



European Power & Utilities Report

KPMG Global Energy Institute
Europe, Middle East & Africa

Q3 2016



Overview last quarter evolution in EUR P&U sector

1

Prices and margins

- Baseload prices have maintained the upward trend started last quarter.
- During Q3 2016 baseload / peakload differentials have narrowed in Germany, France and the UK, while in Spain differentials have widened.
- Brent prices have stabilized at around \$45 per barrel.
- Differentials between HH and EU border prices have reduced, while NBP have rebounded after a significant decrease.
- Coal prices have notably raised, reaching the highest values since 2014.
- Carbon prices have continued the downward trend started in June
- Gas margins (spark spreads) have doubled in Italy and the UK. In Germany and France margins have returned to positive levels.
- Coal-fired margins (dark spreads) have experienced a quarterly increase in France, Italy and Germany, and a slight decrease in the UK.

2

Regulatory news

- The European Commission presented a package of measures to accelerate the transition to low-carbon emissions.
- A new resolution modifying natural gas system standards and modifying/repealing some detail protocols has been published in Spain.
- UK New Conservative Government is placing greater weight on affordability and industrial policy.
- In Italy a new agreement for market management has been signed between Authority and SNAM and GME for gas balancing.
- Procedures and model for the assignment of a social rate to economically vulnerable customers for gas and electricity have been published in Portugal.
- The new Digitisation of the Energy Turnaround came into force in Germany.
- The French National Regulatory Authority (CRE), has approved a Deliberation relating to changes in the balancing rules of gas transmission networks, compliant with the network code on balancing.

3

Capital markets

- Eurostoxx Utilities index seems to be consolidating its growth after plunging in Q1 2016.
- RWE AG, National Grid plc and Fortum Oyj registered the best performance in Q3 2016 in terms of share price.
- Valuation levels in the sector averaged at 6,9 EV/EBITDA in Q2 2016, down from x7,8 in the previous quarter.
- Wide differences persist in EBITDA multiples, with National Grid, Enagas and Snam SpA reaching highest values, trading above x11 EV/EBITDA.
- Net debt levels remained stable at 3,01 x EBITDA in Q3 2016.
- The only credit rating revised during Q3 2016 has been Electricity de France's, with a downgrade from S&P and Moody's.

4

M&A

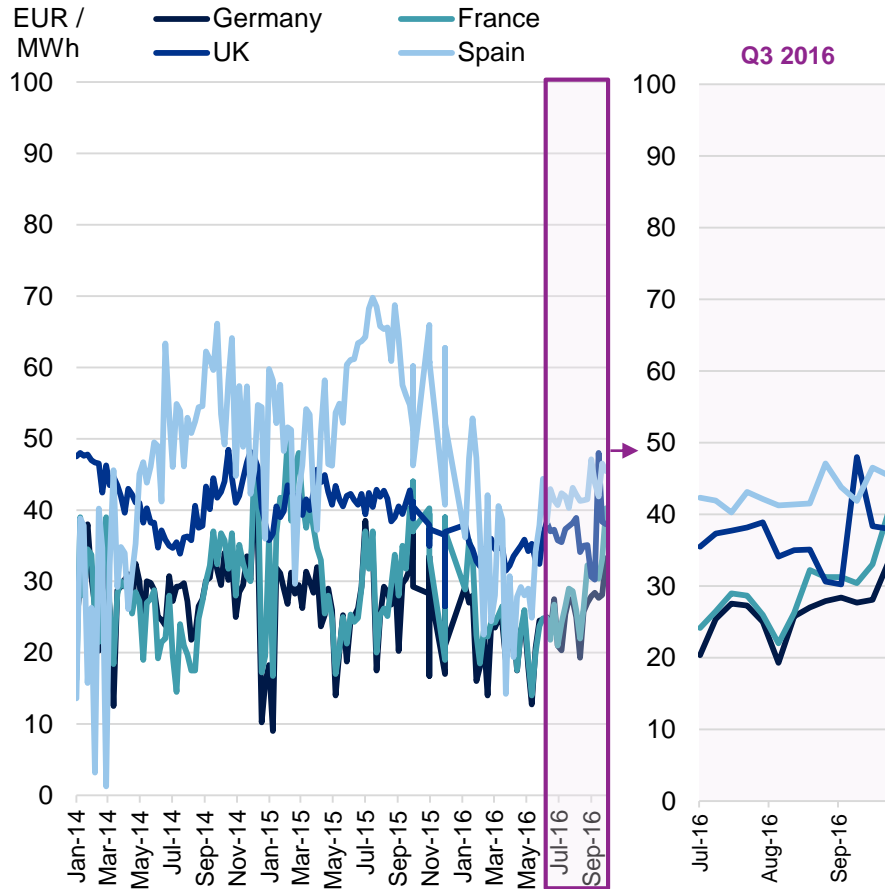
- During Q3 there was a wider geographical diversification in top 10 transactions.
- Main transactions have included:
 - The acquisition of 50% of Southern Natural Gas Company, L.L.C. by Southern Company (€2604m)
 - The sale of 310 net sections of Deep basin oil & gas properties owned by Paramount Resources Ltd to Seven Generations Energy Ltd (€1470m)
 - The acquisition of 60% of Enel Green Power Espana S.L. by Endesa, S.A (€1207m)
 - The purchase of 50% of Gasoductos de Chihuahua, S. de R.L. de C.V. by Infraestructura Energetica Nova, S.A.B. de C.V (€1167m)
 - The acquisition of Williams Energy Canada ULC by Inter Pipeline Ltd (€925m)

Prices and Margins: Overview

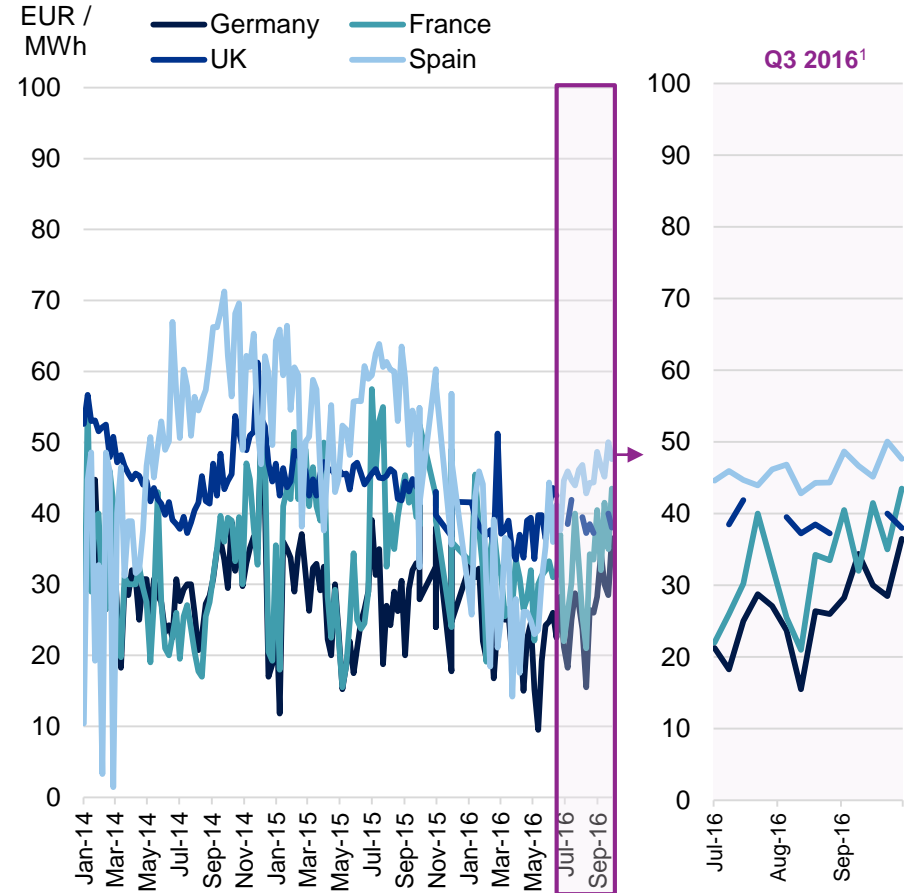
- Baseload prices have maintained the upward trend started last quarter, with Germany and France recording the highest growth and Spain reaching the highest value.
- During Q3 2016 baseload / peakload differentials have narrowed in Germany, France and the UK, while in Spain differentials have widened.
- Brent prices have stabilized at around \$45 per barrel in Q3.
- HH prices have increased, ending the period at 3 USD/MMBTU, while EU border prices have ended the quarter at similar levels than June (4,2 USD/MMBTU). Therefore, differentials between both indicators have reduced. After a significant decrease, reaching levels below 25 GBP/MWh in the first weeks of September, NBP have rebounded and ended the quarter at 35 GBP/MWh.
- Coal prices have notably raised in Q3, surpassing 60 USD/mt levels and reaching the highest values since 2014.
- Carbon prices have continued the downward trend started in June, with an average of 4,6 €/T in Q3, down from 5,7 €/T in the previous quarter.
- Gas margins (spark spreads) have doubled in Italy and the UK. In Germany and France margins have returned to positive levels.
- Coal-fired margins (dark spreads) have experienced a quarterly increase in France, Italy and Germany, with average values in Q3 2016 of 7€/MWh, 15€/MWh and 3€/MWh respectively. In the UK dark spreads have slightly decreased.

Electricity price evolution

Base load



Peak load



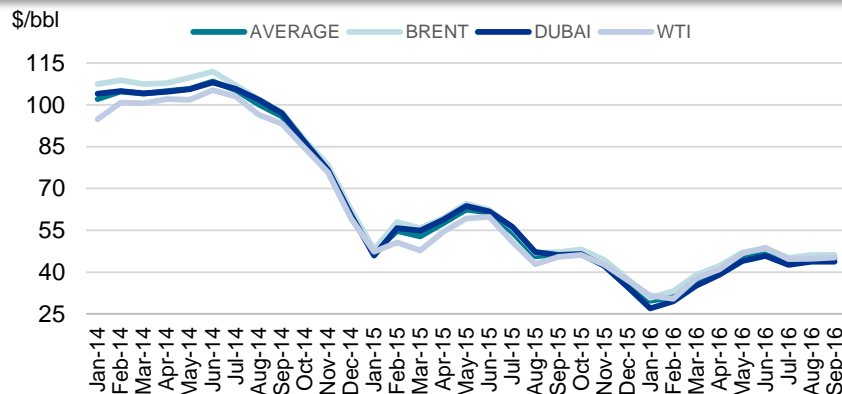
¹ Due to lack of information, the line reflecting peak load prices in the UK in Q3 is incomplete.

Source: Bloomberg; 2016.

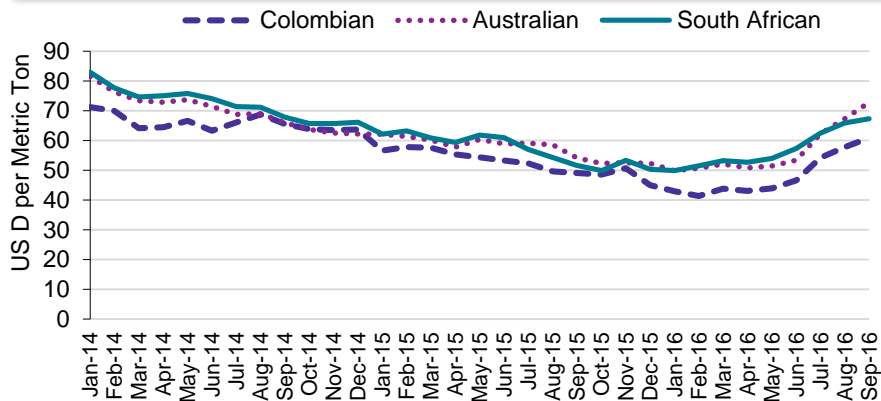
1. Prices and Margins

Fuel price evolution

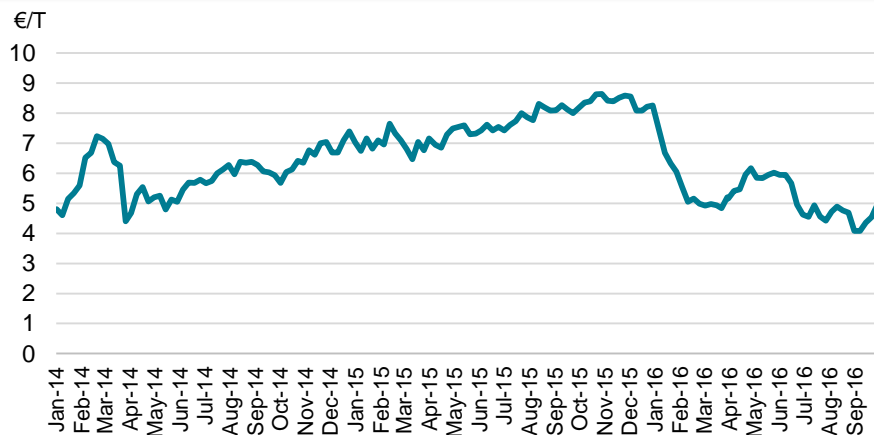
Crude oil



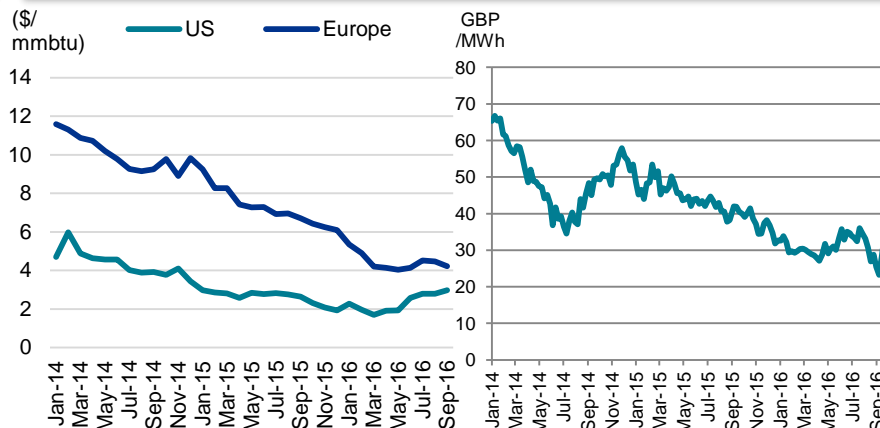
Coal



Carbon price – EU ETS



Gas prices: US (H.Hub), EU (border prices) and NBP

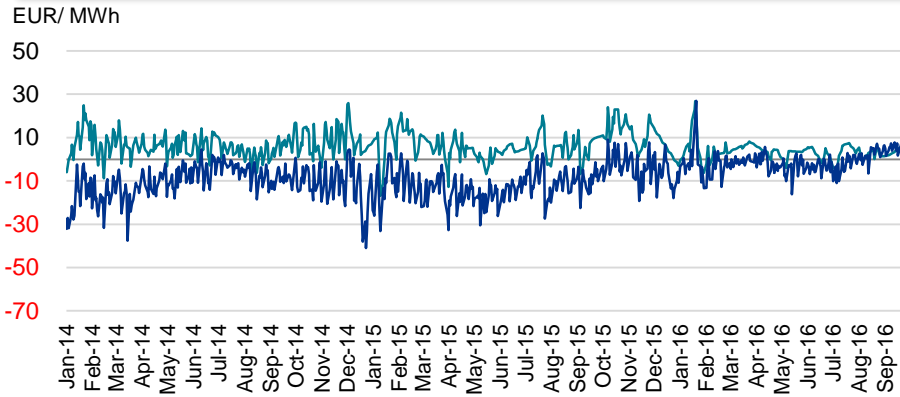


Source: World Bank / Bloomberg; 2016.

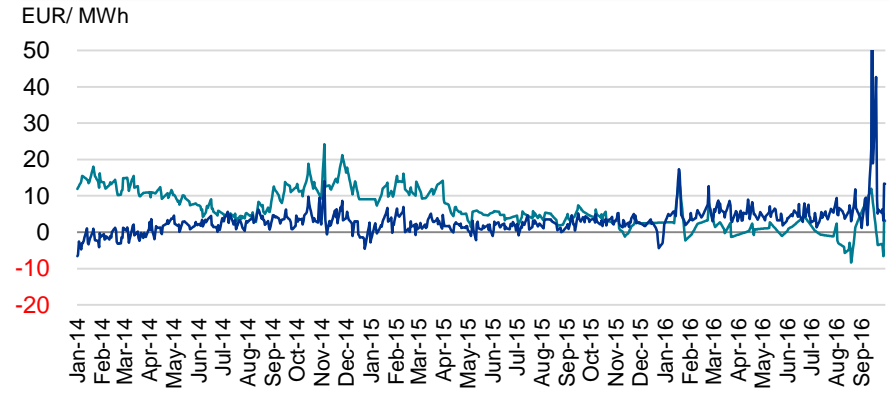
Clean dark and spark spreads

— Clean dark spread — Clean spark spread

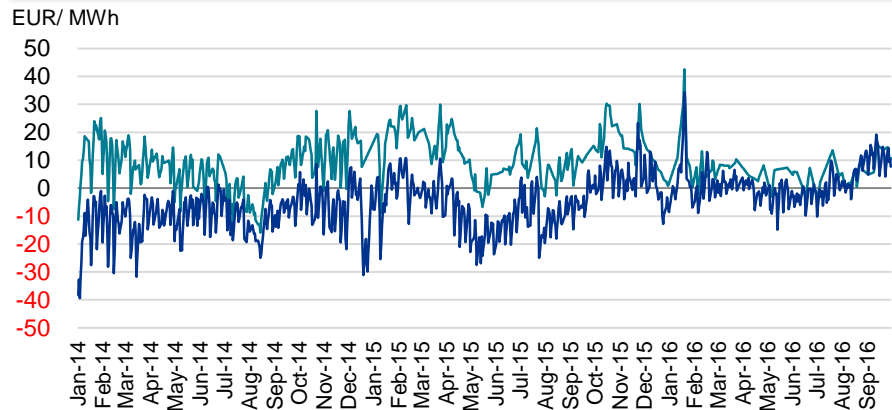
Germany



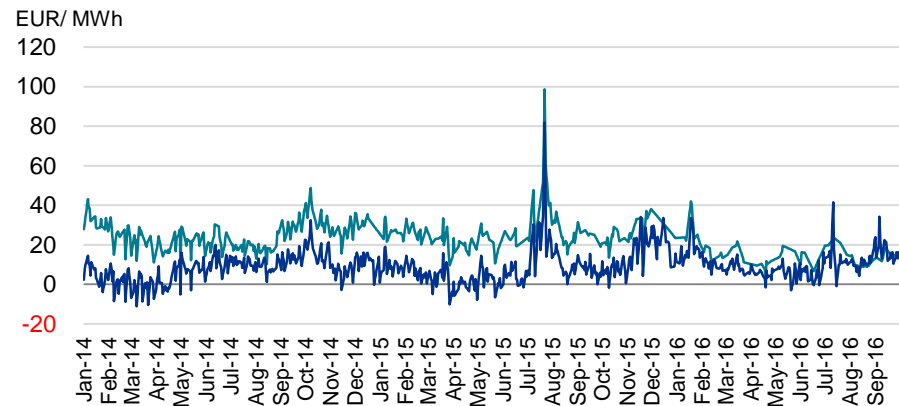
United Kingdom



France



Italy



Source: Bloomberg; 2016.

Regulatory News: Overview

- The European Commission presented a package of measures to accelerate the transition to low-carbon emissions including binding annual greenhouse gas emissions targets for Member States from 2021-2030 for the transport, buildings, agriculture, waste, land-use and forestry sectors.
- Spanish DG for Energy Policy and Mines has published a Resolution modifying natural gas system standards and modifying/repealing some detail protocols.
- UK New Conservative Government is placing greater weight on affordability and industrial policy.
- In Italy a new agreement for market management has been signed between Authority and SNAM and GME for gas balancing.
- Portuguese Energy Services Regulatory Authority (ERSE) published the procedures and model for the assignment of a social rate to economically vulnerable customers, for gas and electricity.
- The new Digitisation of the Energy Turnaround Act (Gesetz zur Digitalisierung der Energiewende) has come into force in Germany.
- The French National Regulatory Authority (CRE), has approved a Deliberation relating to changes in the balancing rules of gas transmission networks, compliant with the network code on balancing.
- US Federal Energy Regulatory Commission (FERC) has accepted interim measures to address the limited operability of the Aliso Canyon natural gas storage facility that could affect reliability and market operations in the California Independent System Operator (CAISO) grid this summer.
- To support local-fired power plants, Energy Market Regulatory Authority in Turkey imposed a fluctuating tax which increases the total cost of the coal imports to \$70/ton on imported coal for use of power generation. This change replaced the recently imposed (Q2'16) fixed tax of \$15/ton.

Regulatory news per region / European Union ⁽¹⁾

EU



- The European Commission presented a package of measures to accelerate the transition to low-carbon emissions including binding annual greenhouse gas emissions targets for Member States from 2021-2030 for the transport, buildings, agriculture, waste, land-use and forestry sectors.
- Belgium, Denmark, France, Germany, Ireland, Luxembourg, the Netherlands, Norway and Sweden signed an agreement to further strengthen their energy cooperation with an action plan to boost interconnection and renewables capacity.
- EU and China have agreed to strengthen their energy cooperation up to 2020, sharing best practices with regards to energy regulation, nuclear safety, the integration of renewable energy into the electricity grid, etc.
- The European Commission published an update of energy, transport and emission projections for the EU Reference Scenario 2016
- EU countries agreed on the EC proposal to invest €263 million in nine trans-European electricity and natural gas infrastructure projects.
- EC has opened to proposals a €600million grant program for financing trans-European energy infrastructure projects.
- EC has opened to proposals a €40million grant program for financing projects unfolding synergies in the energy and the transport sectors.

Spain



- The DG for Energy Policy and Mines has published a Resolution modifying natural gas system standards and modifying/repealing some detail protocols.
- The CNMC has sanctioned several electricity suppliers for not meeting the mandatory financial warranties.
- The DG for Energy Policy and Mines has approved the Retribution to the Operation for the renewable energy production for the second half of 2016.
- The CNMC has published the economic incentive/penalty to electricity losses in distribution networks (global penalty of 52.5 M€).
- The DG for Energy Policy and Mines has approved two Resolutions regarding the service of demand interruptibility of electricity:
- The DG for Energy Policy and Mines has approved a Resolution establishing the framework contract of access to natural gas infrastructures.

UK



- New Conservative Government placing greater weight on affordability and industrial policy.
- Brexit: UK set to trigger Article 50 by end of March 2017 and leave the EU by 2019.
- Hinkley Point C new nuclear project given approval.

Italy



- New agreement for market management is signed between Authority and SNAM and GME for gas balancing.
- New capacity allocation for cross border power grids is defined
- New tariff scheme for gas storage is enacted
- New standards for sales quality standards (power, gas) are enacted

Portugal



- Energy Services Regulatory Authority (ERSE) published the procedures and model for the assignment of a social rate to economically vulnerable customers, for gas and electricity.
- ERSE published a new directive with new information requirements to be included in the electricity bill, in order to obtain improved access to information by consumers
- A new set of legislation was issued, establishing new standards for the installation and operation of charging points for electric vehicle batteries, namely technical, commercial and safety requirements, including mandatory insurance coverage.

Regulatory news per region / European Union (2)

Germany



- The new Digitisation of the Energy Turnaround Act (Gesetz zur Digitalisierung der Energiewende) was published on September 1st, 2016 and came into force on September 2nd. The new law shall finally get the long-awaited smart meter roll-out going and connected infrastructure in Germany, defining future roles and tasks for all market participants.
- The key objective of the new law is to facilitate the implementation of smart meters and so-called 'Smart Meter Gateways'. In that respect, Germany will finally implement EU Directives 2009/72/EG and 2009/73/EG. The new law also introduces specific and detailed requirements, both for the design of the smart meter devices and for the transmission of data. The overall goal is to open up the German energy market to digitisation, while ensuring a high standard regarding data protection and ICT security.
- The EEG 2016 Bill started Parliamentary process on June 6th, 2016. The new Bill is being drawn in a context where the European Commission in its state aid clearance for the EEG 2014 requested a revised legal framework before 2017 so that tenders determining financial support under the EEG shall be the general rule for all renewables. The new EEG 2016 will use auctioning as the standard system to establish support levels for renewable energy. Tenders will be distinctive for each technology.
- The German government has reached an agreement with the European Commission over exemptions to the renewable energy surcharge granted to industrial companies producing electricity for their own consumption. The new agreement allows a full exemption of the EEG surcharge for existing auto-production CHP plants; in case of significant modernisation (generator replacement), a 20% EEG surcharge will apply. New auto-production installations will have to pay the entire EEG surcharge, but only 40% of the surcharge in the case of renewable or high-efficiency CHP facility.

France



- The French National Regulatory Authority (CRE), has approved on September 15th a Deliberation relating to changes in the balancing rules of gas transmission networks, compliant with the network code on balancing (Regulation No. 312/2014, "Network Balancing Code"). New balancing rules will be applicable from October 1st, 2016.
- The CRE has approved on July 13th new intraday capacity allocation rules for the France-Italy electricity interconnection. On June 21st, RTE (the French Transmission System Operator) submitted to CRE, for approval, an amendment to the Rules for Intraday Capacity Allocation by Explicit Auctions on North Italian borders. The rules will apply to products with delivery dates from 26 July 2016.
- France has approved a series of tenders to offer 3 GW of solar energy. These are six tenders of 500 MW to be carried out between 2017 and 2020. According to the French Ministry of Energy, the objective of the tenders is none other than to give a boost to the French photovoltaic industry and at the same time help to fulfill the objectives of emissions reductions. In this way, all projects will have to be put on the ground and installed with a capacity ranging from 500 kW to 17 MW of power. During each of the six rounds of 500 MW, 300 MW of power will be reserved for larger solar parks of 5 MW, while 135 MW of capacity will be for plants with a capacity of between 500 kW and 5 MW. The remaining 65 MW will be offered to developers who build photovoltaic systems in car parks, provided they are sized between 500 kW and 10 MW.
- The French Government will have to introduce changes to the support scheme for wind energy to comply with the European Commission's 2014 guidelines regulating support to renewable energy. Currently, wind energy is not subject to Contracts for Differences (CfD) tariffs (as other renewables), but sell their energy directly to EDF at a subsidized price, instead. However, due to a reform of the CSPE, a tax that French energy consumer pay on their electricity bills that is used to subsidize renewables, the European Commission finds the exemption for wind energy is no longer valid. In this context, market participants expect a switch to a feed-in tariff scheme for wind energy in 2017.

Regulatory news per region / Other markets

US




- The Federal Energy Regulatory Commission (FERC) has accepted interim measures to address the limited operability of the Aliso Canyon natural gas storage facility that could affect reliability and market operations in the California Independent System Operator (CAISO) grid this summer.
Southern California Gas Co.'s Aliso Canyon facility experienced a large natural gas leak last fall that significantly depleted the storage field. The leaking well was capped in February and the state of California prohibited injections of natural gas into the facility until completion of a comprehensive safety review.
- The FERC took on June 16th the next step in advancing its electric power price formation goals with a final rule establishing settlement interval and shortage pricing requirements for organized markets. These requirements will help ensure that rates for energy and operating reserves are just and reasonable, and will align prices with resource dispatch instructions and operating needs, provide appropriate incentives for resource performance and maintain reliability.
- The final rule clarifies that the settlement interval applies to all supply resources, including demand response, but not to load. However, it does not prohibit settling load on a five-minute interval, and FERC will consider any such proposals on a case-by-case basis in separate proceedings under section 205 of the Federal Power Act.
- US Department of Energy (DOE) invests \$19 million to improve efficiency of nation's buildings. Buildings are the largest energy consumer in the nation—accounting for more than 40 percent of the nation's total energy demand and greenhouse emissions, and resulting in an annual energy bill totalling \$430 billion. The 18 selected projects span multiple technology areas, targeting a variety of building efficiency improvements.
- Obama Administration announced on July 21st Federal and private sector actions to accelerate electric vehicle adoption in the United States. The collaboration, forged by the White House in partnership with DOE and the Department of Transportation (DOT), the Airforce and the Army, and the Environmental Protection Agency, and is centred on a set of 'Guiding Principles to Promote Electric Vehicles and Charging Infrastructure' that nearly 50 organizations signed on to July 21st.

Turkey




- To support local-fired power plants, Energy Market Regulatory Authority imposed a fluctuating tax which increases the total cost of the coal imports to \$70/ton on imported coal for use of power generation. This change replaced the recently imposed (Q2'16) fixed tax of \$15/ton.
- On Aug 9, TETAŞ (the state owned electricity trading and contracting company) announced that it will purchase energy primarily from local coal-fired power plants. The principles regarding the procurement will be determined each year, and the PPA for Q4 2016 has been determined as 185 TL/MWh (~€55/MWh) for 6 TWh. (2016 market average ~€40/MWh, Turkey's 2015 national consumption is 255 TWh).
- The Ministry of Energy issued the renewable energy resource areas(RERA) regulation draft to incentivize utility scale solar and wind projects with local manufacturing. The regulation explains the principles of utility scale RERA project allocation, outlines the local manufacturing requirements for solar and wind equipment and electricity license tender processes.
- A new privatization procedure has been determined for local coal-fired and renewable power plants of EÜAŞ (state owned electricity generation company). Under this procedure, instead of bidding for asset values, the tender will be conducted through the reduction of the sales price for the electricity to be generated by the facility.

Links to new key regulation

Spain	News	Link
	The Directorate General for Energy Policy and Mines has published Resolutions modifying: the natural gas system standards NGTS-03, 04, 06 and 07 and the detail protocols PD- 07 and PD-13. The Resolution also repealed the detail protocols PD-08 and PD-15.	Link I
	CNMC has sanctioned several electricity suppliers for not meeting the financial warranties established by Red Eléctrica as System Operator. The fulfillment of the financial warranties is a requisite for the economic capacity of electricity suppliers by the article 46.1 Law 24/2013 of the Power Sector.	Link II Link III Link IV
	The Directorate General for Energy Policy and Mines has approved an Order establishing the Retribution to the Operation for the renewable energy production facilities under the economic framework of the Royal Decree 413/2014 for the second half of the year 2016.	Link V
	The CNMC has published the economic incentive/penalty to electricity losses in distribution networks under the economic framework of the Royal Decree 1048/2013, accounting for a global penalty of 52.5 M€. The published report is a proposal that has been sent to the Directorate General for Energy Policy and Mines for its approval.	Link VI

Links to new key regulation

Spain	News	Link
	The Directorate General for Energy Policy and Mines has published a Resolution approving the detail protocol PD-18 Technical Parameters that determine the normal operation of the transmission system and the implementation of balance measures in the Virtual Point Balance (PVB) by the System Operator.	Link VII
	The Directorate General for Energy Policy and Mines has approved two Resolution regarding the service of electricity demand interruption: a) Resolution modifying the Operation Procedure PO 15.2, b) Resolution approving the rules of the auction to offer the service.	Link VIII (a) Link IX (b)
	The Directorate General for Energy Policy and Mines has approved a Resolution establishing the framework contract of access to natural gas infrastructures and the characteristics of the web platform for the capacity contracts.	Link X
	The Directorate General for Energy Policy and Mines has approved a Resolution approving the standards for centralized management warranties for capacity markets of the natural gas infrastructure and the contract models for bank guarantees, credit lines and insurance bonds.	Link XI


Links to new key regulation

Spain	News	Link
	<p>The CNMC has published a report including proposals regarding the regulation of the fuel distribution market through unattended gas stations. The supervisory authority recommends the approval of a new regulatory framework aiming the reduction of entry barriers and the increase of competition in the market.</p>	Link XII


Links to new key regulation

UK	News	Link
	New Conservative Government placing greater weight on affordability and industrial policy – though details yet to emerge	Link I
	Brexit: UK set to trigger Article 50 by end of March 2017 and leave the EU by 2019	Link II
	Hinkley Point C new nuclear project given approval after review by UK Government	Link III


Links to new key regulation

Italy	News	Link
	New agreement for market management is signed between Authority and SNAM and GME for gas balancing	Link I
	New capacity allocation for cross border power grids is defined	Link II
	New gas HP grid code is enacted	Link III
	New tariff scheme for gas storage is enacted	Link IV
	New standards for sales quality standards (power, gas) are enacted	Link V

Links to new key regulation

Portugal	News	Link
	On the 1 st of July, Energy Services Regulatory Authority (ERSE) published the procedures and model for the assignment of a social rate to economically vulnerable customers, for gas and electricity.	Link I (a) Link I (b)
	In July, ERSE published a new directive with new information requirements to be included in the electricity bill, in order to obtain improved access to information by consumers.	Link II
	During the third quarter of 2016, a new set of legislation was issued, establishing new standards for the installation and operation of charging points for electric vehicle batteries, namely technical, commercial and safety requirements, including mandatory insurance coverage.	Link III (a) Link III (b) Link III (c) Link III (d)
	On 29 August 2016, the Energy Services Regulatory Authority issued the Directive 15/2016 establishing new rules in order to obtain information concerning extra-market events by the market players producers owning or operating the power plants.	Link IV
	On September 19, the Energy Services Regulatory Authority issued the natural gas consumption profiles and daily average consumption applicable to the gas year 2016-2017.	Link V
	The Energy Services Regulatory Authority established through Directive 17/2016, the entities empowered to integrate the commercialization shift unit in accordance with the Global System Management Procedures Manual.	Link VI

Links to new key regulation

Portugal	News	Link
	The Energy State Department determined through Order. ^o 10840/2016 to maintain until the end of the CMEC contracts, the annual revisibility mechanism of CMEC (Costs of Maintenance of Contractual Balance) services system market pricing mechanism and amounts of proportionality offered by CMEC power plants.	Link VII
	The Decree Law 42-A/2016 of 12 August created the Environmental Fund, establishing the rules for the respective assignment, management, monitoring and implementation and extinguishes the various funds previously created for this purpose.	Link VIII
	Approval of Law 31/2016 of 23 August on the third amendment of Law No. 54/2005 of 15 November, establishing that ownership of water resources, including lake and fluvial public domain, belongs to the state or to the autonomous regions and whenever applicable to the municipalities. This Law also establishes expropriation rules.	Link IX
	Approval of the resolution of the Council of Ministers 49/2016, published on September 1 st that established the 1 st and 2 nd phases of Pilot Network MOBI.E. (Electric Mobility Network) and determined the installation of 124 chargers and 50 fast chargers to conclude the first phase of the Pilot, until the end of the year.	Link X

Capital Markets Overview

- Eurostoxx Utilities index seems to be consolidating its growth after plunging in Q1 2016. During Q3, the index increased an average of 1,5% after the 0,86% of the Q2, but still cumulates losses (-5.17%) in the last 12 months.
- RWE AG, National Grid plc and Fortum Oyj registered the best performance in Q3 2016 in terms of share price, in a quarter where almost all other European players have experienced a positive QoQ price evolution. Only EON SE, Snam SpA, EDF and Iberdrola SA share prices have decreased.
- Valuation levels in the sector averaged at 6,9 EV/EBITDA in Q2 2016, down from x7,8 in the previous quarter.
- Wide differences persist in EBITDA multiples, with National Grid, Enagas and Snam SpA reaching highest values, trading above x11 EV/EBITDA.
- Net debt levels remained stable at 3,01 x EBITDA in Q3 2016, very close to the figure registered in Q2 2016 (3,2 x EBITDA).
- The only credit rating revised during Q3 2016 has been Electricity de France's, with a downgrade from S&P and Moody's.

Share price evolution: overview

Company	Q1 2014	Q2 2014	Q3 2014	Q4 2014	Q1 2015	Q2 2015	Q3 2015	Q4 2015	Q1 2016	Q2 2016	Q3 2016	Last Quarter Q3 2016/ Q2 2016 ▼	Last Year Q3 2016/ Q3 2015
RWE AG	27,87	28,8	30,53	27,62	23,97	22,1	15,78	11,81	11,28	12,21	15,06	23,34%	-4,56%
National Grid plc (*GBP)	8,08	8,45	8,75	9,09	8,99	8,84	8,54	9,23	9,58	9,9	10,82	9,29%	26,70%
Fortum Oyj	16,68	17,46	19,27	18,57	19,4	17,61	15,24	13,79	12,88	13,14	14,26	8,52%	-6,43%
Centrica plc (*GBP)	3,23	3,29	3,15	2,9	2,65	2,69	2,54	2,21	2,11	2,16	2,33	7,87%	-8,27%
EDP Renováveis	4,47	5,02	5,35	5,26	5,95	6,48	6,3	6,46	6,72	6,72	7,04	4,76%	11,75%
Gas Natural SDG SA	18,87	21,18	22,92	22,06	20,7	21,84	19,11	19,46	17	17,49	18,31	4,69%	-4,19%
ENGIE SA (GDF SUEZ S.A.)	17,8	19,93	19,37	18,95	18,9	18,25	16,36	15,85	14,19	13,79	14,41	4,50%	-11,92%
Endesa SA	23,29	27,61	28,51	19,76	17,29	17,56	18,57	19,45	17,05	17,76	18,54	4,39%	-0,16%
SSE Plc (*GBP)	13,88	15,34	15,06	15,79	15,5	16	15,08	14,98	14,26	15,1	15,5	2,65%	2,79%
CEZ as (*CZK)	528,02	585,88	607,16	606,78	600,33	624,53	557,01	467,82	391,38	428,52	436,75	1,92%	-21,59%
REE ¹	54,66	61,55	63,83	69,69	74,06	75,75	72,12	78,82	73,94	77,88	19,81	1,75%²	9,87%²
Enel SpA	3,62	4,15	4,12	3,8	3,96	4,28	4,12	4,06	3,72	3,93	3,99	1,53%	-3,16%
Enagás SA	20,77	22,05	24,7	25,94	26,78	26,66	25,16	27,1	25,88	26,7	26,82	0,45%	6,60%
EDP	2,99	3,48	3,46	3,29	3,39	3,54	3,3	3,27	3,01	2,97	2,97	0%	-10%
Iberdrola SA	4,72	5,2	5,51	5,59	5,91	6,14	6,13	6,43	6,13	5,99	5,98	-0,17%	-2,45%
EDF	26,96	27,28	24,23	22,06	23,12	22,11	19,52	15,19	10,94	11,29	11,22	-0,62%	-42,52%
Snam SpA	4,09	4,32	4,38	4,12	4,32	4,56	4,45	4,71	5,02	5,21	5,06	-2,88%	13,71%
E.ON SE	13,62	14	14,25	13,77	13,61	13,58	10,6	9	8,62	8,65	8,33	-3,70%	-21,42%
Eurostoxx Utilities	262,29	284,87	288,6	280,3	292,9	291,9	269,1	264	249,28	251,42	255,19	1,50%	-5,17%

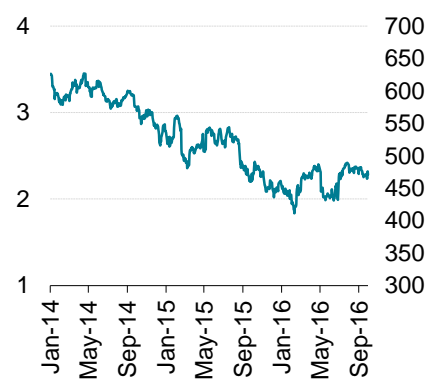
¹ On July 11 REE executed a 4-to-1 stock split. Values in Q3 reflect that split.

² Percentages are calculated assuming a Q3 average stock value of 79,24. Otherwise due to the 4-to-1 stock split the percentage would not reflect the real evolution of the value.

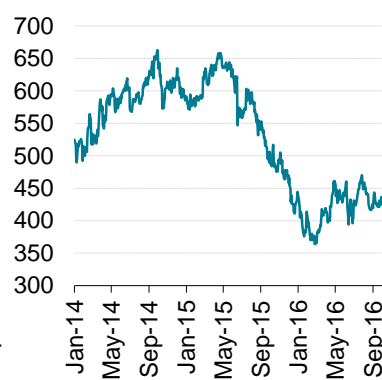
Source: Bloomberg; 2016.

Share price evolution: individual stocks (1)

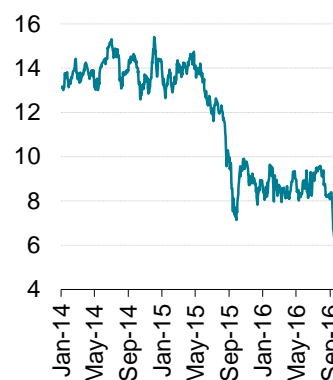
Centrica PLC (*GBP)



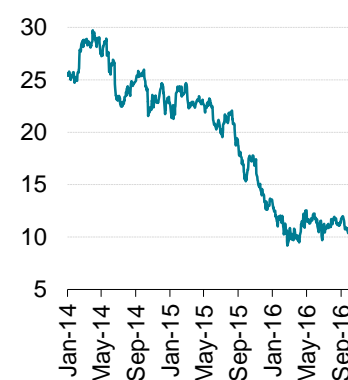
CEZ a.s (*CZK)



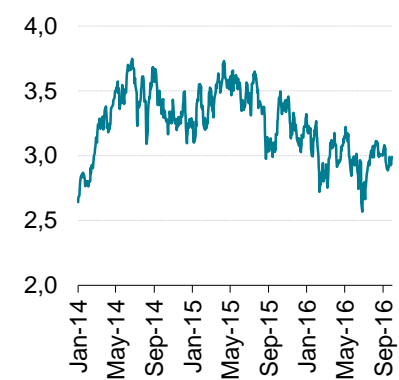
E.ON



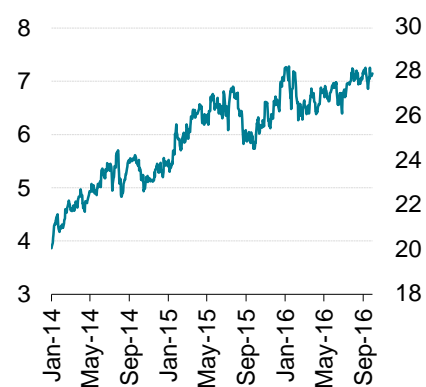
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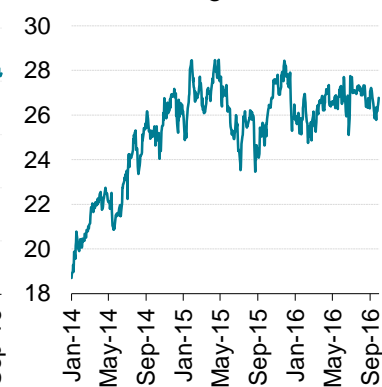
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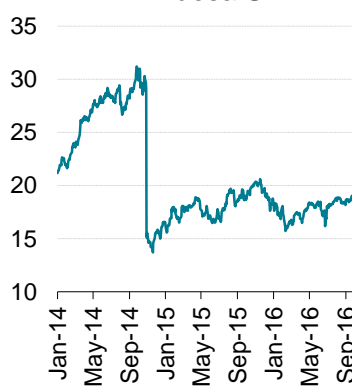
EDP Renováveis



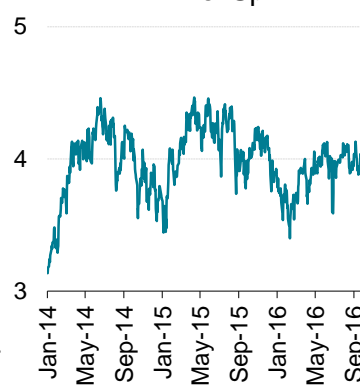
Enagás SA



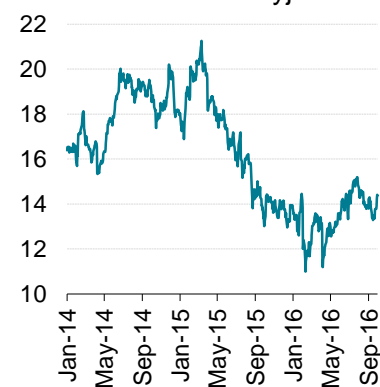
Endesa SA



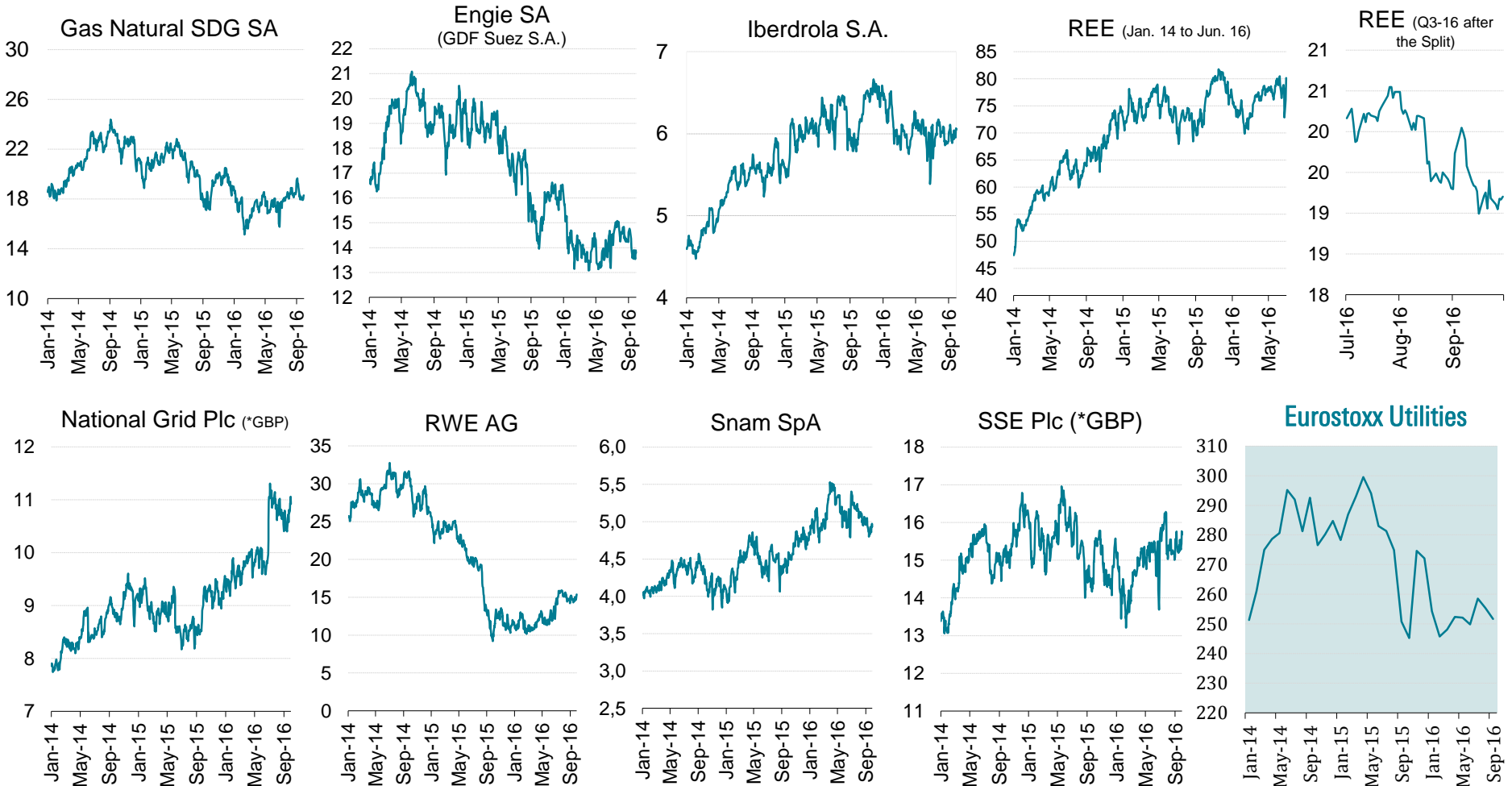
Enel SpA



Fortum Oyj



Share price evolution: individual stocks (2)



Source: Bloomberg; 2016

Relative valuation per company

	TEV (as of Sept 30) / EBITDA (LTM) ▼	TEV (EUR mill.) (as of Sept 30)	Market Capitalization (EUR mill.) (as of Sept 30)
National Grid plc	12,4	76.109,6	45.738,6
Enagás, S.A.	12,1	10.599,4	6.392,1
Snam S.p.A.	11,6	31.447,5	17.273,5
Red Eléctrica Corporación S A.	10,5	15.491,7	10.363,2
Fortum Oyj	10,4	12.085,7	12.774,7
EDP-Energias de Portugal, S.A	9,9	32.842,4	10.865,3
EDP Renováveis	9,8	11.305,2	6.233,5
SSE plc	9,7	25.651,6	17.615,6
Iberdrola, S.A.	9,6	68.538,4	37.842,6
Gas Natural SDG SA	8,1	38.163,6	18.307,6
Centrica plc	8,1	19.265,4	13.855,0
Endesa SA	7,6	23.691,0	20.201,0
Enel SpA	6,3	99.963,4	40.341,4
ENGIE SA (GDF SUEZ S.A.)	6,2	65.970,2	33.039,2
CEZ, a.s.	5,3	12.718,9	8.473,8
Electricite de France SA	4,7	68.640,4	21.778,4
RWE AG	4,2	21.445,1	9.292,1
E.ON SE	2,2	22.616,1	12.298,1
Weighted average: 6,9		656.545,6	342.685,7

Source: Capital IQ; 2016.

Leverage and credit ratings

	LTM Net Debt/ EBITDA	Rating S&P	Date	Rating Moody's	Date	Rating Fitch	Date
EDP-Energias de Portugal, S.A.	5,32	BB+	Jul 30-16	Baa3	Feb 13-16	BBB-	Mar 7-16
Snam S.p.A	5,23	BBB	Jul 31-16	Baa1	Jun 29-16	BBB+	Jun 29-16
Enagás S.A.	5,05	A-	Jul 31-16	Baa2	Feb 28-14	A-	Dec 23-16
National Grid plc	4,99	A-	Jun 08-16	Baa1	Dec 13-13	BBB	Mar 7-16
EDP Renováveis S.A.	3,99	-	Aug 01-16	-	-	-	-
Iberdrola	3,88	BBB+	Jul 26-16	Baa1	Apr 25-16	BBB+	Jul 8-16
Red Eléctrica Corporación S.A.	3,48	A-	Jul 30-16	-	-	A	May 27-16
SSE plc	3,33	A-	Jun 22-16	A3	Oct 3-16	BBB+	Aug 4-16
Gas Natural SDG, S.A.	3,30	BBB	Aug 03-16	Baa2	Feb 13-16	BBB+	Aug 2-16
Electricite de France SA	2,86	A-	Jul 30-16	A3	Sep 28-16	A-	Jun 7-16
ENGIE SA	2,67	A-	Jul 30-16	A2	Apr 27-16	-	-
Enel S.p.A	2,65	BBB	Aug 07-16	Baa2	Feb 13-16	BBB+	Jun 10-16
Centrica plc	2,37	BBB+	Jul 28-16	Baa1	May 13-16	A-	Aug 31-16
RWE AG	2,09	BBB-	Aug 12-16	Baa3	May 13-16	BBB	Mar 22-16
CEZ, a.s.	1,69	A-	Aug 12-16	Baa1	Apr 6-16	A-	Aug 8-16
Endesa S.A.	1,10	BBB	Oct 01-16	-	-	BBB+	Jun 10-16
E.ON SE	0,79	BBB+	Aug 11-16	(P) Baa1	May 13-16	BBB+	Sep 21-16
Fortum Oyj	-0,69	BBB+	Jul 20-16	Baa1	Feb 13-16	BBB+	Nov 17-15
Average: 3,01		Mode: A-		Baa1		BBB+	

Quarterly rating variation: Upgrade Unchanged Downgrade

Source: Capital IQ / S&P / Moody's / Fitch; 2016.

M&A Overview

- While the largest deals during Q2 2016 targeted US companies (6 companies in the top 10), during the Q3 there was a wider geographical diversification.
- Main transactions have included:
 - The acquisition of 50% of Southern Natural Gas Company, L.L.C. by Southern Company (€2604m)
 - The sale of 310 net sections of Deep basin oil & gas properties owned by Paramount Resources Ltd to Seven Generations Energy Ltd (€1470m)
 - The acquisition of 60% of Enel Green Power España S.L. by Endesa, S.A (€1207m)
 - The purchase of 50% of Gasoductos de Chihuahua, S. de R.L. de C.V. by Infraestructura Energetica Nova, S.A.B. de C.V (€1167m)
 - The acquisition of Williams Energy Canada ULC by Inter Pipeline Ltd (€925m)

Top-10 M&A operations in Q3 2016 by deal value ⁽¹⁾

Announced Date	Target Company	Target Description	Target Country	Bidder Company	Bidder Country	Seller Company	Deal Value EUR(m)
07/10/2016	Southern Natural Gas Company, L.L.C. (50% Stake)	US-based company engaged in the transportation and storage of natural gas	USA	Southern Company	USA	Kinder Morgan, Inc.	2604
07/06/2016	Paramount Resources Ltd. (310 net sections of Deep basin oil & gas properties)	Canada-based deep basin oil & gas properties of Paramount Resources Ltd.	Canada	Seven Generations Energy Ltd.	Canada	Paramount Resources Ltd.	1470
07/27/2016	Enel Green Power Espana S.L. (60% Stake)	Spain-based company engaged in the production of electricity generated by renewable sources	Spain	Endesa, S.A.	Spain	Enel S.p.A.	1207
07/31/2015	Gasoductos de Chihuahua, S. de R.L. de C.V. (50% Stake)	Mexico-based company engaged in the transportation and distribution of liquefied petroleum gas	Mexico	Infraestructura Energetica Nova, S.A.B. de C.V.	Mexico	Petróleos Mexicanos	1167
08/08/2016	Williams Energy Canada ULC	Canada-based company that gathers, produces, and processes natural gas and natural gas liquid	Canada	Inter Pipeline Ltd	Canada	Williams Companies, Inc.; Williams Partners L.P.	925

Source: Mergermarket; 2016.

4. M&A

Top-10 M&A operations in Q2 2016 by deal value ⁽¹⁾

Announced Date	Target Company	Target Description	Target Country	Bidder Company	Bidder Country	Seller Company	Deal Value EUR(m)
08/09/2016	California Valley Solar Ranch (51.05% Stake)	US-based 250 MW photovoltaic generating facility	USA	NRG Yield Operating LLC	USA	NRG Energy, Inc.	518
09/30/2015	Exxon Mobil Corporation (Torrance refinery and related logistics assets)	US-based refinery and related logistics assets of Exxon Mobil Corporation	USA	PBF Energy Inc.	USA	Exxon Mobil Corporation	478
08/11/2016	Tees Renewable Energy Plant	UK-based biomass fueled power station	United Kingdom	Macquarie Group Australia; PKA A/S	Denmark	MGT Teesside Limited	349
08/08/2016	Gasco GN (37.88% Stake)	Chile-based company engaged in the distribution of natural gas.	Chile	Gas Natural Fenosa	Spain	Perez Cruz family	312
08/19/2016	China Smarter Energy Group Holdings Ltd.	Hong Kong-based investment holding company engaged in share investment, Kong trading of fur garment and skins and businesses of mining natural resources and solar energy.	Hong Kong	Shanghai Gorgeous Investment Development Company Limited	China		307

Source: Mergermarket; 2016.

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