



Adapting to the new reality

Insights about the european power & utilities industry

KPMG Global Energy Institute

Q2 2020



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1 Executive summary

The effect of COVID-19 was immediately felt in the first quarter of 2020 as European P&U companies' financial results indicate. Revenues fell by ~8 percent in 1Q20 from 4Q19, and most other metrics like TEV/EBITDA valuation and Capex/EBITDA ratio also took a beating. And while one may agree that the COVID-19 pandemic has played havoc in most industries, the European P&U industry has displayed surprising resilience in the second quarter of 2020. Initially, the April data showed a bleak picture: Electricity prices dropped, input prices remained very low, clean spark and dark spreads declined, and the EUROSTOXX utilities index was on a downtrend. However, the months of May and June saw steady recovery in all these indicators as lockdowns eased and demand surged.

Some of this recovery has also been supported by the dynamics in the renewables segment of the industry as well as regulatory action taken by various European governments including prevention of immediate penalties due to the delays in the implementation of renewable energy plants (Germany) and postponement of the withdrawal of the reduced rate of the domestic consumption tax on energy products (France).

While it may be too early to surmise how the 2Q20 performance of these companies might be – as by the time this report is getting published 2Q20 results are not out yet – early indications and forecasts from analyst reports don't paint a negative picture. However, the M&A activity in the industry has drastically reduced in 2Q, thanks to a more dedicated focus on maintaining critical infrastructure and finances rather than acquiring new entities, especially when investors will likely be re-evaluating some of the potential deals.

It is expected that the rest of 2020 will witness a partial recovery for most P&U players in Europe as price hedges are in place and companies which have a heavy renewables presence will likely recover faster. Also, with the Green Deal and other similar stimulus measures from the European governments, it is likely that the COVID-19 pandemic will succeed in accelerating the pace of energy transition & decarbonization, with European P&U players at the center of it.



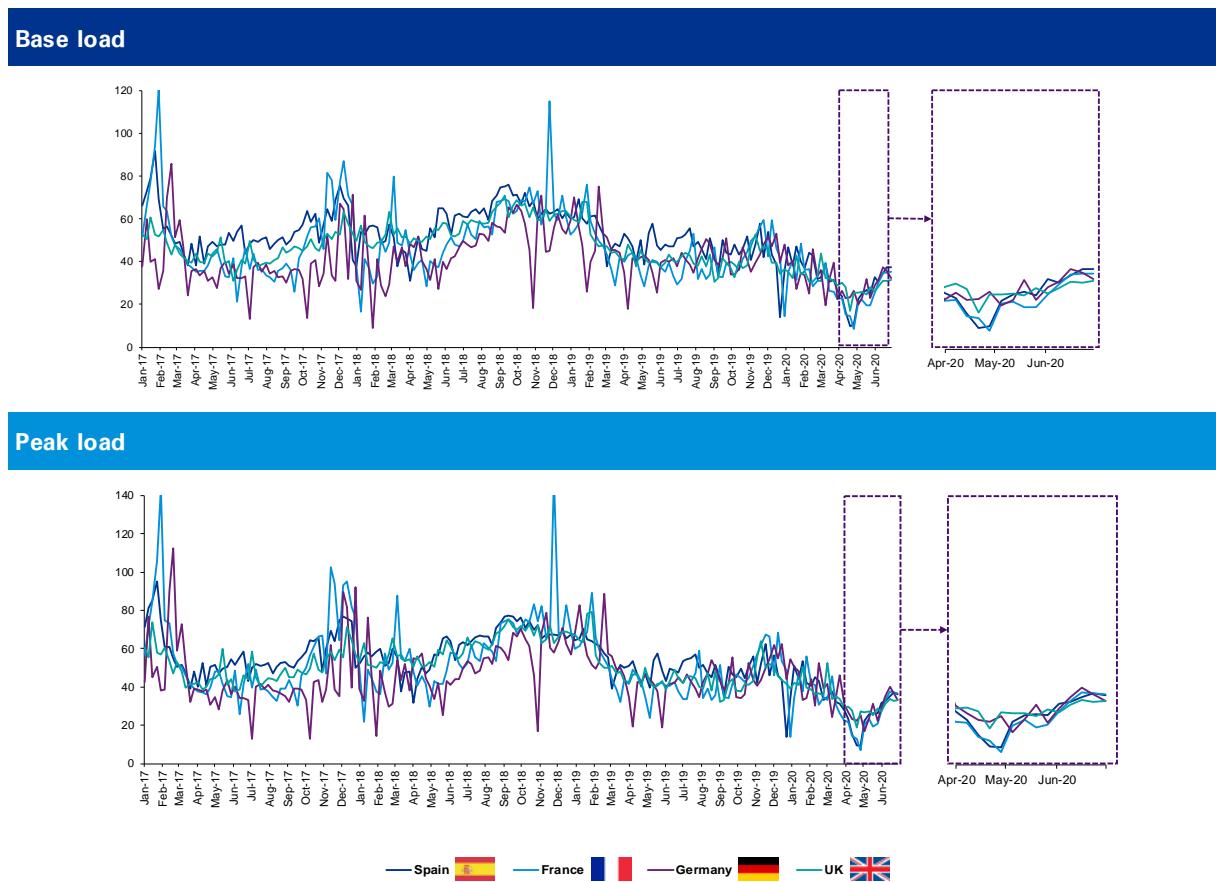
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Prices & margins: Has the European P&U industry felt the full effects of the pandemic?

Electricity price evolution: Sharp decline followed by a resilient recovery

Electricity prices in Spain and France continued to decline till the last week of April reaching below EUR11/MWh in both countries. In the UK and Germany, though the electricity prices have fluctuated at a lower scale, they had declined to EUR17/MWh in second last week of April for the UK and to EUR20/MWh in the first week of May for Germany. **This decline in prices is attributed to low electricity demand amid the bleak economic outlook as measures taken to curb the spread of COVID-19 pandemic led to the shutdown of economic activities.** In fact, the average baseload prices in France, the UK, Spain and Germany, during 2Q20 declined by more than 15 percent compared to 1Q20, with the maximum decline happening in Spain (-32%) and the minimum in Germany (-15%). **However, throughout May and June 2020, the electricity prices have shown a pattern of recovery as lockdowns eased**, reaching EUR37.5/MWh in Spain, EUR35.1/MWh in France, EUR32.4/MWh in Germany and EUR31.7/MWh in the UK by the end of June 2020. **The price recovery during this quarter was mainly supported by decline in wind energy production¹**, followed by downward revision in the French nuclear production plan leading to rise in carbon prices². However, the recovery was partially offset by declining gas and coal prices due to demand uncertainty.

Figure 1: Electricity prices (Base load and peak load), EUR/MWh, January 2017 to June 2020



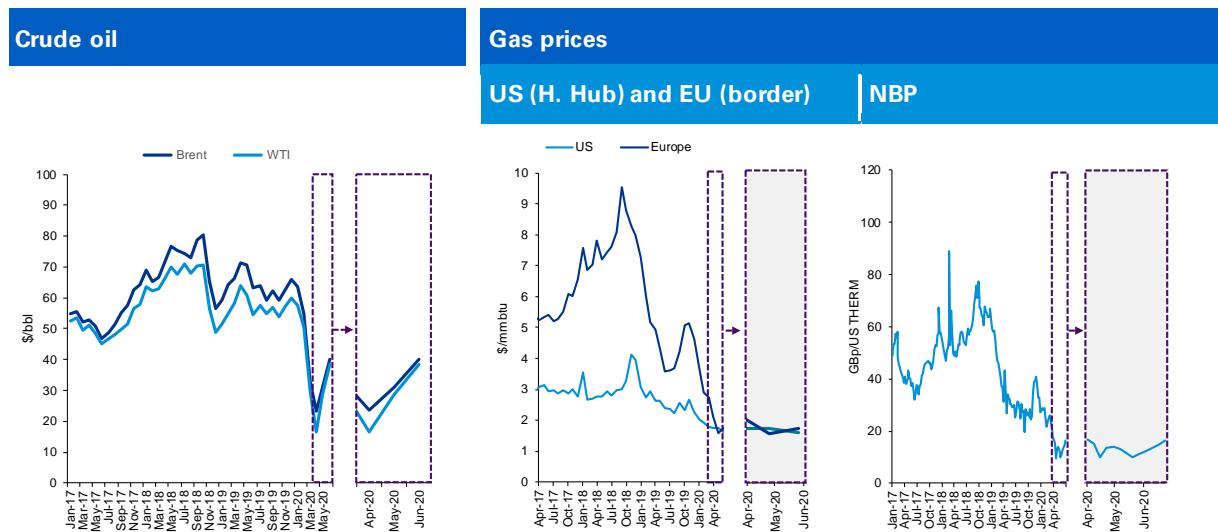
Note: For individual country-level data/graph, please refer to the APPENDIX.

Source(s): Reuters, 2020.

Fuel price evolution: Crude oil and gas prices gradually recover but remain low

The Brent and WTI crude oil prices continued to decline till last week of April reaching US\$19.33 per barrel and US\$11.57 per barrel³ respectively, attributed to economic effects of the COVID-19 pandemic, and earlier failure of OPEC+ countries to comply with agreed quotas leading to high storage levels. However, **the announcement of further production cuts and stable OPEC+ forecast helped prices to recover throughout May and June 2020**, reaching US\$41.3 and US\$39.3 per barrel respectively, at the end of 2Q20. The increase was also driven by growing optimism that easing global lockdowns will help boost economic activity and demand for fuels. The average WTI and Brent crude prices declined by nearly 39.4 percent and 37.8 percent in 2Q20 compared to 1Q20.

Figure 2: Crude oil and natural gas prices, January 2017 to June 2020



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), July 2020; Reuters, July 2020.

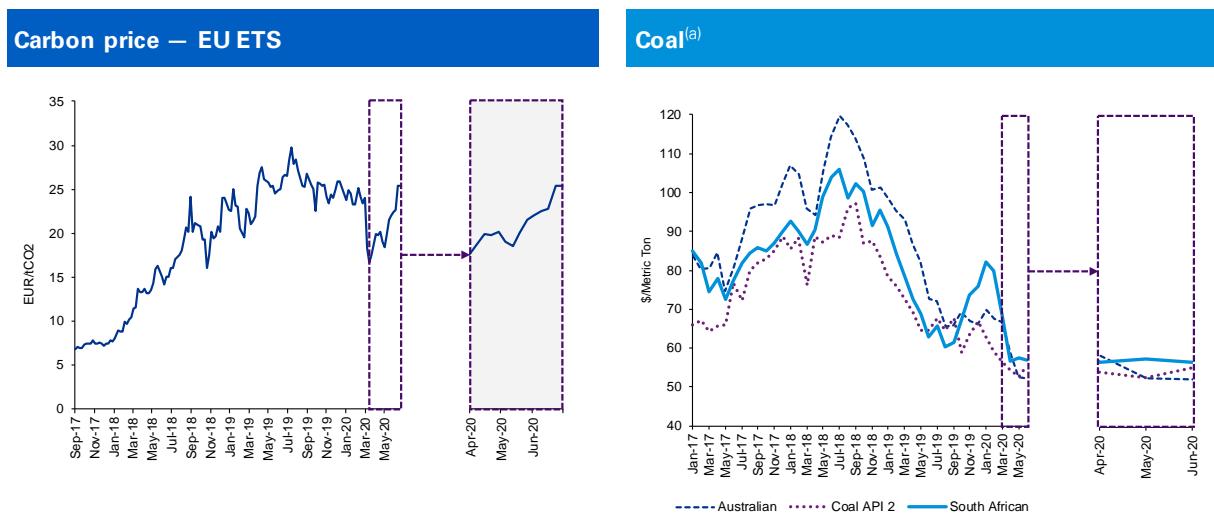
The average natural gas prices of EU border, Henry Hub and NBP continued to decline during 2Q20 reaching US\$1.6/MMBTU, US\$1.7/MMBTU and GBP10.9/Therm respectively, at the end of May 2020, **primarily owing to the impact of COVID-19 pandemic on overall demand, the fall of oil contracts, the weakness of the spot prices and expectations of recovery in near future⁴**.

However, the NBP and EU border gas prices started to recover in June 2020 reaching GBP16.3/Therm and US\$1.75/MMBTU respectively, by the end of the quarter. The prices were supported by rise in carbon prices and recovery in oil and gas markets in June 2020. The average gas prices for US Henry Hub declined by 11 percent, while EU border and NBP prices declined by 41 percent and 47 percent respectively, in 2Q20 compared to 1Q20.

Carbon and coal price evolution: Better recovery in carbon prices but coal prices remain low

Carbon prices slightly increased in April 2020 but averaged around EUR20 per ton of CO2 (tCO2) supported by easing lockdowns and optimism around virus recovery timelines. However, carbon prices declined in May reaching EUR18.4/tCO2, due to low levels of industrial activity and reduced power generation amid poor perspective of recovery for EU economy. Carbon prices rose throughout the rest of 2Q20 reaching EUR27.3/tCO2, driven by high number of speculative transactions and increasing confidence that the recovery from coronavirus pandemic is underway. The prices were also stimulated by announcement of increase in carbon prices effective from January 2021 onwards in Germany⁵, and the downward revision in French nuclear production⁶. **On an average, the carbon prices during the quarter declined by 8 percent from 1Q20.**

Figure 3: Carbon and coal prices, January 2017 to June 2020

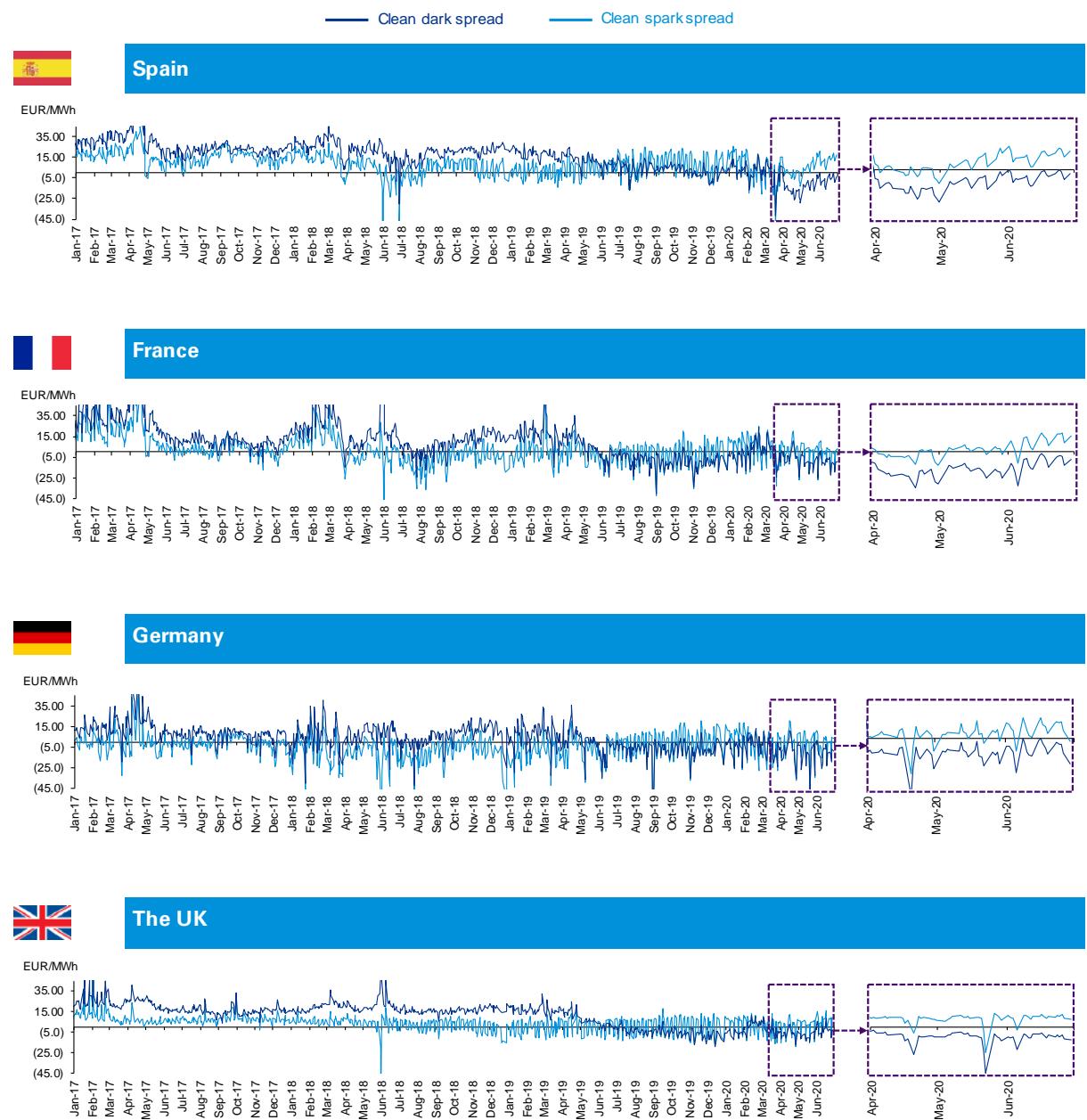


On the other hand, South African coal and Coal API 2 prices decreased continuously during the quarter till May 2020 reaching US\$56.6/T and US\$52.6/T respectively, while the Australian coal prices continued to decline throughout the quarter reaching US\$52.2/T in June 2020. **The decline was mainly driven by a slump in Asian demand**, weak physical demand in Europe (attributed to fall in oil and gas prices, along with the COVID-19 imposed restrictions) and enough near-term supply due to high level of stock in Atlantic and Pacific⁷. The average price of South African coal declined by 25.8 percent while Coal API2 prices and Australian coal prices declined by 9.5 percent and 20 percent respectively, in 2Q20 compared to 1Q20. **In June 2020, the coal prices were supported by recovery in oil and gas markets along with the expectations of improving demand in Atlantic and Asian regions.**

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

In Spain, France, Germany and the UK, **the Clean Spark spread surpassed the Clean Dark spread for the entire 2Q20**, supported by lower gas prices and increasing pressure from rising carbon costs. While renewables availability remained high, very cheap gas and high level of carbon prices (EUR20/tCO2) meant that gas-fired plants were more profitable than coal-fired units, regardless of the efficiency rates. **As of early June, Clean Spark spreads were at least EUR10/MWh or more above Clean Dark spreads in most countries**, including Germany and the UK supporting coal switching for most of the period. **Gas prices are expected to remain very low for the rest of 2020, thus coal to gas switching is expected to continue.**

Figure 4: Clean spark and clean dark spreads, January 2017 to June 2020



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, 2020.

Regulatory developments in 2Q20: Key takeaways

In 2Q20, regulatory developments within the European P&U sector were primarily related to the support being given to counter the impact of the COVID-19 pandemic. In this regard, several steps were seen to be taken within the **UK**, where energy network companies were asked to develop schemes to provide relief to cash-constrained suppliers and shippers. Additionally, an agreement was reached between the Department for Business, Energy and Industrial Strategy and domestic energy supply companies setting out principles to support energy customers impacted by COVID-19. The electricity and gas regulator, Ofgem, also initiated some regulatory developments to support the market through the impacts of COVID-19.

In **Germany** as well, the Federal Network Agency (BNetzA) has come up with a solution to prevent immediate penalties due to the delays in the implementation of renewable energy plants. Due to the corona crisis, the BNetzA is changing its approach to solar, onshore wind, biomass and combined heat as well as power plants. Similarly, in **France**, the government postponed the withdrawal of the reduced rate of the domestic consumption tax on energy products (Taxe intérieure de consommation sur les produits énergétiques - TICPE) applicable to the gasoil used for vehicles.

In 2Q 2020, there was also a focus on clean energy and achieving sustainability goals, from a regulatory standpoint:

- ✓ In **Germany**, for example, the federal government developed a strategy to achieve the obligations of the Paris Convention and its greenhouse gas neutrality by 2050.
- ✓ Similarly, in **Spain**, the Council of Ministers submitted the first draft of the Law on Climate Change and Energy Transition to the Parliament, with objectives to achieve carbon neutrality by 2050.
- ✓ **France** too has been planning to withdraw tax advantages to energy businesses impacting the environment.
- ✓ In **Russia**, the Ministry of Energy submitted a package of amendments to the Government to change the green generation support program in the retail energy market. The goal is to attract more investors to this market segment. The terms, procedure and selection conditions will be unified throughout the country, and the investors will be able to find tender announcements easily.

For more details, please refer to the **APPENDIX** section titled: Regulatory developments in the European P&U sector, 2Q20

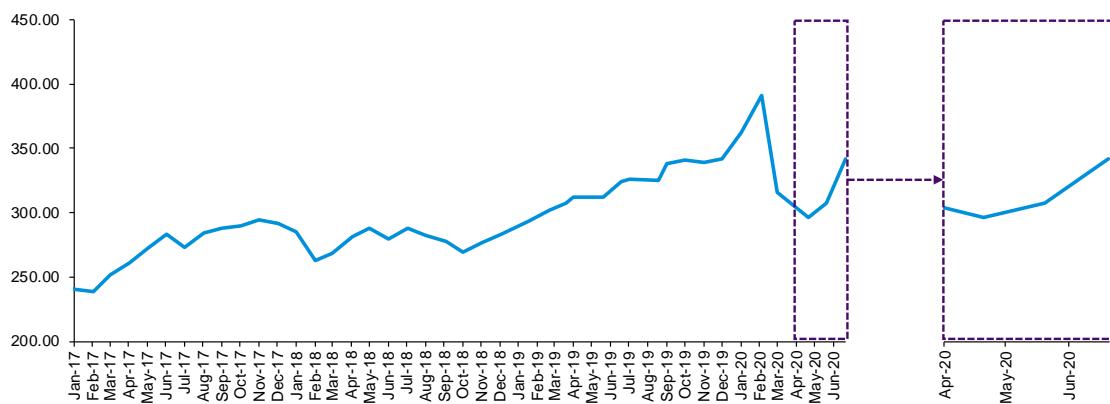
3 Financial performance: How European P&U companies have performed so far?

EUROSTOXX index and share prices: First decline, then steady recovery

The EUROSTOXX utilities Index remained below 300 for most of the April and till mid-May, due to the impact of COVID-19 on supply and demand for the Power and Utilities sector. From mid-May onwards, **due to easing lockdowns and hopes of recovery, the index continued to rise till the first week of June** (reaching 349 on 8th June), and then averaged around 341 for the rest of the month. However, on a quarterly basis, the index has declined.

The average share prices of most European P&U companies have also declined in 2Q20 (on a quarterly basis) compared to 1Q19, with Engie, EDF, Naturgy and Veolia being impacted the most (see Share price evolution: Overview (2Q20) in APPENDIX). The good news is credit ratings of more than half of top 20 P&U companies have either remained unchanged or increased, despite COVID-19 playing havoc (see Credit ratings: Overview (2Q20) in APPENDIX).

Figure 5: EUROSTOXX utilities index, January 2017 to June 2020



Note(s): (a) The EUROSTOXX indices use the market standard [ICB Industry Classification Benchmark](#), and 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 EUROSTOXX utilities index comprises of the following 20 P&U companies: IBERDROLA, ENEL, E.ON, ENGIE, RWE, EDP ENERGIAS DE PORTUGAL, VEOLIA ENVIRONNEMENT, TERNA, FORTUM, ENDESA, RED ELECTRICA CORPORATION, Naturgy Energy Group, EDF, SUEZ ENVIRONNEMENT, UNIPER, ELIA GROUP, VERBUND, HERA, ITALGAS, A2A.

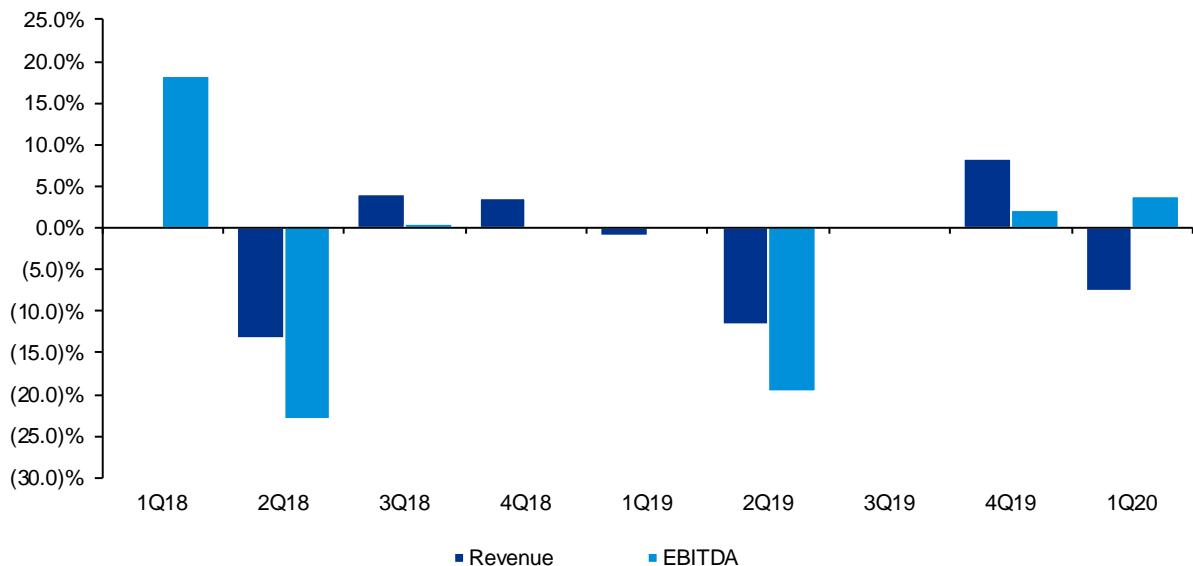
Source(s): Capital IQ, 2020.

Revenue and EBITDA: Steady growth expected for rest of 2020

For a detailed financial performance study of the European P&U industry, KPMG has shortlisted 20 P&U companies based on revenues and market capitalization – we are calling them collectively as the 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. In 1Q20, these prices declined due to the economic effects of the COVID-19 pandemic, however in 2Q20 the prices have shown sign of recovery especially towards the second half of the quarter. Though industry analysts expect continued downward pressure on prices due to forecast of oversupply of gas and focus on renewables⁸, **companies playing in ESG-friendly⁹ and renewables segments are hopeful of a recovery in the coming quarters** due to the Recovery Fund proposal by the EU Commission to stimulate energy transition.

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



Note(s): KPMG P&U 20 includes 20 European P&U companies: CEZ, E.ON SE, Energias de Portugal (EDP), Electricté de France (EDF), EnBW Energie Baden-Württemberg, Endesa, Enel, Engie, Fortum Oyj, Iberdrola, Innogy, National Grid, Naturgy Energy Group, Ørsted A/S, Public Joint Stock Company Inter RAO UES, RWE Aktiengesellschaft, SSE, Suez SA, Uniper and Veolia Environnement.

Source(s): Capital IQ, 2020.

E.ON, EDF, Enel, Engie and Uniper are the key revenue generating entities in the European P&U market, constituting about 39 percent of the annual revenues generated by all publicly traded companies in the industry. EDF, Enel, Engie and Iberdrola are also the most profitable entities in the industry. According to industry analysts, these companies have been able to navigate through the COVID-19 crisis to some extent. Enel, for example, migrated all its IT applications to the cloud in 2019, which has enabled remote operations of many assets considering its diversified geographic presence, however, lower distribution volumes, increase in working capital and bad debt may have had some impact on its performance^{10,11}. Iberdrola, in April 2020, reiterated that it maintains its guidance of high single-digit net income growth for 2020¹².

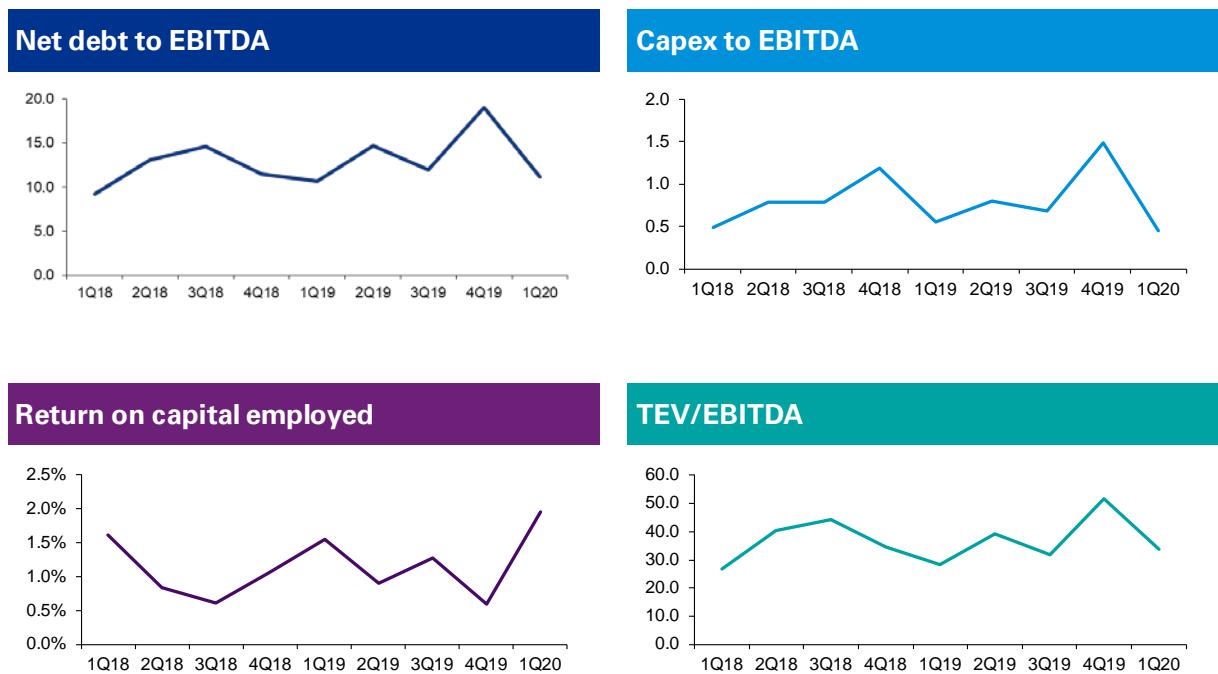
Other key financial metrics: Resilience expected throughout the rest of 2020

Some of these companies have also performed well on key financial metrics such as **Net Debt to EBITDA**. EDF, Enel, Engie and Uniper have maintained a low Net Debt-to-EBITDA ratio or at par with the industry average throughout the last two years showcasing that these companies maintain themselves low on leverage. E.ON's net debt has increased since 2Q19 first due to initial application of IFRS 16 and lower actuarial interest rates and then due to Innogy's takeover.

Enel, Endesa and Public Joint Stock Company Inter RAO have maintained high **ROCE** — above industry average. Enel has the largest renewable portfolio in Europe. It has been consistently scaling up its Capex plan and renewable growth targets since 2018¹³.

Historically, **Capex plans** of European P&U companies generally get a boost by the last quarter of each year, and the first quarter of the next year witnesses a dip in Capex spending. However, due to the COVID-19 pandemic, this time most companies have drastically reduced their Capex spending in 1Q20, leading to a corresponding decrease in Capex/EBITDA ratio at an industry level. However, there are companies such as E.ON, Ørsted and Innogy which have maintained a better or same Capex/EBITDA ratio in 1Q20 (compared to 1Q19), indicating better future investment prospects.

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



Note(s): 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.

Source(s): Capital IQ, 2020

Looking at the **valuation (TEV/EBITDA)** of P&U companies, E.ON, Iberdrola and National Grid are the large-scale companies with high valuations in the market compared to the industry average. Iberdrola's encouraging provisional production volume data for 2Q20 despite the COVID-19 situation and its commitment to renewable energy investments are expected to support 2Q20 and upcoming quarter results¹⁴. Other companies such as EDP, SSE and Ørsted are also valued above the industry average, indicating that these companies have high growth prospects, going forward.

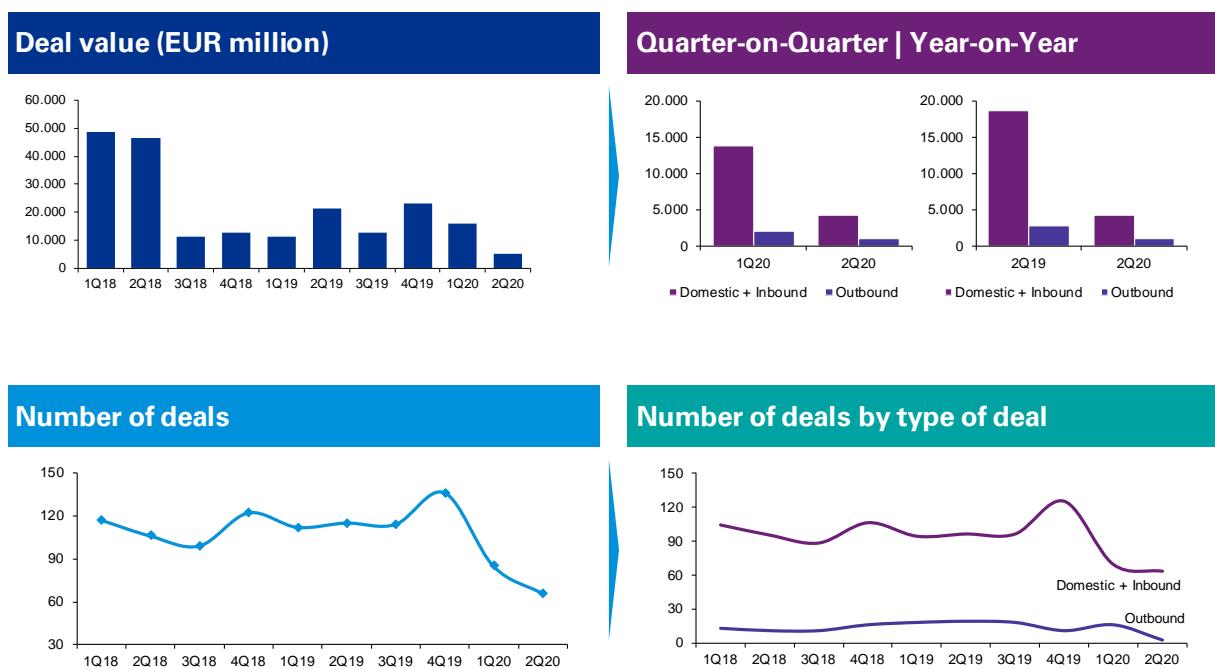
4 Mergers & acquisitions: Has the pandemic halted the ongoing consolidation?

Like other aspects of the European P&U industry, the COVID-19 pandemic has also impacted its M&A deal activity. **The quarter witnessed a decline in the total M&A deal value to EUR5.2 billion, from EUR15.8 billion in 1Q20 – a decline of 67 percent – and EUR23.0 billion in 4Q19.** This decline is even greater if we compare the 2Q20 M&A deal activity with that of 2Q19.

The total number of deals in 2Q20 also fell to 66 from 85 in 1Q20 and 115 in 2Q19. Number of domestic M&A deals in 2Q20 witnessed a decline of 9 percent QoQ and 34 percent YoY. However, outbound deals saw a much sharper decline - more than 80 percent - on both quarterly and yearly basis.

In 2Q20, majority of the deals were domestic with few being outbound. **Among the top 15 deals, majority of deals focused on expanding portfolio in the renewables sector and increasing renewable energy footprint.** The other big deals focused on sharing of technical expertise, achieving internal goals of carbon neutrality and achieving economies-of-scale.

Figure 8: Number and value of M&A deals in the European P&U sector, 1Q18 to 2Q20



Note(s): 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.

Source(s): MergerMarkets, 2020.

Given the turbulence in the financial and commodity markets and with both company and asset valuations going down, **deal flow could be severely affected over the coming months¹⁵**. In fact, several large sales processes are already being deferred and a continued crisis could also impact the sales of power plant portfolios and even large-scale takeovers. This is because utility companies would rather focus more on maintaining critical infrastructure and finances than acquiring new entities, especially when investors will likely be re-evaluating some of the potential deals. Thus, it is expected that the **consolidation in the European P&U industry – that has been happening over the past months – will slow down drastically**.

5 Looking forward: A more resilient European P&U industry?

According to the latest estimates from leading analysts, electricity prices will recover only partially throughout the rest of 2020 in Europe as electricity demand remains on the lower side, there is a higher supply from renewables and low-cost fuels remain as main inputs to electricity production¹⁶. Despite this impending situation, most European P&U companies are better placed in terms of absorbing the demand shock from the COVID-19 pandemic, thanks mostly to the price hedges.

Also, going forward, given the Green Deal and with most P&U companies focusing on their renewable energy portfolio (including the higher M&A deal activity in the renewables space), the trend of energy transition and decarbonization will play an even bigger role in determining the performance and valuation of most European P&U players.

Appendix

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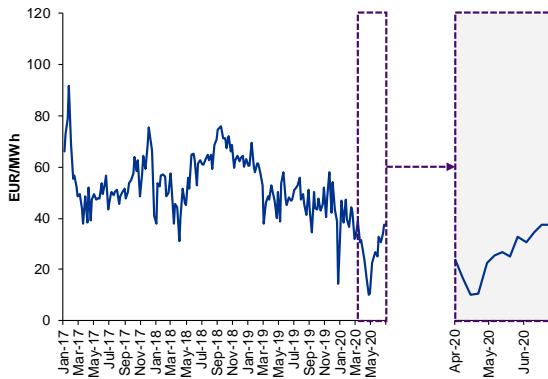
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Electricity prices (Base load and Peak Load)

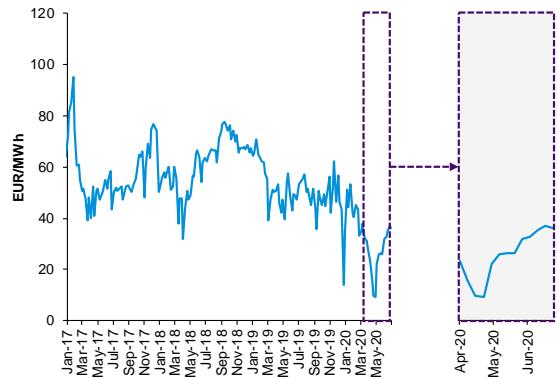


Spain

Base load

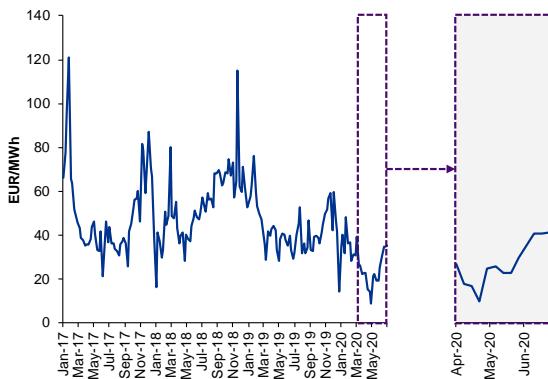


Peak load

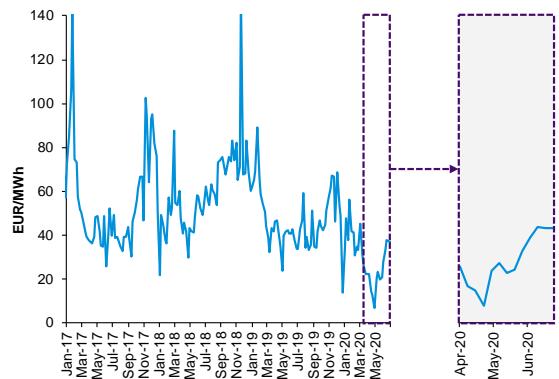


France

Base load

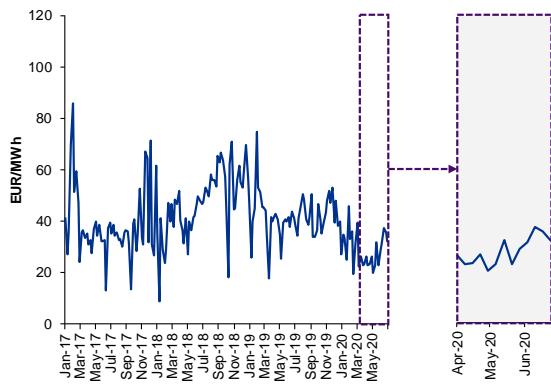


Peak load

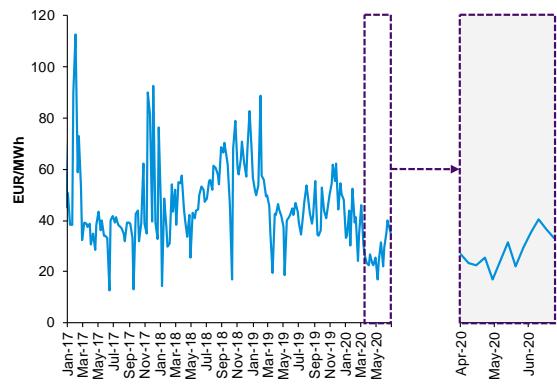




Base load

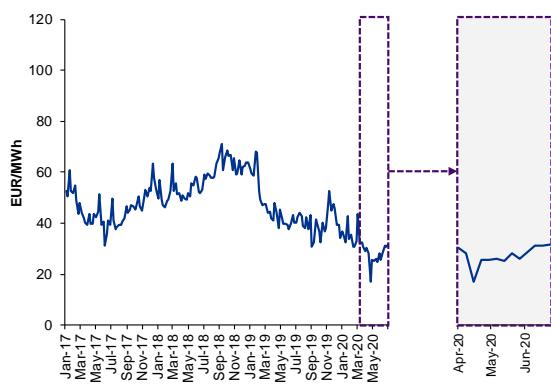


Peak load

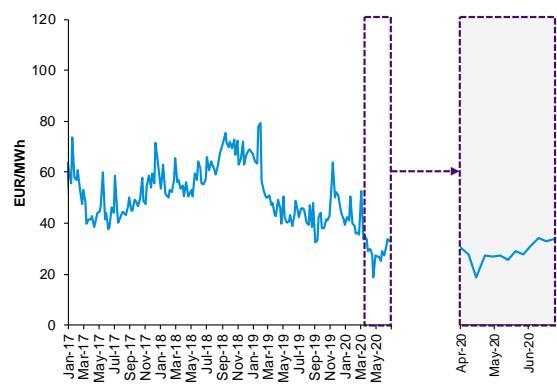


United Kingdom

Base load



Peak load



Source(s): Reuters, 2020.

Top 15 M&A deals in European P&U sector, 2020

Date	Target company	Target description	Target country	Bidder company	Bidder country	Seller company	Deal value EUR (million)	Deal type
17 Jun 2020	Infigen Energy Limited	Australian company engaged in operation of a portfolio of wind farms	Australia	Iberdrola SA	Spain	NA	862.9	Outbound
02 Apr 2020	MVV Energie AG (45.08 percent stake)	German company engaged in the supply of electricity, district heating, gas, and water, as well as environmental energy and energy-related services	Germany	First State Investments (UK) Limited	UK	EnBW Energie Baden-Wuerttemberg AG; RheinEnergie AG	752.8	Domestic
28 Apr 2020	Parkwind NV (20 percent stake)	Belgian company which owns and operates wind power projects	Belgium	Colruyt Group; Korys Investments NV	Belgium	Participatiemaatschappij Vlaanderen NV	701	Domestic
17 May 2020	Energias de Portugal S.A.	Two gas-fired combined cycle power plants (CCGT) based in Spain	Spain	Total S.A.	France	Energias de Portugal S.A.	515	Domestic
10 Apr 2020	Acciona Energia International (33.33 percent stake)	International renewable energy generation business of Acciona Energia in Spain	Spain	Acciona S.A.; AXA Investment Managers - Real Assets	Spain; France	Kohlberg Kravis Roberts & Co. L.P.	445	Domestic
27 Apr 2020	Vattenfall AB's South Kyle wind farm	Scotland based wind farm	Scotland	Greencoat UK Wind Ptc	UK	Vattenfall AB	366.8	Domestic
20 Apr 2020	Octopus Energy Ltd. (20 percent stake)	UK based company engaged in supplying electricity to the local customers	UK	Origin Energy Limited	Australia	NA	271.0	Inbound
24 Apr 2020	Slough Multifuel (50 percent stake)	Thermal power plant based in the UK	UK	Copenhagen Infrastructure Partners K/S	Denmark	SSE Plc	200.3	Domestic
03 Jun 2020	ENERCON GmbH's Markbygden II project (85 percent stake)	Sweden-based Markbygden II project of ENERCON GmbH	Sweden	Credit Suisse Energy Infrastructure Partners AG	Switzerland	ENERCON GmbH	200	Domestic
25 May 2020	De Raj Group AG	German company which owns, operates and acquires contracted renewable and conventional generation and thermal infrastructure assets	Germany	Standard Paper & Board Singapore Pte. Ltd	Singapore	Nagendran C. Nadarajah (Private Investor); Renata De Raj (Private Investor); Alexander De Raj (Private Investor); Nicholas De Raj (Private Investor)	123.7	Inbound
1 Jun 2020	Molgas Energia S.A.U	Spanish company engaged in supply and transportation of natural gas for industrial, cogeneration, vehicular and maritime applications	Spain	InfraVia Capital Partners	France	Broadview Energy Solutions B.V.; Nuntelias, S.L.	120	Domestic
7 May 2020	Aalto Power SAS	French operator of wind farms with an aggregate capacity of 90MW	France	Iberdrola SA	Spain	Caisse des Dépôts et Consignations; Aiolos	100.1	Domestic
23 Apr 2020	Pan-European Infrastructure Fund L.P. (Five wind farms) (49 percent stake)	Operational wind farms based in Spain	Spain	Inversiones Empresariales Vapat, S.L.U.	Spain	Deutsche Bank AG	100	Domestic
12 May 2020	Eolien Maritime France SAS (49 percent stake)	Wind energy production company in France, with three offshore wind power plants in development	France	Canada Pension Plan Investment Board	Canada	Enbridge Inc	80	Inbound
3 June 2020	SSE Plc (Seagreen wind project) (51 percent stake)	Offshore wind farm project	UK	Total S.A.	France	SSE Renewables (Ireland) Limited	78.5	Domestic

Source(s): MergerMarkets, 2020.

Share price evolution: Overview (2Q20)

Company ^(a)	Q1 2018	Q2 2018	Q3 2018	Q4 2018	Q1 2019	Q2 2019	Q3 2019	Q4 2019	Q1 2020	Q2 2020	Last Quarter Q2 2020/ Q1 2020	Last Year Q2 2020/ Q2 2019
SSE Plc (*GBP)	12.55	13.56	12.64	11.17	11.74	11.14	11.44	13.20	12.53	14.28	13.94%	28.18%
Orsted A/S	50.89	52.57	55.24	57.30	64.73	71.89	84.89	83.50	92.73	99.39	7.18%	38.26%
EnBW Energie Baden	27.40	28.90	32.67	30.47	31.67	32.47	35.67	44.88	45.85	49.06	7.01%	51.11%
National Grid plc (*GBP)	7.89	8.37	8.16	8.19	8.37	8.26	8.48	10.50	9.79	10.39	6.14%	25.72%
Innogy SE	36.44	37.97	40.04	41.09	41.22	44.49	44.49	44.53	43.60	43.45	(0.35)%	(2.33)%
CEZ as (*CZK)	510.22	549.44	566.89	549.60	548.46	536.11	519.64	513.78	473.07	470.98	(0.44)%	(12.15)%
EDP	2.87	3.28	3.39	3.09	3.21	3.37	3.40	3.67	4.14	3.99	(3.68)%	18.48%
Iberdrola SA	6.25	6.39	6.53	6.55	7.31	8.27	8.98	9.06	9.76	9.35	(4.23)%	13.13%
RWE AG	17.44	20.00	21.55	18.61	21.56	22.83	25.34	26.84	29.35	27.91	(4.91)%	22.23%
Uniper SE	24.57	26.11	26.51	23.59	25.92	26.25	28.54	28.80	27.56	25.76	(6.55)%	(1.87)%
E.ON SE	8.67	9.13	9.35	8.78	9.52	9.66	8.92	9.09	10.07	9.39	(6.73)%	(2.83)%
Endesa SA	17.69	19.13	19.44	19.48	21.76	22.69	23.10	24.12	22.75	20.72	(8.93)%	(8.70)%
Public Joint stock company	3.55	3.78	4.06	4.10	3.99	3.83	4.15	4.53	5.50	4.98	(9.49)%	30.17%
Enel SpA	4.96	4.96	4.59	4.61	5.31	5.75	6.40	6.85	7.38	6.67	(9.62)%	16.04%
Fortum Oyj	17.72	19.44	21.59	19.33	19.56	18.99	20.59	21.47	19.43	16.02	(17.55)%	(15.62)%
Veolia Environnement S.A.	19.84	19.14	18.30	18.12	19.22	21.06	22.62	23.11	24.59	19.53	(20.58)%	(7.28)%
Naturgy Energy Group, S.A	19.17	21.14	23.31	22.53	23.86	25.58	23.43	23.55	21.19	16.24	(23.36)%	(36.52)%
EDF	10.79	11.65	13.49	16.59	13.47	11.65	10.80	9.44	10.71	7.86	(26.66)%	(32.58)%
ENGIE SA (GDF Suez S.A.)	13.52	13.95	13.06	12.24	13.58	13.16	13.78	14.59	14.23	10.16	(28.63)%	(22.80)%
Eurostoxx Utilities	291.95	272.82	283.24	282.83	276.10	300.77	315.73	328.58	355.25	315.00	(11.33)%	4.73%

Note: Includes list of 19 European top companies as per (revenues + market cap), July 2020, plus Russia's public joint stock company.
Source: S&P Capital IQ, 2020.

Credit ratings: Overview (2Q20)

National Grid plc was upgraded by S&P to 'A-' in 2Q20, while Naturgy Energy Group, Fortum Oyj, Electricité de France S.A., Engie SA and Uniper SE were downgraded. Moody's rating for EnBW Energie Baden was upgraded to 'A3', while the Fitch and Moody's rating for the remaining companies remains unchanged.

	S&P Rating	Date ^(a)	Moody's Rating	Date ^(a)	Fitch Rating	Date ^(a)
E.ON SE (XTRA:EOAN)	BBB	15-Jul-20	Baa2	17-Jul-20	BBB+	17-Jul-20
SSE plc (LSE:SSE)	BBB+	15-Jul-20	Baa1	17-Jul-20	BBB	17-Jul-20
National Grid plc (LSE:NG.)	A-	15-Jul-20	Baa1	17-Jul-20	BBB	17-Jul-20
EDP - Energias de Portugal, S.A. (ENXTLS:EDP)	BBB-	15-Jul-20	Baa3	17-Jul-20	BBB-	17-Jul-20
Iberdrola, S.A. (BME:IBE)	BBB+	15-Jul-20	Baa1	17-Jul-20	BBB+	26-May-20
Naturgy Energy Group, S.A. (BME:NTGY)	BBB	15-Jul-20	Baa2	17-Jul-20	BBB	17-Jul-20
Fortum Oyj (HLS:E: FORTUM)	BBB	15-Jul-20	Baa2	17-Jul-20	BBB	6-Apr-20
Veolia Environnement S.A. (ENXTPA:VIE)	BBB	15-Jul-20	Baa1	17-Jul-20	BBB	17-Jul-20
EnBW Energie Baden-Württemberg AG (XTRA:EBK)	A-	15-Jul-20	A3	17-Jul-20	BBB+	17-Jul-20
Enel SpA (BIT:ENEL)	BBB+	15-Jul-20	Baa2	17-Jul-20	A-	30-Apr-20
Electricité de France S.A. (ENXTPA:EDF)	BBB+	15-Jul-20	A3	17-Jul-20	A-	22-Apr-20
ENGIE SA (ENXTPA:ENGI)	BBB+	15-Jul-20	A3	17-Jul-20	A	17-Jul-20
Endesa, S.A. (BME:ELE)	BBB+	15-Jul-20	Baa2	17-Jul-20	A-	30-Apr-20
Ørsted A/S (CPSE:ORSTED)	BBB+	15-Jul-20	Baa1	17-Jul-20	BBB+	25-Jun-20
CEZ, a. s. (SEP:CEZ)	A-	15-Jul-20	Baa1	17-Jul-20	A-	3-Jul-20
Uniper SE (XTRA:UN01)	BBB	15-Jul-20	-	17-Jul-20	NA	-
Public Joint Stock Company Inter RAO UES (MISX:IRAO)	-	-	Baa3	17-Jul-20	BBB	17-Jul-20
RWE Aktiengesellschaft (XTRA:RWE) ^(b)	-	-	Baa3	17-Jul-20	BBB	17-Jul-20
Innogy SE (XTRA:IGY)	BBB	15-Jul-20	Baa2	17-Jul-20	BBB+	11-Feb-19
Average:	Mode: BBB+					

Quarterly rating variation: Upgraded Unchanged Downgraded

Note(s): (a) The date of publication of latest report (company release, market/industry/peer report) or latest update on the S&P Capital IQ/Moody's/Fitch's website, from which the rating has been sourced. (b) On 15 February 2018, RVE ended its rating by the agency S&P's.
Source: S&P Capital IQ/Moody's/Fitch, 2020.

Regulatory developments in the European P&U sector, 2Q20

United Kingdom

UK Government agrees measures with energy industry to support vulnerable people through COVID-19

19 March 2020

An agreement was reached between the Department for Business, Energy and Industrial Strategy and domestic energy supply companies, setting out principles to support energy customers impacted by COVID-19. Customers with pre-payment meters, who may not be able to add credit can speak to their supplier about options to keep them supplied. Any energy customer in financial distress will also be supported by their supplier, which could include reassessment of debt repayments and bill payments and pausing and reducing of payments wherever necessary. Also, disconnection of credit meters will be completely suspended.

[Link I](#)

Savings on energy bills for millions as price caps fall from 1 April 2020

1 April 2020

The level of the default price cap, which protects around 11 million households, fell from GBP1,179 to GBP1,162 from 1 April 2020. The pre-payment meter cap, which protects a further 4 million households, will fall from GBP1,217 to GBP1,200 per year for the same six-month period. A large part of the reduction in the caps is due to wholesale energy prices continuing to fall between August 2019 and January 2020.

[Link II](#)

COP-26 postponement announcement

1 April 2020

On 1 April 2020, the UK Government announced that the COP26 UN climate change conference, set to take place in Glasgow in November, would be postponed due to COVID-19. It was then announced on 28 May 2020, that it had been agreed between the Bureau of the Conference of the Parties to the UNFCCC (United Nations Framework Convention on Climate Change), along with the UK and its Italian partners, that it would be postponed until November 2021.

[Link III](#)

The impacts of Covid-19 brought a period of regulatory easements

8 April 2020

The electricity and gas regulator, Ofgem, initiated some regulatory easements to support the market through the impacts of COVID-19. On 8 April 2020, Ofgem wrote open letters to the energy network and retail companies outlining what is high priority and must be delivered and what is lower priority and may be deprioritised if necessary. This flexibility remained in place until 30 June 2020.

[Link IV](#)

Relaxation of network charge payment terms for energy suppliers

2 June 2020

Energy network companies, through the Energy Networks Association (ENA), were asked to develop a scheme to provide relief to cash flow-constrained suppliers and shippers. The scheme is aimed at helping to mitigate the impacts of COVID-19 on energy consumers, through enabling the temporary relaxation of payment terms for suppliers and shippers. For eligible electricity suppliers and gas shippers, the schemes being developed would offer an 'extended period' which is expected to allow the majority of monthly network charges to be paid at a later date.

[Link V](#)

COVID-19 and energy regulation: a steady recovery

16 June 2020

Following a period of regulatory easements, Ofgem announced that from 1 July 2020, normal regulatory rules would apply, and the only exceptions could be where, companies cannot deliver a specific work or service as per the required standards, as they along with their supply chain and customers are required to comply with the government COVID-19 guidance.

[Link VI](#)

Green Fiscal Stimulus

8 July 2020

The UK Government is expected to publish a fiscal statement on 8 July 2020, where Chancellor, Rishi Sunak, is expected to announce an economic stimulus package to help kick-start the economy. Green fiscal stimulus may feature in the package, but more details are expected to follow in an October Budget and in a Spending Review later in the year.

[Link VII](#)

Regulatory settlements for network and gas transmissions

9 July 2020

Ofgem regulates the prices that network companies charge to run the gas and electricity networks in Great Britain. Network and gas transmission companies were asked to submit their business plans last year, which have been undergoing independent reviews. Ofgem is expected to publish its draft determinations on the price control allowances for GD2, the price control for gas distribution, and T2, the price control for gas and electricity transmission, on 9 July 2020 and open its proposals for consultation. This is ahead of the price control becoming effective from 1 April 2021.

[Link VIII](#)

Spain

Government sends to Parliament the first draft of the Law on Climate Change and Energy Transition

On 19 May 2020, the Council of Ministers submitted the first draft of the Law on Climate Change and Energy Transition to the Parliament. The text sets objectives to be revised only upwards:

- Spain should achieve climate neutrality by 2050.
- Emissions of the Spanish economy should be reduced by at least 20 percent by 2030 with respect to the 1990 levels.
- At least 35 percent of final energy consumption should come from RES by 2030.
- In the case of the electricity system, RES share should account for 70 percent or more by 2030.
- Energy efficiency measures should reduce primary energy consumption by at least 35 percent.

[Link I](#)

Government announced new RES auctions in 2020

The Spanish government announced new RES auctions in 2020. The design of the auction and the capacity to be auctioned is yet to be known. However, according to previous drafts, the auction will award a fixed payment per energy delivered into the grid (EUR per MWh) by technology. The new Royal Decree draft which sets the rules, the administrative milestones and deadlines to be met to disincentivize speculation was planned to be presented to the Council of Ministers for its approval on 30 June 2020. The capacity to be auctioned in 2020 could amount to 3,000MW.

[Link II](#)

New draft of the Circular establishing the methodology and conditions of access and connection

The CNMC (the Spanish regulator) has submitted the new draft of the Circular establishing the methodology and conditions of access and connection to the transport and distribution networks of production facilities. Major measures proposed include:

- Capacity increase through the maximization of RES integration in nodes where the grid's usage is poor, due to low simultaneity factors ('complementary capacity').
- Update of technical criteria to connect new facilities.
- Introduction of mechanisms to prevent speculative developers from monopolizing the scarce capacity available.

[Link III](#)

Circular 4/2020: remuneration methodology for natural gas distribution for 2021–26

The CNMC has approved Circular 4/2020 establishing the remuneration methodology for the regulated activity of natural gas distribution for the period 2021–26. It will imply a 9.6 percent cut in the sector's remuneration. Natural Gas distributors are required to provide annual information on its facilities, development and facility-closing plans. Moreover, it introduces a new mechanism to incentivize only those investments justified by its forecasted demand.

[Link IV](#)

Germany

Publication of the German hydrogen strategy

The federal government developed a strategy to achieve the obligations of the Paris Convention and its greenhouse gas neutrality by 2050. At the core of this strategy is the willingness to take global responsibility and create a market for green hydrogen which is made with renewable energy. This is the only hydrogen which is sustainable according to the government, although they do not exclude the use of turquoise and blue hydrogen as an interim measure. The federal government has EUR7 billion for the ramp-up of the green hydrogen and another EUR2 billion for possible partnerships available.

[Link I](#)

Adoption of the EEG reform

On 27 April 2020, the Federal Ministry of Economics published a 'draft of a formulation aid', to amend the EEG and on the 15 May 2020, this draft was adopted. The EEG reform provides permanent abolition of the privilege for public energy companies in the tendering process for onshore wind farms and new regulations for offshore wind farms. Because of the COVID-19 pandemic, this amendment offers the possibility to submit the auditor certificate and energy efficiency report for the application procedure 2020, in regard to the special equalization scheme by the 30 November 2020. Also, the implementation deadlines and the due date of contractual penalties have been extended by six months for renewable energy plants that have already been awarded a surcharge.

[Link II](#)

Federal Network Agency extends deadlines for renewable energy projects

The COVID-19 pandemic may cause delays in the implementation of renewable energy plants. In order to prevent this from triggering immediate penalties, the Federal Network Agency (BNetzA) has adapted a procedure under which, the BNetzA is changing its approach to solar, onshore wind, biomass and combined heat as well as power plants. Initially, the award decisions will not be published on the Internet — this is expected to avoid triggering implementation deadlines and avoid penalties for delays. According to the BNetzA, the publication is set to take place as soon as the situation calms down.

[Link III](#)

New rules for calculating the compensation energy price for electricity

The BNetzA has approved the transmission system operators' concept for a modified calculation of the compensation energy price. A further development of exchange price coupling will give balancing group managers a stronger financial incentive to balance their balancing groups. The new reference point for exchange price coupling will in future be a price index to be calculated specifically by the transmission system operators. As an additional safety margin, this price index will include a surcharge for under-supply or a discount for over-supply of the German electricity grid. The price index will primarily be based on the prices of the trading transactions, concluded in intraday quarter-hour trading on the exchange.

[Link IV](#)

France

EDF increases its estimate of nuclear electricity production for 2020

The EDF group announced its estimate of nuclear electricity production for 2020 (revised upwards), a few days after the disconnection of the Fessenheim plant from the national grid. The estimate in 2Q20 is revised to about 315–325TWh (terawatt-hour) against 300TWh previously. The Alsatian nuclear power plant of Fessenheim was definitively shut down from 1 July 2020, depriving France of a capacity of 900 megawatt-hours. Equivalent production has already been lost in February 2020, with the closure of the first reactor.

[Link I](#)

Gas: Lower prices will be smoothed over the coming months

The government has decided to smoothen the lowering of regulated gas sales prices applied by Engie, over the next few months, in order to avoid their sudden rise. The average tax-free rate was supposed to have dropped by 5.1 percent on 1 July 2020, according to the usual calculation formula, but it ultimately dropped by only 0.3 percent on that date for consumers. Therefore, as on 1 July 2020, the regulated sales prices of Engie fell 0.3 percent compared to the scale applicable since 1 June 2020. Since 1 January 2019, they have cumulatively decreased by 25.5 percent.

[Link II](#)

One-year postponement of the tax advantage on off-road fuels

In response to the economic crisis caused by the coronavirus, the French Government has postponed the withdrawal of the reduced rate of the domestic consumption tax on energy products, (*Taxe intérieure de consommation sur les produits énergétiques - TICPE*) applicable to the Gas oil used for vehicles, for public roadways (i.e. *Gazole non routier - GNR*). According to the amendment to the Third Amending Budget Law for 2020, adopted by the Assembly on the 1 July 2020, the rate of TICPE applicable to the Gas oil was expected to increase from EUR18.82 per HL (current reduced rate) to EUR50.27 per HL as on 1 July 2021.

[Link III](#)

Consultation on Energy Saving Certificates (ESC)

On 2 July 2020, the Directorate-General for Energy and Climate (DGEC) launched a consultation on the 'fifth period' for energy saving certificates (ESC), which is scheduled from 1 January 2022 to 31 December 2025. Stakeholders (energy suppliers, etc.) are invited to contribute by 10 September 2020 in order to define the modalities for the next period and the level of the future obligation to purchase ESC.

[Link IV](#)

Withdrawal of energy tax exemptions / reduced rates?

During the debates on the third Amending Budget Law for 2020, several amendments were presented (and rejected) to withdraw the numerous cases of exemptions and reduced rates applicable to energy products in France.

These proposals seem to reinforce the government's objective of withdrawing all the tax advantages that are contrary to the environment (example: reduced rates for energy intensive businesses), as announced in December 2019, during the debates for the Budget Law for 2020.

[Link : NA](#)

Italy

Tax deduction for energy efficiency interventions

With the Decree 34/2020 'Decreto Rilancio', the Italian Government has proposed a new super-tax deduction, which allows the beneficiary to deduct 110 percent of the expenditure for various interventions. One example is, energy efficiency interventions with the introduction of new technologies and installation of photovoltaic systems. The recovery of the expenditure will be paid in five years and will also be transferable to the credit institutes and can be transformed into a discount on the invoice. The reference period for carrying out the operations for which the deduction can be benefited is 1 July 2020–31 December 2021.

[Link I](#)

Gas transport and measurement, definition of 2021 fees

With the Delibera 180/2020/R/gas of 26 May, the ARERA approved reference revenues and fees for the natural gas transport and measurement service for the year 2021. The resolution also contains corrections for material errors made in the previous ones. Additionally, requests for the recognition of actual operating costs of 2018, that are incremental compared to those of 2017, submitted by two important players in the sector, have been accepted.

[Link II](#)

Denmark

Government supports two energy islands

At the end of May 2020, the Danish government presented plans to build two energy islands in the North and Baltic Sea with an initial capacity of 2GW each. The Baltic Sea islands are seen in connection with PtX initiatives in the capital, Copenhagen. The net carbon-effect of the islands is being debated in the public.

[Link I](#)

Dutch PtX in Denmark

At the end of June 2020, the Dutch and Danish Ministers of Climate signed a deal on Dutch investments of about EUR130 million in a PtX plant in Denmark. The intention is to combine knowledge of DK wind power and NL electrolysis to enable storage and fuel for heavy transportation.

[Link II](#)

Parliament agrees Climate Act

In mid-June, the Danish parliament passed the Climate Act, which is legally binding, aiming to reduce Danish carbon emissions by 70 percent by 2030 compared to the 1990 levels and achieve carbon neutrality by 2050. Notably, it mandates the government to separately report on Denmark's impact on international emissions, including those pertaining to international shipping and aviation, which amounts to about 50 percent of total Denmark emissions

[Link III](#)

Increased focus on CCSU

The Energy-Technological Development and Demonstration program (EUDP), under the Danish Energy agency, has called for application for financial support to develop and demonstrate viable CCSU technologies. The Danish program is a part of the ERA NET initiative including some 18 countries and involving about EUR30 million.

[Link IV](#)

Turkey

Turkey has been ranked 9th in terms of the total capacity of hydroelectric power plant installations in 2019 across the world. Turkey added 200MW of total installed capacity and reached 28,500MW of hydropower capacity by 2019. Turkey generates slightly less than one third of electricity from hydropower and the share of Turkey's global hydropower installed capacity is about 3 percent.

[Link I](#)

In April 2020, 79.6 percent of the electricity produced in Turkey was from local and renewable resources and 66 percent was from only renewable sources. This is the record for the last 20 years on a monthly basis.

[Link II](#)

Turkey has been ranked first in the World in terms of the increase in installed capacity of geothermal power plants in 2019 with a share of 32 percent in new geothermal capacity installed. In 2019, Turkey added 232MW of geothermal capacity. According to the 2020 Global Status Report published by REN21 Renewable Energy, Turkey ranks fourth in the global geothermal installed capacity.

[Link III](#)

The third group of young Turkish engineers, who completed their university education in Russia within the scope of the Personnel Training Program in the field of nuclear engineering for Akkuyu NGS, started to work in the Akkuyu field. The Staff Training Program for Akkuyu NGS has been running since 2011. The third group graduated in 2020. As of 2018, more than 130 young Turkish experts graduated from NRNU MEPhI and received their diplomas in the field of nuclear engineering, all of them received job offers from AKKUYU NÜKLEER A.Ş.

[Link IV](#)

Hungary

The tendering process of the first market-based premium system to support renewable energy production (METÁR) was successfully concluded. Due to the strong competition, 24 percent average price reduction was achieved in the micro power plant category (0.3MW–1MW) and 33 percent in the large power plant category (1MW–20MW) compared to previous official prices. The winning projects receive an annual support of EUR660 thousand for a period of 15 years in return for 193GWh per year of new electricity generation. The investment value of the predominantly solar power plant projects is about EUR116 million.

[Link I](#)

In April 2020, renewable energy production in Hungary was at record high, amounting to 34.6 percent of the country's total electricity generation. The proportion of solar energy also reached an all-time peak of 27.3 percent in this respect, due to intensive investments in solar projects, good weather conditions and diminished energy consumption as a result of the COVID pandemic. There is currently about 1000MW installed solar capacity in the country that should reach 6500MW by 2030, according to the objectives of the Hungarian Energy Strategy.

[Link II](#)

In June 2020, the state-owned Hungarian Gas Trade Ltd. (MVM MFGK) booked roughly 1 billion cubic meters of annual LNG capacity for over a period of seven years at the Croatian Krk LNG terminal. The capacity booking allows for the first time that natural gas from a dedicated LNG source be delivered to Hungary. The booked capacity is yet a fraction of Hungary's annual natural gas consumption (approximately 9.4 billion cubic meters), the move can still contribute to the country's security of supply by diversifying the sources and delivery routes of natural gas. The Krk LNG terminal is currently under construction and is planned to start operations in January 2021.

[Link III](#)

Russia and CIS

Russia: The Ministry of Energy changes rules for green generation in the retail market

The Russian Ministry of Energy submitted a package of amendments to the government to change the green generation support program in the retail energy market. The goal is to attract more investors to this market segment. The support program for retail renewable energy plants with a capacity of up to 25MW has been in force in the regions since 2015. The Ministry of Energy has also suggested some changes to the tender procedure. The selection will be based on a single-rate marginal price set for each type of renewable energy source based on normative capital and operating costs, standard tax rates, 15 years payback period and a rate of return of 12 percent. The terms, procedure and selection conditions will be unified throughout the country, and the investors will be able to find tender announcements easily. One of the most important changes is the obligation of the grid company to enter into an energy purchase contract with the winner, immediately after the tender (not with the constructed facility).

[Link I](#)

Russia: Green energy will be cheaper

The Government has revised the parameters of the last stage of the RES plants construction support program. The implementation of the program will result in the overall new capacity of 5.86GW by 2025 (437MW more than initially planned). This growth is due to a step-by-step increase in quotas for wind farms and solar power plants. The quota for wind farms to be commissioned in 2024 will be 214.7MW, the quota for solar power plants will be 240MW for 2023 and 238.6MW for 2024. The government also reduced the maximum capital investments in the projects. The maximum capital investments required for wind farms to be commissioned in 2024 will amount to RUB85 thousand for 1KW and for solar power plants, the investment required is RUB65 thousand per 1KW in 2023 and 2024. Part of the quota was already used in 2019 and remaining wind farms and solar plants with the capacity of over 610MW will be put out to additional tender by the end of the year.

[Link II](#)

On 24 March 2020, the International Renewable Energy Certificate Standard (I-REC) announced the start of certificate issuance in Russia. Used as a tool to confirm the renewable nature of energy sources, I-REC certificates enable companies to prove their commitment to sustainable energy in more than 30 countries. The issuance of I-REC certificates in Russia establishes conditions for the sale and consumption of renewable energy in accordance with an internationally recognized standard and reporting system. The non-profit organization Goal Number Seven will be responsible for the issuance of the certificates. A tracking system complying with the GHG Protocol Scope 2 Guidance has come into effect as agreed by I-REC management and Goal Number Seven. The system allowing the procurement of alternative energy will help to significantly streamline the process of linking a certain amount of energy to the participants and making relevant notices. The availability of I-REC certificates also allows customers to validate the environmental nature of power/capacity purchase agreements (PPAs). I-REC provides the possibility to select energy with the EKOenergy label from certain sources used in Russia. The criteria of the EKOenergy label are sustainability, proper tracking and avoidance of double counting.

[Link III](#)

Russia: Industrial micro grids

The Russian Government adopted Resolution No.320 of 21 March 2020, 'On Amending Certain Acts of the Government of the Russian Federation on the Operation of Active Energy Complexes'. The document developed with the participation of Energynet Infrastructure Center introduces a new legal regime defining the rules for the interaction of the so-called active energy complexes (AEC) and the Unified Energy System of Russia. Building 'industrial and commercial micro-grids', is one of the focus areas. The adopted resolution introduces the appropriate practice in Russia. According to Energynet, industrial and commercial power consumers have an opportunity to create micro-grids 'with self-generation, energy storage and other energy solutions, providing additional flexibility in energy consumption, cost reduction and increase in the efficiency of energy supply for consumers. Till 2023, the AEC will be created as pilot projects, based on which a regulatory control target model will be developed.

[Link IV](#)

Kazakhstan: Waste-to-Energy project

Kazakhstan considers the implementation of a Waste-to-Energy project. According to the Chairman of the Board of Directors, International Green Technologies and Investment Projects Center (IGTIPC), the sorting and processing of solid domestic waste in the country does not exceed 15 percent, while globally, this value reaches 70 percent. The Chairman further adds that it is impossible to recycle all solid domestic waste, therefore, 30–50 percent of the waste must be disposed using waste-to-energy technology with the generation of electric and thermal power at the facilities consuming solid waste as a resource.

[Link V](#)

Azerbaijan: The Roadmap for the development of the use of sea wind energy

By March 2021, the Ministry of Energy of Azerbaijan will complete the work on the Roadmap for the development of the use of sea wind energy in Azerbaijan. According to the Ministry of Energy, the work on the preparation of the roadmap was planned to begin jointly with the International Finance Corporation (IFC) in June 2020 and is expected to be completed by February next year. The IFC representatives are expected to arrive to Azerbaijan in December to work on this issue.

According to the Ministry of Energy, the development of the Roadmap includes geographic mapping, identification of the zones, economic, financial, environmental and social analysis, impact assessment, issue of permits, creation of a regulatory framework, modernization of the energy transmission system, and supply chain research. The Ministry states that the purpose of developing such roadmap is to identify potential areas for renewable energy auctions based on the assessment of the potential of the wind energy of the sea and coastal areas, assessment of grid connectivity, environmental and social impact.

[Link VI](#)

Uzbekistan: The Government approved the Concept of electric energy supply for 2020–30

The Uzbekistan government approved the 'Concept of electric energy supply in the Republic of Uzbekistan for 2020–30.' The strategic goal of the document is to provide the population and economy of Uzbekistan with electric power at competitive prices and develop a balanced energy sector, covering the best global practices and current trends in the global power industry. The Concept offers priority measures aimed at modernizing and reconstructing existing power plants, building new facilities, using energy-efficient power generation technologies, improving power metering systems, developing renewable energy sources, especially solar power, developing legal reforms to improve tariff policies and ensure transition to the wholesale market. The goals for 2030 are to increase capacity from 12.9GW to 29.3GW, increase electric power generation from 63.6 billion kWh to 120.8 billion kWh, reduce natural gas consumption from 16.5 billion cubic meters to 12.1 billion cubic meters, reduce transmission losses and distribution losses to 2.35 percent and 6.5 percent respectively (1.85 less compared to 2019). In developing renewable energy sources, special focus will be made on ensuring affordable energy supply to regions with power shortages. The introduction of public-private partnerships is planned to accelerate the development of renewable energy sources in this area.

[Link VII](#)

Uzbekistan: Wholesale electricity and gas system development

The President of Uzbekistan instructed the government to prepare a Master Plan for the development of the gas pipeline system until 2030, involving the experts from the World Bank and the Asian Development Bank by 1 September 2020. The ministries of energy, economic development and poverty reduction, finance, investment and foreign trade, as well as the Antimonopoly Committee and the State Assets Management Agency will be responsible for the initiative. At the same time, the agencies will have to develop proposals to create a wholesale electricity and natural gas markets based on exchange trading, ensuring equal access to all participants and transparent pricing mechanism. In addition, the country will engage the internationally recognized consulting and audit companies in the development of a roadmap for improving the operational efficiency of oil and gas enterprises. These enterprises will employ highly qualified foreign experts and specialists, including fellow citizens from abroad.

[Link VIII](#)

Ukraine: The Regulator approved Ukrrenergo's plan for the development of a transmission system for 2020-2029

In 2020, the regulator, for the first time, approved Ukrrenergo's plan for the development of a transmission system for 2020–29. This implementation would raise the standards for operating main power transmission lines to the European level. According to the Acting Chairman of the Board of Ukrrenergo, the total investment budget will amount to almost UAH70 billion. The main goals of the plan include improving the safety and reliability of the transmission system, reducing the equipment repair and maintenance expenses, reducing the electricity consumption for the substation needs by 30–35 percent and improving the reliability of energy supply in certain regions. Based on the target plan for the development of generating capacities of the Ukrainian energy system, in 2025, the installed capacity of wind farms and solar power plants will exceed 3GW and 6GW respectively.

[Link IX](#)

Ukraine: Project for the construction of an energy storage system with 200 MW capacity

As reported by the representative of the EBRD energy department, the European Bank for Reconstruction and Development and Ukrrenergo are developing a project to construct an energy storage system with a capacity of 200MW to regulate the frequency of the energy system. This facility will not require green tariff and will help solve the issue of regulating capacities and reduce the price for electric power in the market. According to the representative of the EBRD, they are considering the possibility to provide financing for the construction of a 200MW facility.

This is a project planned to be financed using an EBRD sovereign loan. EBRD is ready to finance the construction of flexible renewable capacities as part of green auctions by private companies.

[Link X](#)

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Endnotes

¹ [Recovery of the European electricity markets prices due to the fall in wind energy production, but they continue below €30/MWh](#), 21 May 2020, AleaSoft

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