), VAT of the special charges and a third party tax for the gas retailers pension fund. Indicative prices (partial total prices – double lines in the middle of the diagram) also include the special levy provided by the Law 3335/05, the RAE fee, the special tax on consumption and the customs operations' fees. Pump prices (dots in the top of the diagram) also include the marketing and retail sale profit as well as the VAT of the product.

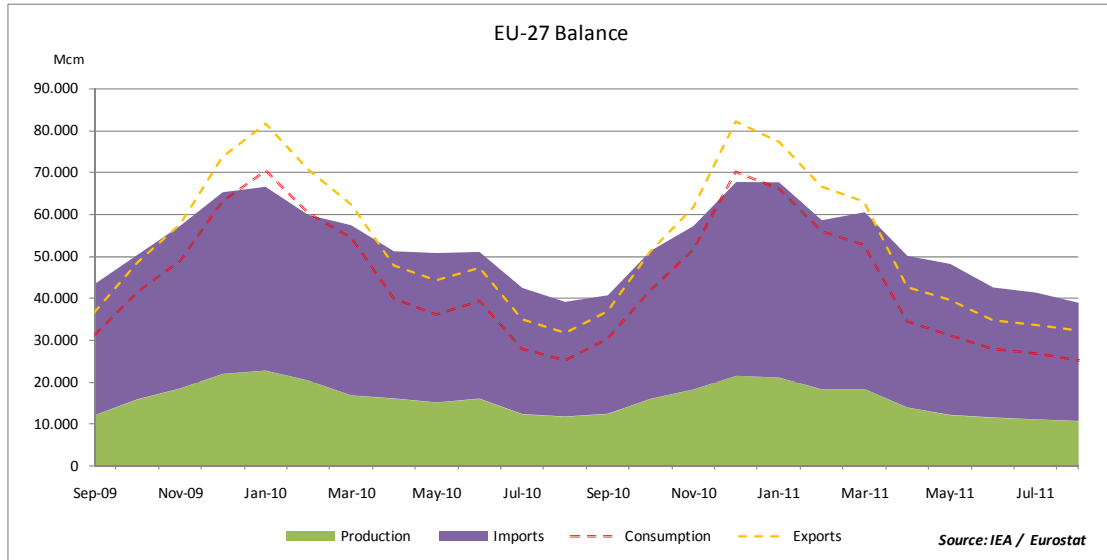
The following diagrams depict:

1. For unleaded gasoline, average price (national average) as well as minimum and maximum prices (prefectural averages), according to YPEKA
2. Total monthly deliveries of oil products in the Greek market
3. The total Greek monthly balance of oil

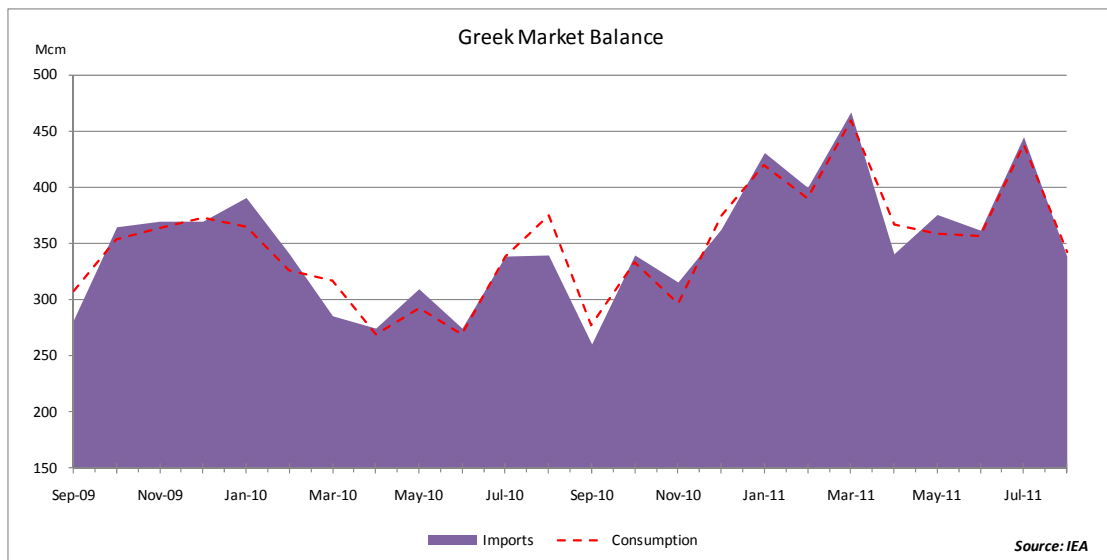


## Natural Gas

The drop in natural gas consumption in the EU as a whole, continued in August 2011, due to the summer season, reaching 25.2 bcm. These volumes were in the same order of magnitude with demand in August 2010. Gas production and imports were also reduced, 10.8 bcm and 28.2 bcm respectively, while exports increased by 5%, to 7.1 bcm. In addition, 6.7 bcm were stored during August.



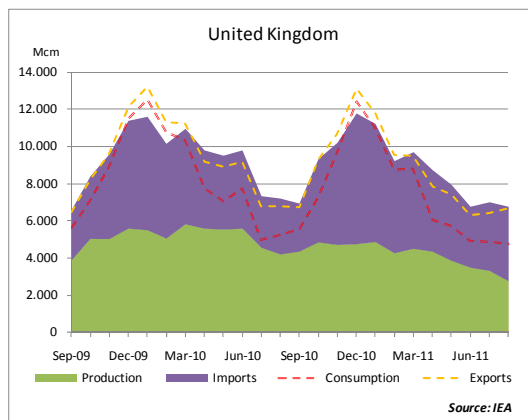
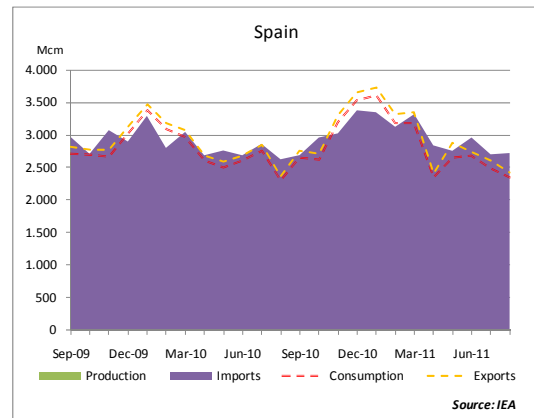
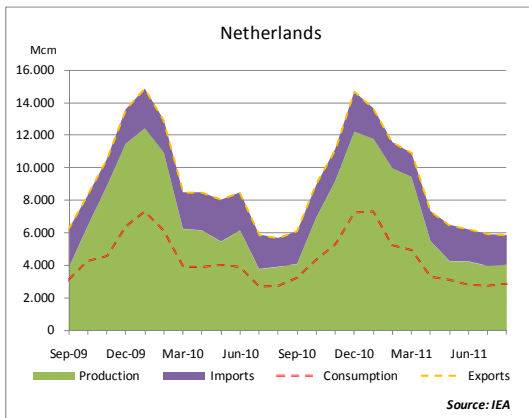
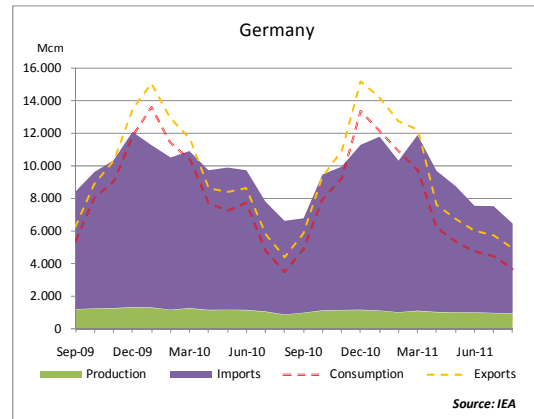
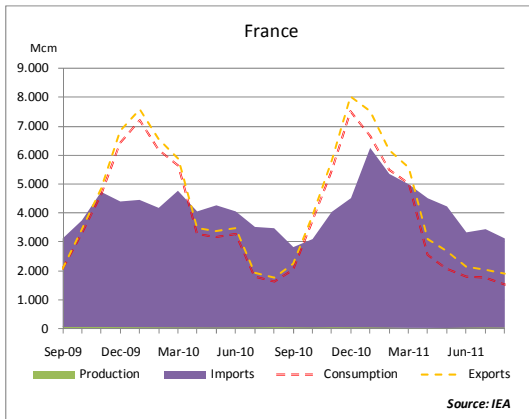
In Greece, gas demand in August was reduced significantly, by 22%, in comparison to July, reaching 342 mcm. Imports faced a similar reduction, to 338 mcm. In comparison to the previous year, consumption is reduced by 9%, while imports remained at the same level.



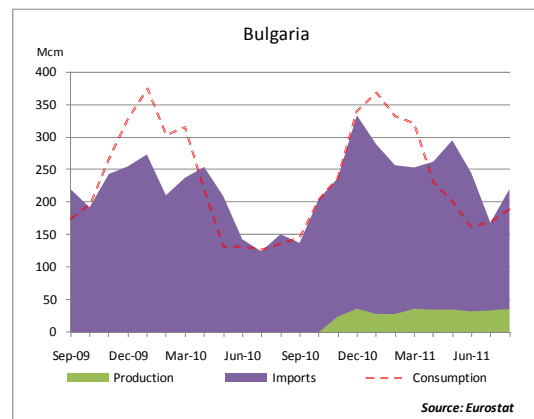
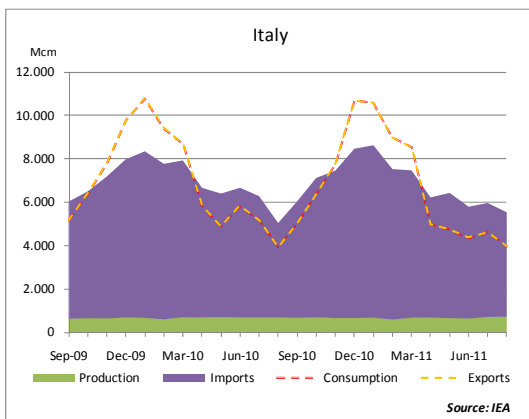
In the large European markets, decreasing trends of previous months in gas demand continued, reaching 3.8 bcm in Germany, 4.8 bcm in U.K. and 1.5 bcm in France.

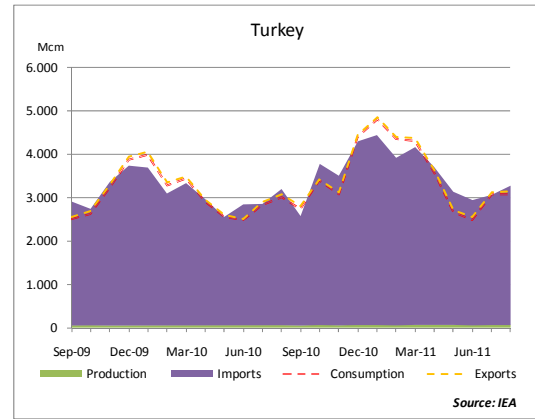
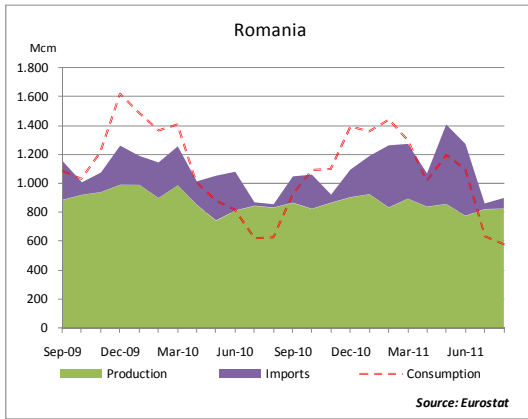
In S.E. Europe, Bulgaria was the only country with demand and imports' increase, 12% and 36.8% respectively, although in actual numbers, gas volumes in Bulgaria were significantly lower in relation to the other markets of the region (189 mcm demand and 184 mcm imports).

### Gas balance of large Western markets



### Gas balance of neighboring markets





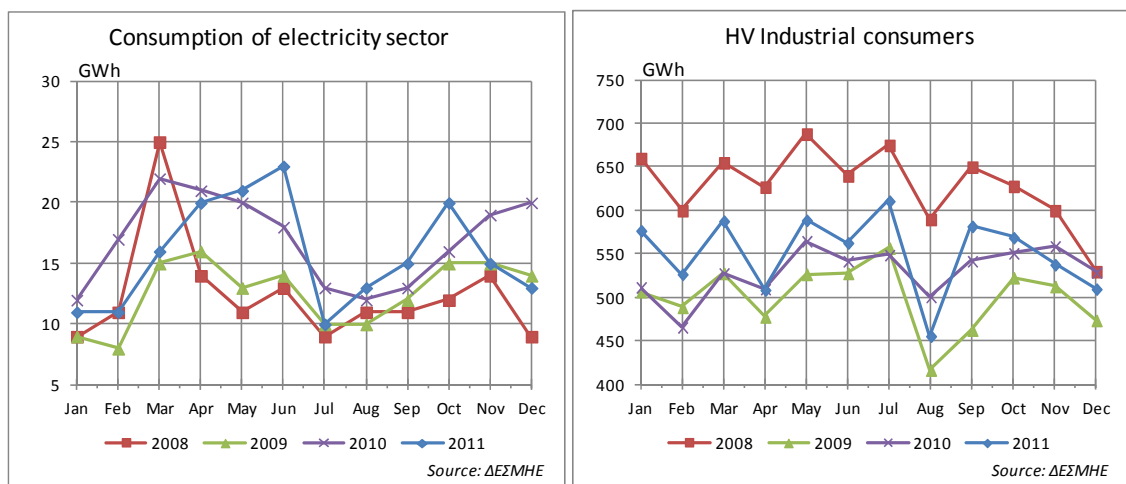


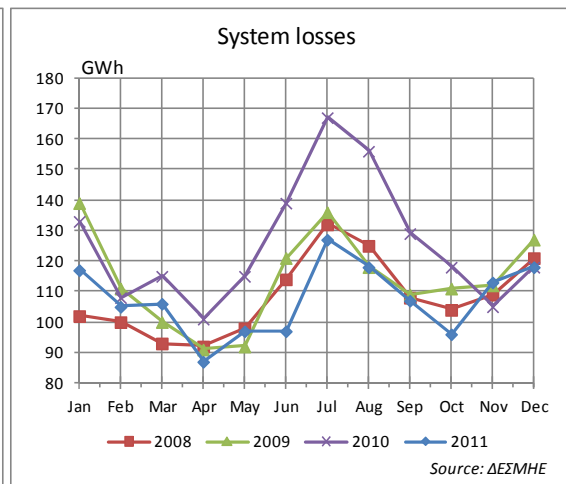
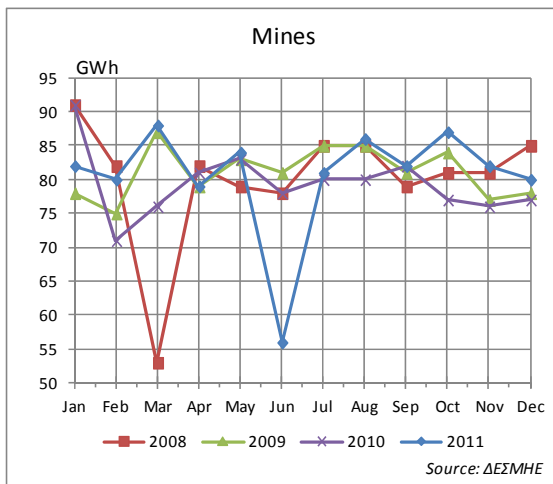
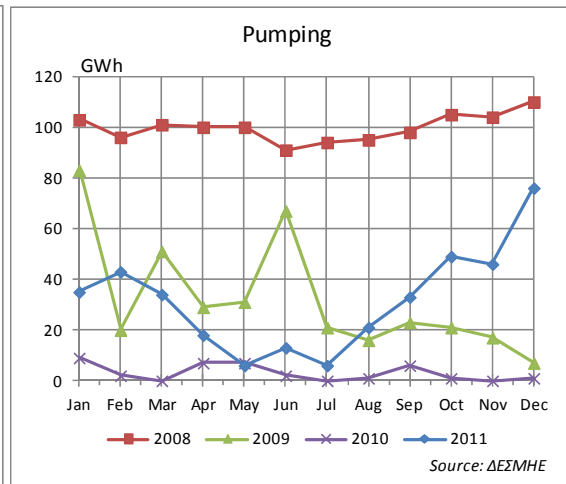
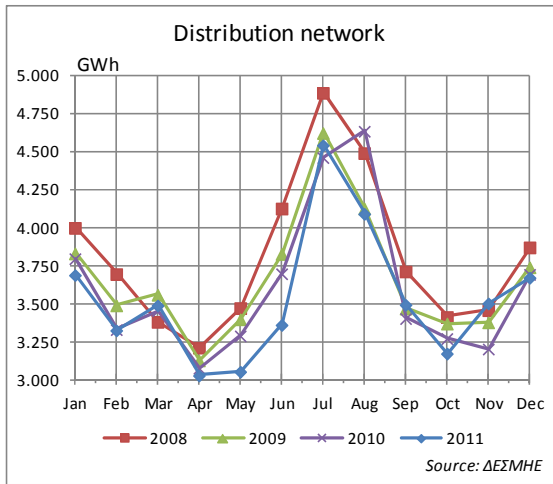
## Electricity & RES

According to DESMIE statistics, the total production/ consumption of electricity in December 2011 were:

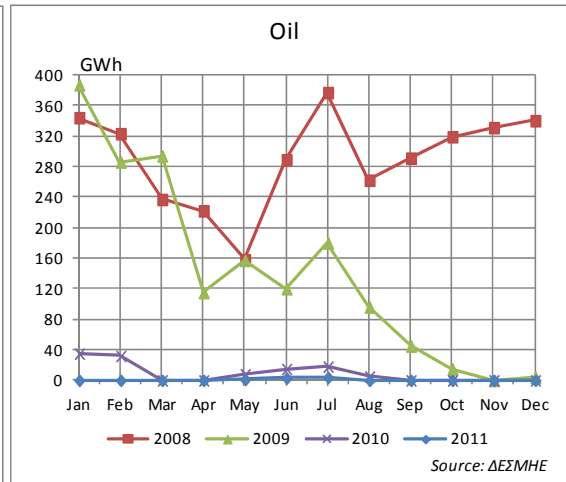
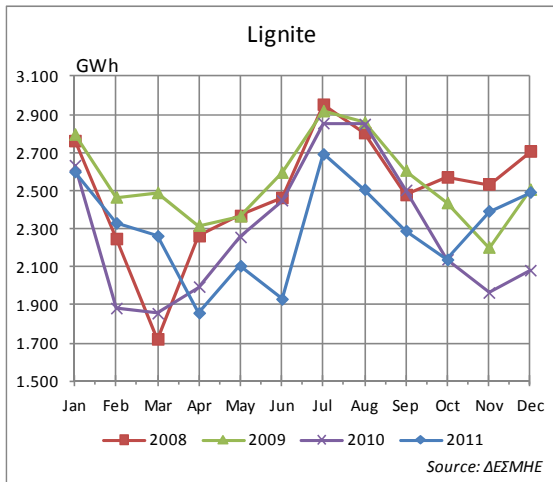
MWh	12/2011	Previous year	
		12/2010	% change
<b>Production</b>			
Lignite	2.489.704	2.079.948	19,7%
Oil	1	0	-
Natural Gas	1.194.851	949.520	25,8%
Hydro	243.020	942.149	-74,2%
RES & Other (HV)	272.806	243.542	12,0%
Imports	269.285	223.506	20,5%
<b>Consumption</b>			
Electricity sector	12.948	19.767	-34,5%
HV Industrial	510.209	529.442	-3,6%
Distribution	3.672.377	3.694.159	-0,6%
Pumping	75.674	622	12066,2%
Mines	80.213	76.572	4,8%
System losses	118.246	118.103	0,1%
<b>Total</b>	<b>4.469.668</b>	<b>4.438.665</b>	<b>0,7%</b>

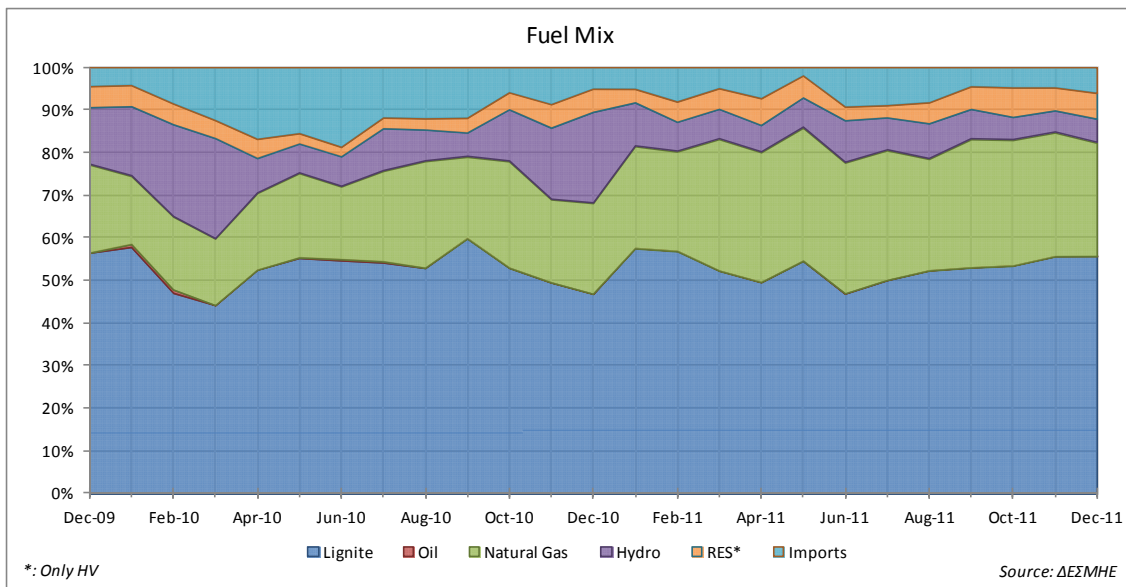
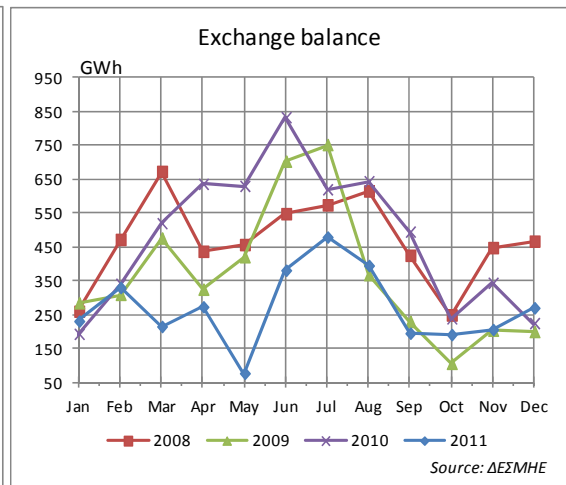
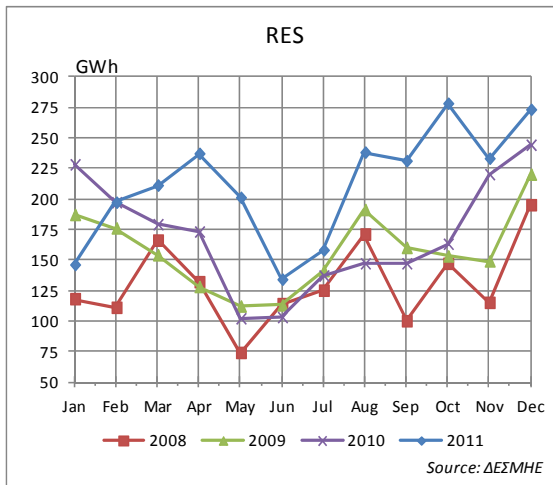
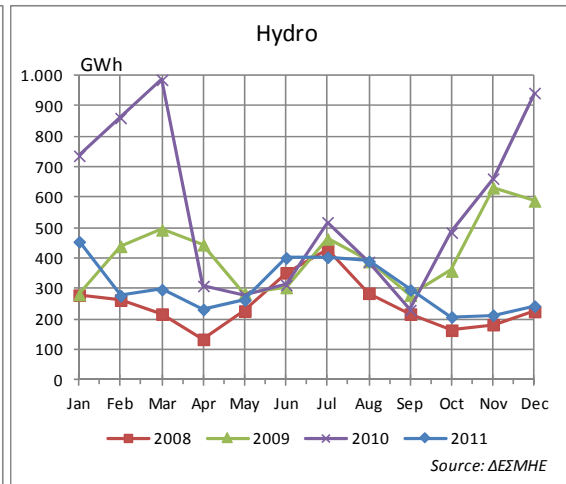
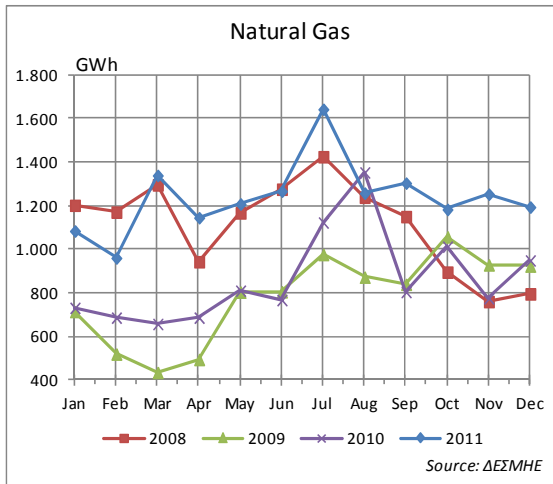
Time series of the different electricity consumption categories can be found in the next diagrams:



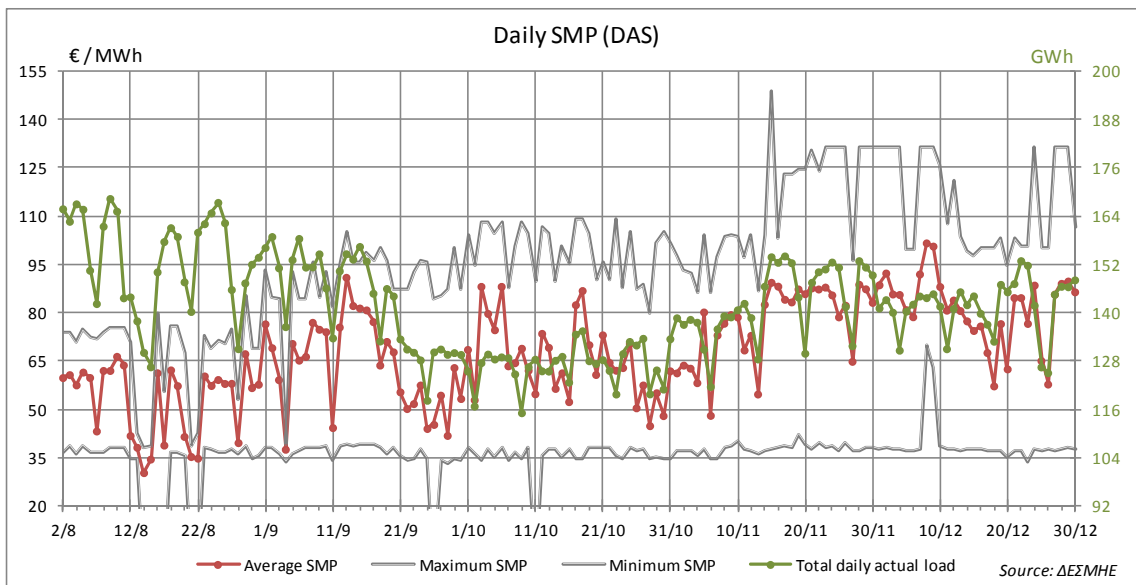
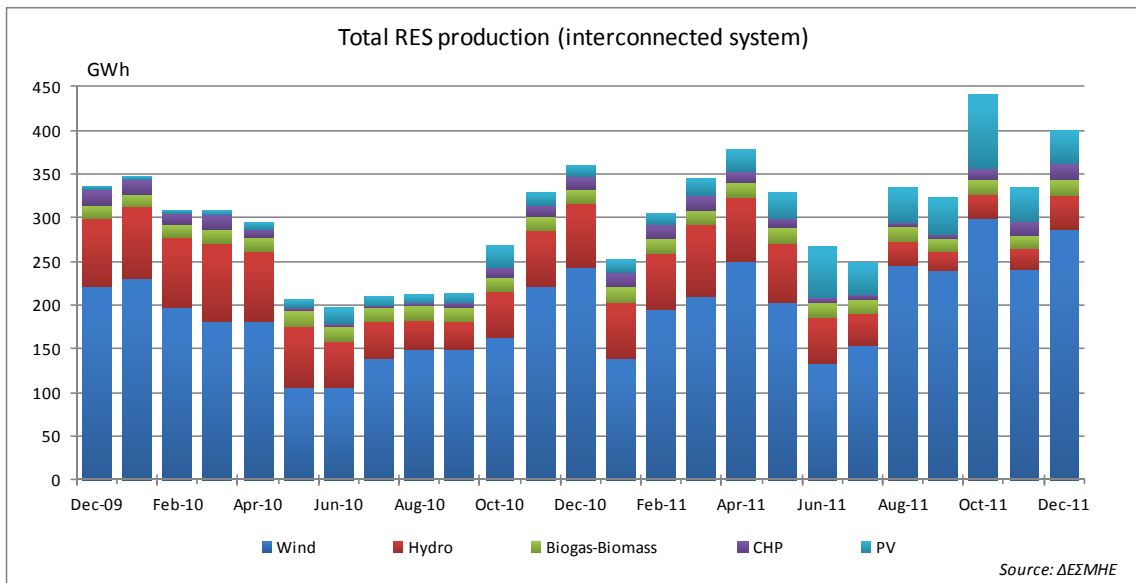
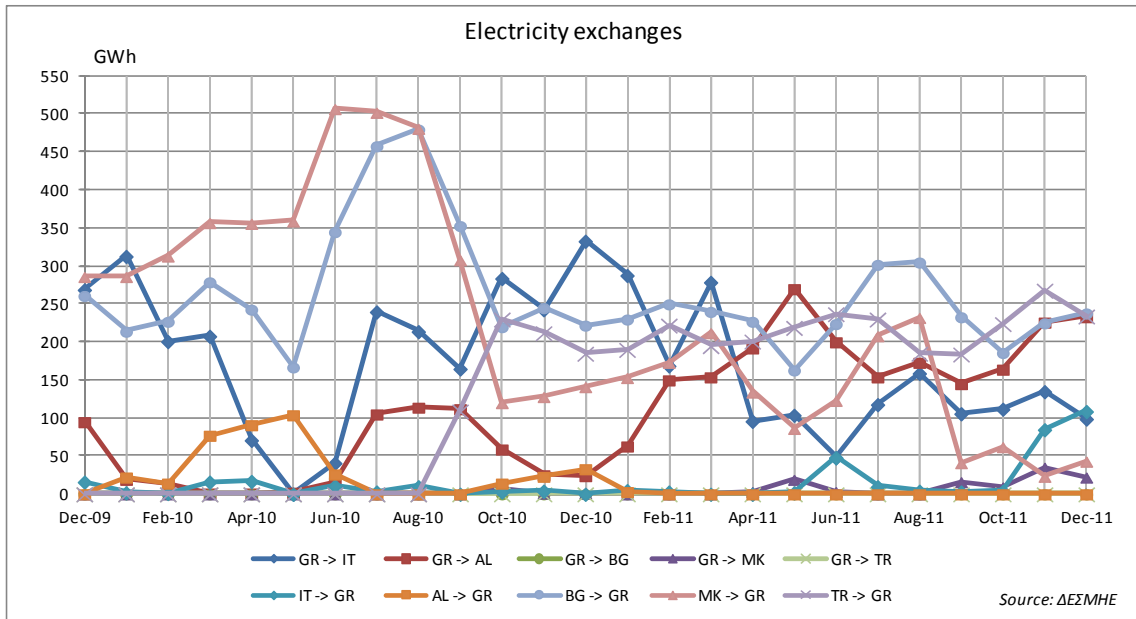


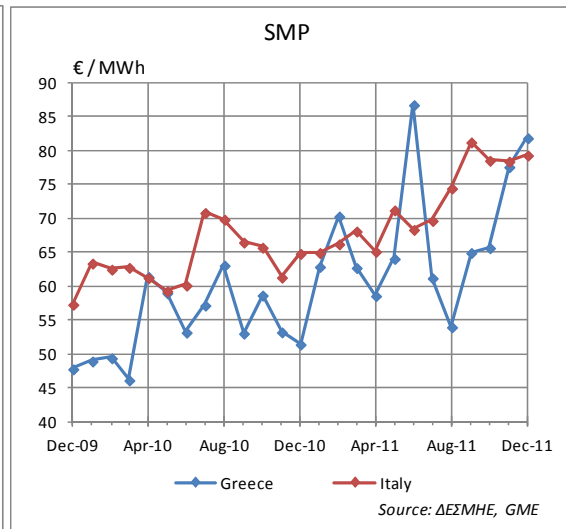
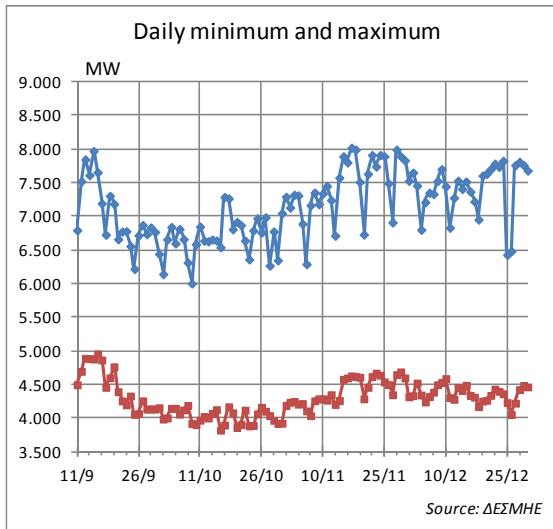
Time series of the electricity production categories can be found in the next diagrams:



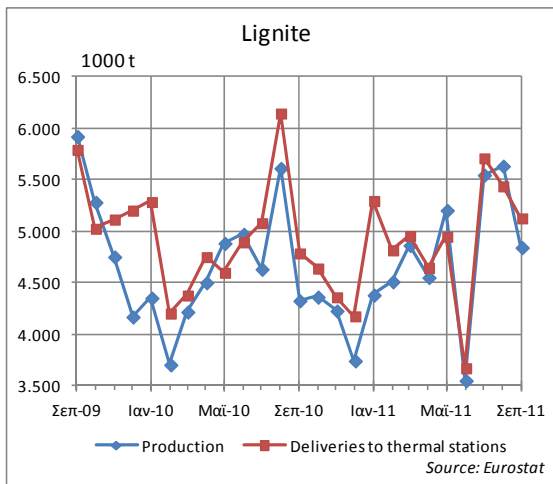


In December, most of the electricity imports originated from Bulgaria (238 GWh) and Turkey (234 GWh). Exports were made mainly to Italy (109 GWh) and Albania (233GWh).

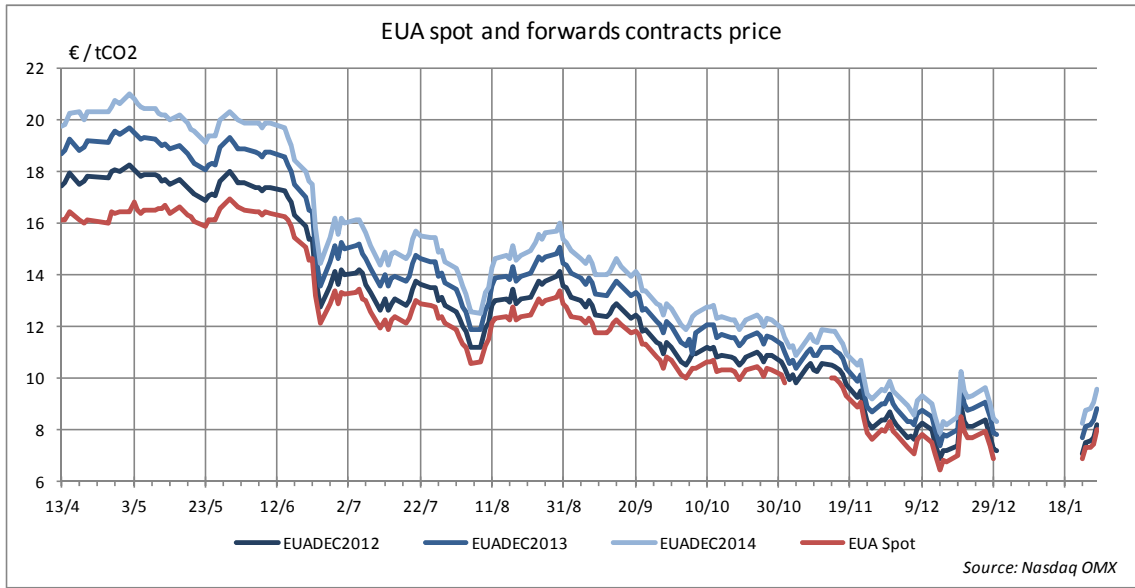




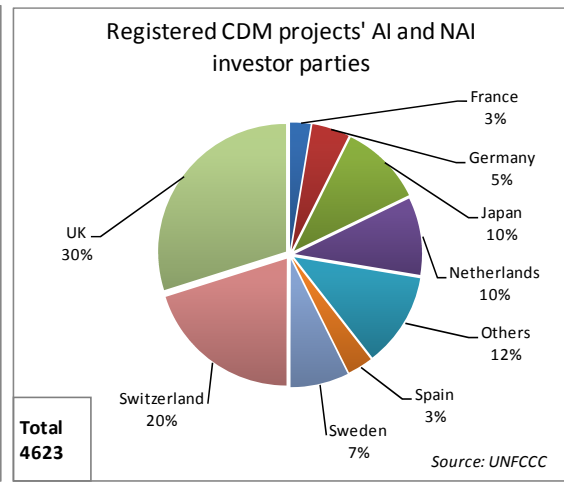
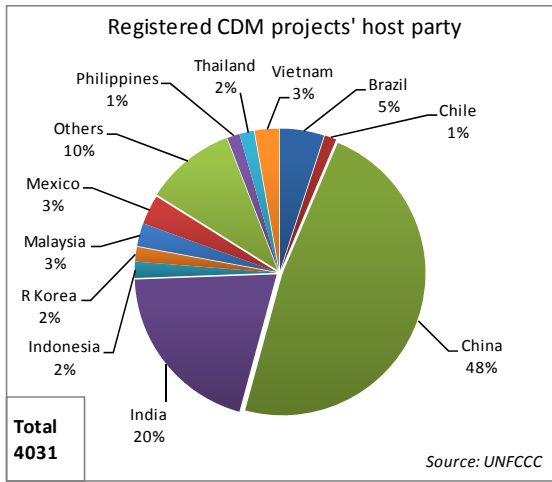
In the next diagram, monthly production and deliveries of lignite to public power plants are depicted.



## CO<sub>2</sub> Emissions



Registered CMD projects reached the number of 4031, with a respective expected production of 2130 million CERs until the end of 2012. China and India host 68% of the projects, while UK and Switzerland are the countries from which 50% of the investor parties come from (with host countries' parties not counted in).



## Energy Units

### Prefixes

m (Milli)	k (Kilo)	M (Mega)	G (Giga)	T (Terra)
$10^{-3}$	$10^3$	$10^6$	$10^9$	$10^{12}$

### Abbreviations

- Toe: Ton of Oil Equivalent  
 Boe: Barrel of Oil Equivalent  
 b/d: Barrel per Day  
 Mcm: Million Cubic Meters  
 Bcm: Billion Cubic Meters  
 Tcm: Trillion Cubic Meters  
 Cal: Calorie  
 BTU: British thermal unit  
 Wh: Watthour  
 J: Joule

### Conversions

1 tonne of oil → 7,3 barrels of oil

1 ft<sup>3</sup> → 0,0283 m<sup>3</sup>

	TJ	Gcal	Mtoe	MBTU	GWh
TJ	1	238,8	$2,388 \times 10^{-5}$	957,8	0,2778
Gcal	$4,1868 \times 10^{-3}$	1	$10^{-7}$	3,968	$1,163 \times 10^{-3}$
Mtoe	$4,1868 \times 10^4$	$10^7$	1	$3,968 \times 10^7$	11630
MBTU	$1,0551 \times 10^{-3}$	0,252	$2,52 \times 10^{-8}$	1	$2,931 \times 10^{-4}$
GWh	3,6	860	$8,6 \times 10^{-5}$	3412	1



Preparation and editing of the energy newsletter:



Fotios Thomaidis  
Chemical Engineer, PhD  
Expert, Kantor Consultants SA



Nikolaos Kontinakis  
Physicist, MSc  
Consultant, EPTA SA

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