



European power and utilities report

KPMG Global Energy Institute

—

Q1 2020



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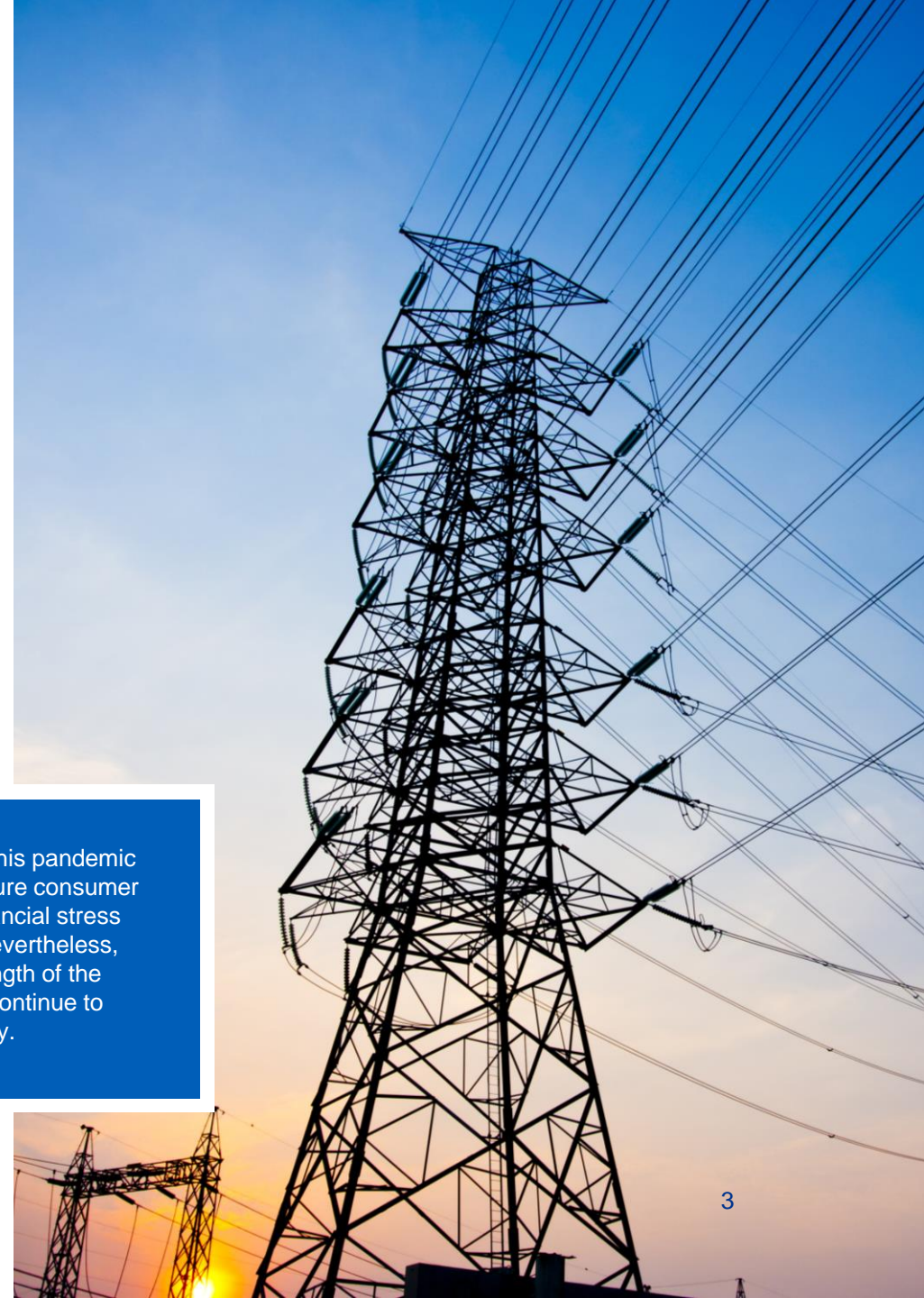
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Executive summary

European P&U players started the year consistent with 2019. Similar to a lot of other sectors, the unexpected disruptions due to the covid-19 pandemic had hit the P&U industry by the end of the first quarter.

- Initially and throughout most of the quarter, prices and margins were primarily driven by geopolitical reasons and/or weather-related demand, and in general characterised by an overall decline in Q1. The pandemic generated a sharp decline in energy prices across the whole spectrum towards the end of Q1 — there was a decrease in electricity demand combined with a demand shift from corporate to residential consumption because of many people working from home.
- While EU/non-EU measures on emissions reduction, promotion of renewable energy sources as well as specific support initiatives were still on-going, dedicated Covid-19 measures were increasingly being adopted.
- Eurostoxx Utilities Index reached a peak in February 2020, though gains in capital markets decelerated for some companies even before the outbreak of the pandemic; then, from February to April 2020 Eurostoxx Utilities Index fell by almost 25 percent.
- Credit ratings (available only before the effects of Covid-19 crisis were realized) of the key 25 players were stable with an average BBB+ rating (S&P) across the portfolio.
- M&A activity was primarily focused on power generation and renewable energy companies in support of external growth strategies (financial, geographical and operations considerations) with the top 15 deals representing EUR15 billion which is half of Q4 2019 top 15 deal values.

The medium to longer term impacts of this pandemic crisis will only become clearer when future consumer behaviour, government policies and financial stress on companies become more certain. Nevertheless, we remain confident on the overall strength of the European Power & Utilities industry to continue to demonstrate robustness and adaptability.



Price and margins overview

Electricity prices

Electricity prices in France, Spain, Germany and the UK continued to decline till the last week of March, as measures taken to curb the Covid-19 pandemic led to the shutdown of economic activities. The decline in French electricity consumption in mid-March was also because the country witnessed the warmest winter on record. The fall in the prices in Germany during the first week of February was also attributed to high wind and mild temperature forecasts. Prices in Germany, however, increased in the first week of March, driven by forecasts of a weak renewable energy generation.

Gas prices

The average prices of EU border, Henry Hub and NBP continued to decline during the quarter, primarily owing to the ongoing Covid-19 pandemic, the bearish rally of the oil contracts and expectations of a healthy supply in the future. The fall in prices at the start of February was influenced by the fall of the oil contracts, the weakness of the spot prices and a high level of stocks. However, the price rose during mid- February, because of a technical correction, as the previous fall was considered too speculative.

Carbon prices

Carbon prices sharply declined in March averaging around EUR19.98/t (in March 2020) driven by the lacklustre performance of the European energy sector amidst the Covid-19 pandemic. The decline was also triggered by the fact that some funds were forced to sell their allowances in order to avoid further losses. The prices were also influenced by rise in supply, after the arrival of additional UK volumes on the EU ETS market. The CO₂ prices rose in the end of February 2020, driven by bullish technical indicators.

Oil prices

The oil prices continued to decline in the quarter, driven by the economic effects of the Covid-19 pandemic and an expected rise of the Saudi oil production amid the price war. The average crude oil price fell to US\$49.1 per barrel during 1Q20, compared with US\$60.5 per barrel in 1Q19. Brent crude prices fell to US\$50.5 per barrel in 1Q20, down from US\$63.3 per barrel in 1Q19. Similarly WTI prices dropped from US\$54.9 per barrel in 1Q19 to US\$46.0 in 1Q20. The drop in the price of oil at the start of the quarter was driven by easing of geopolitical tensions between the US and Iran, and the decrease of the American oil stocks.

Coal prices

South African and Coal API 2 prices decreased continuously during the quarter to US\$67.89/T and US\$56.35/T in March, respectively, mainly driven by weak energy demand. The fall in ongoing oil and gas prices, along with the Covid-19 impact has led to the decline in coal prices as well. The fall in prices in February was due to drop in the Asian demand.

Dark/spark spreads

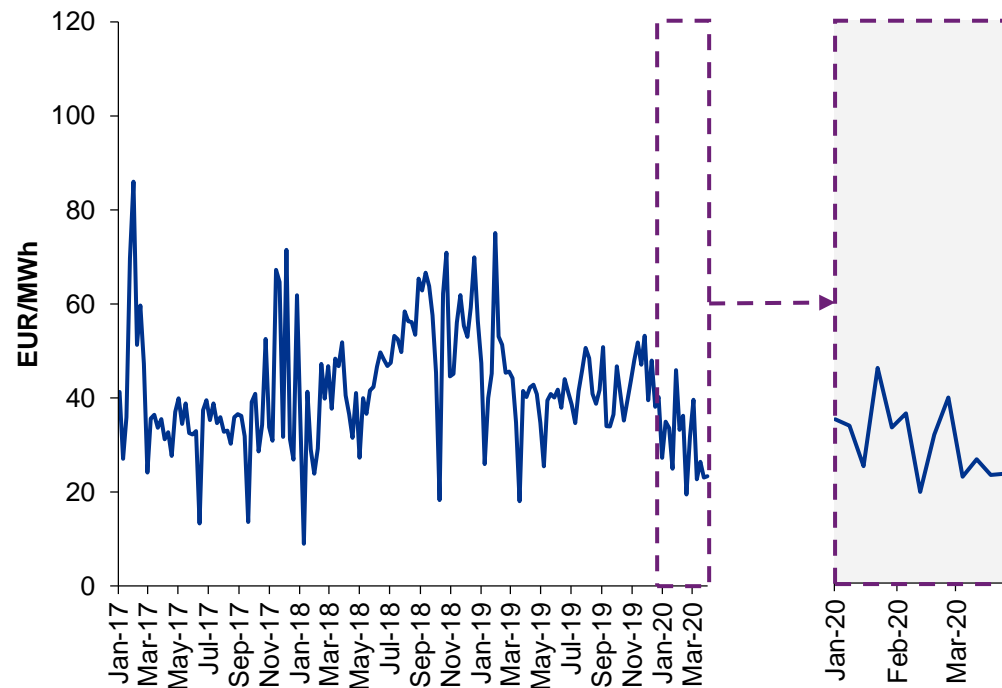
During the quarter, the Spark spread surpassed the Dark spread for majority of the period. In France, Clean Spark spreads have risen because of lower nuclear power plant availability during the period. In March, the country reported an average of EUR(1.36) per Megawatt hour (MWh) of Spark spread versus EUR(9.69) per MWh of Dark Spread. In Germany, the impact on Dark spread was more evident on less efficient plants. The country recorded an average of EUR(2.13) per MWh of Spark Spread compared with EUR(10.46) per MWh of Dark Spread in March.

Electricity price evolution

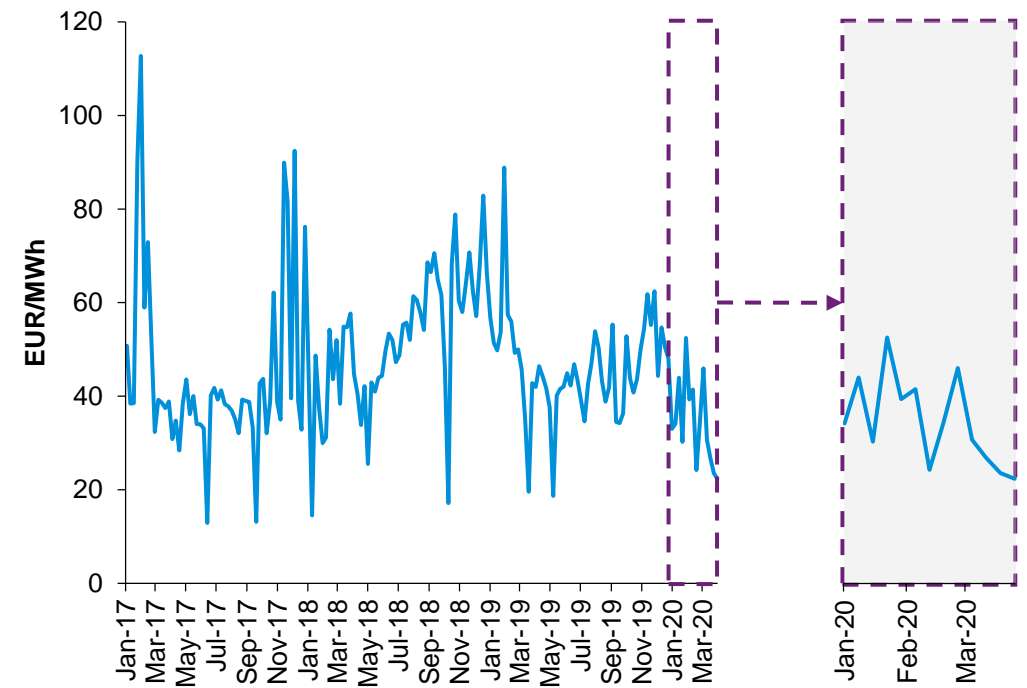


Germany

Base load



Peak load

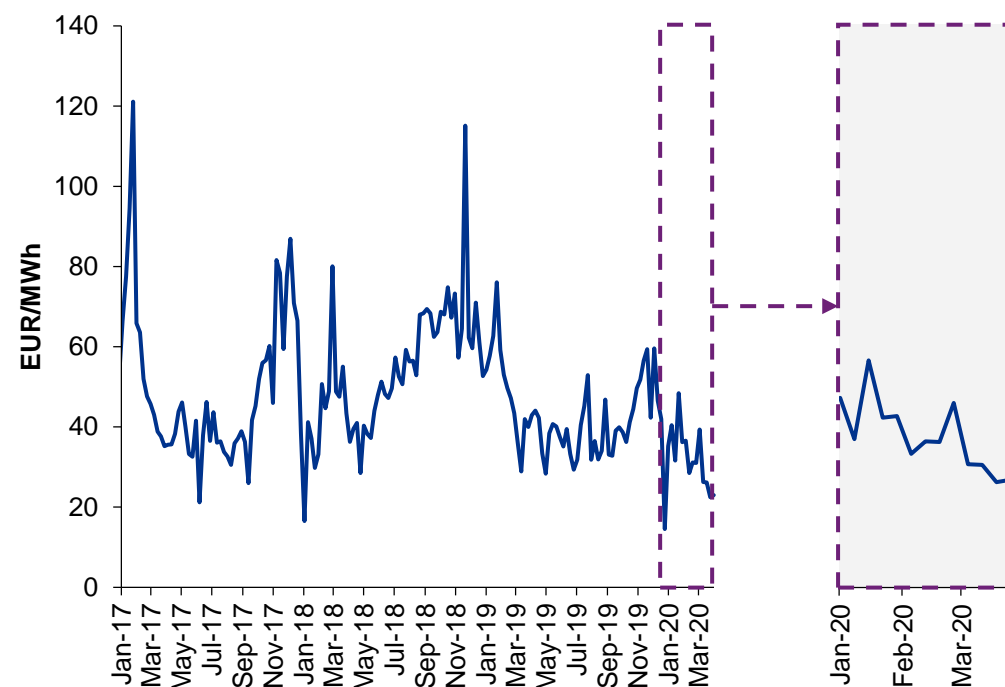


Source: Reuters, 2020.

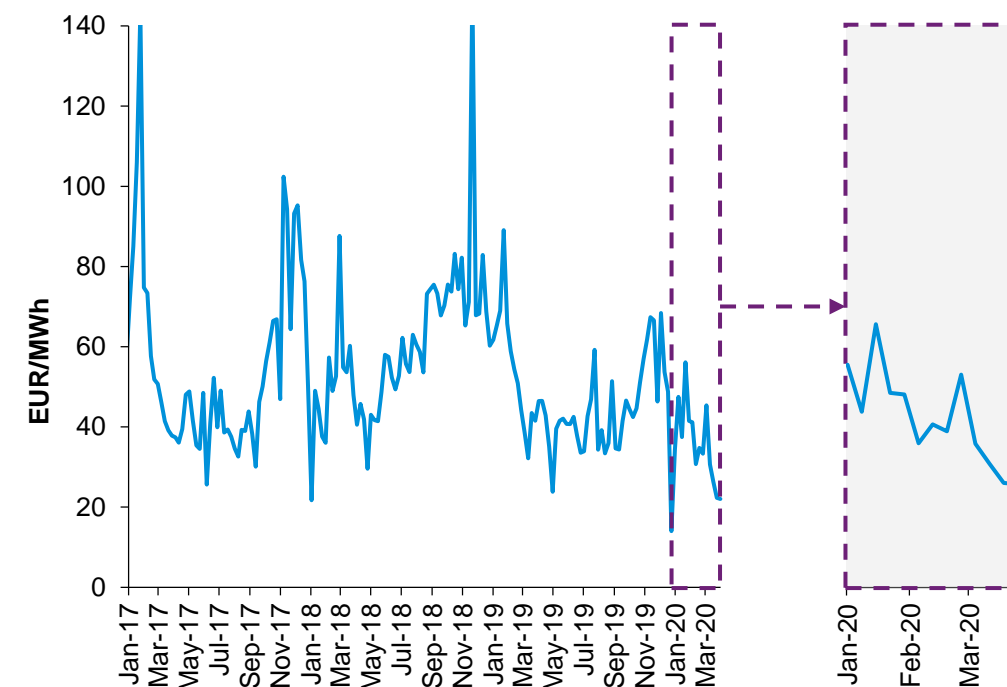
Electricity price evolution (cont.)



Base load



Peak load



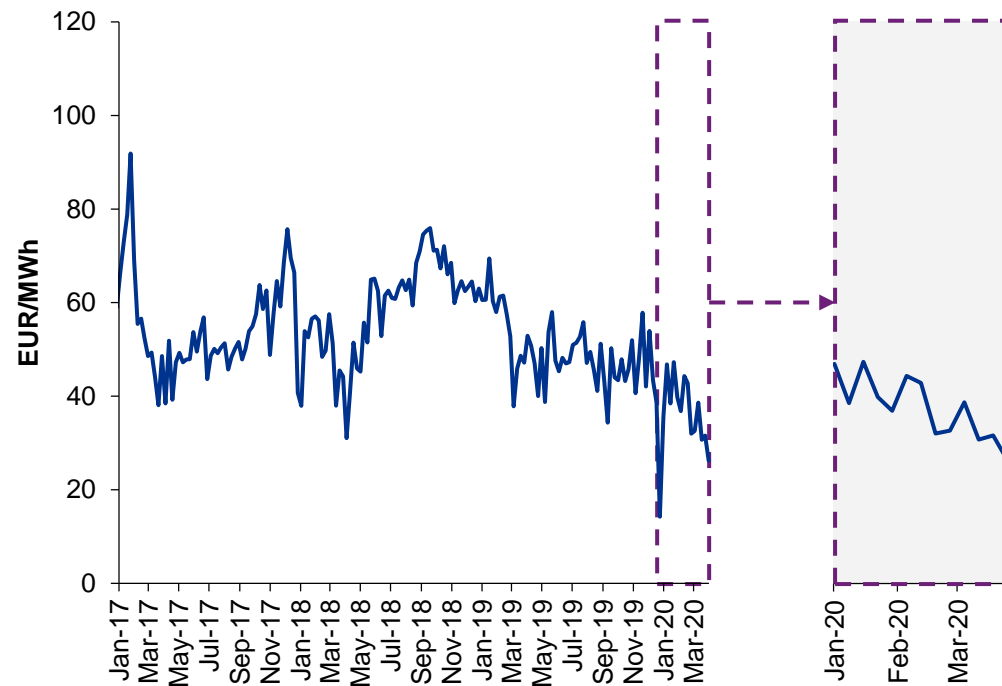
Source: Reuters, 2020.

Electricity price evolution (cont.)

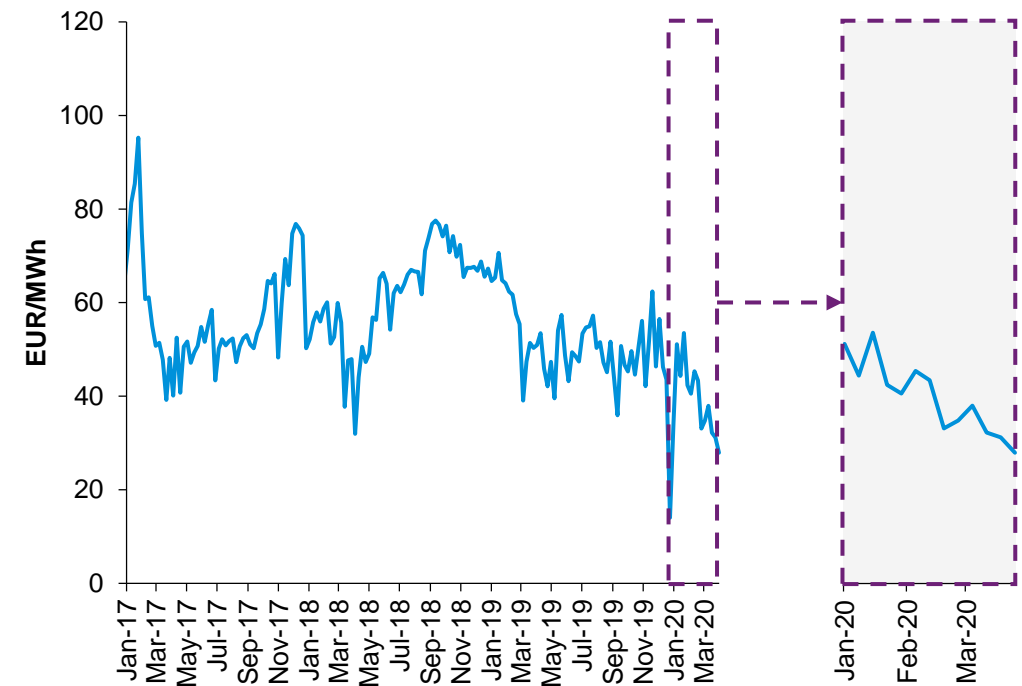


Spain

Base load



Peak load



Source: Reuters, 2020.



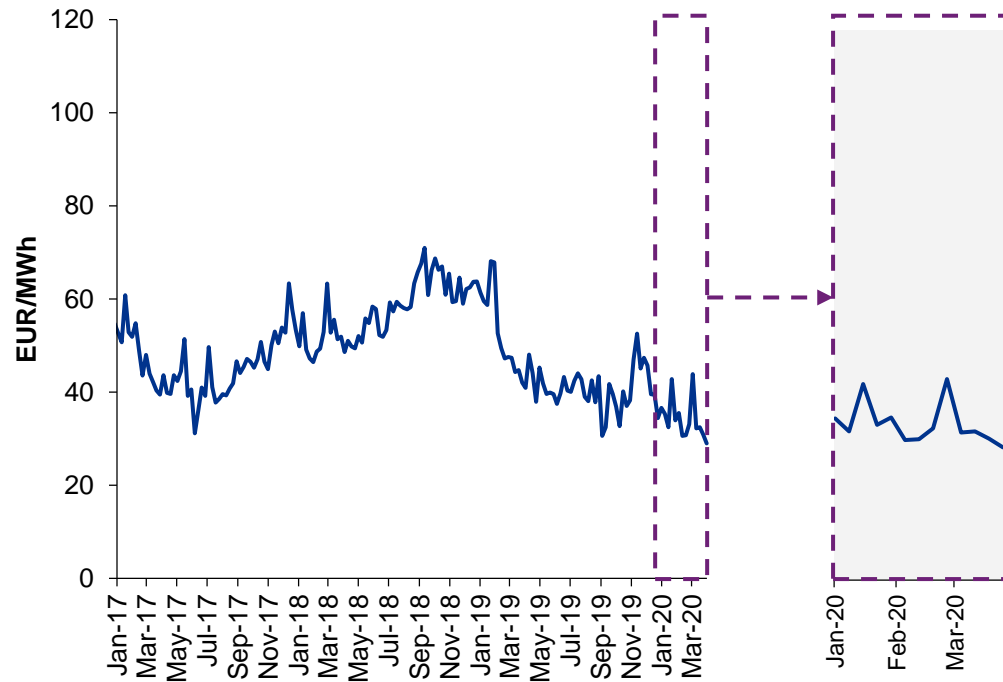
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Electricity price evolution (cont.)

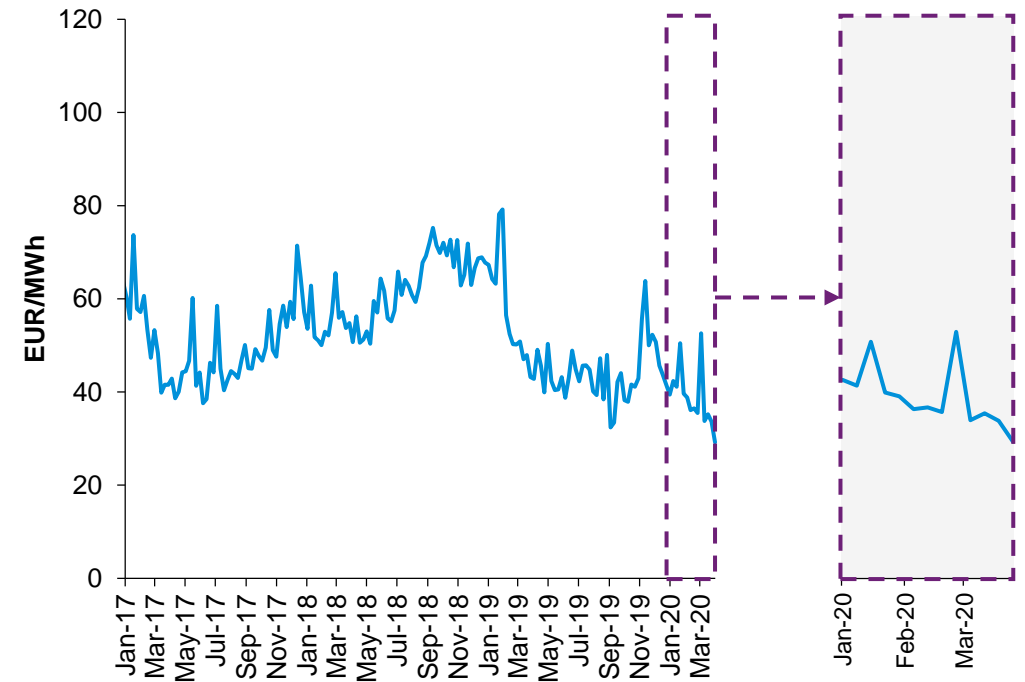


United Kingdom

Base load



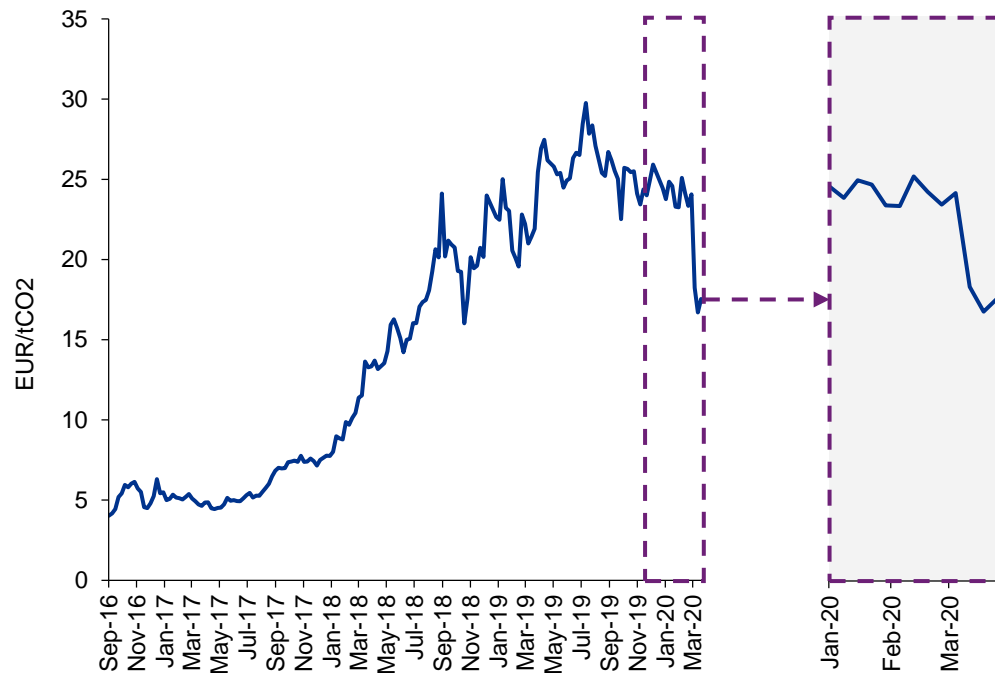
Peak load



Source: Reuters, 2020.

Coal and Carbon price evolution

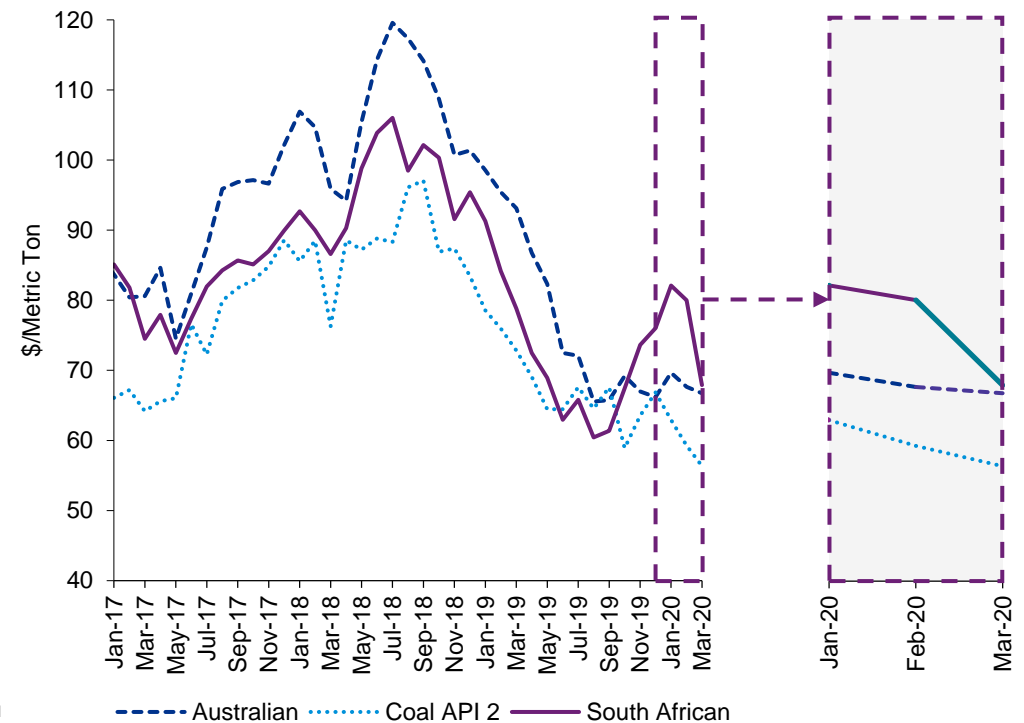
Carbon price — EU ETS



Note: (a) The World Bank has not published the Colombian coal prices since Q3 2018, — therefore the Colombian coal prices are not included in the report. Coal API 2 price assessment is the benchmark price reference for coal imported to northwest Europe (Rotterdam pricing).

Source: World Bank commodities price data (The Pink Sheet), 30 January 2020; Reuters, 2020.

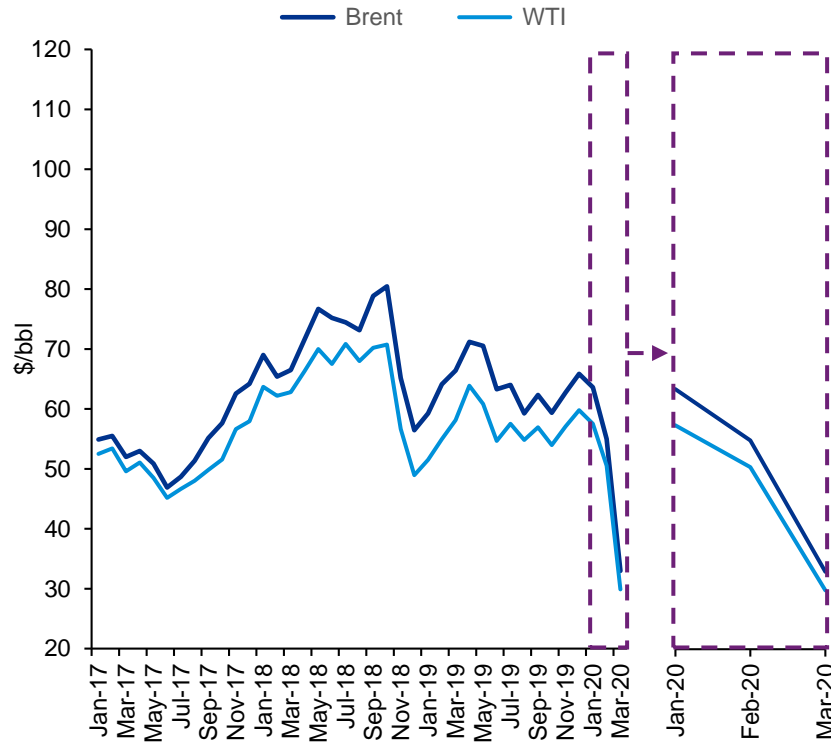
Coal(a)



--- Australian Coal API 2 — South African

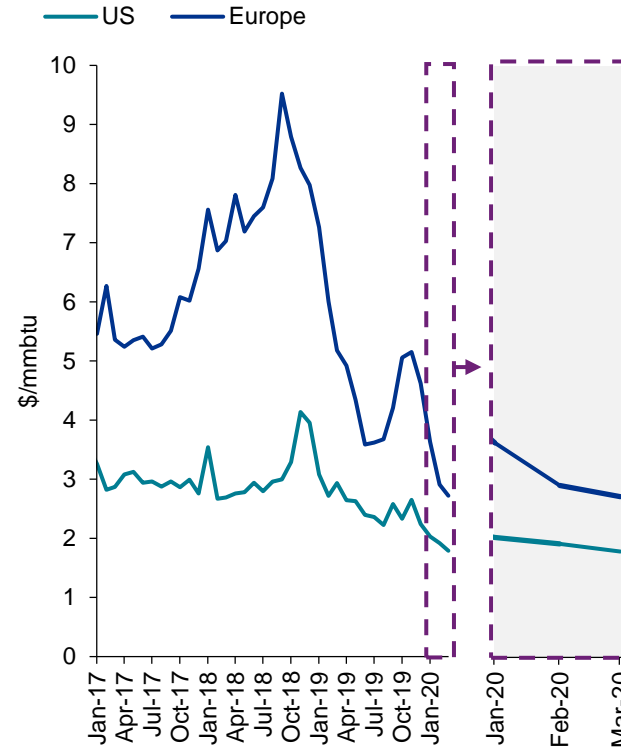
Fuel price evolution

Crude oil

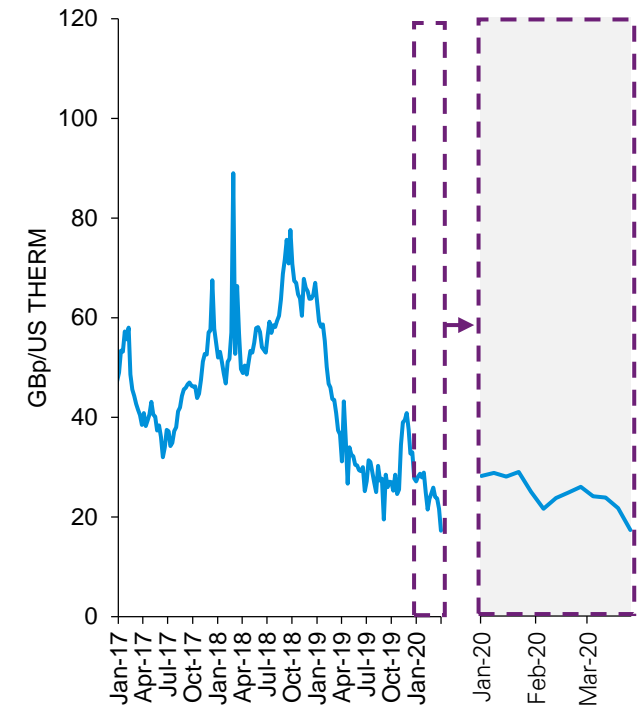


Gas prices

US (H.Hub) and EU (border)

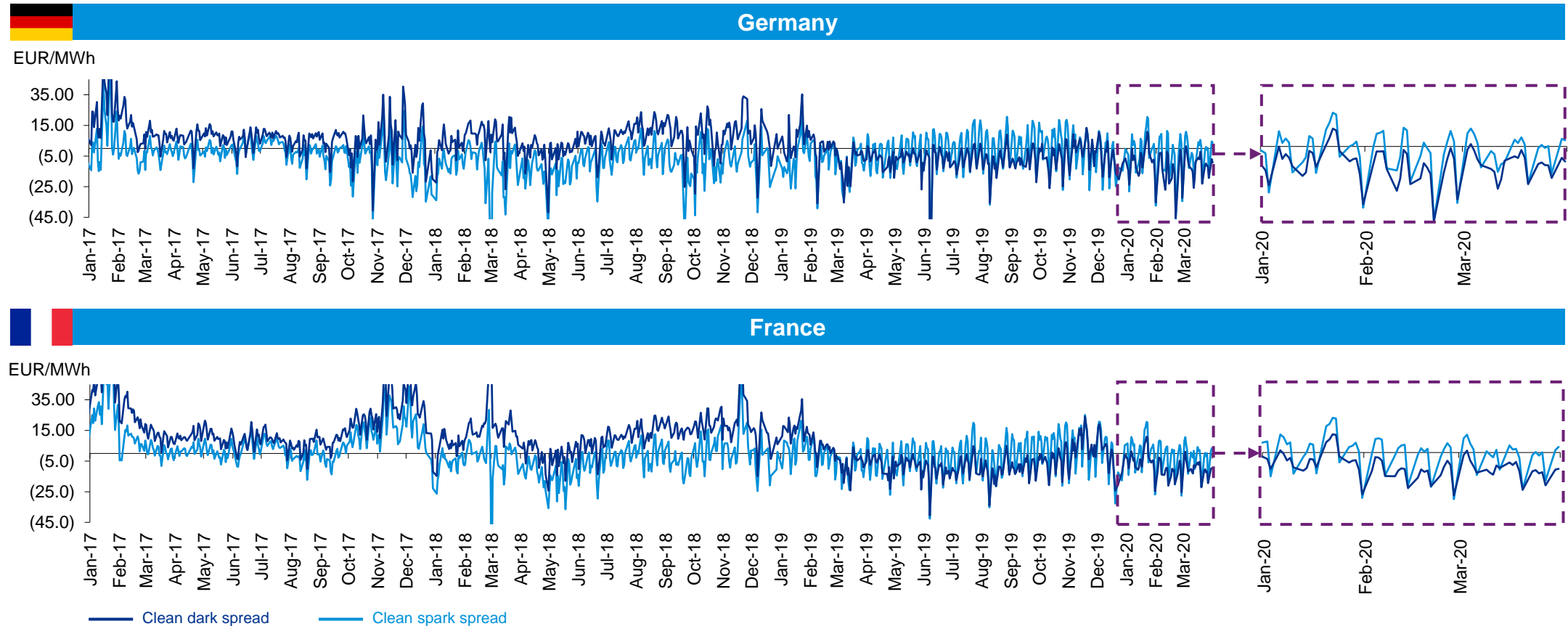


NBP



Note: (a) The World Bank has not published the Colombian coal prices since Q3 2018, — therefore the Colombian coal prices are not included in the report. Coal API 2 price assessment is the benchmark price reference for coal imported to northwest Europe (Rotterdam pricing).
Source: World Bank commodities price data (The Pink Sheet), 30 January 2020; Reuters, 2020.

Clean dark and spark spreads



Note: (a) The spark spread is used for estimating the profitability of a power plant. It is the difference between the input fuel costs and the market price of electricity. For electric power generation using natural gas as fuel, this difference is called the spark spread, while for coal based power plant, the difference is called the dark spread. The spark spread is calculated using daily spot prices of natural gas and electricity at various trading points. Clean spark and Clean dark spreads are calculated by subtracting the carbon price per tonne (accounting emissions intensity factor) from spark and dark spread.

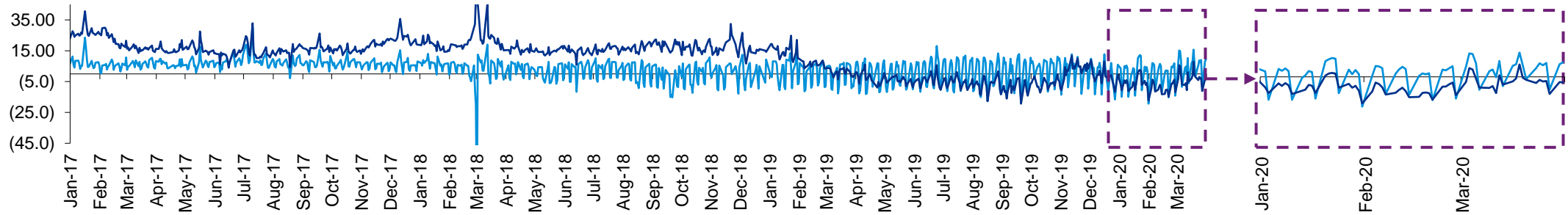
Source: Reuters, 2020.

Clean dark and spark spreads (cont.)



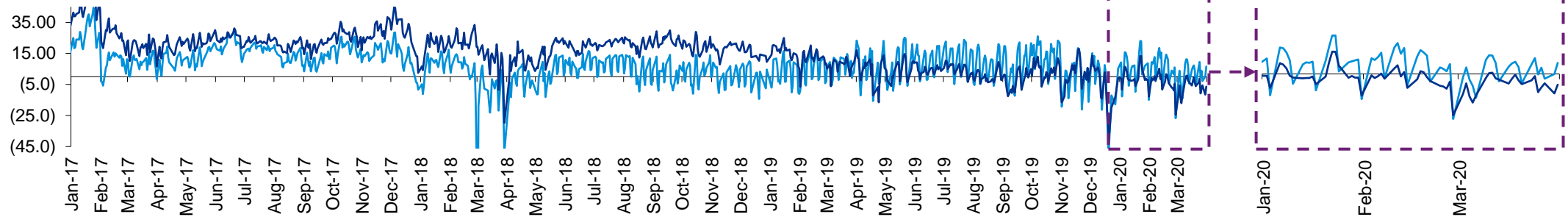
The UK

EUR/MWh



Spain

EUR/MWh



— Clean dark spread

— Clean spark spread

Note: (a) The spark spread is used for estimating the profitability of a power plant. It is the difference between the input fuel costs and the market price of electricity. For electric power generation using natural gas as fuel, this difference is called the spark spread, while for coal based power plant, the difference is called the dark spread. The spark spread is calculated using daily spot prices of natural gas and electricity at various trading points. Clean spark and Clean dark spreads are calculated by subtracting the carbon price per tonne (accounting emissions intensity factor) from spark and dark spread.

Source: Reuters, 2020.

Regulatory and economics news overview

European Union (EU)

The EU has been witnessing several initiatives taken by its member countries to reduce emissions and promote renewable energy sources. The initiatives include allocations within state budgets and setting up of new laws. Several countries have also taken measures to support the Power & Utilities sector and have brought in measures to bring in improvements within the sector.

UK

The UK is increasingly focusing on reduction in CO₂ emissions. The government budget included a number of important measures aimed at decarbonizing the energy system. The budget increased the Climate Change Levy (CCL) paid by businesses on gas while freezing the electricity rate. It further talked about cash injection into the Carbon Capture and Storage (CCS) in the form of a new CCS Infrastructure Fund.

The UK Chancellor also highlighted a number of policies in the budget to support the deployment of electric vehicles.

The UK Government has also launched a consultation on allowing a new type of petrol, which contains 10 percent bioethanol (E10) to be supplied at UK pumps.

Germany

Focusing on clean energy, the Federal Cabinet in Germany, passed a law to reduce and end coal-fired power generation in the country in a legally secure, economically sensible and socially balanced manner. The Cabinet approved the draft for the Building Energy Act (GEG), which will implement energy efficiency and climate protection measures in buildings in an economical, environment friendly and social ways.

The country has also started the rollout of Smart Meter, from 31 January 2020. This signifies the foundation of the digitalization of the energy market in the country and is expected to provide a safe basis for further developments.

Regulatory and economics news overview (cont.)

France

After the Covid-19 crisis started, the government, by means of ordinances, deferred the payments of utilities expenses for Power, Gas and Water companies, who are under financial stress.

In light of the Covid-19 pandemic, RTE, in collaboration with the public authorities and Power Exchanges (active within the French market), has defined an action plan for the proper functioning of the power system.

On 1 March 2020, ENGIE's regulated prices (excluding tax) fell by 4.6 percent on a m-o-m basis, primarily reflecting a 4.8 percent drop on tariffs for gas used for home heating. This is on account of the application of the tariff formula defined in the decree of 27 June 2019, relating to ENGIE's regulated natural gas tariffs.

As per the CRE (French Energy Regulatory Commission) deliberation dated 23 January 2020, the tariffs for the usage of natural gas transport, storage and distribution infrastructures were updated for a four year period.

Denmark

The Danish utility regulator is analyzing a new financial regulation for the Power & Utility sector, which would ensure cost-effective green transition.

The Danish Energy Agency has issued the Offshore Construction Permit to the TSO Energinet to construct the Baltic Pipe gas transmission pipeline in Denmark. The permit was dependent on offshore permits in Poland and Sweden, which have also been granted.

In line with its green agenda, the Danish Energy Agency, as part of the upcoming Climate Law, is expected to issue orders, requiring the use of biomass for sustainable power production.

The research-focused Climate Counsel and the political/industrial Climate Partnerships have issued their reports on initiatives recommended to reach the goal of reducing CO₂ emissions in Denmark by 70 percent by 2030 and further reach neutrality by 2050.

Netherlands

The Dutch government plans to hold its next zero-subsidy offshore wind tender in April 2020 for about 700MW Hollandse Kust North 'wind farm site 5', despite the outbreak of the coronavirus.

The government has decided to double subsidies for Renewable Energy to EUR4 billion from a previously planned EUR2 billion.

As part of the government program for the optimal use of state land for the construction of renewable energy facilities, the Netherlands water management agency Rijkswaterstaat, under the Ministry of Infrastructure and Water Management custody, is considering installing solar panels along a 40 kilometers (25 miles) stretch of the A37 motorway in the northeastern province of Drenthe.

The government has announced that it will fully fund the coaching of trainers in Taiwan by the Netherlands Organisation for Applied Scientific Research (TNO), the Wind Energy Institute at the Delft University of Technology and Water Research Institute Deltares to cultivate local talent for Taiwan's offshore wind energy development.

The Dutch government has stated that the gas production at the Groningen field in the northern Netherlands can be lowered to 10BCM by 2020 and there will be no need for production from Groningen field during an average year by the summer of 2022.

Regulatory and economics news overview (cont.)

Portugal

Following the proposals submitted by grid operators, the Portuguese Energy Services Regulator (ERSE) approved the directives for consumption, production and self-consumption and for loss profiles, to be applied in 2020.

The ERSE approved a regulation establishing extraordinary measures for the energy sector in Portugal, because of the impact of Covid-19. These measures aim to ensure the regular functioning of the energy services as essential public services for consumers.

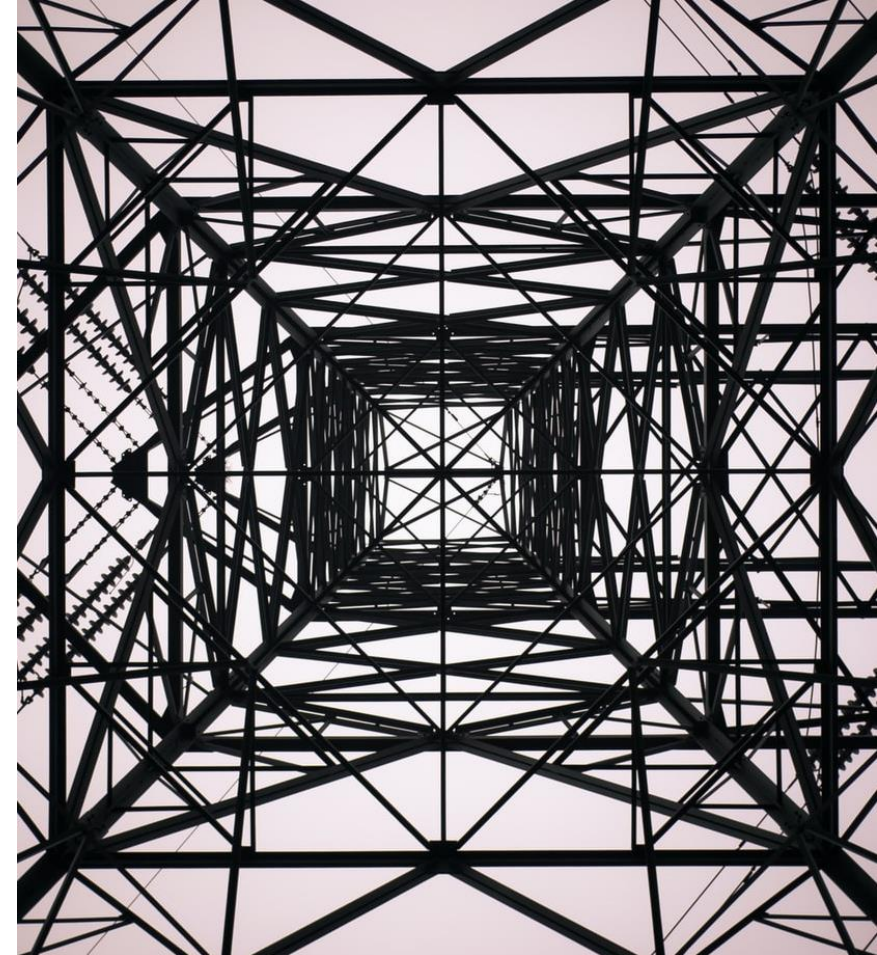
In the scope of the new self-consumption regime, the ERSE approved the regulation for self-consumption of electric energy as well as the network access tariffs for self-consumption, to be applied in 2020.

The ERSE has defined the procedures to be implemented by the Portuguese market agents, in order to ensure operationalization of the new competitive equilibrium regime for the wholesale electric energy market.

Italy

With the conversion of the decree n. 162 of 30 December 2019 'Milleproroghe', into law, several measures including, postponement of the full liberalization of the Italian retail energy market from 1 July 2020 to 1 January 2022 and establishment of the legal framework for energy communities came into force.

The Ministry for Economic Development (MiSE) has published the definitive text for the Integrated National Energy and Climate Plan, which sets the national targets for 2030 on energy efficiency, renewable sources and the reduction of CO₂ emissions.



Regulatory and economics news overview (cont.)

Russia and CIS

Russia: The State Duma has passed the draft law on the provisions of concession agreements in respect to electric power facilities, to attain the goal of reducing risks of concessionaires and raise additional investment to the power supply sector.

Russia: In the green energy space, the Russian Ministry of Energy published its version of draft amendments to the Federal law FZ-35 on the Electric Power Industry, required to launch the system of green certificates. The Ministry of Industry and Trade has also decided to supplement the 'green' bond program, when the state compensates companies for a part of their expenses to implement clean technology with 'green' loans.

Kazakhstan: The country is focusing to boost the Renewable Energy sector. As part of this, the Government of Kazakhstan is allowing auction winners, in the Renewable power generation domain, to enter into an agreement for purchasing electric power with the 'Settlement and Financial Center for Support of Renewable Sources', for the term of 15 years. The Development Bank of Kazakhstan (DBK), also seeks to extend its project-related data portfolio and is keen to co-finance the creation of green capacities in the energy system of Kazakhstan.

Belarus: The Ministry of Energy of the Republic of Belarus has approved the Concept of Development of Power Generation Capacities and Power Grids until 2030. It is aimed at implementing the provisions of the Concept of Energy Security of Belarus and describes the basic scenario for development of the United Energy System of the country.

Ukraine: EU4Energy, a regionally focused program aimed at improving the quality of energy data, shaping regional policy-making discussions and strengthening legislative and regulatory frameworks, has launched a project to provide technical aid to Ukraine in implementing Regulation (EU) No. 347/2013, for developing the energy infrastructure.

Ukraine: To promote Renewable Energy, the Ukrainian State Agency on Energy Efficiency and Energy Saving, together with the Ministry of Energy and Environmental Protection, are developing legislative changes to exempt biomass energy producers from the CO2 tax.

Armenia: The country is expected to present the Energy sector development Strategy until 2040 (according to Deputy Minister of Territorial Administration and Infrastructure, H.Vardanyan). This information was announced during the discussions on the security of energy supply of EAEU member states and on the issues of creating a single electricity market.

Uzbekistan: The Ministry of Energy of Uzbekistan, jointly with EBRD, is drafting a new version of the law on Power and Utilities, based on international best practices. In addition, the Ministry of Energy along with the ADB and the World Bank have started developing a model of the competitive electric power market.

In the Renewable Energy domain, the Ministry of Energy of Uzbekistan has published the list of investors who have officially confirmed their interest in building a 200MW solar PV plant in Sherabad district of Surkhandarya region.

Azerbaijan: The draft law on 'Efficient Use of Energy Resources and Energy Efficiency' has been prepared by the country, as part the EU4Energy program with the organizational support of the Ministry of Energy and the International Energy Charter.

The CIS: A roadmap for the digital transformation of the power sector is expected to be drafted in the CIS. In late February, a meeting of the expert group was held to prepare a draft framework for the digital transformation of the fuel and energy sector for CIS member states and a plan of priority measures to implement it.

Links to new regulation



UK



News

Net Zero carbon emissions will be one of the six guarantees delivered by Boris Johnson's Government

[Link I](#)

The UK government budget did contain a number of important measures aimed at decarbonizing the energy system. However, it is believed that much of the work remains to be done if the UK is to have a coherent and credible plan on how to reach its legally-binding targets on Net Zero in time for the COP26 Climate Change Conference in Glasgow in November 2020. As the Climate Change Committee (CCC) pointed out, the UK is not currently on track to hit its 4th and 5th carbon budgets (which were set to achieve an 80 percent reduction in emissions by 2050), let alone getting to Net Zero.

Budget 2020: Carbon pricing

[Link II](#)

The budget increased the Climate Change Levy (CCL) paid by businesses on gas while freezing the electricity rate from 2022. The rate payable on gas will increase by 22.1 percent in 2022 and 18.3 percent in 2023, implying that the gas rate reaches 60 percent of the electricity rate in 2021 to 2022. The Carbon Price Support (CPS) will remain at GBP18/tonnes in 2021-22. The Government gave no indication of the level of future carbon pricing beyond these short-term measures. They also depend on the outcome of the Brexit negotiations. The Government has previously indicated that its preferred approach post-Brexit is to create a UK Emissions Trading Scheme, linked to the EU Emissions Trading Scheme, starting in 2021.

Budget 2020: Carbon capture and storage given GBP800 million boost

[Link III](#)

The budget mentioned that Carbon Capture and Storage (CCS) is to receive an injection of cash in the form of a new CCS Infrastructure Fund of GBP800 million designed to establish CCS clusters in at least two UK sites – one by the mid-2020s and another by 2030. In 2015, the Coalition Government allocated GBP1 billion to CCS and even that amount was insufficient to get two projects developed. It seems likely that the Spending Review will have to increase the allocation to meet the government stated aim for UK to lead the way on CCS.

Budget 2020: Low-carbon heat

[Link IV](#)

The UK's Chancellor announced a new support scheme for biomethane deployment funded by a new "Green Gas Levy" to increase the proportion of green gas in the grid. This levy will be applied on the consumer energy bills, and will start to close the price differential between electricity and gas, but will be relatively small, only adding about GBP5 to average bills in 2025. The Budget also included a new "Low Carbon Heat Support Scheme", a possible scheme to follow on from the Renewable Heat Incentive (RHI) from April 2022, to help households and small businesses invest in heat pumps and biomass boilers, backed by GBP100 million of government funding.

Links to new regulation (cont.)



UK



News

Budget 2020: Transport

[Link V](#)

The UK Chancellor highlighted a number of policies in the budget to support the deployment of electric vehicles:

- **Fast charging network:** Allocation of GBP500 million to establish a fast-charging network so that drivers will never be more than 30 miles from a rapid charging station
- **Plug-in grant scheme:** Allocation of GBP129.5 million to extend the scheme for ultra-low emission vehicles to 2022–23
- **Zero emissions vehicles:** Extending capital allowances and exemption from vehicle excise duty (VED) from 1 April 2020 for zero-emission cars. The government is also consulting on how VED can be used to support the take-up of zero and ultra-low emission vehicles and reduce overall emissions from road vehicles

The Chancellor decided not to increase fuel duty, continuing the freeze in rates that has been in place since 2010, despite the recent sharp fall in the oil price. However, he did make changes on red diesel, announcing plans to abolish the tax rebate for red diesel from 1 April 2022 for most of the sectors as it funds pollution, except for agriculture industry.

Budget 2020: Improving air quality

[Link VI](#)

In the battle to reduce greenhouse gas emissions, the UK Government has launched a consultation on allowing a new type of petrol, which contains 10 percent bioethanol (E10) to be supplied at UK pumps. E10 is already widely used in Europe, but won't be suitable for some older vehicles. This will help reduce emissions, and introducing E10 would equate taking 350,000 cars off the road, according to the Department for Transport. The Budget also included GBP304 million of extra funding for local authorities aimed at reducing local air quality issues, particularly nitrogen dioxide.

Capacity Market T-3 results

[Link VII](#)

The T-3 Capacity Market (CM) procured 45GW at a record low price (for T-3/T-4) of GBP6.44/kW translating into a gross cost of GBP290 million for consumers. The results reiterated the level of over-capacity in the GB energy market going into the 2020s. The auction results, with oversupply of capacity, imply that the challenge for GB security of supply is no longer capacity but potentially flexibility, resilience and system stability.

Links to new regulation (cont.)



Germany



News

Klimaschutzgesetz (KSG) comes into force

[Link I](#)

The Federal Cabinet passed the law on reducing and ending coal-fired power generation in Germany in a legally secure, economically sensible and socially balanced manner. The ultimate goal is to enable Germany's transition to a greenhouse gas neutral country. Therefore, the draft not only contains regulations for the reduction and termination of hard coal and lignite striation but also compensation schemes for consumers and companies to ease the impact of this drastic change within the economy.

Start of the Smart Meter Rollout

[Link II](#)

After the third Smart Meter was certified by the Federal Office for Information Security (BSI) on 19 December 2019, the rollout was declared on the 31 January 2020. The start of the rollout means that, within a defined time frame, the old analogue meters will be exchanged with modern or intelligent ones. The application of those new technologies is the foundation of the digitalization of the energy market in Germany and is foreseen to provide a safe basis for further developments.

Amendment of the Gebäudeenergiegesetz (GEG)

[Link III](#)

The Federal Cabinet approved the draft for the Building Energy Act (GEG). The GEG implements energy efficiency and climate protection in buildings in an economic, environmentally friendly and social ways. The amendment's central concern is to reduce bureaucracy and simplify it. The regulations for building energy efficiency and the use of heat from renewable energies, separate at present, will be merged and standardized. Application and enforcement will be considerably simplified. The introduction of an alternative equivalent verification procedure for new residential buildings will considerably reduce bureaucracy for building owners and planners. With this "model building procedure", the requirements can be verified without the need of calculations for verification.

Links to new regulation (cont.)



France



News

Measures in favor of suppliers in the context of the health crisis

[Link I](#)

Post the Covid-19 crisis, the government, by means of ordinances, deferred the payments of utilities expenses (power, gas and water) for companies under financial stress.

The French Energy Regulatory Commission (ERC), by its deliberation n°2020-071 dated 26 March 2020, notified that the power network operators (Enedis, and five metropolitan operators – Gérédis, GreenAlp, SER, SRD and URM), the gas network operators (GRDF, Régaz and R-GDS) and the gas transportation network operators (GRTgaz and Téréga) will be granting the same deferred payment conditions to the alternative power suppliers for their transportation and distribution services.

Moreover, deferred payments will be granted by the EdF to alternative power suppliers for the ARENH volumes. Also, the CP2 penalty related to ARENH volumes will be suspended for the whole year 2020.

The ERC will consider small and fragile electricity suppliers, having been notified after the ARENH's November 2019 deliberation, with ARENH volume strictly less than 125MW and producing a statement detailing the threat toward the sustainability of their activities due to the current health crisis.

Covid-19 – Business Continuity Plan for the electricity markets

[Link II](#)

[Link III](#)

In light of the Covid-19 pandemic, RTE, in collaboration with the public authorities and Power Exchanges (active within the French market) has defined an action plan to preserve the normal operations of the market mechanisms, necessary for the proper functioning of the power system.

- Under this, the D-1 processes (preparation of the following day) will be prioritized. RTE has also asked all the market players to setup their respective business continuity plans to respond to the demands of these processes in order to ensure the integrity and functioning of the market mechanisms.
- In case of a high level of absence, RTE will put in place a degraded mode, reducing the Intraday processes in order to preserve and maintain the staff needed to continue the operation of the D-1 processes.

Links to new regulation (cont.)



France



News

ENGIE – Monthly evolution of ENGIE's regulated gas sales tariffs

[Link IV](#)

On 1 March 2020, ENGIE's regulated prices (excluding tax) fell by 4.6 percent on a m-o-m basis, primarily reflecting a 4.8 percent drop on tariffs for gas used for home heating. This is because of the application of the tariff formula defined in the decree of 27 June 2019, relating to ENGIE's regulated natural gas tariffs.

Overall, the regulated gas sales tariffs have fallen by 18.6 percent since 1 January 2019.

Covid-19 – Business Continuity Plan for the electricity markets

[Link V](#)

As per the CRE (French Energy Regulatory Commission) deliberation dated 23 January 2020, the following tariffs were updated for a four year period:

- The new ATRT7 tariff is applicable to the natural gas transport network of GRTgaz and Teréga, starting 1 April 2020. Thus, the expected average change in tariff per year is about +1.4 percent for GTRgaz and +0.7 percent for Téréga.
- The ATS2 tariff will apply, for the same period of time, to the underground storage infrastructures of Storengy, Teréga and Géométhane.
- The GRDF's ATRD6 tariff, which will be applied from 1 July 2020, will witness an average tariff change of (0.4) percent. For the entire period, the average tariff change is expected to be (0.3) percent per year.

Links to new regulation (cont.)



Denmark



News

[Link I](#)

Inspiration: The Danish utility regulator (Forsyningstilsynet) is concluding an analysis for a new financial regulation of the Power & Utility sector to ensure cost-effective green transition.

[Link II](#)

The Danish Energy Agency has issued the Offshore Construction Permit to the national gas-TSO, Energinet, to construct the Baltic Pipe gas transmission pipeline in Denmark. The permit was dependent on offshore permits in Poland and Sweden, which have also been granted.

[Link III](#)

The Danish Energy Agency is expected to issue orders, requiring the use of biomass for sustainable power production. This will be part of the upcoming Climate Law, which is being prepared as a follow-up to the 2019 parliamentary elections, focused toward the green agenda.

[Link IV](#)

[Link V](#)

The research-focused Climate Counsel and the political/industrial Climate Partnerships have issued their reports on initiatives recommended to reach the goal of reducing CO2 emissions in Denmark by 70 percent by 2030 and further reach neutrality by 2050. These reports are important inputs to the road maps that the government will now prepare.

Links to new regulation (cont.)



Netherlands



News

[Link I](#)

The Dutch government planned its next zero-subsidy offshore wind tender in April 2020 for about 700MW Hollandse Kust North 'wind farm site 5', despite the outbreak of the coronavirus. According to the Netherlands Enterprise Agency (RVO), it was cleared that they do not foresee impact of the Covid-19 crisis for the submission of proposals for the Hollandse Kust permit at the moment.

[Link II](#)

Based on the good relationship between the Netherlands and Taiwan, the Dutch government announced that it will fully fund the training of trainers in Taiwan by the Netherlands Organisation for Applied Scientific Research (TNO), the Wind Energy Institute at the Delft University of Technology, and Water Research Institute Deltares to cultivate local talent for Taiwan's offshore wind energy development.

[Link III](#)

The Dutch government decided to double subsidies for renewable energy to EUR4 billion from a previously planned EUR2 billion. The Netherlands' Minister for Economic Affairs and Climate Policy, Eric Wiebes, announced that the decision was aimed at reducing CO2 emissions by 25 percent by the end of 2020, meeting the country's obligations under the Kyoto protocol.

[Link IV](#)

In a statement, the Dutch government mentioned that the gas production at the Groningen field in the northern Netherlands can be lowered to below the 11.8 billion cubic meters (BCM) initially targeted in 2020. It further added that a further reduction is possible in 2020 from the expected 11.8BCM to 10BCM and by the summer of 2022 there will be no need for production from Groningen field during an average year.

[Link V](#)

As part of the government program for the optimal use of state land for the construction of renewable energy facilities, the Netherlands water management agency Rijkswaterstaat, under the Ministry of Infrastructure and Water Management custody, is considering installing solar panels along a 40 kilometer (25 miles) stretch of the A37 motorway in the northeastern province of Drenthe

Links to new regulation (cont.)



Portugal



News

[Link I](#)

[Link II](#)

The Portuguese Energy Services Regulator (ERSE), following the proposals submitted by grid operators, approved the directives for consumption, production and self-consumption and for loss profiles, to be applied in 2020.

[Link III](#)

The ERSE approved a regulation establishing extraordinary measures for the energy sector in Portugal, following the crisis due to the Covid-19 virus. These measures aim to ensure regular functioning of the energy services as essential public services for consumers.

[Link IV](#)

[Link V](#)

In the scope of the new self-consumption regime, approved by the Portuguese Government in 4Q19, the ERSE approved the regulation for self-consumption of electric energy as well as the network access tariffs for self-consumption to be applied in 2020.

[Link VI](#)

Following the changes to the competitive equilibrium regime for the wholesale electric energy market in 2H19 (regulation aimed at achieving market equilibrium between the Iberian market agents), the ERSE defined the procedures to be implemented by the Portuguese market agents, in order to ensure operationalization of the new regime.

Links to new regulation (cont.)



Italy



News

[Link I](#)

With the Decree n. 8 of 28 February 2020, the Italian Government has converted the decree n. 162 of 30 December 2019 'Milleproroghe', into law. The law, among several measures, included:

- Postponement of the full liberalization of the Italian retail energy market from 1 July 2020 to 1 January 2022, due to the low switching rate of small consumers toward the open market so far. In response to these measures, ARERA has expressed concerns that the provision is not compatible with the EU Directive 2019/944, which allows the Member states to continue the price protection regime exclusively for domestic and micro-business customers. Furthermore, the provision does not provide for any gradual transition to the new market structure (Art. 12-3).
- Establishment of the legal framework for energy communities, in accordance with the European guidelines, by promoting collective auto consumption through government incentives (Art. 42-bis).

[Link II](#)

The Ministry for Economic Development (MiSE) has published the definitive text for the Integrated National Energy and Climate Plan, which sets the national targets for 2030 on energy efficiency, renewable sources and the reduction of CO2 emissions. The text also sets the objectives in terms of energy security, interconnections, single market of energy and competitiveness, development and sustainable mobility, including the measures that will be implemented to ensure their progress.

Links to new regulation (cont.)



Russia & the CIS



News

Russia

[Link I](#)

The Russian State Duma passed the draft law on the provisions of concession agreements in respect of electric power facilities. The document was drafted pursuant to the action plan of improving laws and eliminating administrative barriers in order to implement the 'Energinet' (National Technology Initiative). The draft law consists of the provisions regarding the gross revenue obtained by the concessionaire, including for each year of the effective term, as per the material terms and conditions of concession agreements. The draft law extends the effective laws on the property of the state or on the municipal unitary enterprises belonging to them, based on the right of economic management. It also extends to the property of state-owned budgetary enterprises, assigned on the right of operational management. The passing of the law will contribute to the goal of reducing risks of concessionaires and raising additional investment to the Power Supply sector, on account of establishing legal guarantees of predictability and invariability of regulatory conditions for the concessionaire, throughout the term of the concession agreement.

Russia

[Link II](#)

The Russian Ministry of Energy published its version of draft amendments to the Federal law FZ-35 on the Electric Power Industry required to launch the system of green certificates. It is fundamentally different from the version of the Russian Ministry of Economic Development submitted in November 2019. Qualifying certificates as 'low-carbon', the Russian Ministry of Energy proposed to apply them not only to traditional renewable energy sources, but also to big hydroelectric and nuclear power plants. According to the Russian Ministry of Energy, one of the versions will be selected: either low-carbon certificates (with the involvement of nuclear plants) or green certificates (only renewable energy sources).

Russia

[Link III](#)

The Ministry of Industry and Trade has decided to supplement the 'green' bond program, when the state compensates companies for a part of their expenses to implement clean technologies with 'green' loans. Under the green bond program, the state reimburses companies for 70–90 percent of their coupon interest payments, if they invest the borrowed money in waste and industrial emission reduction projects. The subsidy is granted for bond issues not exceeding RUB30 billion and the amount of the subsidy depends on whether the purchased equipment is manufactured in Russia or abroad. An amount of RUB27 billion was provided for coupon interest payments on green bonds in the budget for 2019–24.

Links to new regulation (cont.)



Russia & the CIS



News

Russia

[Link IV](#)

Rosatom is looking for new ways to enter the European market of decommissioning nuclear facilities. On 26 February 2020, TVEL signed a memorandum, with Spain-based state-owned ENUSA and ENSA, as well as with global IDOM, to enhance cooperation in the area of decommissioning and de-installing nuclear and radiation hazardous facilities. In addition, the parties will develop technologies for disposing of radioactive waste and for the related engineering and advisory services. The plan also includes decommissioning of research reactors, soil clean-up and rehabilitation of areas, including uranium mines and projects in adjacent sectors.

Russia

[Link V](#)

Russia's largest PV cell and module manufacturer, Hevel Group, commissioned a 10MW solar plant backed by an 8MW battery storage system in the southern Ural region, Bashkortostan. The solar-plus-storage facility will be operated as stand-alone PV system connected to the grid. This is the first utility-scale solar-plus-storage project in Russia that provides up to 80 percent of energy consumption in one municipality, improving power supply quality to households, hospitals and schools.

Kazakhstan

[Link VI](#)

The Government of Kazakhstan is taking certain steps to improve the investment climate in the national electric power sector. As part of this, auction winners, who select renewable power projects are entitled to enter into an agreement for purchasing electric power with the 'Settlement and Financial Center for Support of Renewable Sources', for the term of 15 years, from the time of commissioning of a renewable power facility at the auction price with annual tariff indexing, after a year of its operation. Additionally, it implies a top-priority dispatching of renewable power facilities and also an exemption from payments to electric grid companies. Renewable power projects are qualified as investment projects with preferences, such as the exemption from customs duties, VAT on imports and government grants in kind.

Links to new regulation (cont.)



Russia & the CIS



News

Kazakhstan

[Link VII](#)

The Development Bank of Kazakhstan (DBK), being one of the leaders in supporting renewable energy projects, seeks to extend its project-related data portfolio and is keen to co-finance the creation of green capacities in the energy system of Kazakhstan. According to DBK's project financing model for renewable energy projects, an investor provides lending to the projects on the condition that the primary source of repaying borrowed cash is through the flows from the proceeds of the project. As of now, DBK has already implemented four renewable power projects: Astana Expo-2017 wind power plant, a solar power plant in Almaty region, Zhylga solar power plant and Turgusun-1 HPP.

Belarus

[Link VIII](#)

The Order of the Ministry of Energy of the Republic of Belarus No. 7 dated 25 February 2020 has approved the Concept of Development of Power Generation Capacities and Power Grids until 2030. The document is aimed at implementing the provisions of the Concept of Energy Security of Belarus and describes the basic scenario for development of the United Energy System of the country. This year, the Ministry of Energy of Belarus, in order to attain the objectives of the Concept, will develop a medium-term program for 2021–25, to identify electric power-related measures taking into account the conditions and parameters of the national economy development.

Ukraine

[Link IX](#)

EU4Energy has launched the project of providing technical aid to Ukraine in implementing Regulation (EU) No. 347/2013 for developing the energy infrastructure. Following the analysis of the current Ukrainian statutory base performed by experts of the Energy Community Secretariat, the relevant draft law was expected to be drawn up under the auspices of EU4Energy by late April 2020.

Links to new regulation (cont.)



Russia & the CIS



News

Ukraine

[Link X](#)

The State Agency on Energy Efficiency and Energy Saving, together with the Ministry of Energy and Environmental Protection of Ukraine, are developing legislative changes that will exempt biomass energy producers from the CO2 tax. This measure is a part of the general CO2 reform model that levies CO2 tax from producers and importers of fossil energy resources having a negative effect on the environment. This measure will become an additional driver for development, in the bioenergy industry, and is in line with the intentions of the Ukrainian government — to increase the share of renewable energy sources to 70 percent by 2050, under the draft 'green energy transition' concept — and also with the European Green Deal.

Armenia

[Link XI](#)

Armenia will soon present the Energy sector development Strategy until 2040, as per the Deputy Minister of Territorial Administration and Infrastructure, H.Vardanyan. This information was announced during the discussions on the security of energy supply of EAEU member states and on the issues of creating a single electricity market.

Uzbekistan

[Link XII](#)

Uzbekistan is drafting a new version of the law on 'Power and Utilities', based on international best practices. This new law is being drafted by the Ministry of Energy of Uzbekistan jointly with the EBRD. The work is being done by highly qualified experts from the UK, Georgia, Austria, Bulgaria and Italy, as well as from within the Uzbekistan. The new law is expected to be introduced to the Cabinet of Ministers of Uzbekistan in late May 2020. In addition, the Ministry of Energy jointly with the ADB and the World Bank have started to develop a model of the competitive electric power market, whose transition is scheduled for 2023. A framework of the model of the electric power market and of the transition to market relations was supposed to be laid before the Cabinet of Ministers by March 2020. Another stage of the reform is the implementation of the Grid Code, which the Ministry of Energy started to draft, jointly with the World Bank. The drafting is contributed by international experts from Serbia and the UK. The integration of the Grid Code will facilitate standardizing and specifying the functions, rights and duties of power companies and electric power consumers.

Links to new regulation (cont.)



Russia & the CIS



News

Uzbekistan

[Link XIII](#)

The Ministry of Energy of Uzbekistan has published the list of investors who have officially confirmed their interest in building a 200MW solar PV plant in Sherabad district of Surkhandarya region. The list of 54 companies and consortiums contains entities such as Masdar, EDP, Engie, Ib Vogt, JinkoSolar, Lightsource BP, Scatec Solar and Total. The project is also expected to involve the construction of a new 220KW substation and a 52 Kilometer power transmission line to be connected to the 220KW Surkhan substation. The Ministry of Energy of Uzbekistan has declared a tender for selecting investors for the two photoelectronic (solar) plants to be built in Samarkand and Dzhizak regions.

Azerbaijan

[Link XIV](#)

The draft law on the 'Efficient Use of Energy Resources and Energy Efficiency' has been prepared as part of the EU4Energy program, with the organizational support from the Ministry of Energy and the International Energy Charter.

The next step in this direction is the submission of the draft of the First National Action Plan for Energy Efficiency for 2021–25 to the working group. Later on, during budget discussions, opinions and proposals concerning the project will be studied.

The CIS

[Link XV](#)

A roadmap for the digital transformation of the power sector is expected to be drafted in the CIS. In late February, a meeting of the expert group was held to prepare a draft framework for the digital transformation of the fuel and energy sector for CIS member states and a plan of priority measures to implement it. The documents allow streamlining the existing experience of CIS states related to the nationwide integration of digital technologies, securing the generation of a unified vision, as well as primary requirements and criteria to subsequently align such technologies in a single digital environment. The CIS executive committee expects to draw up an action plan and roadmap for digitizing the fuel and energy sector. The plan will then be submitted to the governments to all CIS member states for consideration and execution.

Capital markets overview

Eurostoxx utilities

The Eurostoxx Utilities index reached a peak of 391.4 in February 2020, a cumulative 30 percent gain y-o-y, but declined by nearly 25 percent from February to April 2020.

Best performance

Public Joint Stock Company, Elia Group SA, Electricité de France S.A., EDP, SSE Plc, Ørsted A/S, E.ON SE, RWE AG, Iberdrola SA, Enel SpA and Veolia Environnement S.A. registered the best performance (more than 5 percent share price increase quarter on quarter) in 1Q20. During this period, 15 of the top 25 European players experienced positive price evolution. In April 2020, 18 out of the top 25 companies experienced decline in share prices.

Valuation levels

Valuation levels in the sector averaged at 8.3 EV/EBITDA in 1Q20, 1.3 percent above the previous quarter (9.5 EV/EBITDA in 4Q19). Wide differences persist in EBITDA multiples, with EV/EBITDA (as of 31 March 2020):

- Above 12 for Ørsted A/S, E.ON SE, National Grid plc, Elia Group SA/NV and Snam S.p.A,
- Below 7 for CEZ as, Veolia Environnement S.A., Engie SA, EDF SA and Uniper SE

Net debt ratios

Net debt ratios for 1Q20 averaged at 3.6x EBITDA, 7.7 percent below the figure registered in 4Q19 (3.9x EBITDA)

Credit ratings

The credit ratings of companies that were upgraded by S&P were National Grid plc, Iberdrola, S.A, Red Eléctrica Corporación, S.A., CEZ, a. s. and VERBUND AG. While Moody's upgraded the credit ratings of ENGIE SA and VERBUND AG, and Fitch upgraded the same for ENGIE SA.

Share price evolution: Overview (1Q20)

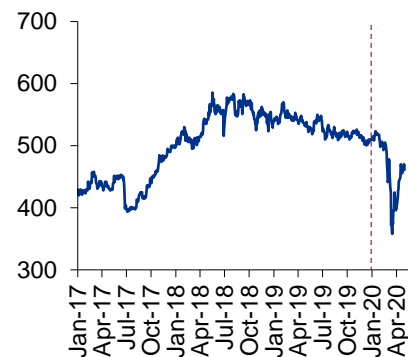
Company ^(a)	Jan 2019	Feb 2019	Mar 2019	Apr 2019	May 2019	Jun 2019	Jul 2019	Aug 2019	Sep 2019	Oct 2019	Nov 2019	Dec 2019	Jan 2020	Feb 2020	Mar 2020	Apr 2020	Last month Apr 2020/ Mar 2020	Last year Apr 2020/ Apr 2019
EnBW Baden-Württemberg AG	32.25	31.84	29.93	32.02	33.43	32.17	30.94	34.09	36.76	38.00	44.37	53.89	48.18	47.53	41.98	49.51	17.93%	54.62%
Elia Group SA	60.82	64.18	62.74	60.18	61.71	64.48	68.00	72.64	74.56	76.64	75.95	77.58	82.92	93.88	86.21	96.31	11.72%	60.04%
CEZ as ((b)CZK)	545.10	555.40	544.90	538.70	527.90	524.40	521.70	518.20	519.30	517.40	516.80	505.80	514.60	493.20	413.20	445.70	7.87%	-17.26%
VERBUND AG	41.85	43.09	42.77	44.02	45.37	46.36	48.44	53.48	52.10	48.51	45.88	45.84	45.87	47.15	36.20	38.05	5.09%	-13.57%
Ørsted A/S	59.95	64.24	67.56	67.92	70.07	75.39	82.21	87.12	86.51	83.01	80.86	87.20	93.17	98.21	87.30	91.29	4.57%	34.42%
Public Joint stock company	3.90	3.87	3.84	3.80	3.96	4.48	4.59	4.20	4.52	4.41	4.50	4.74	5.79	6.02	4.85	5.07	4.47%	33.57%
Innogy SE	40.71	40.77	40.68	41.40	40.34	41.48	42.91	43.77	44.99	44.59	44.63	44.35	44.03	43.52	43.26	43.35	0.21%	4.70%
Endesa SA	20.84	21.84	22.61	22.32	22.49	23.37	22.83	23.11	23.64	23.72	24.14	24.51	24.08	25.00	19.38	19.37	-0.08%	-13.26%
Fortum Oyj	19.32	19.83	19.55	18.73	18.98	19.23	20.35	20.42	21.09	21.42	21.38	21.65	22.21	21.62	15.06	14.93	-0.85%	-20.26%
Terna-Rete Elettrica Nazionale	5.28	5.35	5.51	5.49	5.55	5.75	5.71	5.54	5.72	5.80	5.87	5.75	6.13	6.47	5.58	5.52	-1.08%	0.62%
EDP – Energias de Portugal, S.A.	3.08	3.22	3.34	3.45	3.27	3.39	3.37	3.35	3.50	3.59	3.69	3.75	4.08	4.64	3.75	3.71	-1.17%	7.53%
EDP Renováveis	7.88	8.03	8.53	8.67	8.70	9.06	9.15	9.52	9.96	9.81	10.13	10.15	10.86	12.46	10.76	10.63	-1.18%	22.65%
National Grid plc ((b)GBP)	7.96	8.47	8.71	8.31	8.21	8.25	8.45	8.50	8.51	10.20	10.46	10.87	11.47	12.28	10.47	10.34	-1.22%	24.47%
Red Eléctrica Corporación, S.A.	19.69	19.55	19.13	18.56	19.15	19.33	17.69	17.64	18.26	18.14	17.53	17.74	17.80	18.58	15.70	15.48	-1.40%	-16.59%
Snam SpA	4.09	4.18	4.45	4.54	4.56	4.66	4.56	4.48	4.54	4.56	4.58	4.49	4.81	4.95	4.02	3.92	-2.45%	-13.67%
RWE Aktiengesellschaft	20.34	21.92	22.50	23.35	22.65	22.59	23.47	25.41	27.17	27.52	26.59	26.31	29.77	32.84	25.75	24.70	-4.07%	5.80%
Iberdrola SA	7.02	7.27	7.64	7.87	8.18	8.82	8.63	9.06	9.35	9.23	8.93	9.02	9.38	10.65	9.34	8.95	-4.15%	13.68%
Uniper SE	24.26	25.84	26.44	27.09	25.78	26.28	27.73	27.36	29.46	28.32	28.67	29.55	29.29	29.07	24.47	23.23	-5.05%	-14.23%
Enel SpA	5.19	5.22	5.52	5.61	5.63	6.00	6.35	6.26	6.64	6.81	6.87	6.89	7.55	8.15	6.52	6.17	-5.38%	10.04%
E.ON SE	9.17	9.65	9.76	9.85	9.40	9.77	9.51	8.48	8.79	8.88	9.07	9.39	9.97	10.94	9.37	8.77	-6.35%	-10.95%
Naturgy Energy Group, S.A	23.13	23.95	24.50	25.10	26.16	25.38	23.10	23.57	23.76	23.91	23.84	22.81	22.90	23.49	17.38	15.60	-10.24%	-37.84%
SSE Plc ((b)GBP)	11.25	11.88	12.11	11.46	10.81	11.13	11.40	11.06	11.95	12.81	12.99	13.86	14.73	16.19	13.48	12.03	-10.73%	5.01%
Veolia Environnement S.A.	18.02	19.08	19.84	20.72	20.61	21.28	22.54	21.80	22.32	22.95	23.00	23.40	25.35	27.58	21.11	18.83	-10.80%	-9.12%
ENGIE SA (GDF Suez S.A.)	13.48	13.97	13.31	13.31	13.04	13.13	13.87	13.50	14.06	14.87	14.36	14.52	15.17	15.93	11.76	9.36	-20.38%	-29.65%
Electricité de France S.A.	13.95	13.94	12.53	12.42	12.39	11.88	11.10	10.62	10.62	9.45	9.23	9.65	10.64	12.45	9.20	7.19	-21.86%	-42.07%
Eurostoxx Utilities	293.21	301.70	307.82	311.86	312.01	323.89	326.39	325.68	338.54	341.40	339.39	341.77	362.01	391.35	315.66	296.42	-6.10%	-4.95%

Note: Includes list of 25 European top companies per capitalization, February 2020, plus Russia's public joint stock company plus Elia Group SA.

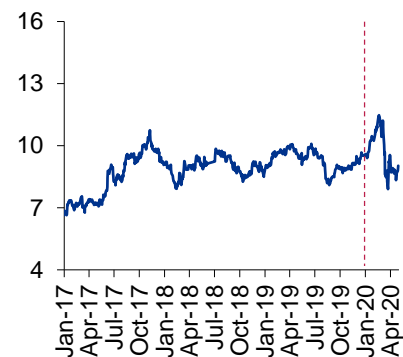
Source: S&P Capital IQ, 2020

Share price evolution: Individual stocks

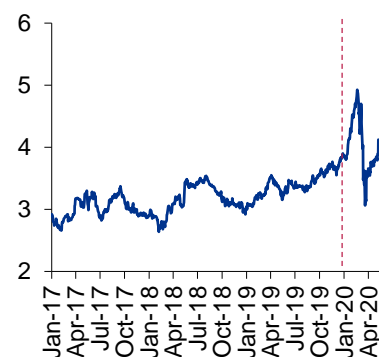
CEZ a.s ^(a)CZK



E.ON



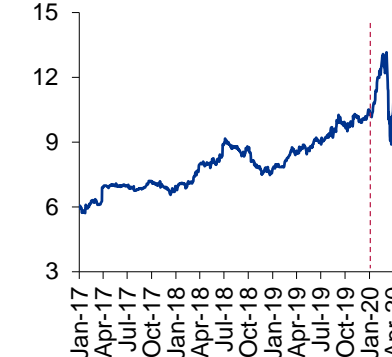
EDP



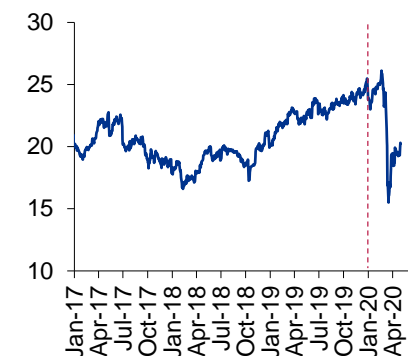
EDF



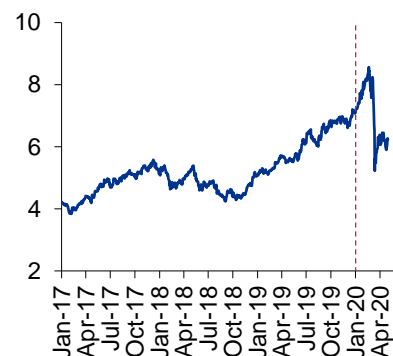
EDP Renováveis



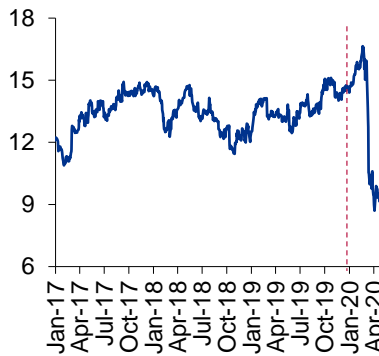
Endesa S.A.



Enel SpA



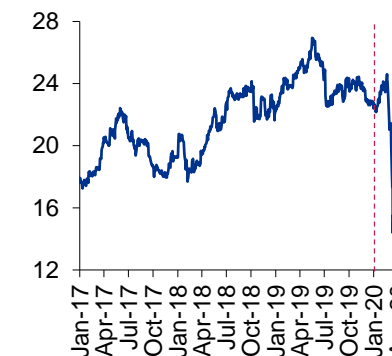
Engie S.A.



Fortum Oyj



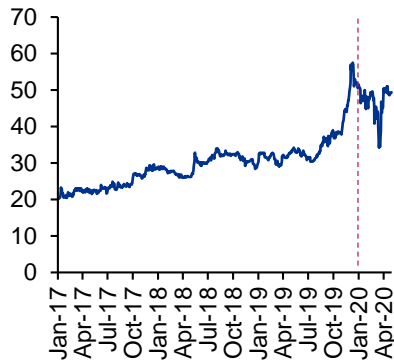
Naturgy Energy Group, S.A



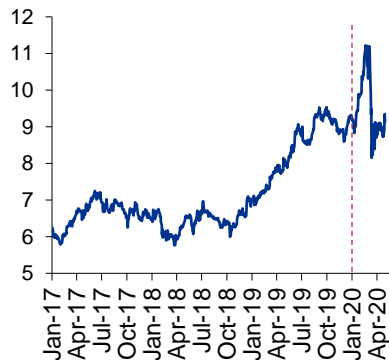
Source: S&P Capital IQ, 2020

Share price evolution: Individual stocks (cont.)

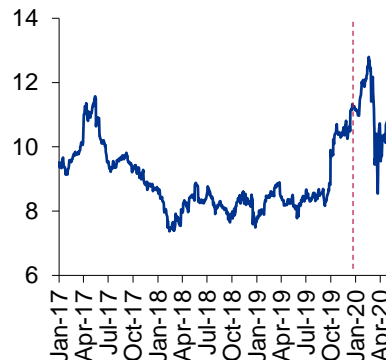
EnBW Energie Baden-Württemberg AG



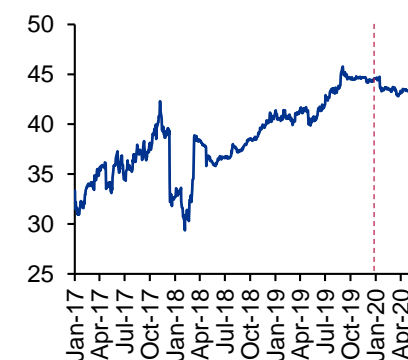
Iberdrola S.A.



National Grid Plc



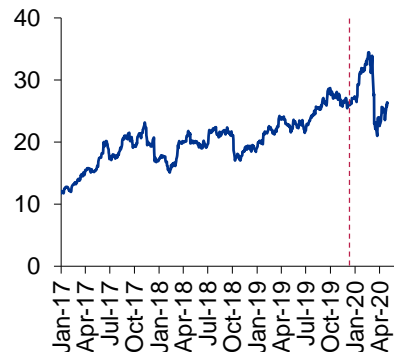
Innogy SE



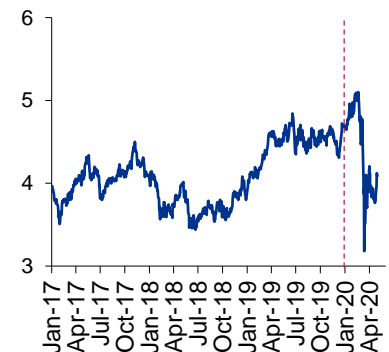
REE (after the split)



RWE AG



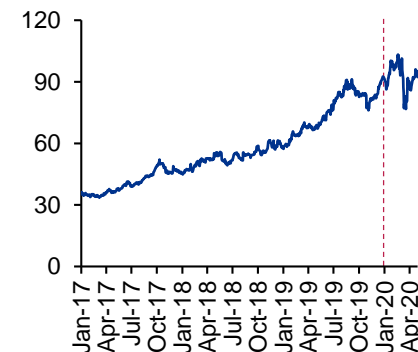
Snam SpA



SSE Plc ^(a)GBP



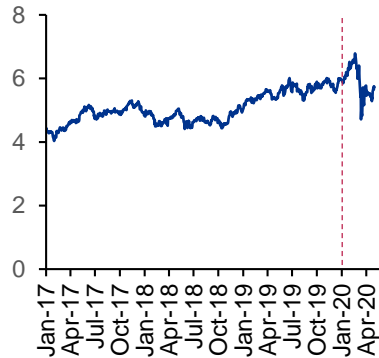
Ørsted A S



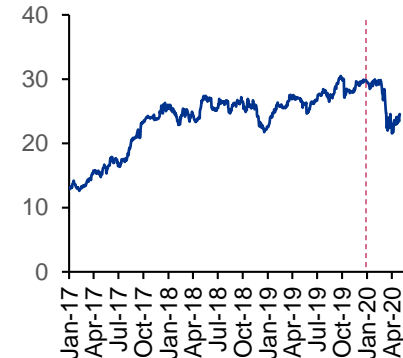
Source: S&P Capital IQ, 2020

Share price evolution: Individual stocks (cont.)

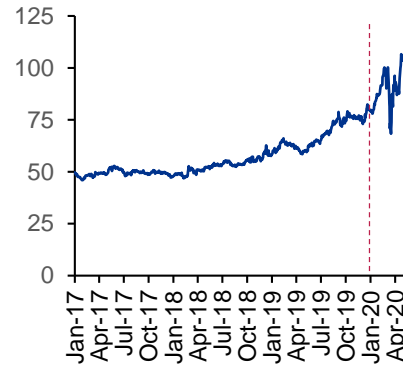
Terna – Rete Elettrica Nazionale



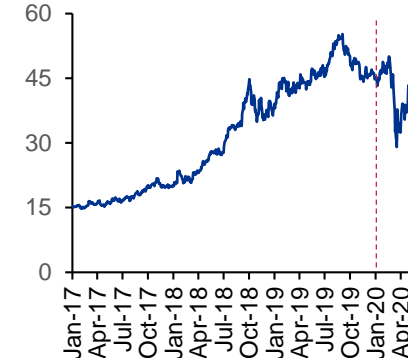
Uniper SE



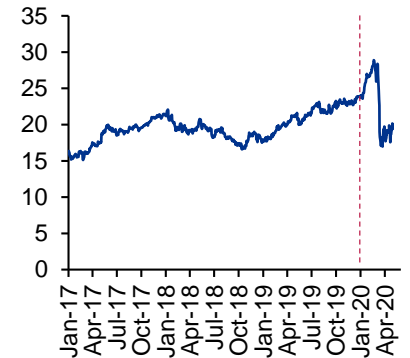
Elia Group SA



Verbund AG



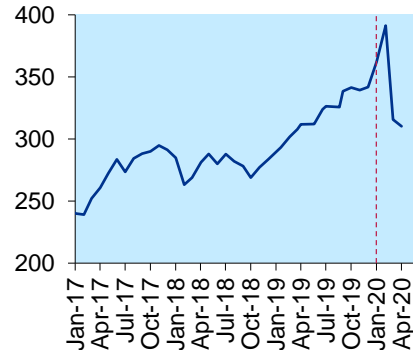
Veolia Environnement S.A.



**Public Joint Stock Company
Inter RAO UES ^(a)RUB**



Eurostoxx Utilities



Source: S&P Capital IQ, 2020

Relative valuation per company (end of 1Q20)

	TEV/EBITDA (LTM) (as of 31 March) ▼	^(a) TEV (EUR million) (as of 31 March)	Market Capitalization (EUR million) (as of 31 March)
Ørsted A/S (CPSE:Ørsted)	15.8x	40,529.6	37,516.6
E.ON SE (XTRA:EOAN)	14.6x	57,481.2	24,616.2
National Grid plc (LSE:NG.)	12.4x	71,686.0	38,150.6
Elia Group SA/NV (ENXTBR:ELI)	12.4x	11,954.4	6,117.0
Snam S.p.A. (BIT:SRG)	12.1x	25,802.6	13,876.6
Terna-Rete Elettrica Nazionale Società per Azioni (BIT:TRN)	11.4x	19,897.9	11,597.7
VERBUND AG (WBAG:VER)	11.2x	13,822.3	11,471.7
Iberdrola, S.A. (BME:IBE)	11.1x	105,882.9	57,760.1
EDP Renováveis, S.A. (ENXTLS:EDPR)	10.7x	14,637.9	9,577.9
EnBW Energie Baden-Württemberg AG (XTRA:EBK)	10.6x	23,252.1	12,676.0
EDP-Energias de Portugal, S.A. (ENXTLS:EDP)	10.1x	33,217.0	13,297.3
Red Eléctrica Corporación, S.A. (BME:REE)	9.5x	15,070.2	8,821.6
SSE plc (LSE:SSE)	9.5x	26,817.2	15,402.7
Enel SpA (BIT:ENEL)	8.1x	133,260.8	64,436.8
Endesa, S.A. (BME:ELE)	8.0x	27,058.9	20,613.9
Naturgy Energy Group, S.A. (BME:NTGY)	7.6x	34,359.4	15,636.4
Fortum Oyj (HLSE:FORTUM)	7.0x	17,499.9	11,880.9
CEZ, a. s. (SEP:CEZ)	6.1x	14,133.4	8,022.3
Veolia Environnement S.A. (ENXTPA:VIE)	6.1x	22,547.6	10,802.0
ENGIE SA (ENXTPA:ENGI)	4.4x	46,359.4	22,712.4
Electricité de France S.A. (ENXTPA:EDF)	4.2x	68,915.5	22,267.5
Uniper SE (XTRA:UN01)	4.0x	9,849.4	8,230.4
RWE Aktiengesellschaft (XTRA:RWE)	NA	14,516.3	14,729.3
Innogy SE (XTRA:IGY)	NA	41,963.0	23,950.0
Public Joint Stock Company Inter RAO UES	-	-	-
Weighted average: 8.3		890,514.9	484,163.9

Note: (a) Total Enterprise Value (as of 31 March 2019), TEV = market capitalization + interest-bearing debt + preferred stock-excess cash

Source: S&P Capital IQ, 2020

Leverage and credit ratings

	LTM Net Debt/EBITDA (as of 31 March)	S&P Rating	Date ^(a)	Moody's Rating	Date ^(a)	Fitch Rating	Date ^(a)
E.ON SE (XTRA:EOAN)	8.3x	BBB	28-Jan-20	Baa2	18-Feb-20	BBB+	1-Aug-19
National Grid plc (LSE:NG.)	5.9x	BBB	18-Feb-20	Baa2	18-Feb-20	BBB+	1-Aug-19
Elia Group SA/NV (ENXTBR:ELI)	5.8x	BBB+	18-Feb-20	Baa1	18-Feb-20	BBB+	18-Feb-20
Snam S.p.A. (BIT:SRG)	5.6x	BBB+	18-Feb-20	Baa2	18-Feb-20	BBB+	18-Feb-20
EDP-Energias de Portugal, S.A. (ENXTLS:EDP)	4.9x	BBB-	15-Apr-19	Baa3	1-Apr-19	BBB-	12-Feb-19
Terna-Rete Elettrica Nazionale Società per Azioni (BIT:TRN)	4.7x	BBB+	8-Oct-19	NA	-	NA	-
SSE plc (LSE:SSE)	4.3x	BBB+	27-Nov-19	Baa2	18-Feb-20	BBB+	30-Jun-19
Iberdrola, S.A. (BME:IBE)	4.1x	BBB	2-Aug-19	Baa1	18-Feb-20	-	-
Red Eléctrica Corporación, S.A. (BME:REE)	3.9x	BBB+	14-Nov-19	Baa1	18-Feb-20	BBB+	6-Mar-19
Naturgy Energy Group, S.A. (BME:NTGY)	3.4x	BBB+	1-Nov-19	Baa1	18-Feb-20	BBB+	20-Feb-19
EnBW Energie Baden-Württemberg AG (XTRA:EBK)	3.3x	A-	31-Jul-19	A3	18-Feb-20	A	19-Jun-19
EDP Renováveis, S.A. (ENXTLS:EDPR)	3.1x	A-	10-Nov-19	A3	18-Feb-20	A-	-
Enel SpA (BIT:ENEL)	3.1x	BBB+	15-Nov-19	Baa2	18-Feb-20	A-	18-Feb-20
Fortum Oyj (HLSE:FORTUM)	3.1x	A-	30-Oct-19	NA	-	A-	6-Jun-19
Veolia Environnement S.A. (ENXTPA:VIE)	3.0x	NA	-	NA	-	NA	-
CEZ, a. s. (SEP:CEZ)	2.6x	BBB	11-Feb-20	Baa2	10-Oct-19	BBB	9-Oct-19
Electricité de France S.A. (ENXTPA:EDF)	2.4x	A-	27-Jul-19	A3	18-Feb-19	A-	29-Aug-19
Endesa, S.A. (BME:ELE)	1.9x	BBB+	10-Nov-19	Baa2	18-Feb-20	A-	11-Feb-19
ENGIE SA (ENXTPA:ENGI)	1.9x	A-	14-Nov-19	Baa1	7-Oct-19	A-	26-Feb-19
VERBUND AG (WBAG:VER)	1.4x	BBB	8-Feb-20	Baa2	18-Feb-20	BBB	28-Jan-20
Ørsted A/S (CPSE:Ørsted)	1.0x	A	21-Jan-20	A3	13-Jan-20	NA	-
Uniper SE (XTRA:UN01)	0.4x	BBB+	30-Jan-20	Baa1	18-Feb-20	BBB+	1-Aug-19
RWE Aktiengesellschaft (XTRA:RWE)	NA	BBB	13-Nov-19	NA		NA	-
innogy SE (XTRA:IGY)	NA	NA	-	Baa3	18-Feb-20	BBB	23-Oct-19
Public Joint Stock Company Inter RAO UES	-	NA	-	NA	-	NA	-
Average:	3.6	Mode: BBB+					

Note: (a) The date of publication of latest report (company release, market/industry/peer report) from which the rating has been sourced;

(b) The exact date of publication of credit ratings was not mentioned in the source website;

(c) On 15 February 2018, RWE ended its rating by the agency S&P's.

Source: S&P Capital IQ/Moody's/Fitch, 2020

Quarterly rating variation: Upgraded Unchanged Downgraded

Global M&A overview 1Q20

Key trends

Total value of the top 15 deals amounted to EUR15.2 billion.

The top deals, primarily constituting power generation and renewable companies, focused on enhancing shareholder value, diversifying operations, expanding geographical presence and increasing liquidity. The M&A deals also factored in opportunities to expand renewable facilities, build collaborations, improve distribution services, plan energy transitions and restructure portfolios.

Key transactions

- | | |
|---|--|
| <p>01 E.ON SE has entered into an agreement to acquire its remaining 10 percent stake in Innogy SE. The acquisition would allow E.ON to completely own Innogy and help in its realignment. The deal is in line with E.ON SE's focus in its core businesses such as intelligent power distribution networks and customer solutions.</p> | <p>04 NTPC Limited has acquired North Eastern Electric Power Corporation Limited (NEEPCO), from the Government of India as on 27 March 2020. The deal would enable NTPC to increase its operations and expand its renewable energy portfolio. It will also help the company in establishing its presence in the North East of India.</p> |
| <p>02 En+ Group has agreed to acquire a 21.37 percent of its stake from VTB Group in a buyback transaction. The acquisition is expected to be financed through a new debt facility from Sberbank. The deal would help the En+ Group in simplifying its ownership structure and provide opportunities to create value for its shareholders as well as enhance its investment proposition.</p> | <p>05 Brookfield Renewable Energy Partners (BEP) has signed an agreement to acquire 38 percent stake in TerraForm Power, Inc (TERP). The combined entity is expected to have a strong presence among the integrated pure-play renewable power companies globally. TERP shareholders are expected to benefit from several growth opportunities such as acquisition of global, multi-technology renewable power assets, strong balance sheet, increased liquidity and enhanced diversification.</p> |
| <p>03 National Thermal Power Corporation Limited (NTPC) has entered into an agreement to acquire THDC India from the Government of India. Through the transaction, NTPC will be able to diversify its power generation portfolio and enhance its hydro power generation capacities in different terrains.</p> | |

Source: Mergermarket, 2020;

Top 15 M&A transactions in 1Q20, by deal value

Date	Target company	Target description	Target country	Bidder company	Bidder country	Seller company	Deal value EUR (million)
16 Jan 2020	Innogy SE (10 percent stake)	Energy company based in Germany.	Germany	E.ON SE	Germany	NA	2,379
6 Feb 2020	En+ Group plc (21.37 percent stake)	Russia based vertically integrated aluminum and hydro power producer.	Russia	En+ Group plc	Russia	VTB Bank OAO	1,437
26 Mar 2020	THDC India Ltd (74.45 percent stake)	Indian public sector company engaged in hydro electric power generation.	India	NTPC Limited	India	Government of India	1,371
26 Mar 2020	North Eastern Electric Power Corporation Limited (100 percent stake)	Indian public sector company engaged in power generation.	India	NTPC Limited	India	Government of India	1,308
16 Mar 2020	TerraForm Power, Inc. (38 percent stake)	An operator of clean power generation assets, serving utility, commercial and residential customers.	US	Brookfield Renewable Energy Partners L.P.	Canada	NA	1,267
4 Feb 2020	Siemens Gamesa Renewable Energy, S.A. (8.07 percent stake)	Spain based company involved in designing, building and operating renewable energy power plants	Spain	Siemens AG	Germany	Iberdrola SA	1,100
26 Feb 2020	China Energy Group Dongtai Offshore Wind Power Co., Ltd. (37.5 percent stake)	Electricity company based in China	China	Electricite de France S.A.	France	NA	1,045
26 Feb 2020	Columbia Gas of Massachusetts	US based company offering natural gas transmission and distribution services	US	Eversource Energy	US	NiSource Inc	1,011
22 January 2020	ACS Servicios, Comunicaciones y Energia, SL (Photovoltaic Energy Projects)	Photovoltaic energy assets based in Spain	Spain	Galp Energia, SGPS, S.A.	Portugal	ACS Servicios, Comunicaciones y Energia, SL	880
5 March 2020	EVN AG (28.35 percent stake)	Austria based provider of energy and infrastructure services	Austria	Wiener Stadtwerke GmbH	Austria	EnBW Energie Baden-Wuerttemberg AG	801

Note: NA stands for Not Available
Source: Mergermarket, 2020

Top 15 M&A transactions in 1Q20, by deal value (cont.)

Date	Target company	Target description	Target country	Bidder company	Bidder country	Seller company	Deal value EUR (million)
17 Feb 2020	Alstom SA (18.5 percent stake)	France based company engaged in the manufacture of transport and energy infrastructure	France	Caisse de Depot et Placement du Quebec	Canada	NA	700
17 Feb 2020	GMR Kamalanga Energy Limited (100 percent stake)	Indian coal-fired power project at Kamalanga, Orissa	India	JSW Energy Limited	India	GMR Energy Limited	609
6 Feb 2020	Wardha Solar (50 percent stake); Adani Green Energy (50 percent stake); Parampujya Solar Energy (50 percent stake); Prayatna Developers (50 percent stake); Adani Renewable Energy (50 percent stake); Kodangal Solar Parks (50 percent stake); Adani Green Energy (50 percent stake); Kamuthi Renewable Energy Limited (50 percent stake); Kamuthi Solar Power Limited (50 percent stake); Ramnad Renewable Energy Limited (50 percent stake); Ramnad Solar Power Limited (50 percent stake)	Renewable energy plants in India	India	Total S.A.	France	Adani Green Energy	474
6 Feb 2020	Innergex Renewable Energy Inc. (19.9 percent stake)	Canadian operator of renewable power generating facilities	Canada	Hydro Quebec	Canada	NA	453
24 Feb 2020	CenterPoint Energy Services, Inc.	US-based public utility holding company	US	Energy Capital Partners, LLC	US	CenterPoint Energy Inc.	369

Note: NA stands for Not Available
Source: Mergermarket, 2020

Contact

KPMG Global Energy Institute

Ted Surette
tsurette@kpmg.com.au

Valerie Besson
valeriebesson@kpmg.fr

Country contacts

France	Valerie Besson valeriebesson@kpmg.fr
Germany	Michael Salcher msalcher@kpmg.com
Italy	Francesco Galgliardi fgagliardi@kpmg.it
Netherlands	Jaap Van Roekel vanroekel.jaap@kpmg.nl
Portugal	Susana Abreu sabreu@kpmg.com
Spain	Alberto Martin Rivals albertomartin1@kpmg.es
UK	Simon Virley simon.virley@kpmg.co.uk
Russia and CIS	Maria Borovikova MBorovikova@kpmg.ru
Hungary	Edina Pazstor Edina.Pasztor@kpmg.hu

ENR EMA Report main contacts

Valérie Besson
valeriebesson@kpmg.fr

Alexis Majnoni d'Intignano
amajnoni@kpmg.fr

Cécilie Timestit
ctimestit@kpmg.fr

Florence Barbera
florencebarbera@kpmg.fr

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