European Utilities betting on Energy Transition

Insights about the European power & utilities industry

KPMG Global Energy Institute

Q1 2021

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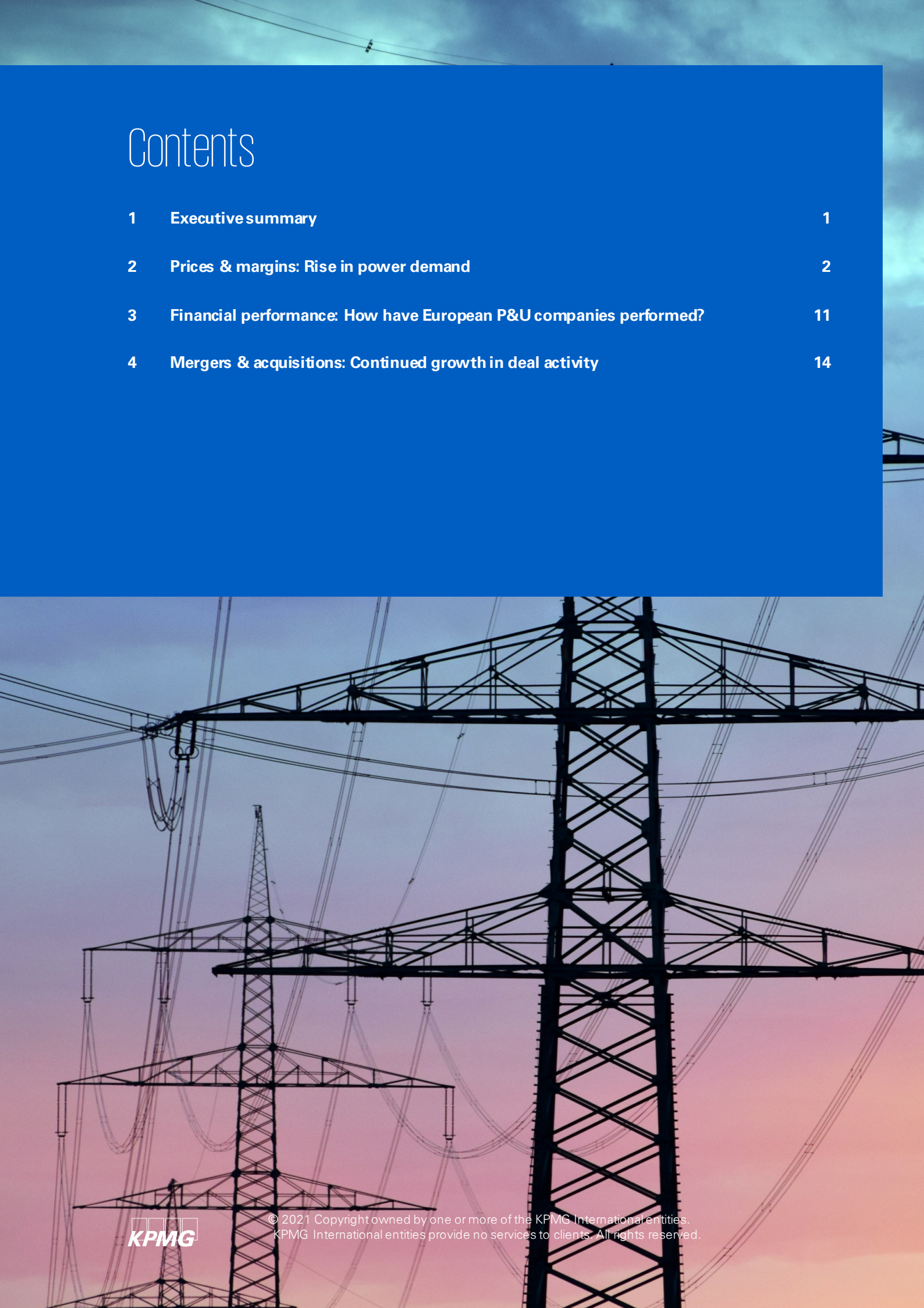


1 Executive summary

In 1Q21, most companies in KPMG P&U 20 experienced a growth in revenue and EBITDA values, supported by favourable market fundamentals and increased focus on renewable energy. During the quarter, Capex to EBITDA ratio witnessed a sharp drop on a quarterly basis driven by decline in Capex of most companies. However, many leading European utilities have significantly increased their long-term capex programmes to propel their renewables portfolio.

In 1Q21, electricity prices across Europe remained high and matched the levels last seen at the beginning of 2019, along with extreme volatility, especially in the UK. Higher power prices across Europe and the UK were driven by colder weather; reduced contribution from renewable sources; conventional plant unavailability; and new Brexit trading arrangements. However, the EUROSTOXX index witnessed a slight decline in 1Q21.

The European P&U industry continued to recover from the COVID-19 pandemic in 1Q21, with deal value growing 8 percent q-o-q to EUR43.4 billion. National Grid's EUR16.6 billion acquisition of PPL's UK-based distribution business — Western Power Distribution was the largest deal of the quarter.

Following a similar trend like the previous quarters, in 1Q21, regulatory developments within the European P&U sector continued to focus primarily towards Green transition. For example, the new EEG came into force in Germany on 1 Jan 2021, which addresses long term aim for greenhouse gas neutrality by 2050. Clean spark spreads – measuring the profitability of gas-fired generation by considering variable costs – were above clean dark spreads during the second half of 1Q21 in Germany, France, Spain, and the UK – indicating a clear market premium for cleaner power plants. However, the spreads in 1Q21 fell to negative levels, during the whole period in Germany, France, and partially in Spain, indicating negative margins, due to carbon prices reaching a historical high.

According to S&P Global Platts Analytics, European power prices are forecast to remain at current elevated levels until 2023 on capacity closures, slight demand gains and rising carbon prices. The trends of renewables-led growth and coal phase-out have further strengthened in early 2021 as indicated by strong carbon prices and heightened ambitions from governments and investors to decarbonize their respective economies and companies.

2 Prices & margins: Rise in power demand

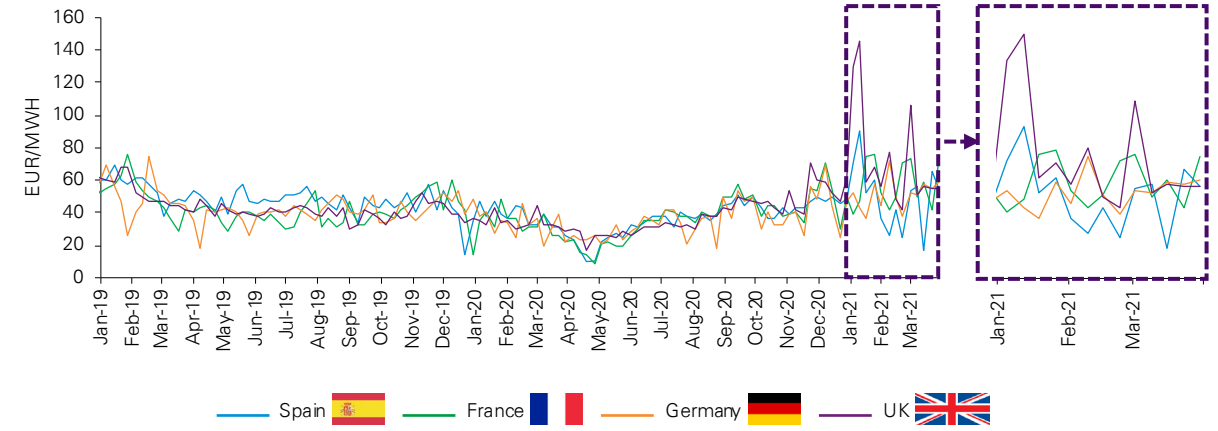
Electricity price evolution: Power prices driven by growing demand

In 1Q21, electricity prices across Europe remained high and matched the levels last seen at the beginning of 2019.[i] **In 1Q21, base load electricity prices in Spain, Germany, France and the UK grew 33 percent, 56 percent, 73 percent and 115 percent y-o-y (vs. 1Q20), respectively.**

Base load electricity prices in Spain and France averaged around EUR49.8/MWH and EUR57.5/MWH in 1Q21, reflecting 13 percent and 27 percent increase compared with 4Q20 respectively. Base load electricity prices in Germany and the UK averaged around EUR 51.4/MWH and EUR 73.1/MWH during 1Q21 reflecting 26 percent and 44 percent increase compared to 4Q20 respectively.

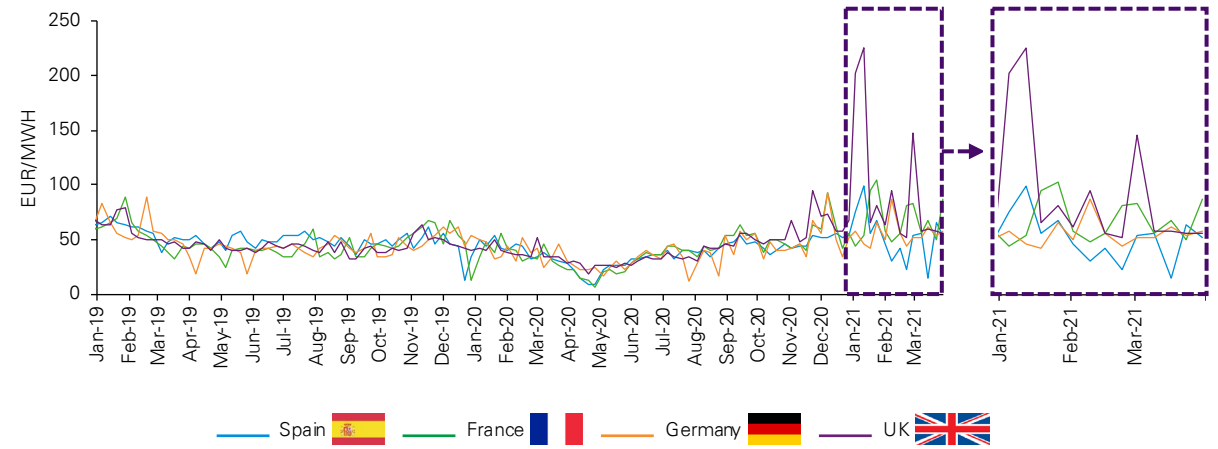
Figure 1: Electricity prices (Base load and peak load), EUR/MWh, January 2019 to March 2021

Base load



Source: Reuters, 2021.

Peak load



Note: For individual country-level data/graph, please refer to the APPENDIX. Source(s): Reuters, 2021.

Higher power prices across Europe and the UK were driven by colder weather; reduced contribution from renewable sources; conventional plant unavailability; and new Brexit trading arrangements. Also, reduced wind output led to a reduction in power generation when demand was high due to lower temperature.[ii]

During 1Q21, electricity prices across major European markets were turbulent and were mostly driven by rising carbon prices (leading to more expensive emission allowances) along with increasing gas prices. Several other factors intertwined along with carbon and gas prices to yield occasional price peaks and troughs throughout the quarter, such as — high seasonal demand, lower renewable energy generation, and forecast of colder weather across Asia and Europe during January, pushed prices to a peak in the beginning of 2021.[iii]

Britain's electricity prices rose to an all-time high in January, with gas prices marking a three-year record. Along with the impact of cold weather and lower wind generation, electricity prices in UK were additionally impacted by the post Brexit decoupling of Britain's auctions from EU's single day-ahead, to trade electricity.[iv]

Brexit led to introduction of new trading arrangements which came into effect on 1st January 2021. EPEX Spot and Nordpool, UK market players active in the Day-Ahead Auctions, have been decoupled, meaning their prices are no longer the same. This decoupling of auctions and reduced liquidity resulted in increased volatility.[v] The new trading arrangements have also resulted in tight margins in electricity markets in Britain and Ireland and the adjacent markets of France, Belgium, and the Netherlands. This also resulted in prices to attain more peaks than usual.[vi]

During February, electricity prices across markets were mostly bearish for the first half of the month, due to stronger wind generation and expectation of higher nuclear production in France. Electricity prices continued to be supported by higher carbon and gas prices. Prices in certain regions were also impacted by — forecast of above normal rain over France and southern Alps; multiyear high hydroelectric output in France; and near 100 percent Nuclear availability in Belgium.[vii]

France's nuclear output in January 2021, reached highest level (37 TWh) in last one year, amid strongest power demand over past two years due to colder weather conditions. The outage of NorNed Cable between Netherlands and Norway, in addition to low wind and cold temperatures, added further pressure on prices, particularly in the Dutch and Norwegian markets.[viii]

In March 2021, power prices across European markets lost momentum due to high wind output and milder weather conditions (warmer than seasonal temperature), while expectations of lower French nuclear availability limited downward pressure.

Due to decoupling from EU power system, the maximum day ahead price in the UK market during the first week of March reached GBP683/MWh, more than three times the level reported in March over last six years, due to tight supplies and low wind generation.[ix] Analyst expect that high price peaks and higher balancing cost will become a feature of British electricity market until it rebalances.

According to S&P Global Platts Analytics, European power prices are forecast to remain at current elevated levels until 2023 on capacity closures, slight demand gains and rising carbon prices. The trends of renewable growth and coal phase out have been sharpened in early 2021 by a strengthening carbon price and heightened ambition from governments and investors to lean into the Energy Transition.[x]

The combination of pandemic demand shock and favourable weather conditions for renewable energy, substantially changed Europe's energy mix in 2020. Coal and lignite generation fell by 22 percent and nuclear output dropped by 11 percent. Gas was less affected due to its favourable price, thereby supporting coal-to-gas and lignite-to-gas switching. **As consumption fell, the share of renewables in Europe's energy mix rose to 39 percent in 2020, beating fossil fuels (36 percent) for the first time.** Based on preliminary estimates, the carbon footprint of the power sector in the EU dropped by 14 percent in 2020.[xi] Biomass, hydro, solar and wind generated a record 42 percent of UK's electricity mix in 2020[xii]

Fuel and Gas price evolution: Gradual recovery, however, growth remains uneven due to renewed pandemic and associated lockdowns impacting demand.

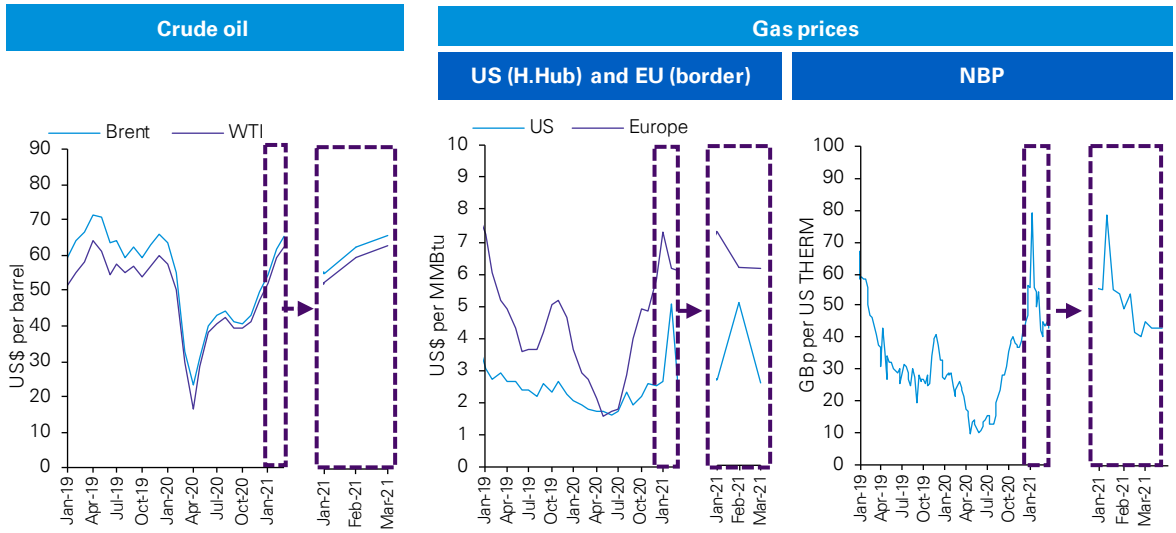
Brent and WTI crude oil prices continued to recover throughout 1Q21, with an average of US$60.6 per barrel and US$57.8 per barrel respectively.

Crude oil prices have responded to the gradual firming in oil demand and improved optimism about the global recovery, as well as continued production restraint by OPEC.[xiii]

The price of Brent crude oil briefly reached US$69 per barrel in early March after OPEC+ announced it would extend production cuts through April. In contrast, neither the attack on a Saudi Arabian oil facility in early March nor the temporary blockage of the Suez Canal at the end of March had any material impact on crude oil prices. **Global consumption of crude oil continues to gradually recover from the COVID-19 plunge and was around 6 percent lower in 1Q21 than in 2019, compared to an overall decline of 9 percent in 2020.** However, the recovery remains uneven, with renewed outbreaks of the pandemic and associated lockdowns continuing to affect demand, particularly for transport. **The slow recovery in demand is primarily in advanced economies, where it remains nearly 10 percent below its 2019 levels, with pronounced weakness in Europe.[xiv]**

OPEC and their partners (OPEC+) continue to withhold significant amounts of production. Since the start of 2021, OPEC+ has increased production at a much slower rate than originally announced, either by prolonging production cuts or raising output by less than planned. Compliance with the cuts has also been high.[xv]

Figure 2: Crude oil and natural gas prices, January 2019 to March 2021



Notes: Gas prices in the UK are commonly referenced to the UK National Balancing Point (NBP) price.
Source(s): World Bank commodities price data (The Pink Sheet), June 2021; Reuters, June 2021.

According to US Energy Information Administration (EIA), Brent crude oil prices are expected to average at US$62.3 per barrel in 2021 and US$60.7 per barrel in 2022 based on the forecast in the most recent Short-Term Energy Outlook. This represents a rebound from the 2020 average of $42.3 per barrel, but it is still lower than pre-COVID levels.[xvi]

EU, Henry Hub and NBP natural gas prices continued to increase during 1Q21 averaging at US$6.5/MMBTU, US$3.4/MMBTU and GBP50.7/Therm respectively, primarily driven by increased demand in Asian markets and disrupted supply.

In 1Q21, EU border, US Henry Hub and NBP average prices increased by 25.5 percent, 40.5 percent, and 22.2 percent respectively, compared with 4Q20. On annual basis, average prices of EU border, US Henry Hub and NBP Natural gas, increased by 111.2 percent, 79.4 percent, and 105.4 percent respectively.

In January 2021, cold weather conditions triggered demand in Asia, leading to record prices and making it more expensive to transport gas to the European mainland.[xvii] **During 1Q21, prices were also impacted by strong oil and carbon markets, cargo shortages, transportation bottlenecks, supply outages and record winter temperatures boosting end user demand.**

In February, Gas storage levels across Germany (Europe's largest gas consumer) plummeted to lowest levels since 2017. The region witnessed supply disruptions amid acute shortage of cargoes. However, several other factors also led to occasional peak price such as, congestion delaying LNG shipment via the Panama Canal, unplanned outages in Norway, higher oil prices, limited storage, and low supply levels from Russia.[xviii]

By late-February prices started to wear out the impact of cold weather conditions, as warmer season set to approach in the northern hemisphere, reducing the heating demand. Decreasing prices in Asia also helped in normalising the flow of US LNG cargoes, to supply middle of Atlantic.

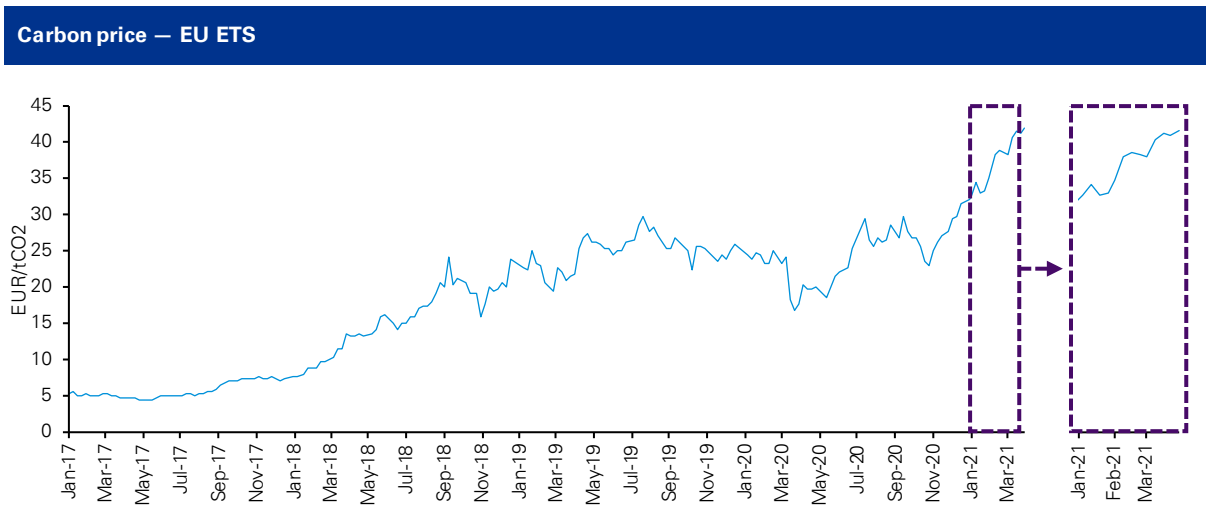
Other factors that resulted in downward pressure on prices included, high wind output, low Asian prices due to reduced demand from markets in China and Southeast Asia. Prices also stabilized in February and March as market became oversupplied due to improved LNG deliveries and reduced demand for heating.[xix]

During March 2021, bullish coal prices due to supply disruption in Australia pushed gas prices higher, however limited by mild weather and lower oil prices. During the last week of March, prices increased as one of the world's largest container ship ran aground and blocked Suez Canal leading to supply disruption.

Carbon and coal price evolution: Continuing momentum

European carbon prices continued to increase throughout 1Q21 reaching record levels, driven by speculative buying and expectations of cold weather conditions (leading to high fuel demand).

Figure 3a: Carbon prices, January 2017 to March 2021



Source: World Bank commodities price data (The Pink Sheet), June 2021; Reuters, 2021.

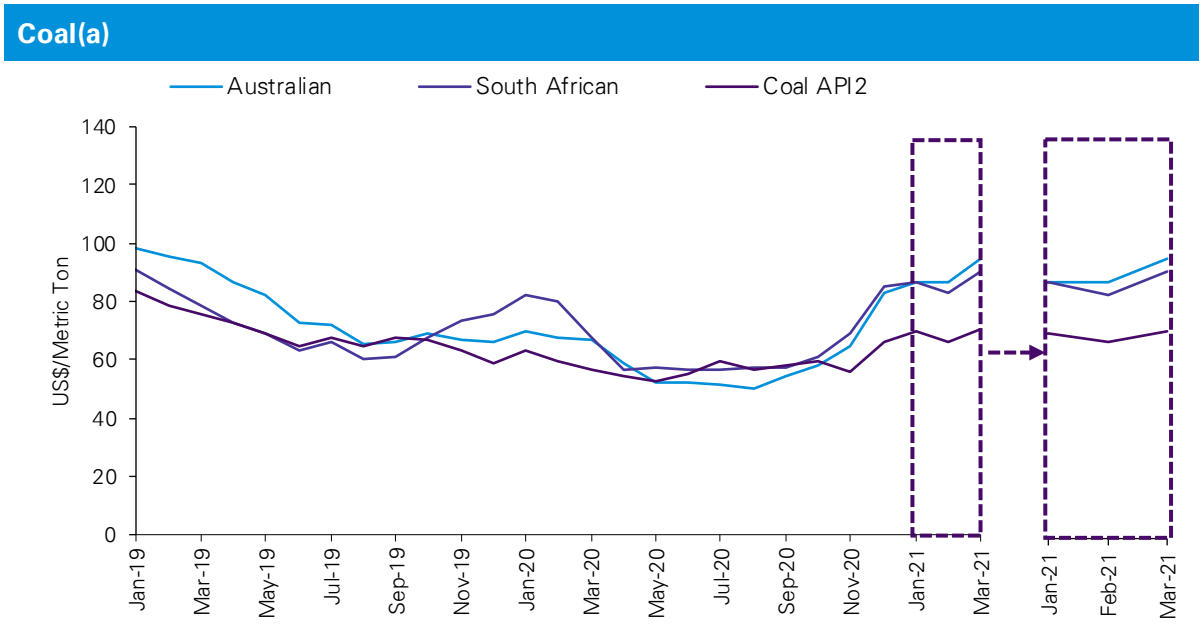
Carbon prices averaged at EUR 37.5/tonne during 1Q21, 36 percent above 4Q20. The prices touched record levels reaching EUR 42.0/tonne by the end of March, reflecting an average increase of 66 percent y-o-y (vs 1Q20).

During January 2021, emission allowances were boosted by cold weather and increasing gas prices, while auction supply remained paused for almost one month till 29th of January. After a month without primary market supply, Germany announced to bring 2.7 million European Union Allowance (EUA) contracts to market on 29 January, followed by 15 million EUA auction volume the week after in February 2021.[xx]

Downward pressure on prices resulted from occasional retreat in oil, gas, and coal prices, accompanied by auction resumption in February. Prices also restored slightly by correction in speculative buying and forecast of milder weather.

By the end of March, prices increased to a new high, driven by soaring oil prices, and positive US industry outlook, as higher energy and equity prices countered renewed coronavirus lockdown worries.[xxi]

Figure 3b: Coal prices, January 2019 to March 2021



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), June 2021; Reuters, 2021.

Australian and South African coal prices continued to rise throughout the quarter, averaging around US$89.5/mt and US$86.8/mt during 1Q21, representing 30 percent and 21 percent rise compared to 4Q20, respectively. **The prices were supported by favourable weather factors —cold spells, dry conditions, and low level of wind (resulting in less utilization of wind turbine).** Several other factors also impacted the coal prices such as — various supply constraints, speculative market activity, and supportive financial markets. The rise in coal prices was also due to return of power demand in general as a subsequent result of lockdown relaxing.[xxii]

Coal API2 prices averaged at US$68.8/mt in 1Q21, 14 percent above 4Q20. In February 2021, Coal API2 prices declined due to sluggish physical demand and hike in wind output in some European countries. Besides, increased carbon prices dragged down coal prices as speculators bet on demand from industrial buyers for pollution rights.[xxiii]

In January 2021, coal prices in European markets climbed as cold weather, significantly less wind, and soaring gas prices necessitated coal generation to meet demand. The prices were also supported by declining European gas inventories which led to additional pressure on coal demand.

Coal-fired generation increased by 17 percent in the OECD countries alone from January to February 2021. Countries like Germany, the Netherlands, and Poland turned to coal to support the ongoing rise in demand as economies reopened and people returned to work. Due to dwindling gas reserves, coal combustion became widespread again, which led to rise in coal prices. Utilities turned to coal as gas supplies were already tight due to heavy maintenance, restricted flow from Norway, and high demand in Asian markets.[xxiv]

In March 2021, growing demand from China, after some stability in demand in February, led to a sharp rise in coal prices. Other than this heavy icing in Baltic sea, blockade on Cerrejon's railway line in Colombia and heavy rainfall in South Africa also contributed to rise in coal prices. The high premium attached to Pacific-basin coal compared to Atlantic-basin coal also contributed to the movement of European-delivered coal to the East. Coal price continued upward trend driven by strong demand from Asia, particularly China.[xxv]

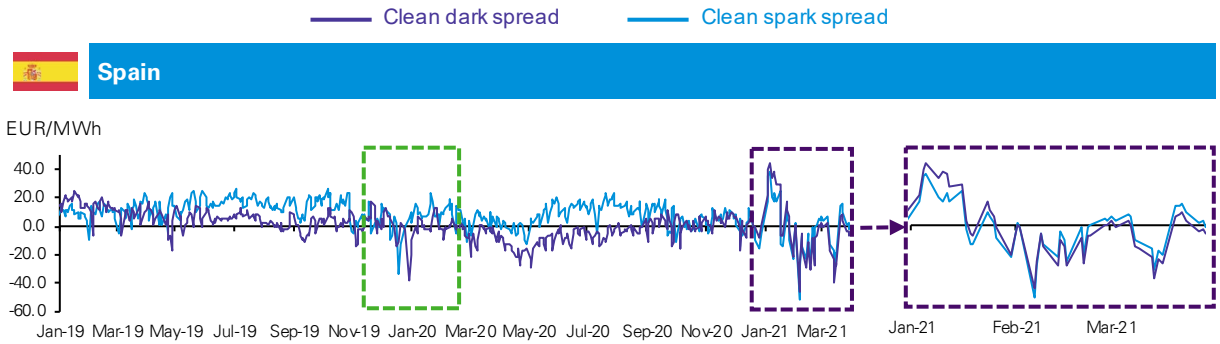
Overall, there is a lot of optimism about the coal market and how fuel prices will develop in 2021. Coal-fired generation is back on track after a disastrous 2020. According to the IEA, global coal demand surpassed pre-pandemic levels by the end of 2020. A strong recovery of Asian economies and a cold December were the main causes.[xxvi]

The future coal prices are expected to fall, though there will be a slight increase in the next few months. According to the estimation of IEA, global coal demand will increase by 2.6 percent by the end of 2021, owing to strong demand in China, India, and Southeast Asia. Higher natural gas prices and power demand in the EU and the US, where coal consumption may rise for the first time in nearly a decade, should slow the structural decline in coal use [xxvii]

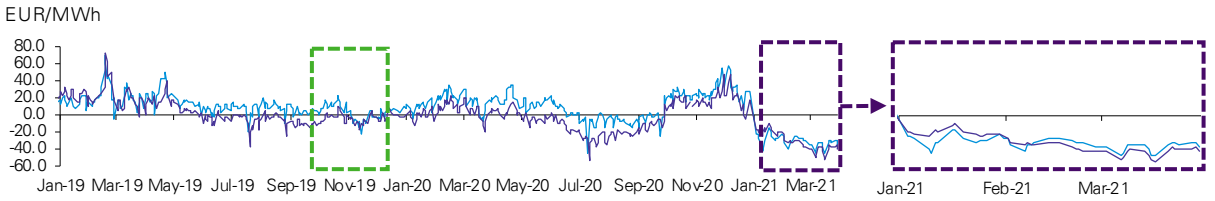
Clean dark and clean spark spreads: Gas-fired plants remain more profitable than coal-fired units

Clean spark spreads – measuring the profitability of gas-fired generation by considering variable costs – remained above clean dark spreads for most of 1Q21 in Germany, France, Spain, and the UK. Further, except the UK, the spreads were in negative territory for most of 1Q21.

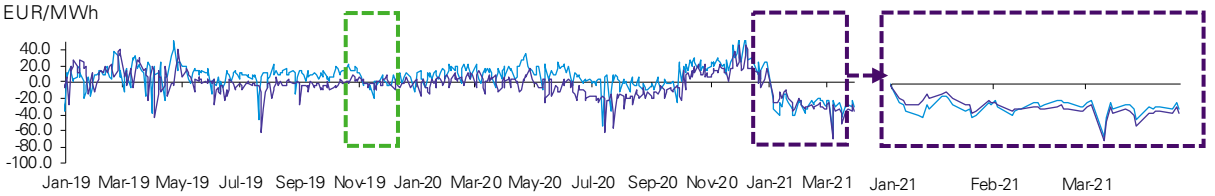
Figure 4: Clean spark and clean dark spreads, January 2019 to March 2021



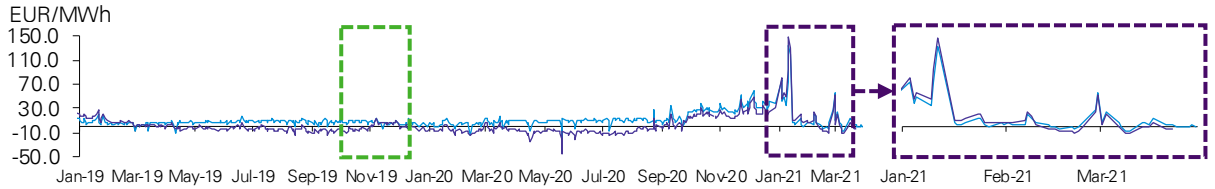
France



Germany



UK



Notes: (a) The 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; (b) 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 ton (accounting for emissions intensity factor) from spark and dark spread.
Source(s): Reuters, 2021.

Clean dark spread across Germany, France, Spain, and the UK were higher than clean spark spread for the entire January 2021 and continued till early February. This was **mostly driven by high gas prices, accompanied by high demand for natural gas in the Asian markets** (due to cold weather conditions) **resulting in restricted supply to European region.** Cold weather, significantly less wind, and soaring gas prices necessitated coal generation to meet demand. Coal-fired generation increased by 17 percent in the OECD countries from January to February 2021. In the second week of February clean spark spread overtook clean dark across Germany, France, Spain, and the UK and continued to stay higher till the end of first quarter.

In 1Q21, gas-fired plants were more profitable than coal-fired units due to higher carbon price[xxviii] and rising cost of European Union emissions permits.[xxix] The cost of European Union emissions permits increased by 28 percent in 2020.[xxx]

The clean spark spread was pushed above clean dark, as gas prices were less affected due to its favourable price (compared to coal), thereby supporting coal-to-gas and lignite-to-gas switching, leading to further expedited phase-out of the polluting fuel across various European markets.

In Italy, however, during most of 1Q21, clean dark spread was above clean spark spread, which implies that coal fired power plants were more profitable than Gas fired power plants, thus limiting coal to gas switching during the period.[xxxi]

Regulatory developments in 1Q21 : Key takeaways

Following a similar trend like the previous quarters, in 1Q21, regulatory developments within the European P&U sector continued to focus primarily towards Green transition. For example, the new EEG came into force in Germany on 1 Jan 2021, which addresses long term aim for greenhouse gas neutrality by 2050.

- **Germany** has enacted a CO2 tax on gasoline, diesel, heating oil, and natural gas, with the goal of reducing greenhouse gas emissions and achieving the German government's climate goals.
- **UK** announced a GBP1 billion fund for advancing low-carbon technology commercialization through the Net Zero Innovation Portfolio
- **France** has released EUR100 billion recovery plan to support economic activity and job creation. Among other things, the recovery plan prepares the path for the greener French economy with the allocation of EUR30 billion to the green transition
- **The Netherlands** has vowed to investment EUR338 million to expand the country's green hydrogen sector. Further, to meet the target emissions set by the Paris agreement, the Dutch court has ordered oil Major Royal Dutch Shell to cut its carbon emissions by 45% by 2030 which is much higher than the company's existing target to cut emissions by 20%
- **Russia** has ordered the thermal power plants to reduce greenhouse gas emissions by 10% by 2024. Further, the country will start providing low carbon certificates to the industries that will serve as a verification that producers are using sustainable energy. **Azerbaijan** ministry and Masdar have announced investment of USD200 million in construction of 230MW SPP that will save 200,000 tonnes of carbon gas emissions.

For more details, please refer to the APPENDIX section titled: Regulatory developments in the European P&U sector, 1Q21

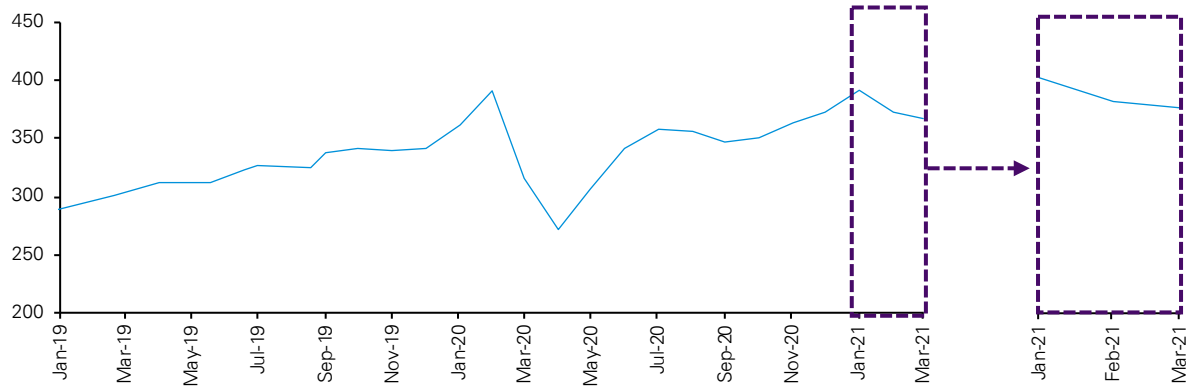
3 Financial performance: How have European P&U companies performed?

EUROSTOXX index, share prices and credit ratings: Recent decline in EUROSTOXX index and growth in quarterly average share prices in 1Q21

EUROSTOXX index peaked to an average of 392 in January 2021, after which it posted a steady decline through the rest of the quarter, reaching a monthly average of 367 in March 2021.

Quarterly average share prices of most KPMG P&U 20 companies witnessed a q-o-q increase in 1Q21. VERBUND, Veolia Environment and Fortum witnessed highest q-o-q rise in share prices among peers. On a y-o-y basis, VERBUND (+62%), Orsted (+67%) and EnBW (+37%) reported highest rise in share price (see Share price evolution: Overview (1Q21) in APPENDIX).

Figure 5: EUROSTOXX utilities index, January 2019 to March 2021



Note(s): (a) The EUROSTOXX Sector indices use the market standard ICB Industry Classification Benchmark, Companies are categorized according to their primary source of revenue. This categorization is then used for accurate classification of companies in their respective business environments.
(b) The Euro STOXX utilities index comprises the following 20 P&U companies: IBERDROLA, ENEL, E.ON, ENGIE, RWE, EDP ENERGIAS DE PORTUGAL, VEOLIA ENVIRONNEMENT, TERNA, FORTUM, AND ENDESA, RED ELECTRICA CORPORATION, Naturgy Energy Group, EDF, SUEZ ENVIRONNEMENT, UNIPER, ELIA GROUP, VERBUND, HERA, ITALGAS, A2A.

Source(s): Capital IQ, 2021

S&P and Fitch upgraded rating for EDP to BBB. Moody's and Fitch upgraded RWE Aktiengesellschaft to Baa2 and BBB+ respectively. Also, Fitch upgraded PJSC Inter Rao to BBB and Moody's downgraded EnBW to Baa1.

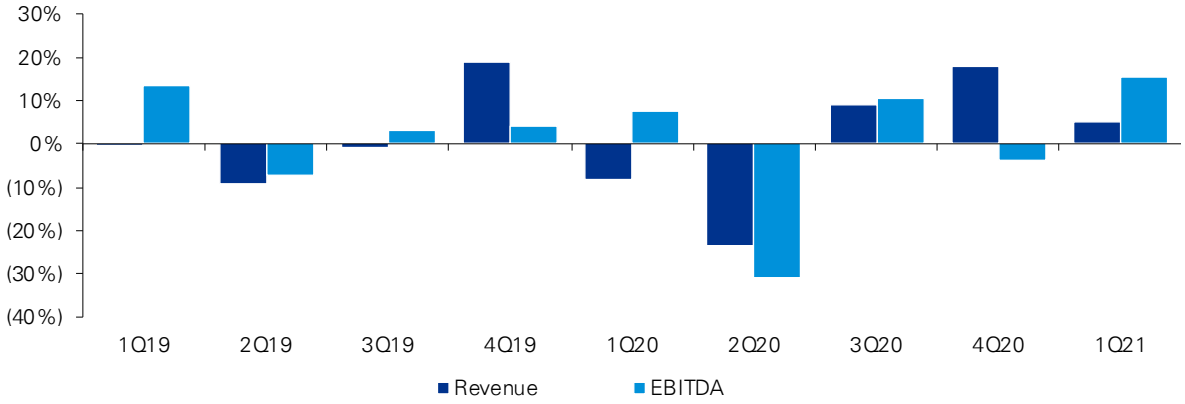
All three rating agencies downgraded rating for National Grid after the U.K.'s energy regulator curbed investor returns for its electricity and gas transmission business. But, the three agencies have a stable outlook on the company.[xxxii] Credit ratings of other companies remained unchanged. (see Credit ratings: Overview (as of June 2021) in APPENDIX).

Revenue and EBITDA: Steady Growth in 1Q21

For a detailed financial performance study of the European P&U industry, KPMG has shortlisted 20 P&U companies based on revenue and market capitalization — collectively known as KPMG P&U 20. Financial performance of these companies depicts a cyclical pattern with revenue and EBITDA falling in the second quarter of every year and then moving back on track to improved performance in the fourth quarter.

The industry financials follow the changes in prices of electricity, coal and other fuels driven by demand, production changes and weather conditions.

Figure 6: Industry revenue and EBITDA quarterly growth (based on median values) of KPMG P&U 20



Note(s): (a) 1Q21 median data doesn't include data for EDF, Engie and Suez, as they report half yearly financial performance.
(b) KPMG P&U 20 includes 20 European P&U companies: CEZ, E.ON SE, Energias de Portugal (EDP), Electricité de France (EDF), EnBW Energie Baden-Württemberg, Endesa, Enel, Engie, Fortum Oyj, Iberdrola, National Grid, Naturgy Energy Group, Ørsted A/S, Public Joint Stock Company Inter RAO UES (Inter RAO), RWE Aktiengesellschaft, SSE, Suez SA, Uniper, Veolia Environment and Verbund AG. In June 2020, Innogy was incorporated into E.ON Group and hence is no more a part of KPMG P&U 20. Effective 3Q20, Verbund AG replaced Innogy in KPMG P&U 20 list.
Source(s): Capital IQ, 2021.

In 1Q21, KPMG P&U 20 reported **revenue growth** in positive territory compared with 1Q20, **supported by favourable market fundamentals and increased focus on renewable energy. However, the growth was subdued on a q-o-q basis**.

In FY2020, median revenue growth declined 5.3 percent y-o-y, as a result of the COVID-19 pandemic, which **pushed down market prices and volumes in the power and gas businesses.** EDF, Enel and E.ON were the leading entities in terms of revenue in the European P&U market in FY202020.

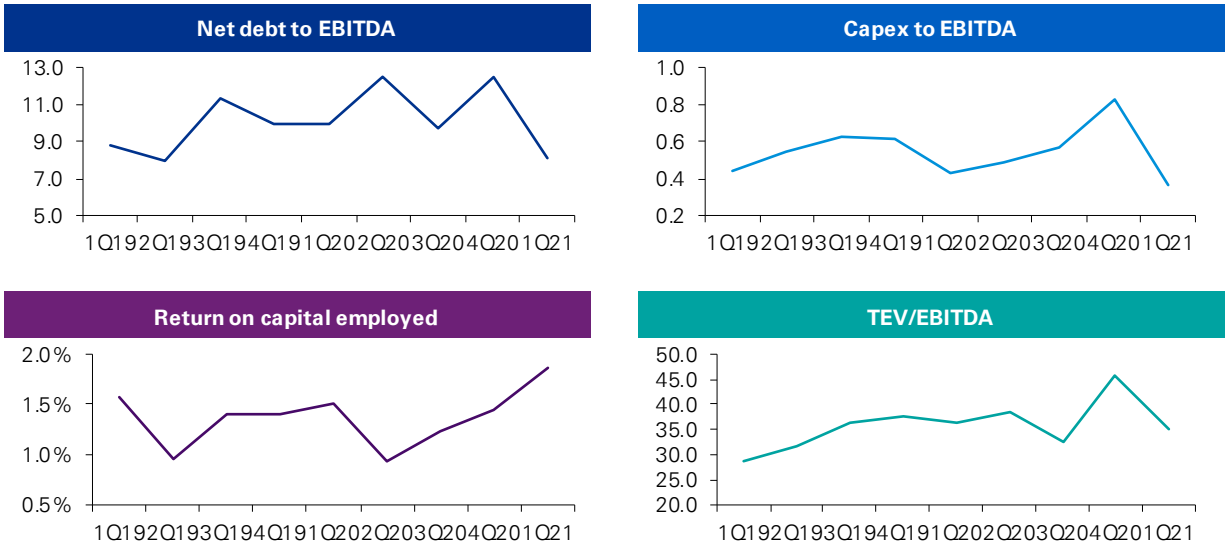
In 1Q21, KPMG P&U 20 reported steady EBITDA growth on a y-o-y and q-o-q basis, driven by improved operational performance. In FY2020, median EBITDA growth of KPMG P&U 20 declined 4.5 percent y-o-y.

Other key financial metrics: P&U players reported decline in Net Debt and CapEx

In 1Q21, the median Net Debt to EBITDA for KPMG P&U 20 companies stood at 8.1, down from 9.9 in 1Q20 and 12.4 in 4Q20, indicating improvement in debt position. National Grid, EDP and SSE reported highest Net Debt to EBITDA ratios (above 16) among the KPMG P&U 20 companies during the quarter.

In FY2020, median Net Debt to EBITDA for KPMG P&U 20 companies stood at 10.6, vs. 11.2 in FY2019

Figure 7: KPMG P&U 20: Key financial metrics – Industry median



Note(s): (a) 1Q21 median data doesn't include data for EDF, Engie and Suez, as they report half yearly performance
(b) Net debt = Total debt – Total cash and short-term investments; Return on capital employed = EBIT/(Total assets – Current liabilities); TEV = Market capitalization + Book value of total debt + Book value of preferred stock + Book value of minority interest – Cash & short term investments.
(c) Effective Q3 2020, industry median has been considered for the above key financial metrics, due to wide variations in financial data of KPMG P&U 20 companies.
Source(s): Capital IQ, 2021

In 1Q21, median CapEx to EBITDA ratio witnessed a sharp drop on a q-o-q basis driven by decline in CapEx expenditure of most companies.

However, many leading European utilities have significantly increased their long-term capex programmes to propel their renewables portfolio. For example, Enel plans to spend about EUR70 billion in gigawatt-scale renewable energy development during 2021–2030, up from an annual average of EUR8 billion–EUR10 billion in the previous five years. Iberdrola has earmarked EUR68 billion in gross organic investments over 2020–2025, half of which will be invested in renewables. [xxxiii] [xxxiv]

Although, enhanced CapEx plans will drive up utilities' debt positions, but high focus on improving operational performance and improved cash flow from more stable renewable businesses is expected to balance utilities' debt position.

In FY2020, CapeEx to EBITDA ratio rose to 0.6, vs. 0.5 in FY2019, implying continued focus of European P&U companies on making capital expenditure on power networks, renewable energy projects and energy efficiency despite the pandemic.

Median ROCE (Return on Capital Employed) of KPMG P&U 20 companies rose to 1.9% in 1Q21, vs. 1.5% in 1Q20 and 1.4% in 4Q20. CEZ, PJSC Inter Rao and Uniper maintained high ROCE (above 2.6%) during the quarter.

In FY2020, median ROCE stood at 1.3%, same as in FY2019.

Median TEV/EBITDA of KPMG P&U 20 companies fell to 35.2 from 36.2 in 1Q20 and 45.8 in 4Q20. In 1Q21, Ørsted, VERBUND and National Grid were the leading companies in the market in terms of their valuation (TEV/EBITDA).

In FY2020, median TEV/EBITDA rose to 38.5, from 32.5 in FY2019. In FY2020, E.ON, EnBW and Orsted reported sharp ascent in TEV value mostly driven by their **increasing focus on strengthening their renewables portfolio and on reducing carbon emissions to drive growth.**

4 Mergers & acquisitions: Continued growth in deal activity

1Q21 M&A performance: Increase in deal activity

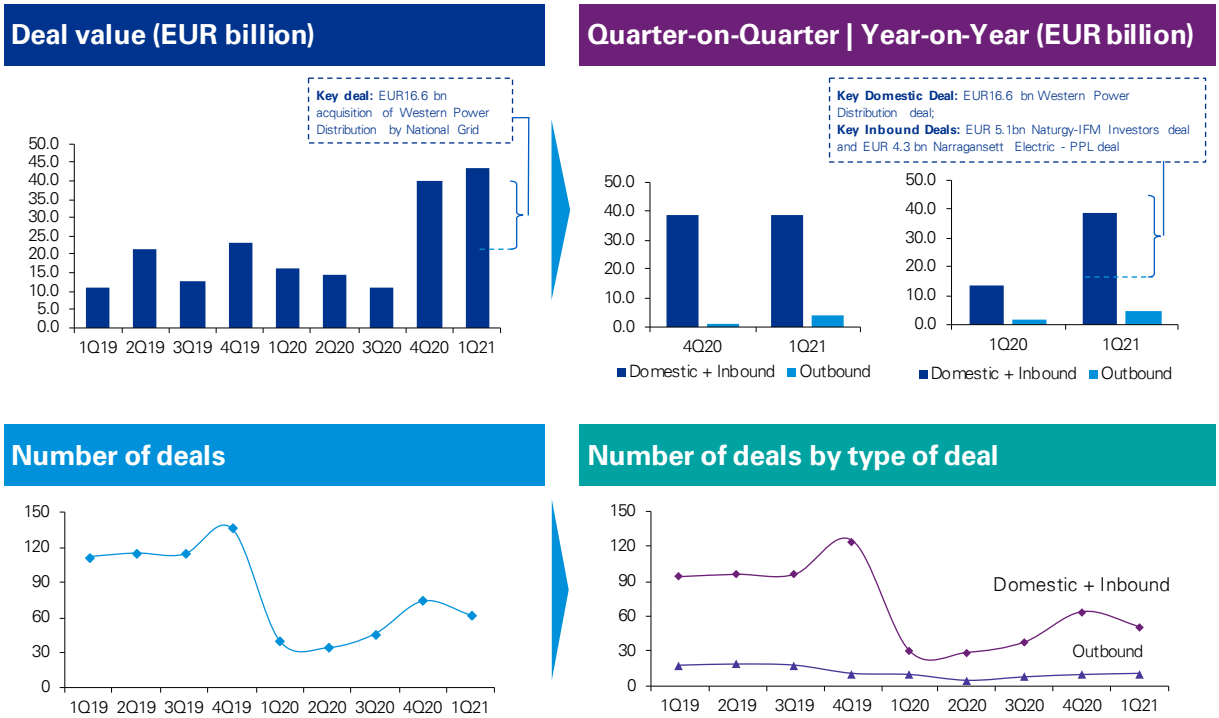
The European P&U industry continued to recover from the COVID-19 pandemic in 1Q21, with many deals being executed. During the quarter, **total deal value rose by 8 percent q-o-q to EUR43.4 billion, from EUR40.0 billion in 4Q20**. The growth in deal value was driven by the EUR16.6 billion acquisition of PPL's UK-based distribution business — Western Power Distribution by National Grid Plc. Also, PPL acquired The Narragansett Electric Company, the largest T&D and gas distribution company in Rhode Island from National Grid for EUR4.3 billion, to strengthen its presence in the US markets.

Further, National Grid announced that it will commence a process later in 2021 for the sale of a majority stake in National Grid Gas plc, the owner of the national gas transmission system ("NGG"). [xxxv]

The top five P&U industry M&A deals accounted for 71.9% of the overall deal value in 1Q21. The combined value of the top five M&A deals stood at EUR31.2 billion, against the overall value of EUR43.4 billion recorded for the quarter.

The top 15 deals, valued at EUR39.8 billion and accounting for 91.7 percent of the total deal value, focused on the energy transition agenda, including renewables and electric trade & distribution, along with focus on core businesses and reliable returns. Venture capital funds also increased investments in electrification initiatives supporting transportation, battery storage and digital technologies.

Figure 8: Number and value of M&A deals in the European P&U sector, 1Q19 to 1Q21



Note(s): (a) M&A deals include Domestic, Inbound and Outbound deals. Domestic M&A deals are those for which both target and buyer companies are within Europe; Inbound M&A deals are those for which target company is in Europe but the buyer company is outside Europe; Outbound M&A deals are those for which target company is outside Europe and buyer company is in Europe.

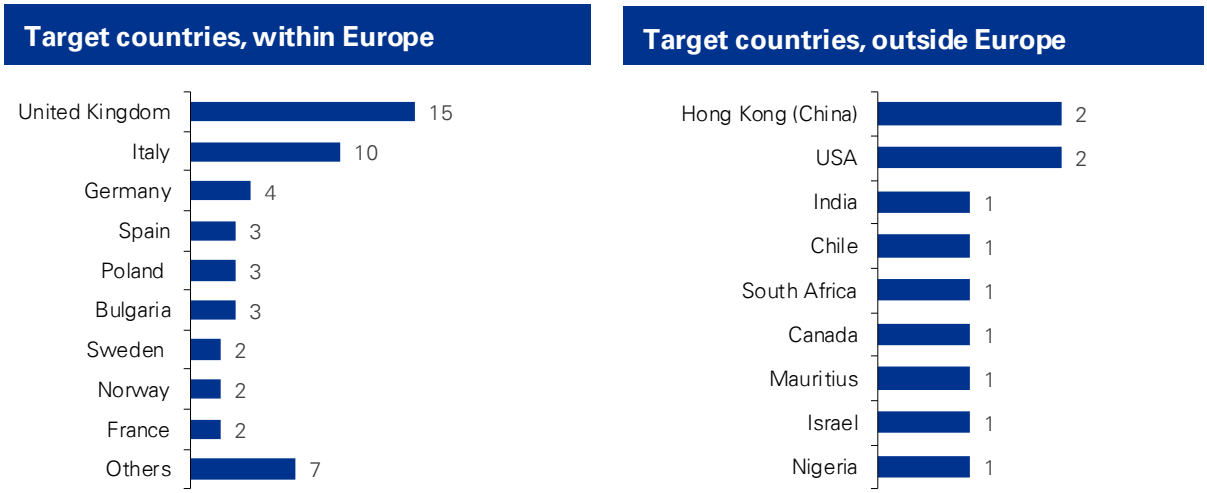
(b) Deals with undisclosed deal value not included.
Source(s): MergerMarket, 2021.

The UK recorded highest deal activity in Europe. In terms of deal value, it contributed nearly 54 percent of total deal value, across European Power and Utilities industry. [xxxvi]

Within Europe, other than the UK, the targets were primarily based in Italy, Germany, and Spain. Outside of the region, the primary target country for the European P&U companies was the US and China.

During the quarter, Total Energies, the French energy company, acquired a 20% stake in Adani Green Energy, an Indian solar developer, and 50% stake in its 2.35GW portfolio of operating solar assets for a total investment of EUR2.1 billion. [xxxvii]

Figure 9: Target countries, by total number of deals, 1Q21



Note(s): Deals with undisclosed deal value not induded
Source(s): MergerMarket, 2021.

The Way Forward

With the European Union focusing on reduction in carbon emissions and net-zero targets, it is expected that 2021 will witness a record-breaking year for renewables auctions (estimated to be about 45GW of auctions). This would lead to increased domestic and inbound deals in the Renewable space. Also, with the return of power demand in the region, and subsequent increase of cash flow for power suppliers, the deal activities might resume and could pave way for larger deals.

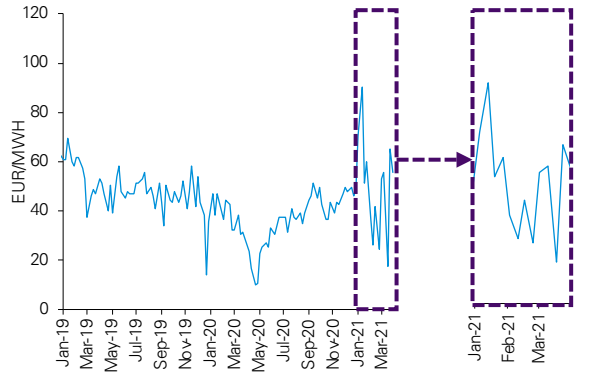
Globally, driven by ESG agenda, utilities continue to shift their investments towards renewables — RWE has announced plans to invest EUR7 billion in renewables, while EnBW plans to invest EUR12 billion in three strategic focus areas - sustainable generation infrastructure, system-critical infrastructure and smart infrastructure, during 2019–2025. [xxxviii] [xxxix] [xl]

Appendix

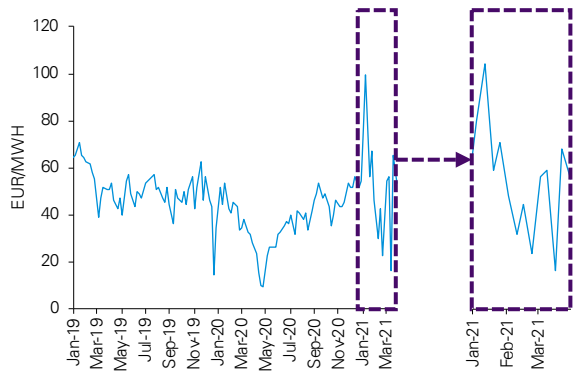
Electricity prices (Base load and Peak Load)

Spain

Base load

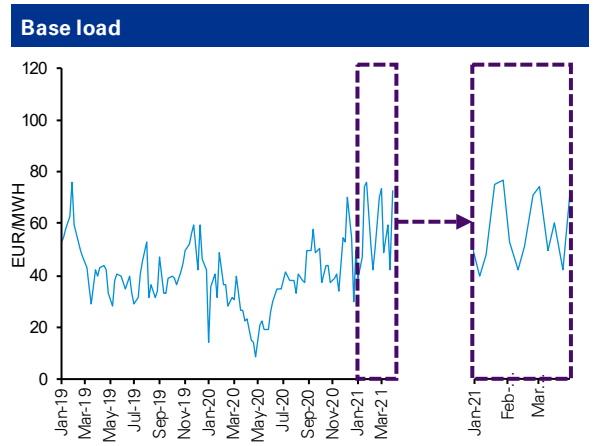


Peak load

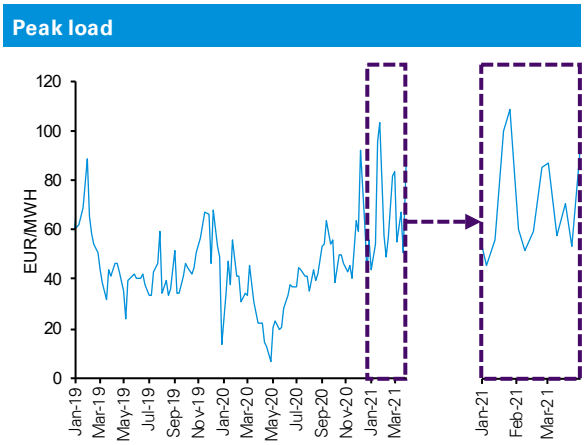


France

Base load

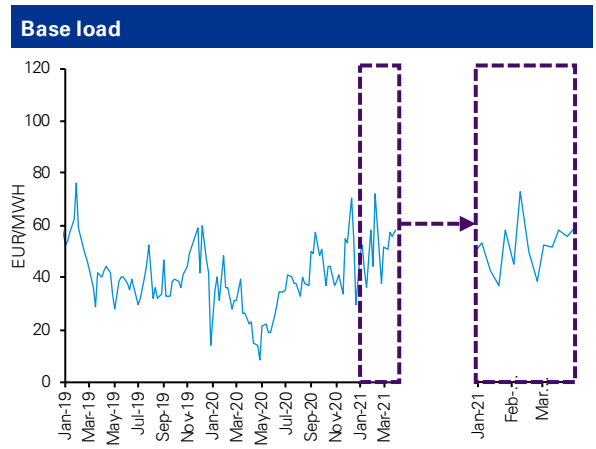


Peak load

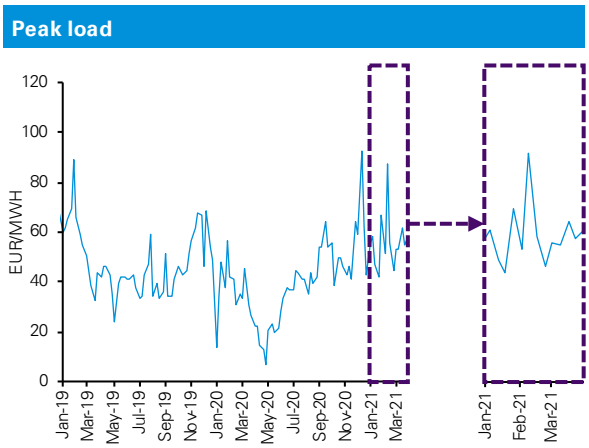


Germany

Base load

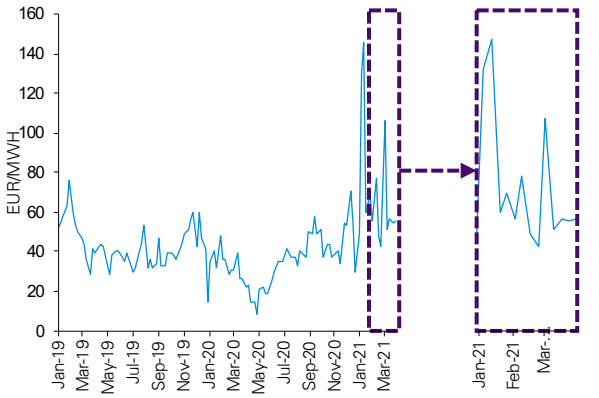


Peak load

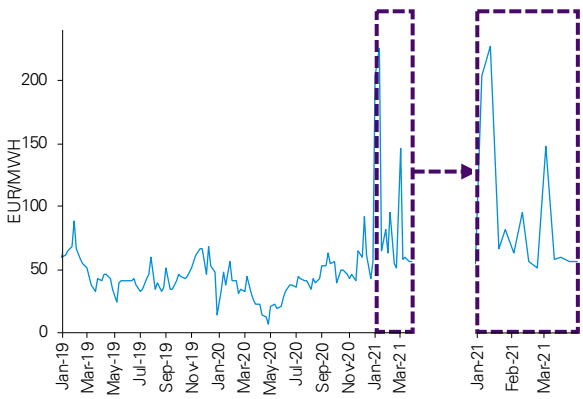


United Kingdom

Base load



Peak load



Top 15 M&A deals, 1Q21, by deal value

Announced Date	Target Company	Target Description	Target Country	Bidder Company	Bidder Country	Seller Company	Deal Value EUR(m)	Deal Type
3/18/2021	Western Power Distribution plc	UK-based utility company that distributes electricity	United Kingdom	National Grid Plc	United Kingdom	PPL Corporation	16,591	Domestic
1/26/2021	Naturgy Energy Group (22.69% Stake)	Spain-based company focused on the supply, commercialization and distribution of natural gas and electricity	Spain	IFM Investors	Australia		5,060	Inbound
3/18/2021	The Narragansett Electric Company	US-based electricity transmission & distribution service provider as well as natural gas distributor	USA	PPL Corporation	USA	National Grid Plc	4,327	Inbound
3/5/2021	Aggreko PLC	UK-based company engaged in supply of temporary power generation equipment and of temperature control equipment	United Kingdom	TDR - I Squared consortium	USA		3,130	Inbound
1/18/2021	Universal Trade and Investments Ltd; Acme Trade and Investment Ltd; Adani Green Energy Limited (2.35 GWac portfolio of operating solar assets) (50% Stake)	Mauritius-based engaged in trade in various commodities globally; India-based company having interest in companies operating solar renewable solar power projects; India-based 2.35 GWac solar assets of Adani Green Energy Limited	India	TotalEnergies S.A. (Formerly Total S.A.)	France	Adani Green Energy Limited; Dome Trade and Investment Ltd	2,071	Outbound
3/18/2021	Northumbrian Water Limited (20% Stake); Wales & West Utilities Limited (10% Stake); UK Power Networks Holdings Limited (20% Stake); Dutch Enviro Energy (10% Stake)	UK-based supplier of water and wastewater services; UK-based company that owns, operates, develops, and distributes gas to industrial, commercial and domestic consumers; UK-based electricity distribution company; Netherlands-based company engaged in energy from waste treatment	United Kingdom	CK Asset Holdings Limited	Hong Kong (China)	Li Ka Shing Foundation Limited	1,834	Inbound
3/4/2021	Hornsea 1 offshore electricity transmission link asset	UK-based offshore electricity transmission link to Hornsea 1	United Kingdom	Chubu Electric Power Co., Inc.; Diamond Transmission Corporation Limited	Japan	Hornsea 1 Limited	1,362	Inbound
3/15/2021	Enel Americas SA (10% Stake)	Chile-based company engaged in distribution and sale of electricity, thermal and caloric energy services	Chile	Enel S.p.A.	Italy		1,234	Outbound
3/12/2021	Fortum Oyj AB (District heating businesses in the Baltics)	Estonia,Latvia, Lithuania-based district heating businesses held by Finnish energy group Fortum in the Baltics	Estonia	Partners Group Holding AG	Switzerland	Fortum Oyj AB	800	Domestic
3/31/2021	Ferngas Netzgesellschaft mbH	Germany-based owner and operator of a regulated gas network	Germany	Versicherungskammer Bayern	Germany	First Sentier Investors	720	Domestic
1/19/2021	Mainstream Renewable Power Limited (75% Stake)	Ireland-based renewable energy company that engages in the development, building and operation of renewable energy plants in Ireland and internationally	Ireland (Republic)	Aker Horizons AS	Norway		675	Domestic
1/8/2021	EF Solare Italia S.p.A. (30% Stake)	Italy-based operator of photovoltaic plants	Italy	Predica Energies Durables	France	F2i SGR SpA	600	Domestic
1/14/2021	E2i Energie Speciali Srl (70% Stake)	Wind power company	Italy	Edison S.p.A.	Italy	F2i SGR SpA	554	Domestic
1/11/2021	SUEZ NWS Ltd (42% Stake)	Hong Kong-based company engaged in provision of water and wastewater treatment, recycling and waste recovery and treatment infrastructure services as well as smart environmental solutions	Hong Kong (China)	Suez SA	France	NWS Holdings Limited	442	Outbound
2/22/2021	400 MW of operating renewables in Spain	Spain-based 400 MW of operating renewables in Spain which includes 11 wind farms and one solar plant	Spain	China Three Gorges Corporation	China	Corporacion Masaveu S.A.; Korys Investments NV; Exus Management Partners SL; Cefiro Energia, SL	400	Inbound

Source: MergerMarket, 2021.

Share price evolution: Overview (1Q21)

Company	Q1 2019	Q2 2019	Q3 2019	Q4 2019	Q1 2020	Q2 2020	Q3 2020	Q4 2020	Q1 2021	Last Quarter Q1 2021/ Q4 2020	Last Year Q1 2021/ Q1 2020
CEZ, a. s.	21.3	20.9	20.2	20.1	18.5	17.4	17.4	17.4	20.4	17.8%	10.4%
E.ON SE	9.5	9.7	8.9	9.1	10.1	9.4	10	9.2	8.8	-4.4%	-12.1%
EDP - Energias de Portugal, S.A.	3.2	3.4	3.4	3.7	4.1	4	4.3	4.6	5	9.8%	21.0%
Electricité de France S.A.	13.5	12.2	10.8	9.4	10.7	7.6	8.9	11.4	11.1	-2.6%	3.5%
EnBW Energie Baden-Württemberg AG	31.3	32.6	33.8	44.9	45.8	49.1	49.6	53.8	62.9	16.8%	37.1%
Endesa, S.A.	21.8	22.7	23.2	24.1	22.8	20.7	23.6	23.5	21.8	-7.3%	-4.3%
Enel SpA	5.3	5.7	6.4	6.9	7.4	6.7	7.8	7.9	8.3	6.1%	13.0%
ENGIE SA	13.6	13.2	13.8	14.6	14.2	10.2	11.4	12	12.7	5.7%	-11.0%
Fortum Oyj	19.6	19	20.6	21.5	19.5	16	17.4	18	21.5	19.3%	10.2%
Iberdrola, S.A.	7.3	8.3	9	9.1	9.8	9.3	10.8	11.1	11.1	-0.1%	13.6%
National Grid plc	9.6	9.4	9.4	10.5	11.4	10.4	9.7	10.1	9.8	-2.9%	-14.0%
Naturgy Energy Group, S.A.	23.9	25.6	23.5	23.5	21.2	16.2	16.6	18.4	20.7	12.6%	-2.3%
Ørsted A/S	63.8	71	85.2	83.5	92.7	96.9	117.4	142.7	145.9	2.3%	57.4%
Public Joint Stock Company Inter RAO UES	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	1.3%	-23.2%
RWE Aktiengesellschaft	21.6	22.9	25.3	26.8	29.3	27.9	32.5	33.7	34.1	1.2%	16.2%
SSE plc	13.5	12.7	12.7	15.4	17.2	14.1	14.2	15.2	16.6	9.2%	-3.4%
Suez SA	11.4	12.3	13.5	13.4	13.5	10.1	12.4	16	17.4	8.6%	28.8%
Uniper SE	25.5	26.4	28.2	28.8	27.6	25.8	28.5	27.6	30.1	9.1%	9.3%
Veolia Environnement S.A	19	20.9	22.2	23.1	24.6	19.5	19.4	18.7	22.4	19.9%	-8.9%
VERBUND AG	42.5	45.2	51.3	46.8	42.9	39.5	44.6	56	69.7	24.4%	62.2%
EURO STOXX Utilities	300.9	315.9	330.2	340.9	356.3	306.7	353.7	362.7	377.2	4.0%	5.9%

Note: Includes KPMG P&U 20 companies. Currency is in EUR.
Source: S&P Capital IQ, 2021.

Credit ratings: Overview (as of June 2021)

Company	S&P Rating[1]	Moody's Rating[1]	Fitch Rating[1]
CEZ, a. s.	A-	Baa1	A-
E.ON SE	BBB	Baa2	BBB+
EDP - Energias de Portugal, S.A.	BBB	Baa3	BBB
Electricité de France S.A.	BBB+	A3	A-
EnBW Energie Baden-Württemberg AG	A-	Baa1	BBB+
Endesa, S.A.	BBB+	Baa1	A-
Enel SpA	BBB+	Baa1	A-
ENGIE SA	BBB+	Baa1	A-
Fortum Oyj	BBB	Baa2	BBB
Iberdrola, S.A.	BBB+	Baa1	BBB+
National Grid plc	BBB+	Baa2	BBB-
Naturgy Energy Group, S.A.	BBB	Baa2	BBB
Ørsted A/S	BBB+	Baa1	BBB+
Public Joint Stock Company Inter RAO UES	-	Baa3	BBB
RWE Aktiengesellschaft	-	Baa2	BBB+
SSE plc	BBB+	Baa1	BBB
Suez SA	-	Baa1	-
Uniper SE	BBB	-	-
Veolia Environnement S.A.	BBB	Baa1	BBB
VERBUND AG	A	A3	-

Quarterly rating variation: Upgrade Unchanged Downgrade

Note(s): (1) Long Term Credit Rating provided as on 17 June 2021; comparison made with ratings on 22 February 2021
Source: S&P Capital IQ/Moody's/Fitch, 2021.

Regulatory developments in the European P&U sector, 1Q21

Portugal

Exceptional steps in the event of state of emergency

Due to the epidemiological situation, the Portuguese government approved legislation to establish some support measures aimed at the social and solidarity sector, including measures to provide additional support for electricity consumption (particularly for vulnerable customers) and exemption from inspections in some renewable energy production units.

In addition, the Regulatory Entity for Energy Services created some unique measures that apply to energy supply, which is deemed an essential public service.

Link I | Link II

New gas Codes

The new gas rules were authorised by ERSE on 31 March, completing the regulation's adaptation to the new national legal framework, which now covers the generation of renewable and low-carbon gases, as well as the application of the guarantees regime to the gas market.

The primary motive for the introduction of a new activity – generation of renewable gases or low carbon gases and injection into gas networks, helping the decarbonisation of the gas industry

Link III | Link IV

Environmental Fund budget for 2021

The Minister of Environment and Climate Action approved the Environmental Fund budget for the year 2021.

Link V

Auctions for low-voltage power distribution concessions

The State Secretary for Energy has postponed the presentation of the templates for the public tenders that will be held for these concessions for another 4 months because the municipal concessions for low voltage power distribution in Portugal are coming to an end.

Link VI

Germany

EEG 2021

The new EEG came into force on 1 January 2021.

The EEG has served as a critical foundation for the effective spread of renewable energy in the power sector for more than two decades. On 23 September 2020, the federal cabinet approved a draught law for the new EEG, which was later implemented on 17 December 2020.

The new EEG replaces the old one, which was released in 2017. It addresses topics such as a new long-term aim for greenhouse gas neutrality by 2050, legal anchoring of aggressive renewable energy expansion paths until 2030, and increased acceptance of renewable energy expansion, among others.

Link I

Energy law draught proposal to control pure hydrogen networks

The draft law on EU requirements and the regulation of pure hydrogen networks in energy law aims to transpose EU Directive 2019/944 into national legislation. As a result, the Energy Industry Act's provisions will be adapted and supplemented.

A transitional regulation in the EnWG for the regulatory treatment of pure hydrogen networks lays the groundwork for a quick and lawful entry into the creation of a national hydrogen network infrastructure. The law establishes a revenue system for independent operators of cross-border power interconnections to alleviate the regulatory imbalance in the funding of such interconnections.

Link II

Amendment to the Federal Requirements Plan Act

The Federal Requirements Plan (FRP) is the primary tool for expanding power grids at the transmission level. Transmission system operators have evaluated which network expansion requirements exist up to 2030 to meet the German government's climate target in the 2019-2030 network development plan.

The Federal Ministry of Economic Affairs and Energy has produced a bill to alter the Federal Requirements Plan Act on this basis. On 23 September 2020, the federal cabinet approved the proposed bill. The Federal Requirements Plan Act was amended by the Bundestag on 28 January 2021.

Link III

Introduction of CO2 tax in Germany in January 2021

A CO2 tax has been imposed in Germany since January. The CO2 tax is intended to help minimize greenhouse gases and achieve the German government´s climate targets. The tax applies to gasoline, diesel, heating oil, and natural gas. Only a few companies were compelled to pay for CO2 emissions until 2021. These included, for example, airlines and industrial firms that emit a lot of greenhouse gases. Germany wants a consistent CO2 pricing to meet its CO2 reduction goal. As a result, everyone selling or providing products or services that emit CO2 will be subject to this tax. Companies that are affected can buy certifications that allow them to pollute by generating greenhouse gases.

Link IV

Italy

Electricity and Gas supply market liberalization

The Italian Government changed the decision n. 183 of 31 December 2020 'Milleproroghe' into law with Decree n. 21 of 26 February 2021.

The "Milleproroghe" Decree postponed the liberalisation of the electricity and gas delivery markets until January 2023. As a result, the "Mercato Tutelato" will be available to retail customers until the end of 2022.

The entire market liberalisation was supposed to start on 1 July 2019 but has been postponed year after year.

Link I

UK

Consultation outcome - Carbon capture, usage and storage: market engagement on cluster sequencing

In February, the Department of Business, Energy and Industrial Strategy (BEIS) released a consultation document outlining a strategy for CCUS cluster sequencing. Phase 1 evaluates how clusters will be sequenced, whereas Phase 2 proposes a method for allocating funds for specific projects inside clusters. At least two clusters will be designated as 'Track 1' clusters, which will be eligible for funding and disclosed in October 2021.

Link I

Net Zero Innovation Portfolio

In March 2021, the Net Zero Innovation Portfolio, a GBP1 billion fund dedicated to accelerating the commercialization of low-carbon technology, was unveiled. Investments made through the fund are expected to lower decarbonisation costs, with competitions set to begin in 2021. Future offshore wind technologies, hydrogen, advanced CCUS, direct air capture and greenhouse gas removal (GGR), as well as energy storage, flexibility, and other disruptive technologies would be supported by the fund, which was unveiled as part of the Prime Minister's ten-point plan.

Link II

Chancellor's 2021 Spring budget commits further support for offshore wind

Chancellor Rishi Sunak announced further funding for offshore wind in the 2021 budget presentation. This comprised a GBP20 million programme to encourage the development of floating offshore wind technologies, as well as support for offshore wind manufacturing and servicing port facilities in Humberside and Teesside. The Department for Business, Energy, and Industrial Strategy (BEIS) created an Offshore Wind Investment Programme in February to help the implementation of manufacturing investment in the offshore wind supply chain.

Link III

Eight bidders gain freeport approval in move to boost English regions

In order to attract investment, the chancellor's budget designated eight places in England as special economic zones, or freeports. These have simpler planning laws, cheaper customs, lower taxes, and would attract infrastructure assistance, according to the chancellor, all of which might boost investment, trade, and job development. Industrial clusters such as Teesside and Humber are included on the freeport list.

Link IV

France

Recovery Plan (Update)

The French Minister of Economy, Finance, and Reconstruction released a EUR100 billion recovery plan on September 3rd to stimulate economic activity and job creation. The recovery plan, among other things, prepares the path for a greener French economy in 2030, given the need to accelerate the ecological transformation. The French recovery plan allocates Euro30 billion to the green transition, including:

- EUR6.7 billion for the thermal retrofitting of public (4 billion euros for schools and administrative buildings, EUR500 million for social housing) and private (2 billion euros for housing, EUR200 million for SMEs and VSEs) structures. Progress in mid-2021:
  - For private houses, renovations reached EUR1.7 billion (173 k.houses)
  - For state public buildings, renovations EUR2.7 billion(4 k.projects)
  - For schools and regional buildings : will be initiated before the end of 2021
- EUR1.2 billion to finance investments and operation costs related to industry decarbonization from 2020 to 2022. Progress in mid-2021:
  - 1517 energy efficiency large projects received EUR6.6 billion
- EUR1.2 billion on developing everyday green mobility (cycling and public transportation). Progress in mid-2021:
  - 179 k conversion premiums (for scrapping old thermic vehicles) and 103 k ecological bonuses (subsidy to purchase clean vehicles e.g. EV, HV, H²V)
- EUR4.7 billion to sustain and enhance rail transportation, especially freight
- 7bn€ over 10 years (2021-2030) to develop green hydrogen

Link I | Link II | Link III

Monthly evolution of the regulated tariffs for the sale of Engie gas on May 1, 2021

ENGIE's regulated pricing, excluding tax, increased by 1.1 percent on May 1st, 2021. Customers who use gas for cooking will see a 0.3 percent hike, 0.7 percent for those who have dual use, cooking and hot water, and 1.2 percent for those that heat with gas.

The jump in May can be ascribed to a spike in LNG prices following strong demand in China and India, as well as the closing of the Suez Canal at the end of March, which transports 8% of the world's LNG.

Link IV

CRE publishes the storage tariff term from April 1, 2021

All the natural gas storage capabilities were subscribed at the end of the 2021-2022 storage capacity auctions, ensuring supply security for the winter of 2021-2022.

CRE establishes the storage tariff period at EUR185.11 million/MWh/d/year from April 1, 2021, to complete the revenues collected directly by storage operators within the context of these auctions.

Link V

CRE gives a positive assessment of the implementation of the right to inject biomethane into natural gas networks

For gas networks, the surge in biomethane generation is both an opportunity and a challenge, as they must adapt to handle it. The right to injection, established by the EGalim law of November 8, 2018, has two goals: to shorten the time it takes for production facilities to connect and to keep costs down for the community. CRE is currently preparing a positive initial assessment of the new system's installation.

Biomethane output is expected to reach 14 to 22 TWh by 2028, according to the Pluriannual Energy Program (PPE). The creation of this new green gas for the gas system is an opportunity to decarbonize a sector that is still predominantly fossil. However, natural gas networks may not always have the capability to absorb this increased production, necessitating their reinforcement.

Link VI

Netherlands

ACM urges system operators to expedite replacement of jute wire insulation

In July 2019, an electrocution incident took place during home repairs on a meter box. Despite the fact that this was a one-time occurrence, the Netherlands Authority for Consumers and Markets (ACM) deemed it so serious that it urged system operators to develop a plan to replace outdated jute wire insulation as soon as possible, as well as to provide residents with accurate information about the risks of home repairs on the metre box.

Link I

Increased transparency for consumers regarding charging sessions for electric cars

The sector-wide scan indicated a significant improvement since ACM's call last fall, asking the sector to be honest about charging rates. Some charging card firms have moved price information from their websites to mobile apps. As a result, ACM has also examined these apps. Consumers can now see the price information prior to charging sessions in the apps as well. ACM will have enforcement powers for price information for charging without charging cards as of July 1, 2021.

Link II

ACM sets new tariffs for the transmission of natural gas

The Netherlands Authority for Consumers and Markets (ACM) has established the transmission tariffs for Gasunie Transport Services (GTS), the Dutch natural gas transmission system operator, for 2022. In 2022, these rates will climb by an average of 18 percent. In 2022, these rates will climb by an average of 18 percent. Because natural-gas transmission expenses are a modest part of the total energy bill, consumers should expect a 1% rise in their energy rates.

Link III

Dutch court rules oil giant Shell must cut carbon emissions by 45% by 2030 in landmark case

Royal Dutch Shell, the world's largest oil company, has been ordered by a Dutch court to cut its carbon emissions by 45 percent by 2030, compared to current levels. This is far more than the company's existing target of cutting emissions by 20% by 2030. The historic decision comes at a time when the world's leading corporations are under intense pressure to set short, medium, and long-term emissions targets that are in line with the Paris Agreement. According to Reuters, this is the first-time campaigners have gone to court to force a major energy company to change its climate plan.

Link IV

Dutch govt commits spending EUR 338m for green hydrogen

As part of its climate plan, the Dutch government has vowed to invest up to EUR338 million (USD 401.5 million) in expanding the country's green hydrogen sector. The funds will be used to support projects that promote green hydrogen generation and deployment across energy-intensive industries, according to the government, which highlighted many industrial locations that provide prospects in this field. Northern Netherlands, Amsterdam, Rotterdam, and Zeeland are among them.

Link V

Innovative projects given additional €1.35 billion boost due to funding from National Growth Fund

Artificial intelligence, regenerative medicine, health data infrastructure, quantum technologies, and hydrogen/green chemistry will all receive €1.35 billion from the National Growth Fund. Five proposals for projects designed to boost research and innovation, submitted by State Secretary of Economic Affairs and Climate Policy Mona Keijzer on behalf of the collaborating companies, knowledge institutions and government agencies, have had funding allocated and set aside for later use.

Link VI

Russia

Russia: TPPs to reduce greenhouse gas emissions by 10%

According to the order modifying the Russian State Program on Energy Sector Development, greenhouse gas emissions from Russia's thermal power plants must be decreased by 10% by 2024 compared to 2019 levels. According to the government, the TPPs are expected to lower emissions by 3.7 percent in 2021, 6.6 percent in 2022, and 8.5 percent in 2023.

Link I

Russia: Limiting of Greenhouse Gas Emissions

The Russian State Duma Energy Committee has proposed that the Russian Government's draught federal law No. 1116605-7 "On Limiting Greenhouse Gas Emissions" be adopted.The law's concept consists of two primary components: mandatory carbon reporting for major emitters (companies that emit more than 150 thousand tonnes of CO2 equivalent) and submission of this information to a government-approved organization. Other entities have the option of reporting carbon emissions on a voluntary basis. As a result, an information base for greenhouse gas emissions management in the economy and its industries will be built. The other component is the creation of a legislative framework for carbon unit circulation as a tool for reducing carbon emissions and attracting investment. On a voluntary basis, any entity will be able to implement a climate project.

Link II

Russia: Low carbon certificates

Russia will begin providing low-carbon certifications to verify that producers are using sustainable energy. If certain nations try to collect additional customs or penalties on goods with a significant carbon footprint, these certificates will assist defend Russian exports. Holders of these certificates will be able to demonstrate that they have met the requirements for low-carbon electricity usage, allowing them to avoid or minimise these levies. The power plant owners will have the option, not the obligation, to grant these certifications. The Ministry of Energy anticipates that the introduction and distribution of these certificates in the market would encourage the use of the most environmentally friendly power stations for electrical power generation, as well as contribute to a reduction in carbon emissions.

Link III

Russia: RUB350 billion will be poured in green energy

According to Russia's Deputy Minister of Fuel and Energy, the Green Energy Support Program will cost RUB350 billion through 2035. The second program anticipates lower construction costs for renewable energy source power plants, stronger equipment localization criteria, and more export recognition.

Link IV

Russia: The nuclear power will be on the list of green industries

Representatives from VEB.RF, the Bank of Russia, the Ministry of Industry and Trade, the Ministry of Natural Resources, the Ministry of Fuel and Energy, and representatives from the banking and business community discussed the draft national Green Projects Taxonomy created by VEB.RF. The document's major goal is to promote green activities and projects that will help combat climate change and increase resource use efficiency. A unique national classification has been produced as part of this publication. Nuclear power generating, for example, is included in the Russian Taxonomy's list of green activities because it produces no direct CO2 emissions, putting it on par with renewable production resources. Green initiatives in Russia include ecotourism, hydrogen and natural gas car development, forestry, climate change, and agriculture initiatives, transportation infrastructure development projects, and projects that reduce CO2 emissions.

Link V

Russia: cross-subsidies in the power sector were up 25% in 2020

According to the "NP Market Council," the volume of cross-subsidies in the Russian power industry increased by 25% year on year in 2020, surpassing RUB 500 billion. Cross-subsidies in retail markets totalled RUB 237 billion, while subsidies between consumer groups in wholesale markets is estimated at RUB 291 billion.

Link VI

Kazakhstan: The Kazakhstan Ministry of Energy and EBRD sign a memorandum of cooperation

The Republic of Kazakhstan's Ministry of Energy and the European Bank for Reconstruction and Development (EBRD) have signed a Memorandum of Understanding to design and implement a long-term development strategy for Kazakhstan's energy and natural gas infrastructure sectors. By setting progressive goals and gradually implementing new activities in present climate and energy policies and regulatory regulations, this approach will assure carbon neutrality of Kazakhstan's energy and natural gas infrastructure by 2060.

Link VII

Ukraine: Plans to complete the transition to green energy by 2050

Ukraine plans to complete the transition to green energy by 2050. To do this, the Verkhovna Rada established an Inter-Factional Deputy Association Clean Energy – Healthy Environment in autumn 2020. The Ukrainian Prime Minister has stated that Ukraine will participate in the European Green Deal, and the work on a Ukrainian Green Deal based on the European Green Deal is already beginning to become the country's national strategy. A draft law has been drafted on the Prime Minister's orders to streamline the connection to the grid electricity, which will boost Ukraine's Doing Business rating and boost the investment climate.

Link VIII

Ukraine: Plan to develop a Hydrogen Strategy in 2021

According to the Deputy Head of the Ministry, the Ukraine Ministry of Energy and Coal Industry plans to develop a Hydrogen Strategy in 2021 and launch pilot projects in 2022. According to the statement, the World Bank has agreed to support this development, and a company will be chosen in accordance with WB tender processes to draft the strategy with specialists. In addition, Ukraine will begin scientific and technical research in 2021 to prepare the Hydrogen Strategy and an action plan for the introduction of a national hydrogen market.

Link IX

Ukraine: USD250 million to be invested in green energy in 2021-2022

In the years 2021-2022, UDP Renewables, in collaboration with the Qatari energy company Nebras Power, plans to invest almost USD 250 million in Ukraine's green energy. According to reports, the corporations have agreed to invest in green power generation facilities, with development scheduled for the years 2021-2022. As per the agreement, Nebras Power will own a controlling position in a number of solar power plant operators.

Link X

Azerbaijan: Masdar invests USD200 million in the construction of a 230 MW SPP

The Azerbaijan's Ministry of Energy, Azereneji, and Masdar (UAE) have signed a set of documents to carry out the building of a solar power plant on Absheron. Masdar and the Ministry of Energy and Mineral Resources signed three agreements: An Investment Agreement, a Power Purchase Agreement, and a Transmission Connection Agreement. The SPP will have a capacity of 230MW. The facility will create 500 million kWh per year, saving 110 million cubic metres of natural gas and 200,000 tonnes of carbon gas emissions. According to the Azerbaijani Energy Minister, Masdar will invest USD200 million in the project. The project will be built on a build-own-operate model.

Link XI

Uzbekistan: Transition to carbon-neutral power industry

The Ministry of Energy of Uzbekistan commissioned a consortium of international experts to develop a roadmap exploring the feasibility of creating a carbon-neutral electricity generation sector in Uzbekistan by 2050, in collaboration with the Ministry of Foreign Investment and Trade and with the support of the EBRD and the Government of Japan. The report presents a carbon neutrality path for the Uzbekistan electricity sector, based on the findings of the Ministry of Energy's Concept for 2020-2030 and extending the analysis to 2050. The report's main conclusion is that Uzbekistan's transition to a carbon-free electrical industry by 2050 is both technically and economically possible. According to the analysis, Uzbekistan's electric energy consumption would peak at 400 GW by 2050, while wind energy's technological capacity is 1,000 GW and solar energy's is 3,000 GW. The expansion of solar and wind energy sectors will be key to the transition to carbon-neutrality. Furthermore, a nuclear power plant with a capacity of 2.4GW would be built in the country.

Link XII

Armenia: The energy corridor project is to be accomplished by the end of 2025

Armenia's electrical transit corridor is expected to be finished by the end of 2025, according to official sources. By the end of 2021, a 400kV electricity transmission line will have been completed from Iran. All engineering documents on a 400kV energy transmission line connecting Armenia and Georgia is complete. The project had been completed since 2014. Following then, it took a long time to debate various aspects of the project. Finally, it was kept largely unaltered in 2019. As a result, four nations (Russia, Georgia, Armenia, and Iran) will enjoy a common electric power corridor for unrestricted electric power trading.

Link XIII

Belarus: A five-year state energy saving program was approved

The State Energy Saving Program was approved by Ministerial Order No. 103 of 24 February 2021 for a period of 2021-2025. The following energy saving goals were qualified as strategic goals of the country: to reduce dependence of Belarus on imported energy resources by engaging, to the extent maximum possible, their own fuel and energy resources (FER) including RES in the country's fuel and energy budget; to keep the gross FER consumption down in the process of economic development of the country and to narrow the gap between Belarusian GDP PPP energy intensity and the worldwide average energy intensity.

Link XIV

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