

PPC Analysis and Valuation

Prepared by

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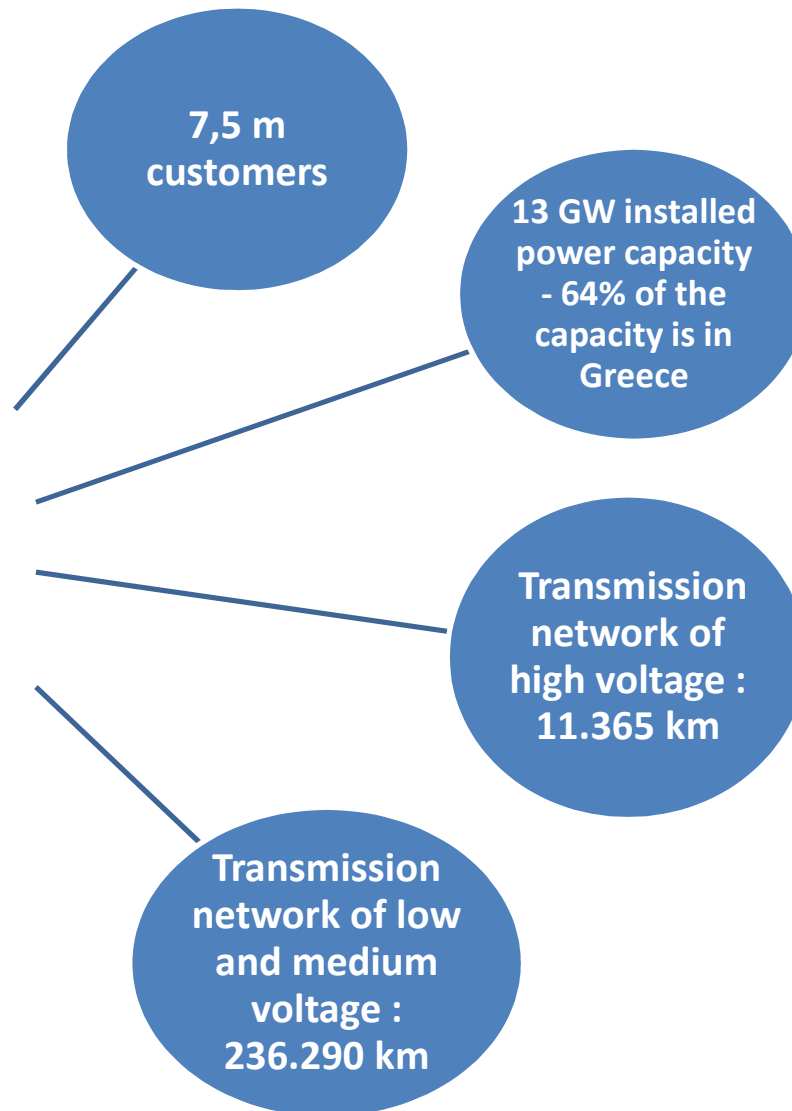
Public Power Corporation (PPC)

- is the Greek Electricity Power Company and
- maintains a leading market share in all businesses
 - 70% in production and
 - > 90% in supply.

The Greek State controls 51.1% of the company and PPC's pension funds control 3.8%

PPC in numbers

PPC

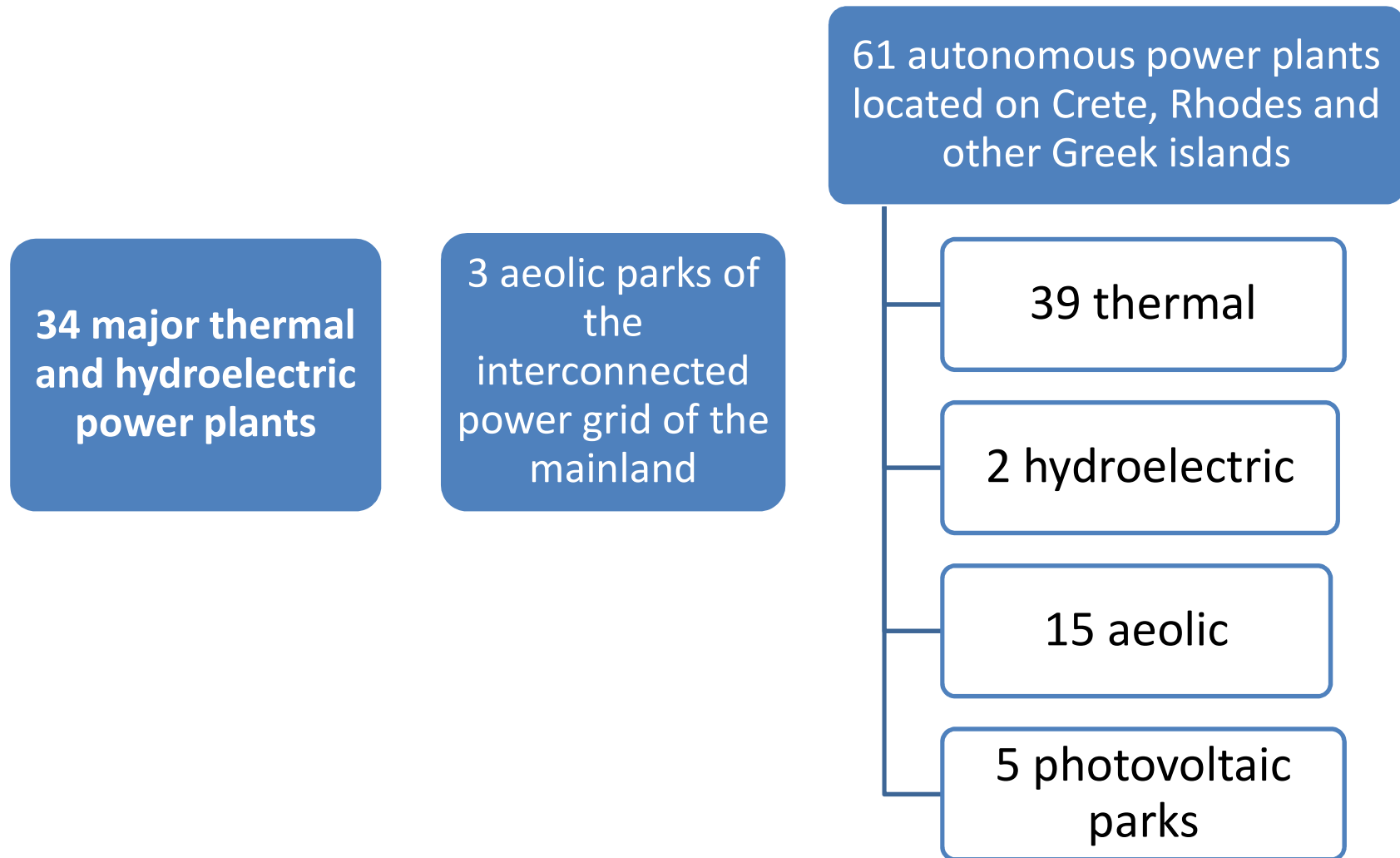


Short Description of Operations



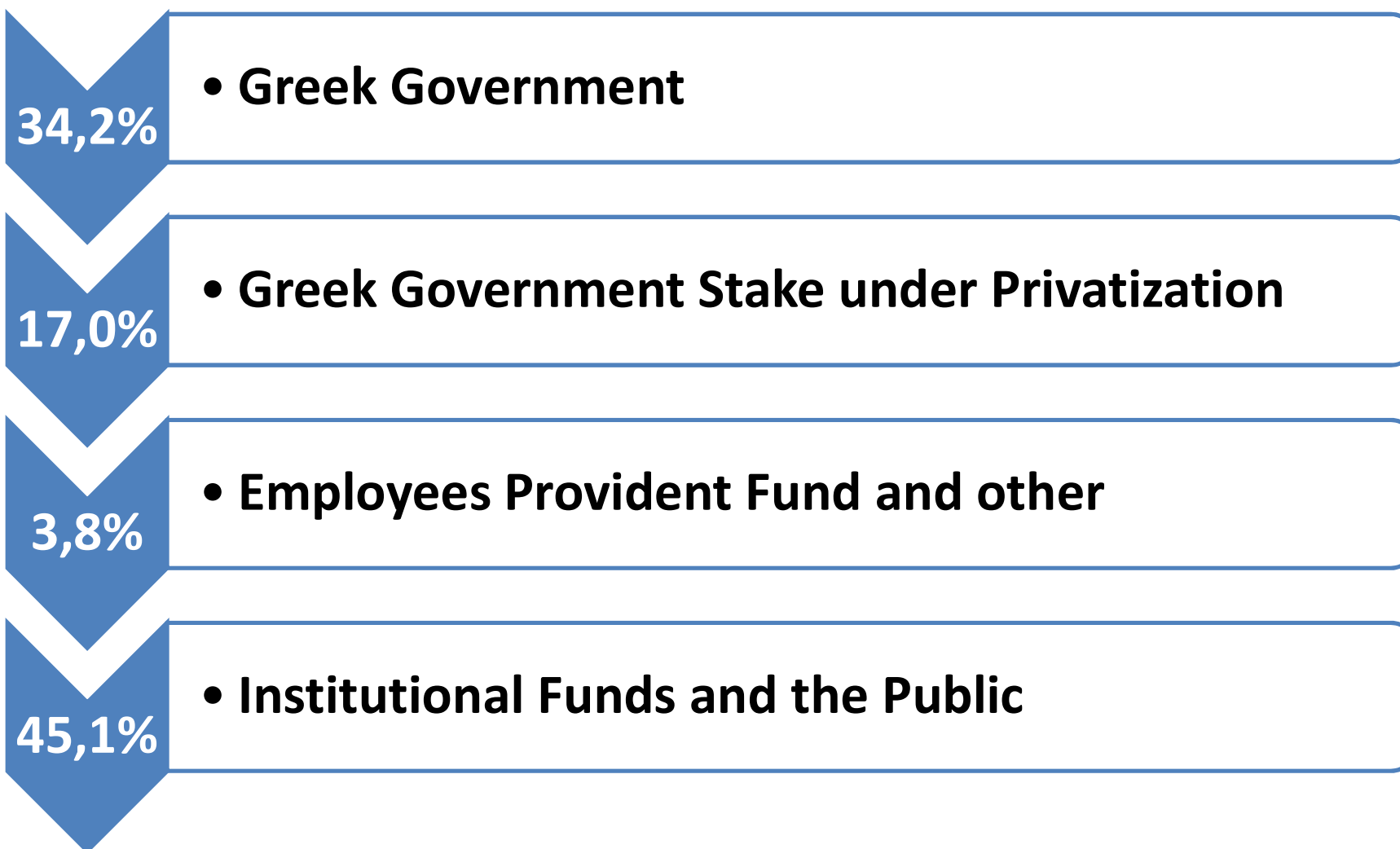
- PPC provides power transmission via the National Interconnected System to the mainland. It involves power generation by
 - lignite,
 - fuel oil,
 - hydroelectric and natural gas power plants, as well as by
 - renewable energy sources.
- Most of the islands are supplied with electric power generated by autonomous fuel oil power plants, while the use of renewable energy sources (wind, solar) is increasingly gaining ground.

PPC Highlights – Generation Sources



Shareholding Structure as at 31/12/15

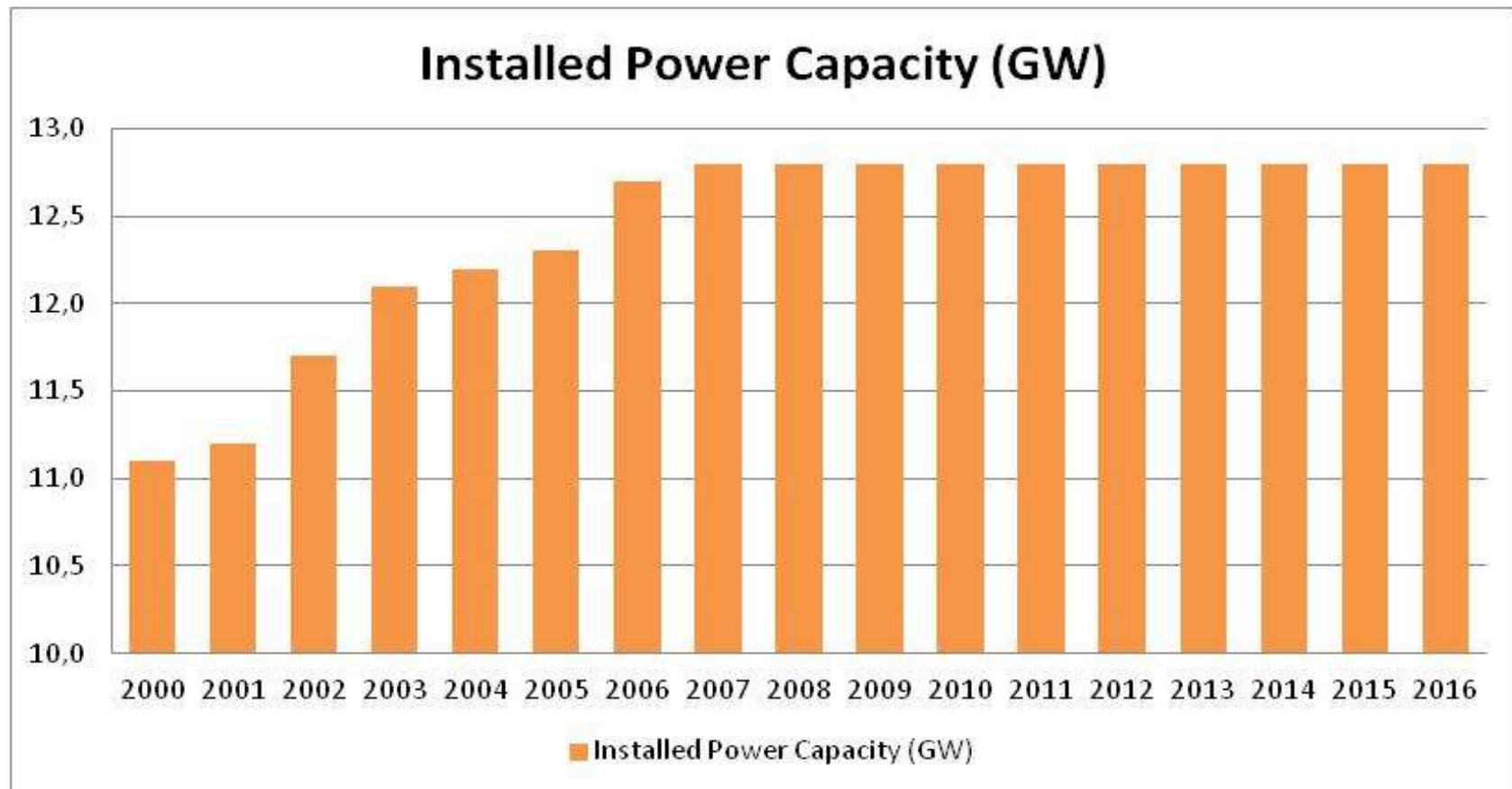
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PPC Highlights – Installed Capacity



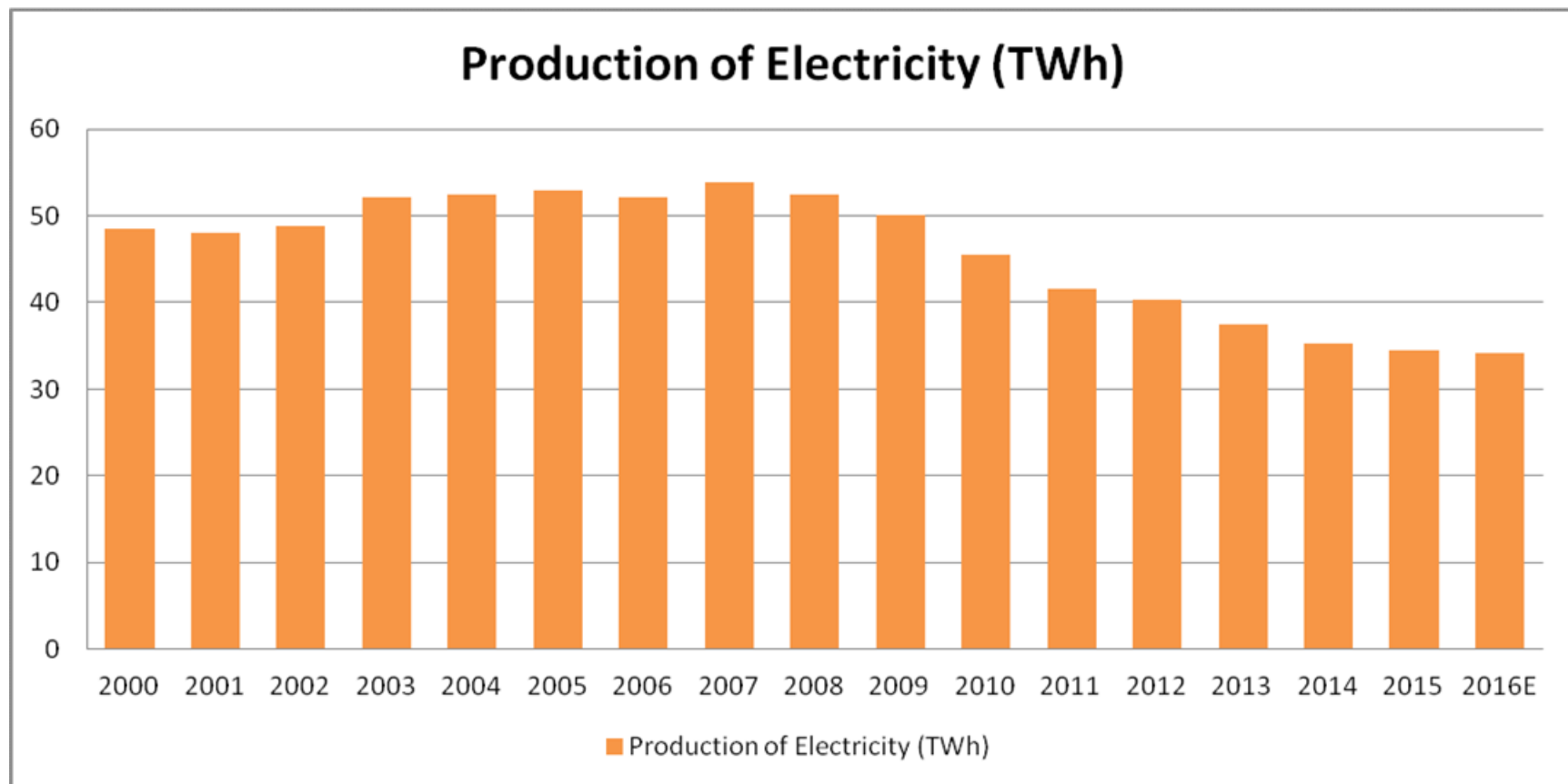
- The total installed capacity of the 98 PPC power plants is currently 12,760 MW with a net generation capacity of 53.9 TWh.



PPC Highlights – Electricity Generation



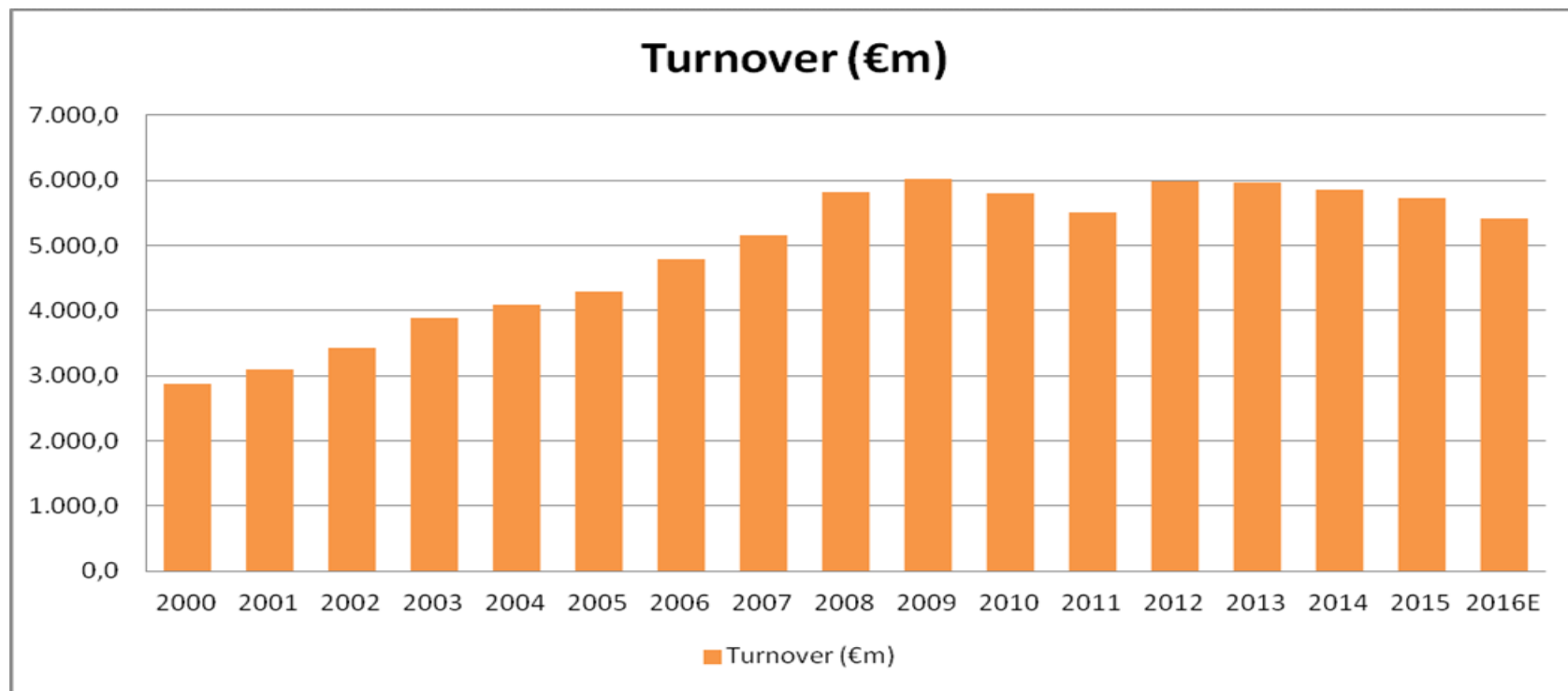
- The production of electricity is currently 34,3 TWh.



PPC Highlights – Turnover



- PPC Turnover at 2015 was €5,73b and is expected to be €5,33b in 2016.



Highlights – End Product Pricing

Price developments in the main markets (€/kWh)

Final Market - Residential (1)	2014	2015
Italy	0,24	0,25
France	0,16	0,16
Portugal	0,22	0,23
Romania	0,13	0,13
Spain	0,23	0,23
Slovakia	0,15	0,15
Final Market - Industrial (2)	2014	2015
Italy	0,12	0,11
France	0,07	0,08
Portugal	0,10	0,10
Romania	0,08	0,08
Spain	0,09	0,09
Slovakia	0,11	0,12

(1) Annual price net of taxes - annual consumption of between 2,500 kWh and 5,000 kWh.

(2) Annual price net of taxes - annual consumption of between 70,000 MWh and 150,000 MWh.

Source: Eurostat.

Residential prices for Greece is around €0,16/KWh and for Cyprus at € 0,20/KWh

Industrial prices for Greece is around €0,06/KWh and for Cyprus at € 0,18/KWh

Highlights – Installed Generation Cap.



PPC Installed generation Capacity

	1Q2014	1Q2015	1Q2016
Lignite Production (GWh)	67,4%	55,8%	54,8%
Oil Production (GWh)	10,2%	12,0%	13,2%
Natural Gas Production (GWh)	13,2%	8,4%	13,9%
Hydro Production (GWh)	8,5%	23,0%	17,4%
RES Production (GWh)	0,6%	0,8%	0,8%
	100,0%	100,0%	100,0%

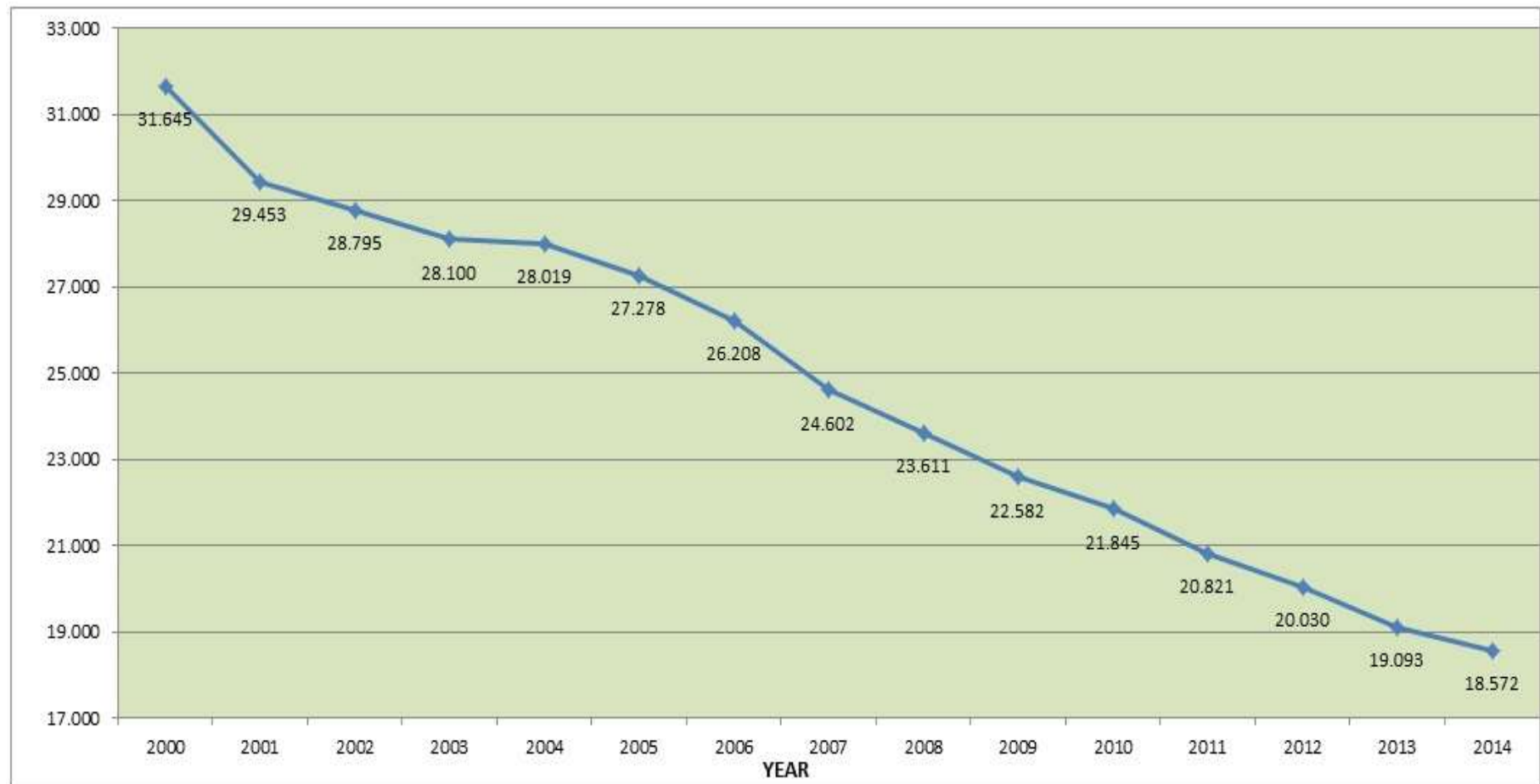
Sales Mix

General Professionals (offices, kiosks, shops etc)	29,3%
Industrial	28,5%
Agricultural	4,8%
Lighting of Roads and Squares (Platies)	
Households	37,4%
Total	100,0%

PPC - Number of Employees

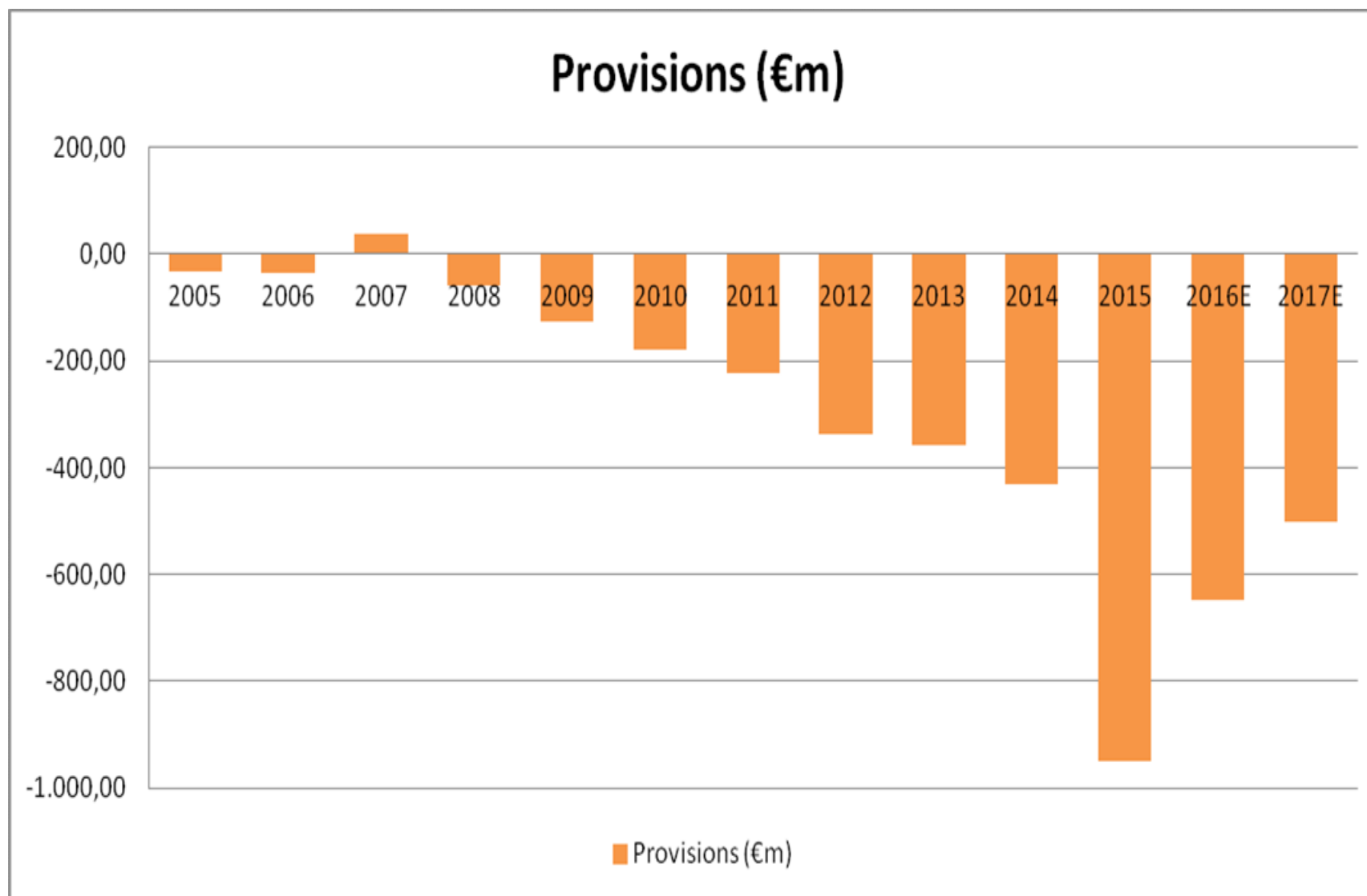


TOTAL PAYROLLS

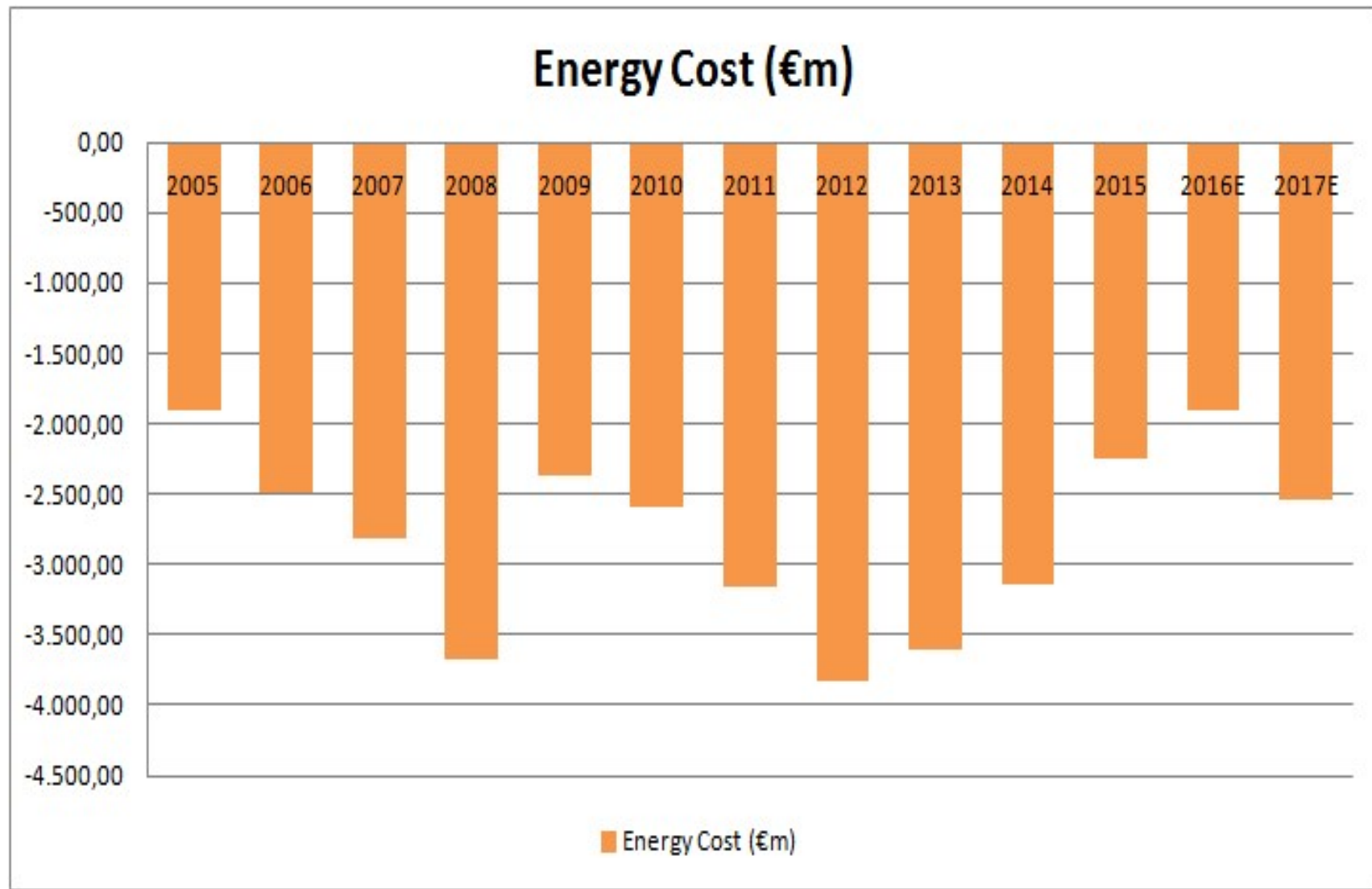


All figures refer to PPC Group

PPC Provisions

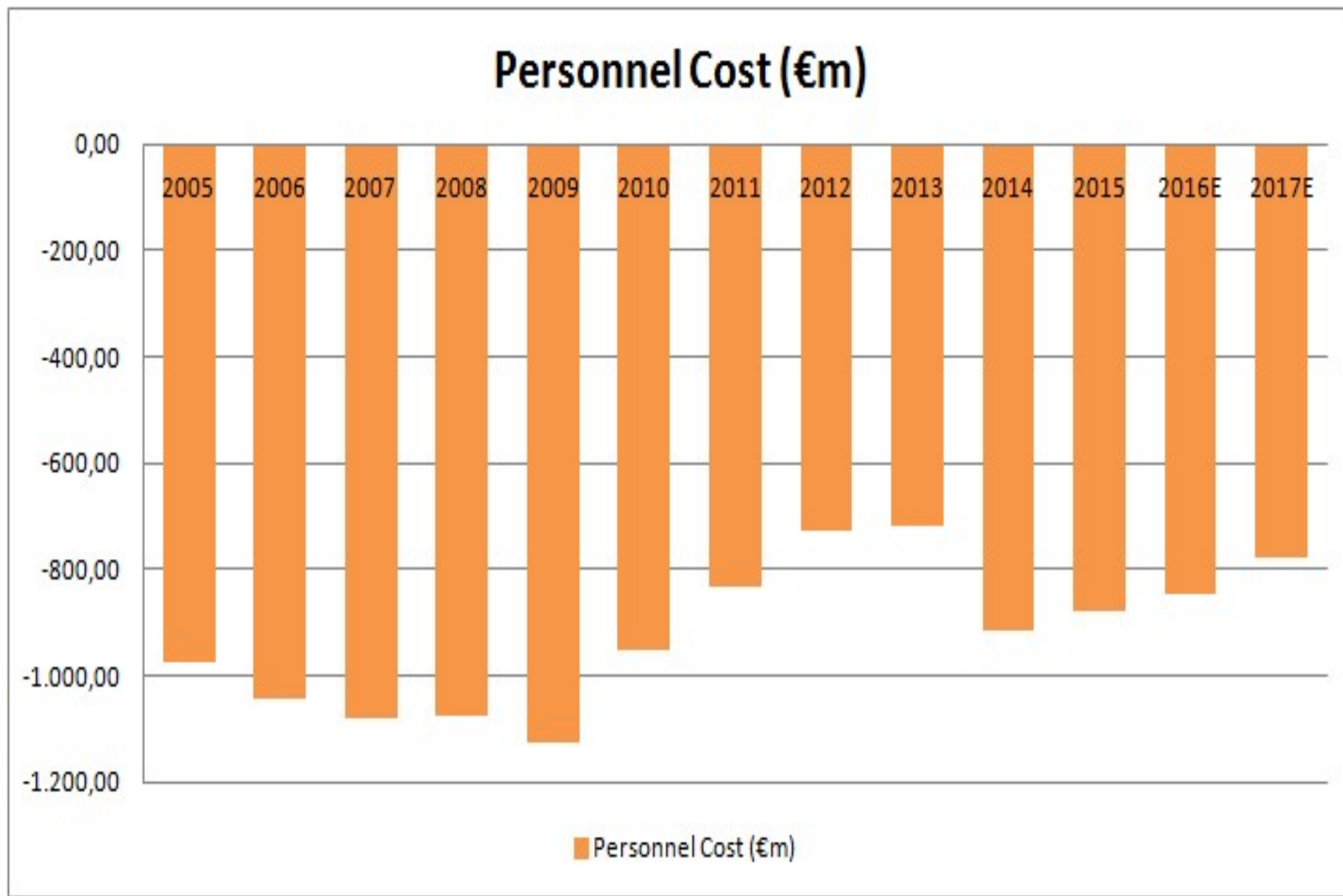


PPC Energy Cost (assuming no spin offs) **FAMCO**



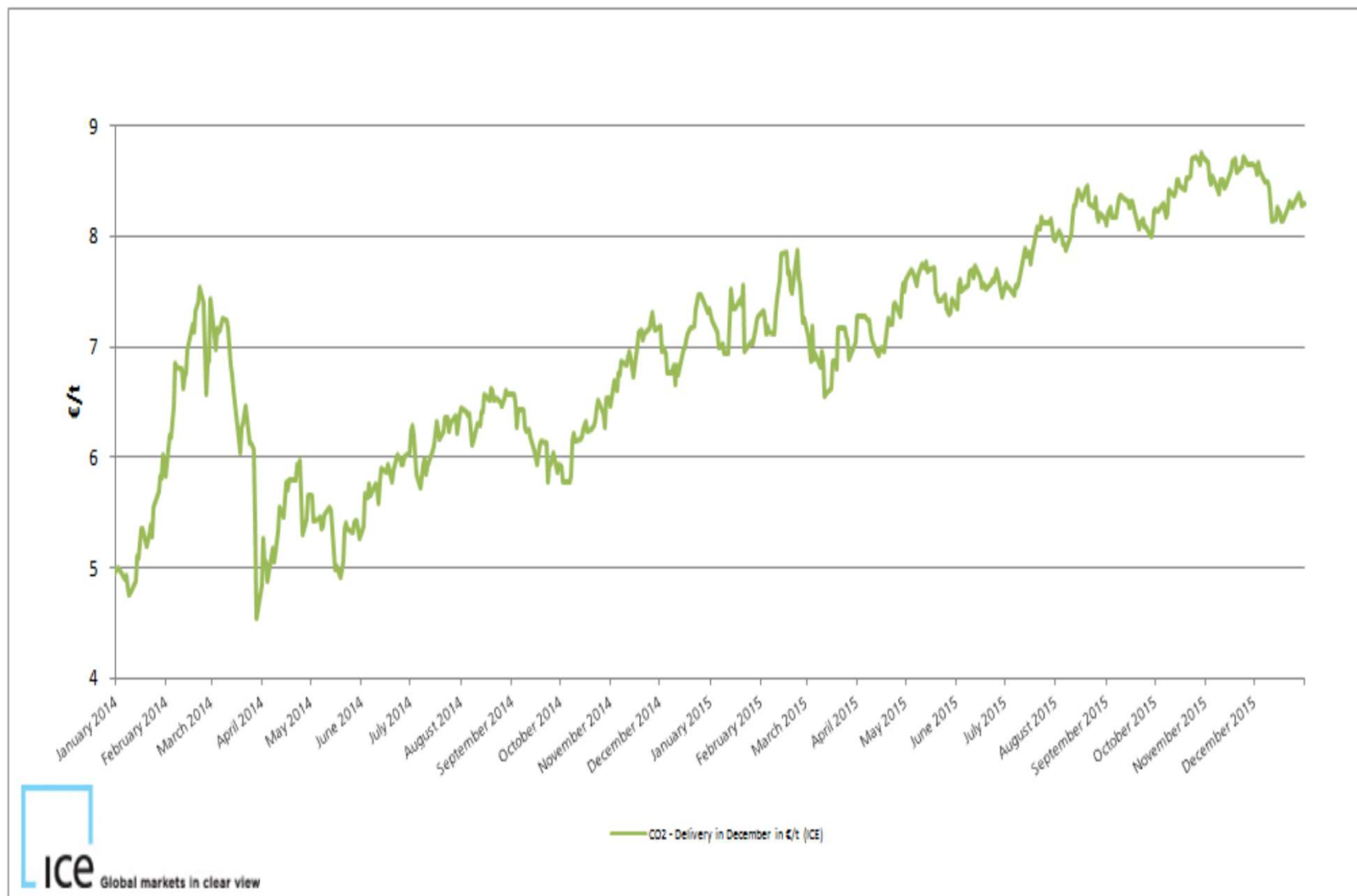
Personnel Cost (assuming no spin offs)

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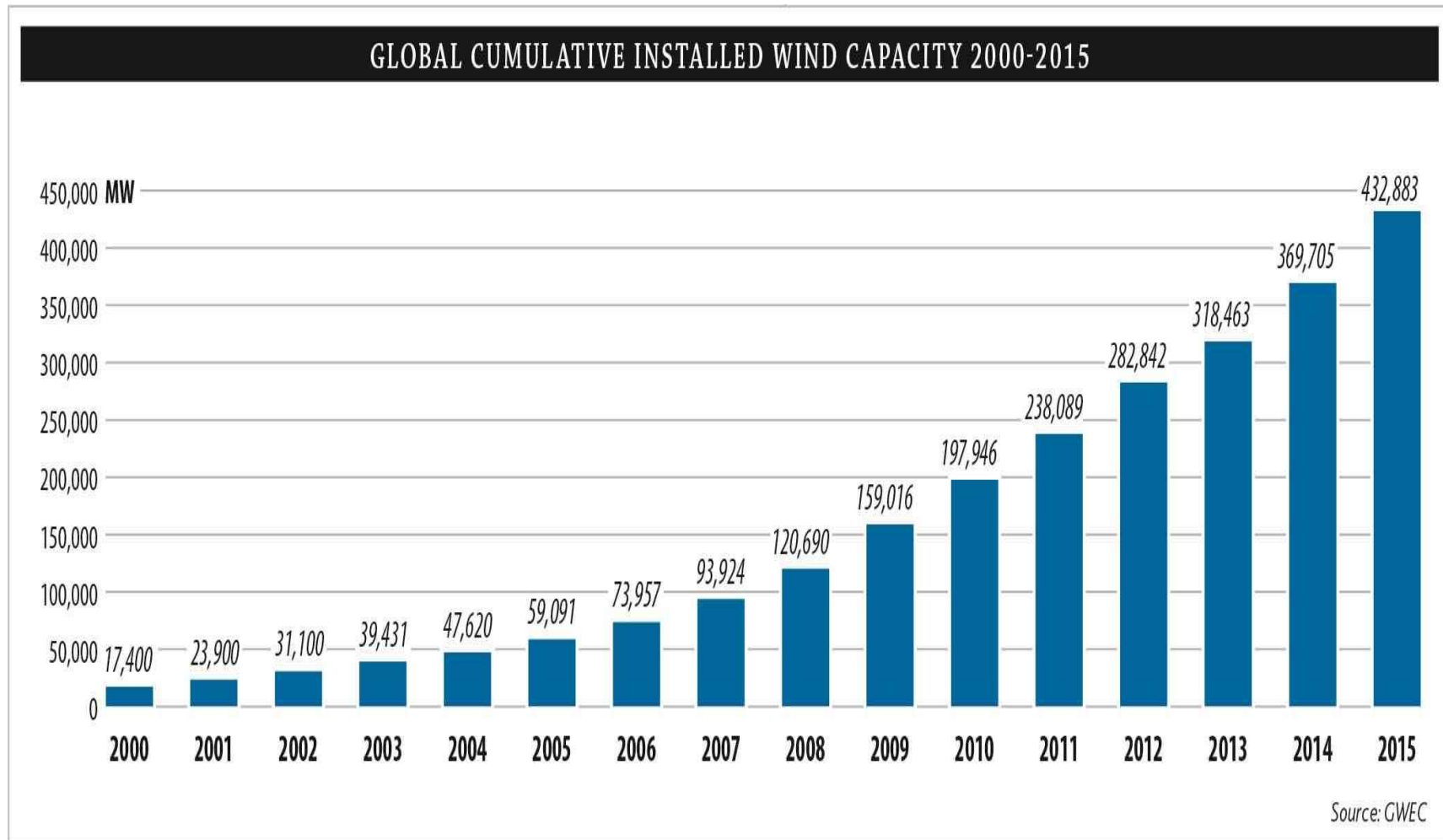


Highlights – CO₂ emission rights prices

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Highlights – Wind Electricity Generation **FAMco**



Highlights – Competitors EU Producers



	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Belgium	2	3	3	4	4	7	11	4	41	46	>70	>100
Bulgaria	13	14	14	15	15	15	15	22	20	28	83	55
Czech Republic	20	17	18	16	16	16	19	24	51	73	215	217
Denmark	>1 000	>1 000	>1 000	>1 000	>1 000	>1 000	>1 000	>1 000	>1600	-1300	-1450	-1550
Germany	> 450	> 450	> 450	>450	>450	>450	>450	>450	>450	>450	:	:
Estonia	2	2	2	2	2	2	5	6	6	5	8	10
Ireland	5	3	4	4	5	5	5	8	6	5	7	8
Greece	1	1	1	1	1	2	3	4	:	:	3	3
Spain*	:	:	:	:	:	:	:	:	:	:	>10	>10
France	4	4	4	5	>5	>5	>5	>5	3	>5	>5	>5
Croatia	2	2	2	2	2	2	2	2	2	2	2	2
Italy	79	83	88	92	105	114	167	165	219	291	493	652
Cyprus	1	1	1	1	1	1	1	1	1	1	1	1
Latvia	5	7	6	2	8	8	10	11	17	17	43	76
Lithuania	5	5	6	7	7	7	8	9	10	17	20	20
Luxembourg	9	9	>12	>12	>12	>12	>12	3	4	4	>10	>10
Hungary	30	30	40	57	61	52	69	68	68	32	40	32
Malta	1	1	1	1	1	1	1	1	1	1	1	1
Netherlands	>87	120	100	200	1 000	1 000	900	700	700	800	700	350
Austria	34	39	53	91	106	137	128	126	129	145	169	201
Poland	31	54	70	51	54	55	59	68	73	111	103	128
Portugal	36	46	59	77	97	107	95	107	104	112	65	66
Romania	11	12	12	12	18	15	10	10	10	11	15	27
Slovenia	3	3	3	4	3	2	2	3	3	3	3	3
Slovakia	6	6	6	7	7	8	7	8	9	11	10	17
Finland	25	29	27	28	29	34	29	29	30	30	31	30
Sweden	7	14	14	11	9	8	11	24	64	74	35	32
United Kingdom	22	20	17	18	18	17	17	19	19	17	16	17
Norway	161	165	175	:	167	173	183	184	188	178	169	183

: data not available

* This figure takes into account the shares of both traditional generating companies and operators that represent renewable and CHP generation units in the market (although they are not the owners of the majority of these facilities).

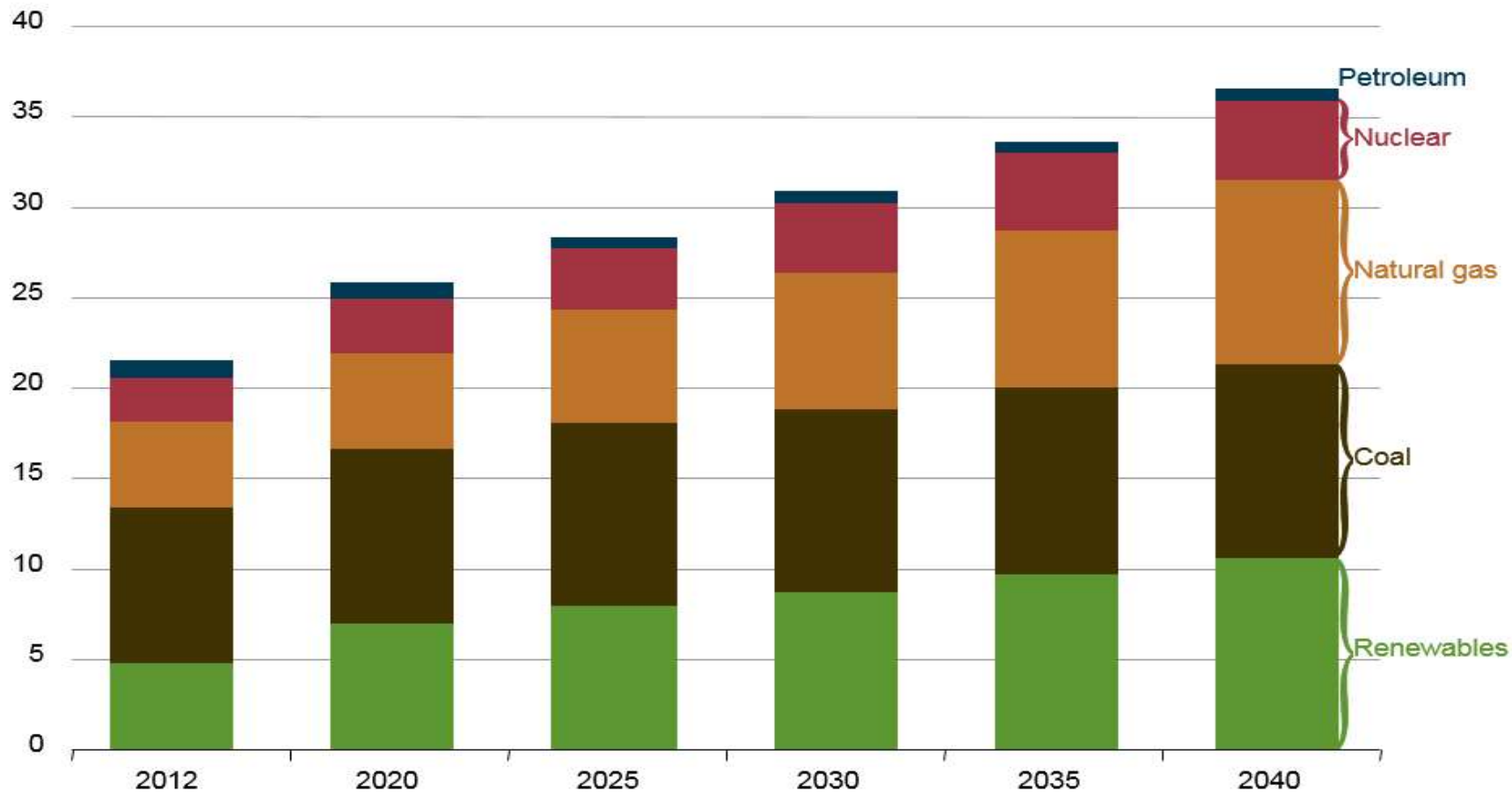
As renewables and CHP generation units represent a high percentage of the total capacity installed in Spain, and those units are participated by a great amount of small companies, it is not possible to determine the exact number of generating companies (owning the generation units) representing at least 95% of the national net electricity generation.

Source: Eurostat (This data is not yet available in the Eurostat dissemination database)

Highlights – World Net Electricity Gen.



Figure 5-3. World net electricity generation by fuel, 2012–40
trillion kilowatthours



- Strengths

- Strong Operating profit
- Strong Asset Base of €17b as reported in the books
- Fixed overhead and personnel cost is reducing the last 10 years
- Investments for production already in place relative to competition

- Weaknesses

- Prices are difficult to increase under dismal market conditions
- Provisions at the peak
- Turnover is expected to decelerate due to the reduction of the market share to less than 50% from 90% currently (but asset value is expected to increase)
- Government public policy affects company's' strategy and pricing
- Strong employee unions
- Weak Euro/dollar exchange rate

- Opportunities

- Electricity is the world's fastest-growing form of end-use energy consumption

(World net electricity generation is expected to increase 69% by 2040, from 21.6 trillion kilowatt-hours (kWh) in 2012 to 25.8 trillion kWh in 2020 and 36.5 trillion kWh in 2040).

- CO₂ emission rights prices have been reduced the last 9 months
- Deceleration of Provisions through a program of settlements
- Expansion in the near countries for the sale of electricity
- Low oil and gas prices that are expected to remain at low levels
- The abolition of the gas tax for the production of electricity
- Direct Sale of the 17% of the share capital to a strategic investor
- Sale of 49% of the electricity transfer network (24% to a strategic investor, 25% to be listed in the market)
- The sale of energy units will unclothe the value in the books that are shown at cost price (€45.000 per MW)

- Threats

- Economy not to expand as expected to the rate of 2,7% per annum
- Market concerns (low liquidity and depth, high volatility)
- New entrants are increasing their market shares with competition expected to increase further since PPC is selling productive assets to competitors and also selling electricity with auctions to bidders at attractive prices
- Transfer of clients to competitors leaving unpaid bills to PPC
- Large amounts of unpaid bills (€2,9b) of which € 2,8b already provided
- Macro conditions negatively affecting the company (↘€/\$, ↗Oil and gas prices, ↗CO₂ emission prices, laws and regulations controlling the electricity market in Greece and the neighboring countries, ↗provisions development etc.)

Fundamental Valuation Indicators



	2011	2012	2013	2014	2015	2016E
No of Net Issued Shares	232m	232m	232m	232m	232m	232m
Share Price (€)	2,75	2,75	2,75	2,75	2,75	2,75
Market Cap (€m)	638	638	638	638	638	638
Nominal Value (€)	4,60	4,60	4,60	4,60	4,60	4,60
Book Value / Share (€)	27,80	25,23	23,29	26,45	25,97	25,70
Adjusted BVPS (€)	5,91	6,53	5,15	5,33	4,82	5,51
P/B Ratio	0,10	0,11	0,12	0,10	0,11	0,10
Adjusted P/B Ratio (after Goodwill write offs and asset value reval.)	0,47	0,42	0,53	0,52	0,57	0,46
P/E Ratio	neg.	20,90	neg.	7,12	neg.	3,17
Adjusted P/E Ratio (after extraordinary items)	neg.	neg.	neg.	4,49	neg.	3,15
EV/EBITDA	6,83	6,17	5,12	4,09	3,61	3,31

Fundamental Valuation Indicators



	2011	2012	2013	2014	2015	2016E
<u>Profitability Ratios</u>						
<i>Energy Cost / Sales</i>	-57,3%	-64,1%	-60,5%	-53,7%	-39,2%	-34,4%
Personnel Cost/Sales	-15,1%	-12,2%	-12,1%	-15,6%	-15,3%	-16,3%
Operating Profit Margin	15,6%	15,5%	18,3%	25,7%	31,0%	34,0%
<i>Provisions / Sales</i>	-4,1%	-5,6%	-6,0%	-7,4%	-16,6%	-12,8%
Net Profit Margin	-2,7%	0,5%	-3,8%	1,5%	-1,9%	3,0%
<u>Risk Ratios</u>						
Current Assets/Current Liabilities	82,8%	78,4%	70,5%	127,0%	106,4%	112,3%
Debtors/Sales	17,8%	22,1%	21,9%	30,2%	37,5%	41,3%
Int. Bear. Debt/Equity	73,0%	80,0%	83,8%	80,7%	86,3%	78,5%
Int. Bear. Debt/Adj. Equity from Goodwill	74,1%	80,8%	84,2%	81,6%	87,4%	79,5%
Int. Bear. Debt/Assets	28,3%	29,2%	28,6%	28,5%	30,0%	28,1%
Int. Bear. Debt/Adj Assets from Goodwill	28,5%	29,3%	28,7%	28,6%	30,2%	28,2%
EBITDA/Interest Expense (Interest Coverage Ratio)	378,5%	335,5%	409,5%	706,0%	668,6%	770,4%

Fundamental Valuation Indicators



	2011	2012	2013	2014	2015	2016E
<u>Share Return Ratios</u>						
<i>ROE</i>	-2,31%	0,52%	-4,17%	1,46%	-1,84%	3,23%
<i>Adj ROE based on Recurring Earnings</i>	-2,31%	-3,77%	-8,24%	2,32%	-1,81%	3,26%
<i>Return on Investment (based on current price)</i>	-23,35%	-34,61%	-69,76%	22,29%	-17,12%	31,78%

Comparable Valuation Metrics

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2015 Year End Figures with Current Prices

Company	Installed Capacity (MW)	Electricity Sold (TWh)	# of employees	Total Assets (€b)	Total Debt (€b)	Net Assets (€b)	Market Cap (€b)
PPC GR	12.800	51,5	18.506	17,3	5,0	6,0	0,63
EDF FR	416.000	619,3	159.112	278,9	67,5	34,7	23,48
ENEL IT	89.000	260,0	67.914	161,2	47,5	32,4	36,95

Company	Market Cap / Total Assets	Market Cap / Net Assets	Market Cap / Installed Capacity	Market Cap / Electricity Sold	Debt / Assets	Debt / Net Assets	Market Cap / Employees	Customers	Market Cap per Customer
PPC GR	3,6%	0,10	4,9%	1,2%	28,8%	82,8%	33,85	5.000.000	125,28
EDF FR	8,4%	0,68	5,6%	3,8%	24,2%	194,1%	147,57	66.500.000	353,09
ENEL IT	22,9%	1,14	41,5%	14,2%	29,5%	146,7%	544,13	61.000.000	605,80

Company	Market Cap / EBITDA	EV / EBITDA	Market Cap / NET Income
PPC GR	0,35	3,61	-5,66
EDF FR	1,40	5,73	19,78
ENEL IT	2,44	5,93	16,83



BASED ON 2016 EXPECTED RESULTS AND RECURING PROFITABILITY P/E IS ESTIMATED AT 3X – 4X

Positive

GDP growth is expected to be -0,3% in 2016, 2,7% in 2017 and 1,7% in 2018

Core Fiscal deficit is expected to turn to surplus of 1,5%

Government revenues and tourism flows have been strong in 3Q 2016 and Greece could grow by 0.2% to 0.4% in 2016, significantly > Eurostat's forecast for a -0.3%.

Greek Government appears confident that the second program review will be completed by the end of October for the release of the €2.8bn

Cheap valuations relative to international comparables

Stabilisation with a sign of increase on deposit flows to the Greek banking system

Unemployment is at 23,4% relative to 27,3% last year

Retail local trade as expressed from New Car Sales is up 14% in August 2016

Reduction of ELA funding from €86b last year to €48,9b today with the total reliance to the Eurosystem funding at €78b from €122b the last year (15/9/2016)

Negative

GGBonds are not expected to be entered in the QE program of CBE in 2016 but in 2017

IMF is not expected to give the report for Debt relief as long as the primary deficit expectation is 3,5%.

International Credit Institutions are still not upgrading the Greek Economy

Low volumes of trading with sudden increases

NPLs relative to GDP is at the highest level of the world : 63%

Foreign Debt is at the level of 177% of GDP while total Debt at 297%

Retail trade is still flattening

Industrial and construction activity is still on the negative

General Economic Conditions

Table 7: Euro area GDP and CPI forecasts

	GDP					HICP				
	2013	2014	2015	2016F	2017F	2013	2014	2015	2016F	2017F
Euro area	-0.2	0.9	1.5	1.5	1.1	1.4	0.4	0.0	0.2	1.0
Austria	0.3	0.5	0.8	1.4	1.0	2.1	1.5	0.8	1.1	1.9
Belgium	0.0	1.3	1.4	1.2	1.1	1.2	0.5	0.6	1.8	1.8
Finland	-0.8	-0.7	0.7	1.0	0.3	2.2	1.2	-0.2	0.2	1.2
France	0.6	0.7	1.2	1.5	0.9	1.0	0.6	0.1	0.2	1.0
Germany	0.4	1.6	1.5	1.5	1.0	1.6	0.8	0.1	0.4	1.5
Greece	-3.1	0.7	-0.3	-1.0	1.2	-0.9	-1.4	-1.1	0.3	0.6
Ireland	1.4	5.2	6.9	3.6	2.5	0.5	0.3	0.0	0.9	1.7
Italy	-1.8	-0.3	0.6	1.0	1.0	1.2	0.2	0.1	-0.1	0.4
Netherlands	-0.4	1.0	2.0	1.3	1.2	2.6	0.3	0.2	0.2	1.1
Portugal	-1.1	0.9	1.5	1.0	0.9	0.4	-0.2	0.5	0.7	0.9
Spain	-1.7	1.4	3.2	2.8	1.7	1.5	-0.2	-0.6	-0.3	1.3

Source: BofA Merrill Lynch Global Research

General Economic Conditions

Annex 1 – General government expenditure-to-GDP ratio, Member States of the EA and EA average, 2015

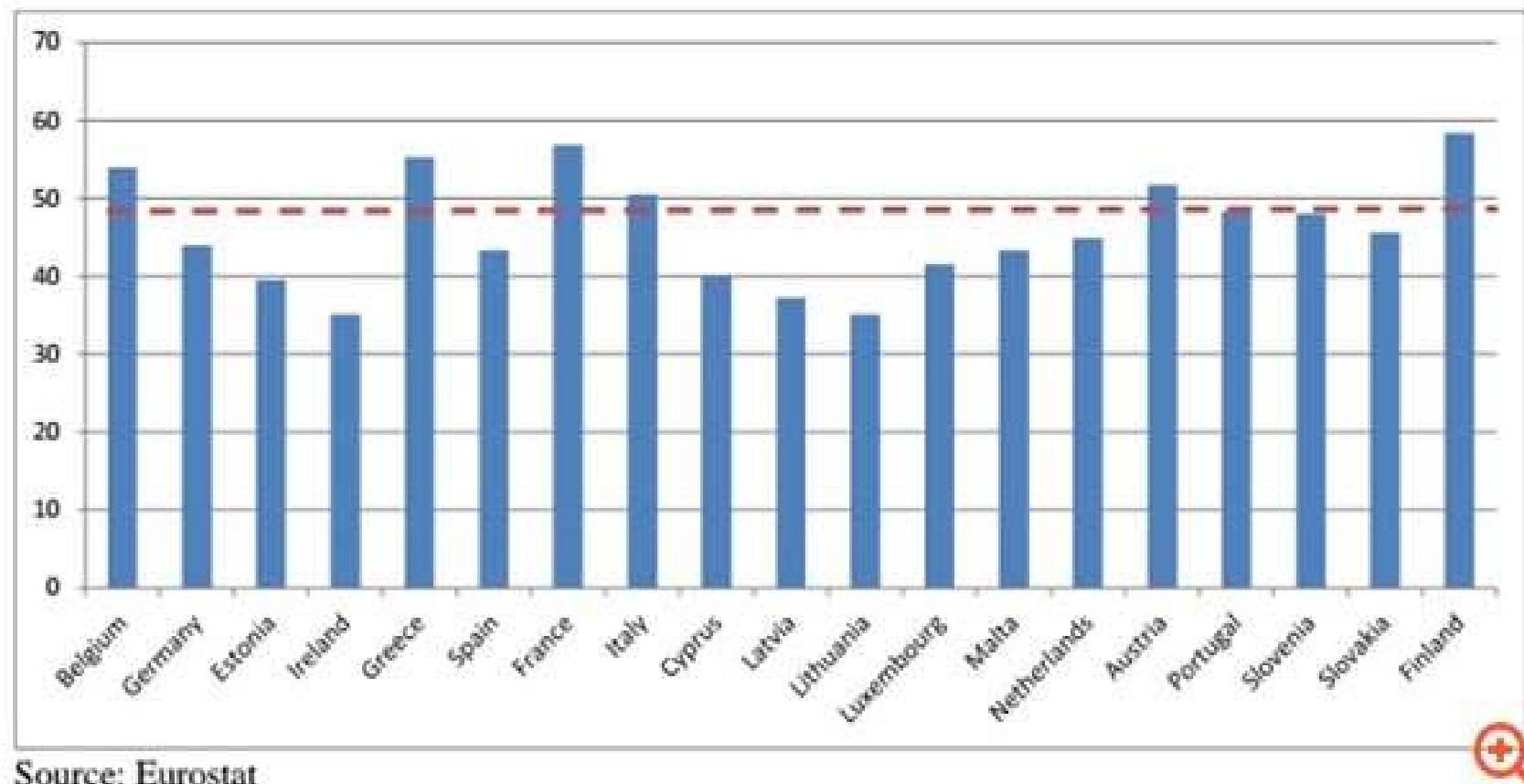


Chart Analysis (long view)

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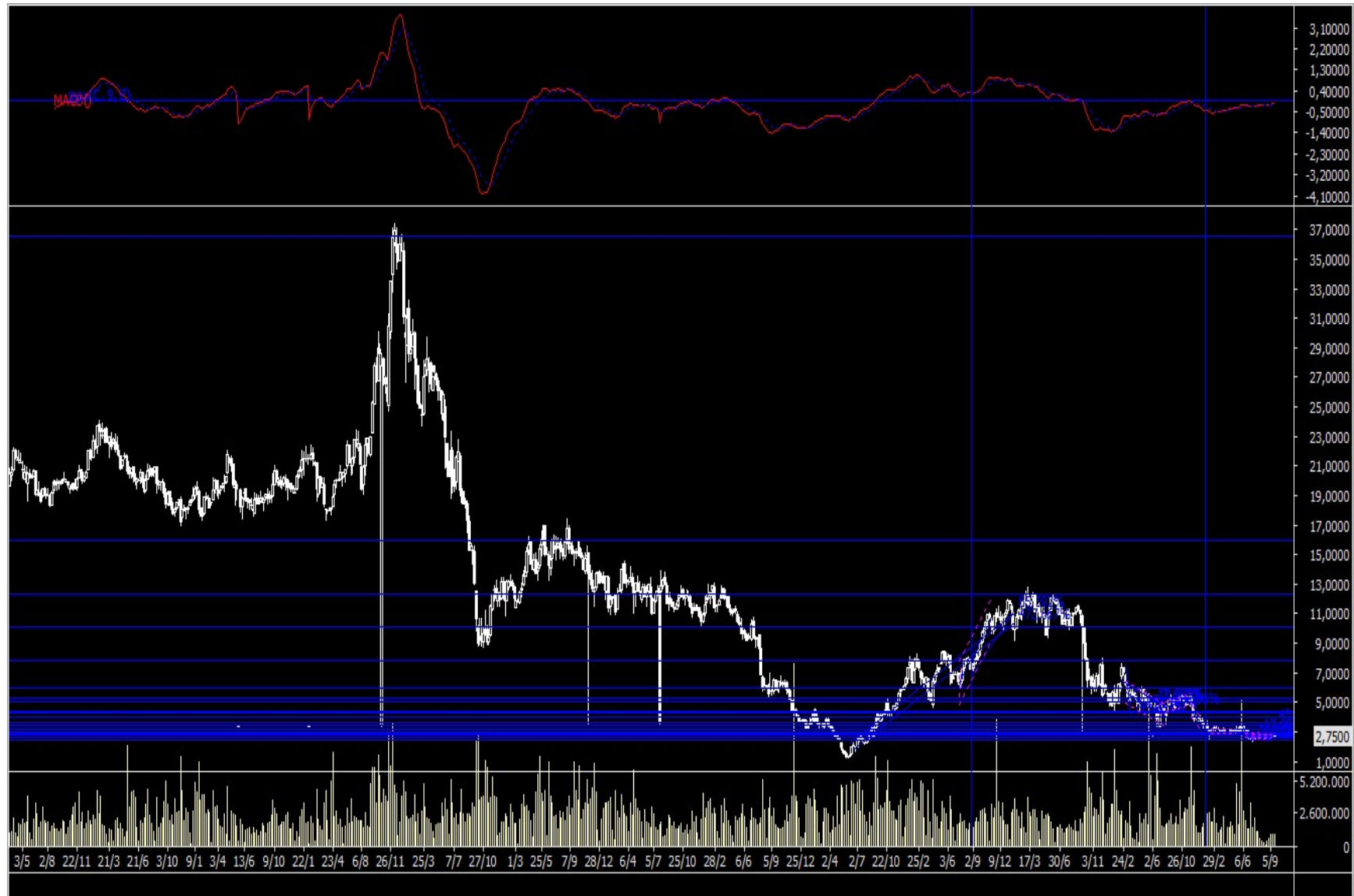
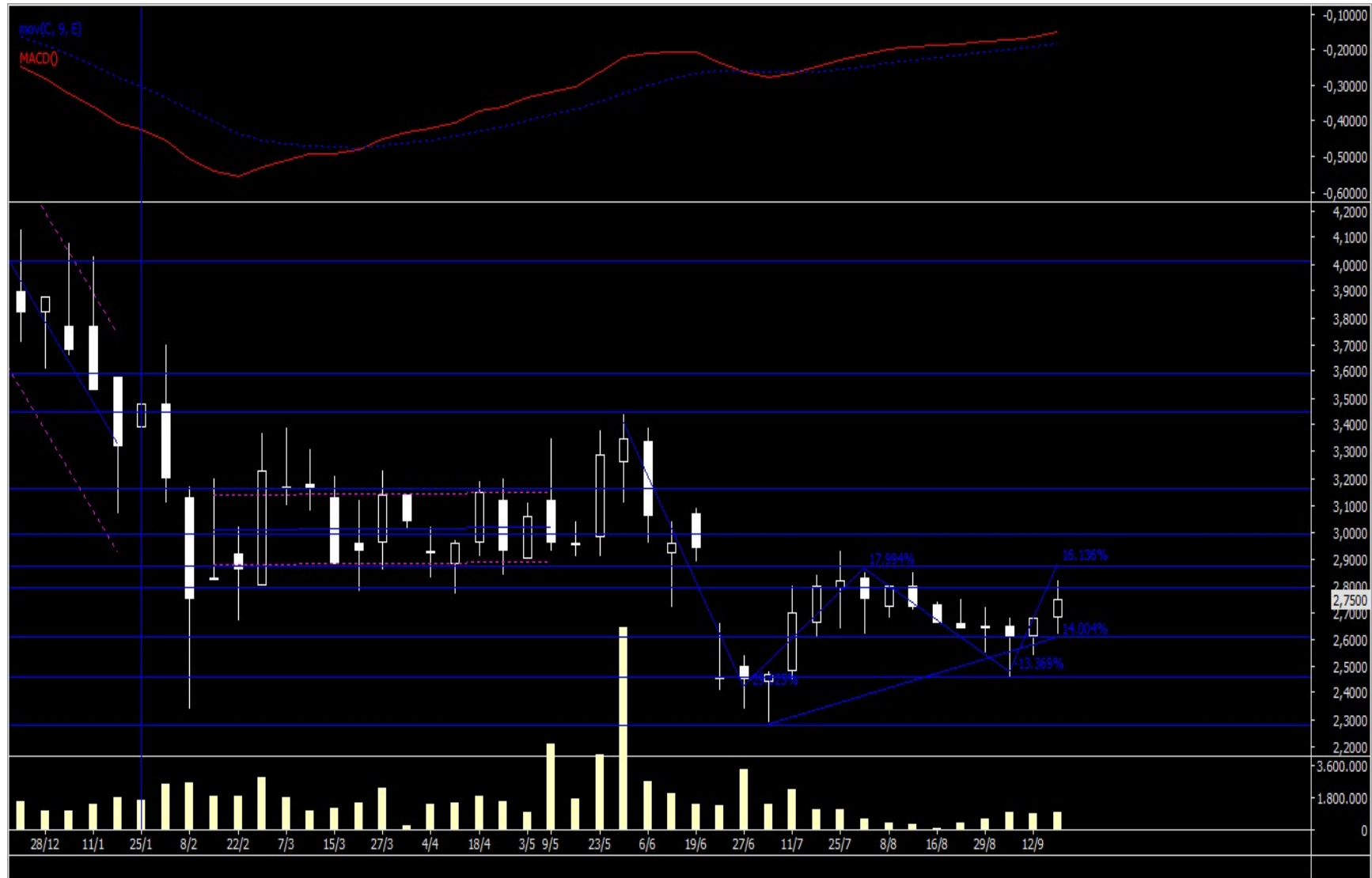


Chart Analysis (Short view)

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Disclaimer:

Information included here in contain estimations and forward looking statements that might not be materialized in the future. The risk factors affecting this business and any other are both macro and micro and can substantially alternate the final outcome for investors.

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