Orsted Your budgeting companion

100

April 2019

Budget with confidence

Inside, you'll find up-to-date information to help you forecast with confidence and develop your energy strategy.

As well as forecasts of commodity and non-commodity elements of your invoice for electricity and gas, we've also included more information on each cost component and the factors driving changes.

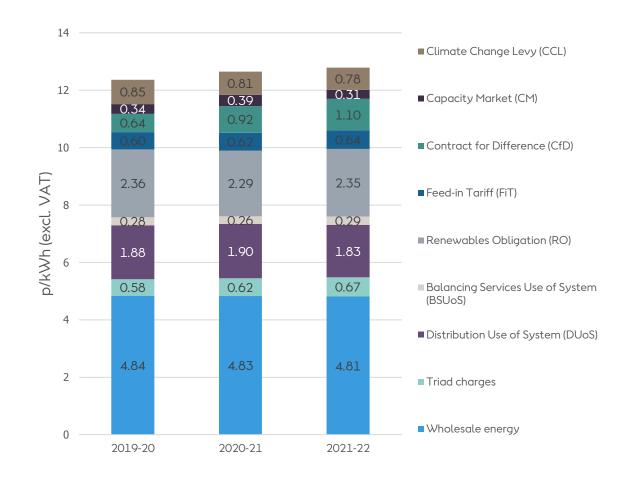
If you'd like to talk to us about how you can reduce your energy costs through smarter energy management, please get in touch. You can either contact your account manager directly, or email:

sales_uk_marketing@orsted.co.uk

Your electricity forecasts



Your forecasts for electricity in a nutshell



Forecast delivered electricity costs 2019-20 to 2021-22

Note. Assistance for Areas with High Electricity Distribution Costs (AAHEDC) costs are not shown in the above chart due to their small relative proportions (see detailed costs breakdowns on page 8).



The headlines

- Delivered electricity costs are forecast to increase by **2%** in 2020-21 against 2019-20 figures. Wholesale costs are forecasted to remain steady for this period and non-commodity costs are set to increase by **4%**.
- Delivered electricity costs are set to rise by **1%** in 2021-22 against 2020-21. This is if forward wholesale markets stay the same. Wholesale markets are also forecast flat and if things remain unchanged, this will help offset a forecast annual increase in non-commodity costs of about **2%**.
- Overall, the delivered electricity cost forecasts for 2019-20 and 2020-21 are **7%** and **8%** lower than the last forecasts issued in October 2018. This is due to falling wholesale costs. A sliding market has reduced wholesale costs by **25%** for 2019-20 and **17%** for 2020-21 compared with the view in October 2018.

Key drivers for 2020-21

- Network costs are projected to increase by **2%**, which is consistent with Ofgem's long-term price controls. However, there are regional variations and certain costs have increased above the line of inflation. This includes Triad transmission charges in Scotland and distribution charges in southern Scotland, southern England, Merseyside and North Wales.
- There will be a **5%** increase in policy costs. This rise is mainly due to increased renewables generation, supported through the Feed-in Tariff scheme.
- In the medium term, there may be changes to the structure of network tariffs and policy costs as electricity demand and generation become more diverse. These changes include:

Ofgem and BEIS Targeted Charging Review Significant Code Review (TCR SCR) which is reviewing the long-term structure of network costs.

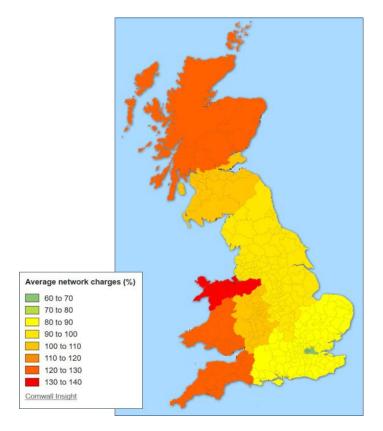
The Charging Futures workstream programme which is coordinating significant reform of electricity access and charging arrangements across the GB network.

New investments in long distance power links which aims to lower BSUoS costs.



Network costs - regional trends 2019-2020

Average network charges for large electricity users (expressed as a percentage of the GB average)



- Network costs for distribution and transmission average **2.80p/kWh**. This is equivalent to just over **20%** of the total invoice (before VAT).
- The distribution component of network costs averages **1.88p/kWh**. They are highest in Wales, north Scotland and south west England.
- The transmission component of network costs averages **0.58p/kWh.** These are highest across southern England.
- North Scotland has the highest distribution costs, but Merseyside and North Wales also have costs over **0.8p/kWh** above the GB average.
- Load switching and Triad avoidance can help mitigate costs. Please speak to your Account Manager for more information on our Triad warning service.



Your forecasts of wholesale electricity costs

Wholesale costs include the market value of electricity for a period, costs for system losses and the supplier's costs and margin.

What's driving wholesale costs?

- Wholesale electricity markets have fallen, as a mild north west European winter and worries of global recession have reduced demand amid plentiful supplies. Wholesale markets have fallen by around **25%** since the October 2018 issue of this report.
- The wholesale electricity market is currently posting increases of **12%** for 2020-21 compared to 2019-20, with stability predicted for 2021-22.

Forecast electricity wholesale costs 2019-20 to 2021-22

| | 2019-20 | 2020-21 | 2021-22 |
|-------------------------|---------|---------|---------|
| Wholesale costs (p/kWh) | 4.84 | 4.83 | 4.81 |
| Change (%) | | 0% | 0% |



Your forecasts of electricity network costs

Transporting energy across electricity and gas public networks to a customer meter incurs a cost. Suppliers recover these costs from their customers as 'network costs'.

For electricity, network costs include:

- Transmission Network Use of System (TNUoS or Triad)
- Distribution Use of System (DUoS)
- Balancing Services Use of System (BSUoS)
- Assistance for Areas with High Electricity Distribution Costs (AAHEDC)

Ofgem sets price controls for networks to beyond 2020. These controls are linked to inflation but can vary year-on-year if new investments are commissioned, tariffs are rebalanced or if other one-off events occur.

Forecast TNUoS/Triad costs 2019-20 to 2021-22

| | 2019-20 | 2020-21 | 2021-22 |
|---------------------|---------|---------|---------|
| Triad costs (p/kWh) | 0.58 | 0.62 | 0.67 |
| Change (%) | | 7% | 8% |

Forecast DUoS costs 2019-20 to 2021-22

| | 2019-20 | 2020-21 | 2021-22 |
|--------------------|---------|---------|---------|
| DUoS costs (p/kWh) | 1.88 | 1.90 | 1.83 |
| Change (%) | | 1% | -4% |

Forecast BSUoS costs 2019-20 to 2021-22

| | 2019-20 | 2020-21 | 2021-22 |
|---------------------|---------|---------|---------|
| BSUoS costs (p/kWh) | 0.28 | 0.26 | 0.29 |
| Change (%) | | -6% | 11% |

Forecast AAHEDC costs 2019-20 to 2021-22

| | 2019-20 | 2020-21 | 2021-22 |
|----------------------|---------|---------|---------|
| AAHEDC costs (p/kWh) | 0.03 | 0.03 | 0.03 |
| Change (%) | | 5% | 3% |

Note: AAHEDC costs will increase in line with inflation each year, but annual increases are not significant enough to affect cost data shown in the above table.

Your forecasts of electricity policy costs

Policy costs include the following:

| Subsidising renewable electricity | Ensuring security of supply | Reducing energy consumption |
|--|-----------------------------|-----------------------------|
| Renewables Obligation (RO), Feed-in Tariff (FiT), Contracts for Difference (CfD) | Capacity Market (CM) | Climate Change Levy (CCL) |

- The Levy Control Framework sets an annual figure for the 'subsidy of renewable electricity' policy costs, including through to 2020-21, to a value of **£7.6bn** (in 2011-12 prices as agreed when the policy was established in 2013). This is equivalent to around **25%** of forecast consumer spend on electricity in that year.
- Since 2018, several electricity suppliers have collapsed, leaving debts for renewables policy schemes including RO and FiT. These costs will need to be recovered by other suppliers and are estimated at up to 0.20p/kWh supplied in 2019-20. As the figures are yet to be confirmed, they are excluded from the tables in this forecast.

Forecast RO costs 2019-20 to 2021-22

| | 2019-20 | 2020-21 | 2021-22 |
|------------|---------|---------|---------|
| RO (p/kWh) | 2.36 | 2.29 | 2.35 |
| Change (%) | | -3% | 3% |

Forecast FiT costs 2019-20 to 2021-22

| | 2019-20 | 2020-21 | 2021-22 |
|-------------|---------|---------|---------|
| FiT (p/kWh) | 0.60 | 0.62 | 0.64 |
| Change (%) | | 4% | 3% |

Forecast CfD costs 2019-20 to 2021-22

| | 2019-20 | 2020-21 | 2021-22 |
|-------------|---------|---------|---------|
| CfD (p/kWh) | 0.64 | 0.92 | 1.10 |
| Change (%) | | 44% | 19% |

Forecast CM costs 2019-20 to 2021-22

| | 2019-20 | 2020-21 | 2021-22 |
|------------|---------|---------|---------|
| CM (p/kWh) | 0.34 | 0.39 | 0.31 |
| Change (%) | | 17% | -21% |

Forecast CCL costs 2019-20 to 2021-22 (main rate)

| | 2019-20 | 2020-21 | 2021-22 |
|-------------|---------|---------|---------|
| CCL (p/kWh) | 0.85 | 0.81 | 0.78 |
| Change (%) | | -4% | -4% |

CCL at the reduced rate

The table below shows the reduced rates of CCL at April 2018, 2019 and 2020. If you qualify for the reduced rate, please send your new PP11 forms to us before end of April 2019, so we can apply the new discount to your invoice. For more information visit: https://www.gov.uk/government/publications/climate-change-levy-supplier-certificate-pp11

| Taxable commodity | 1 April 2018 | 1 April 2019 | 1 April 2020 |
|-----------------------------|--------------|--------------|--------------|
| Electricity | 10% | 7% | 8% |
| Natural gas | 35% | 22% | 19% |
| LPG | 35% | 22% | 23% |
| Any other taxable commodity | 35% | 22% | 19% |

More about electricity network costs

TNUoS/Triad costs

- TNUoS costs are for transmitting electricity around the country. Each year, licenced suppliers must pay TNUoS costs to National Grid to cover its costs of delivering electricity across the network. For half-hourly meters, TNUoS costs are directly passed through to customers from suppliers as Triad charges.
- 'Triads' are the three half hour periods of peak system demand between November and February. The peaks typically fall between 16:00 and 19:00 on weekdays. This is the time that industrial consumption often coincides with higher domestic consumption. National Grid forecasts Triad charges up to five years in advance.

What's driving them?

- There have been reforms to transmission charging for embedded generators, which has slowed a recent trend of cost increases that were above inflation.
- These reforms are cutting the amount that embedded generators will receive by a third a year, over the three years ending 2020-21.
- Due to a technical change in the treatment of charges for small generators in Scotland, an above inflation increase in TNUoS/Triad charges is forecast for 2020-21, compared to 2019-20.

Distribution use of System (DUoS) costs

DUoS costs relate to the cost of maintaining the regional networks that transport electricity from the local sub-station to the end customer. This infrastructure is owned and operated by the Distribution Network Operator (DNO) in your area. DUoS are charged to generators and suppliers, and then recovered from electricity users. Each DNO publishes a forecast of costs in its region and suppliers use this as a basis for DUoS calculations.

What's driving them?

- In 2020-21, DUoS costs are expected to hold near unchanged with a 1% average increase.
- Latest revenue statements from DNOs indicate that in 2020-21, DUoS costs will fall across most regions. This is consistent with Ofgem's price controls.

Balancing Services Use of System (BSUoS) costs

BSUoS is a charge that National Grid levies to balance the electricity system and recover the costs incurred as the system operator. National Grid publishes BSUoS forecasts for the current and next charging year.

What's driving BSUoS costs?

• BSUoS costs are forecasted to average just under **0.30p/kWh** annually through to 2021-22.



- BSUoS costs have been rising recently due to increased constraints on the transmission network in England and Wales since autumn 2018.
- Once consistently operating, the Western Link will enable more renewable power to flow from Scotland into England and reduce constraint costs recovered through BSUoS.

More about electricity policy costs

Renewables Obligation (RO)

- RO is a government policy to encourage the development of renewable electricity generating capacity in the UK. It is now closed to new capacity.
- RO places an obligation on electricity suppliers to source an increasing proportion of the electricity they supply from renewable sources. This is measured through the expected production of tradable Renewables Obligation Certificates (ROCs) each year.
- Exemptions are available for some energy intensive users.

What's driving it?

- BEIS has set the target for the RO at **0.484 ROCs/MWh** in GB for 2019-20. This has increased from **0.468 ROCs/MWh** in 2018-19. The RO target includes adjustments to reflect Energy Intensive Industry (EII) exemptions, which were implemented from 1 April 2018.
- The 2020-21 RO target is forecast to fall, as rising demand increases the charging base (volume of electricity sold) over which the costs of the RO can be recovered.
- RO 'buy out values' increase in line with inflation. Values are also affected by the relationship between forecast total production of certificates and electricity consumption outside the Ell sectors.

Feed-in Tariff (FiT)

- FiT is a government programme to support the uptake of a range of small-scale renewable and low-carbon generation technologies. The tariff is then paid to anyone who installs a renewable energy system producing electricity. Tariffs are paid for electricity that is generated with a bonus for any energy exported to the grid.
- FiT costs vary by quarter with unit rates typically higher in the summer than the winter. This reflects higher solar output and a lower demand base from which to recover costs.
- Exemptions are available for some energy intensive users.

What's driving it?

• Costs are tied to inflation linked increases. The scheme is closing to new capacity on 31 March 2019.



Contracts for Difference (CFD)

- CFD is a subsidy for large-scale low carbon generation projects introduced after 2015. This tops up wholesale power prices to a target level for different generation projects.
- Costs vary by quarter depending on the volume of generation to be subsidised and the amount needed for top-up payments.

What's driving it?

- Unit rates rise as new capacity joins the scheme.
- As wholesale costs rise and fall, scheme costs will trend in the opposite direction. This is because lower or greater top-up payments to the market electricity price will be payable to generators.

Capacity Market (CM)

- The Capacity Market is a government scheme to ensure security of electricity supply. It is intended to incentivise investment in more sustainable, low-carbon electricity capacity at the lowest possible cost for energy consumers. This is needed to help secure electricity supplies for the future.
- Generators are paid a 'per MW price' for the capacity they can provide to the market. This capacity needs to be available when providers are called upon by National Grid at any time during the contracted period.
- Capacity is procured in technology neutral auctions four years and one year ahead of delivery. Contracts are available for one year, three years for refurbishing work and 15 years for new build.

What's driving it?

- In November 2018, the General Court of the EU annulled the European Commission's State Aid approval for the CM. The result was an immediate suspension in Capacity Market supplier charges and potential payments to generators.
- Suppliers are no longer obligated to pay CM charges at present, but in the expectation that the scheme will be reinstated, it is held to be sensible for suppliers to continue to recover these costs from consumers.

Climate Change Levy (CCL)

CCL is a government environmental tax on energy delivered to non-domestic energy users. HMRC requires all suppliers to pay a levy to fund CCL. This cost is then passed on to all electricity customers through their invoices. The CCL rate goes up in line with inflation every year and is chargeable on a consumption basis per £/kWh.

Who pays CCL?

The following sectors must pay CCL:



- Industrial
- Commercial
- Agricultural
- Public services

The following are excluded from paying CCL:

- Business that use small amounts of energy
- Domestic energy users
- Charities engaged in non-commercial activities

There will be an increase to the Climate Change Levy (CCL) from April 2019

As part of the 2016 Budget, Government announced that from April 2019, the current Carbon Reduction Commitment (CRC) scheme will be closed and replaced by CCL. This means that tax which is usually recovered through CRC will instead be collected by increasing the cost of CCL.

How will this affect my electricity invoice?

If you pay CCL, you will notice an increase of **47%** from April 2019. If you currently pay CRC, this will not appear on your invoice from April 2019.

Because of this change, the CCL reduced rate percentages are changing. If you qualify for the reduced rate, please send your new PP11 forms to your account manager or service team before end of April 2019, so we can apply the new discount to your invoice.

For more information visit: https://www.gov.uk/government/publications/climate-change-levy-supplier-certificate-pp11

You can get a reduction on the main rates of CCL if you have entered into a Climate Change Agreement (CCA) with the Environment Agency.

Your gas forecasts

The H

Your forecasts for gas in a nutshell



Forecast delivered gas costs 2019-20 to 2021-22

Headlines

- A 2% increase is forecast for delivered gas costs in 2020-21 on 2019-20. This is because a 2% fall in wholesale costs will be offset by a 20% increase in CCL.
- If forward wholesale markets retain their current levels, and National Transmission System (NTS) and Distribution Network (DN) costs remain as forecast, a **15%** rise projected for CCL will be the main driver of another **2%** forecast delivered cost rise for 2021-22 on 2020-21.

Key drivers for 2019-20

- The wholesale market is in slight backwardation. This means that prices are decreasing the further into the future the gas is to be delivered.
- Increases in network costs are in line with inflation, which reflects Ofgem's long-term price controls.
- Above inflation increases in CCL are projected following a restructuring of this levy to focus on the carbon content of fuels burned.



Your forecasts of wholesale gas costs

Wholesale energy includes the market value of gas for a period, plus the supplier's costs and margin in providing it to the customer.

What's driving it?

- Wholesale gas markets have fallen sharply since the October 2018 forecast as a mild winter and sluggish demand have meant the supply situation in Europe has improved after the shortfalls caused by 2018's Beast from the East.
- The wholesale gas market is priced **6%** higher for 2020-21 than 2019-20 and stable for the year after.

Forecast gas wholesale costs 2019-20 to 2021-22

| | 2019-20 | 2020-21 | 2021-22 |
|--------------------------|---------|---------|---------|
| Wholesale energy (p/kWh) | 1.51 | 1.61 | 1.61 |
| Change (%) | | 6% | 0% |

Your forecasts of gas transportation costs

- Transportation costs are levied on users of the gas public networks to transport volumes to the customer's meter. Gas transportation costs relate to National Transmission System (NTS) costs and regional Distribution Network (DN) costs. The latter are also sometimes referred to as Local Distribution Zone (LDZ) costs.
- Transportation costs have **fixed daily**, **commodity** and **capacity** components. In this report, figures are presented on a volumetric, averaged basis.
- Commodity costs are based on the volume of gas consumed, while capacity costs are based on the maximum amount of gas expected to be used by a site on any day in the year.
- Price controls for networks are set to beyond 2020 by Ofgem. They are inflation-linked but can vary year-on-year depending on the investment profile of the network company if tariffs are rebalanced or if other one-off events occur.

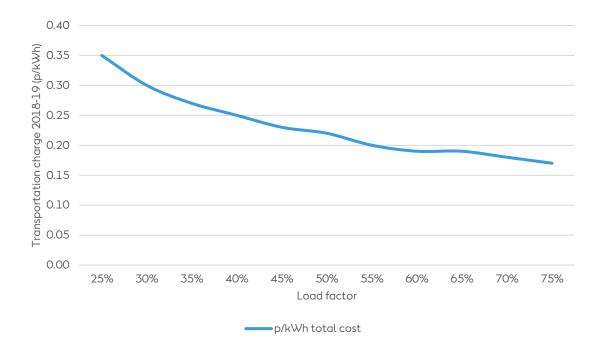
Forecast gas NTS costs 2019-20 to 2021-22

| | 2019-20 | 2020-21 | 2021-22 |
|-------------------|---------|---------|---------|
| NTS costs (p/kWh) | 0.04 | 0.04 | 0.04 |
| Change (%) | | 5% | 3% |

Forecast gas DN costs 2019-20 to 2021-22

| | 2019-20 | 2020-21 | 2021-22 |
|------------------|---------|---------|---------|
| DN costs (p/kWh) | 0.18 | 0.19 | 0.20 |
| Change (%) | | 7% | 3% |

Average transportation costs by load factor



Your forecasts of gas policy costs

Forecast gas CCL costs 2019-20 to 2021-22 (main rate)

| | 2019-20 | 2020-21 | 2021-22 |
|-------------|---------|---------|---------|
| CCL (p/kWh) | 0.34 | 0.41 | 0.47 |
| Change (%) | | 20% | 15% |

CCL at the reduced rate

The table below shows the reduced rates of CCL at April 2018, 2019 and 2020. If you qualify for the reduced rate, please send your new PP11 forms to your account manager or service team before end of April 2019, so we can apply the new discount to your invoice.

https://www.gov.uk/government/publications/climate-change-levy-supplier-certificate-pp11

| Taxable commodity | 1 April 2018 | 1 April 2019 | 1 April 2020 |
|-----------------------------|--------------|--------------|--------------|
| Electricity | 10% | 7% | 8% |
| Natural gas | 35% | 22% | 19% |
| LPG | 35% | 22% | 23% |
| Any other taxable commodity | 35% | 22% | 19% |

More about gas policy costs

National Transmission System (NTS) costs

- NTS costs account for the costs of shipping gas in bulk around the country. They include **commodity** and **capacity** elements.
- National Grid Gas Transmission (NGGT) produces an annual statement of costs for the coming year and forecasts the revenues it expects to earn from its costs in the years thereafter.

What's driving them?

- NGGT's long-term revenue statement, issued in November 2018, suggests that in real terms NTS charges will increase **1.6%** in 2020-21. For periods 2021-22 and beyond, the revenue changes will depend on the outcome of the RIIO-T2 charging regime. Currently, they are not forecasted to change, pending the resolution of the new regime.
- NTS costs will still only account for around **1.7%** of delivered gas costs even after this increase.

Distribution Network/Local Distribution Zone (LDZ) costs

- These costs are levied on suppliers, to cover the costs of the lower pressure gas Distribution Networks (DNs) to flow gas to the customers' meters.
- Each of the four distribution companies publishes annual charging statements covering the eight DNs they own collectively. They also provide annual forecasts of expected revenues in future years.

What's driving them?

- DN costs are expected rise by **6%** on average in 2020-21.
- There is uncertainty around allowed revenues in periods 2021-22 to 2023-24 as they fall in the next gas price control (RIIO-GD2) period. Allowed revenues for this period have not yet been set, with the companies still formulating business plans for the period. Our forecast assumes a **2.5%** increase in line with forecast inflation for 2021-22.

Load factor and average transportation

- Gas transportation costs comprise capacity costs (related to peak daily consumption) and commodity costs (related to annual volume).
- The relationship between peak daily consumption and annual consumption is known as the 'load factor' and is expressed as a percentage. The higher the load factor, the more consistent the use of gas through the year: higher load factors tend to reflect a process use



(heat to change the state of matter) while lower load factors tend to reflect space heating, where the requirement is primarily temperature related.

• Lower load factor sites tend to attract higher average costs for transportation, meaning that reducing gas consumption peaks may yield a saving in these costs on a unit basis.

More about gas policy costs

Climate Change Levy (CCL)

CCL is a government environmental tax on energy delivered to non-domestic energy users. HMRC requires all suppliers to pay a levy to fund CCL. This cost is then passed on to all electricity and gas customers through their invoices. The CCL rate goes up in line with inflation every year and is chargeable on a consumption basis per £/kWh.

Who pays CCL?

The following sectors must pay CCL:

- Industrial
- Commercial
- Agricultural
- Public services

The following are excluded from paying CCL:

- Business that use small amounts of energy
- Domestic energy users
- Charities engaged in non-commercial activities

There will be an increase to the Climate Change Levy (CCL) from April 2019

As part of the 2016 Budget, Government announced that from April 2019, the current Carbon Reduction Commitment (CRC) scheme will be closed and replaced by CCL. This means that tax which is usually recovered through CRC will instead be collected by increasing the cost of CCL.

How will this affect my electricity invoice?

If you pay CCL, you will notice an increase of **67%** for gas, from 1 April 2019. If you currently pay CRC, this will not appear on your invoice from 1 April 2019.

Because of this change, the CCL reduced rate percentages are changing. If you qualify for the reduced rate, please send your new PP11 forms to your account manager or service team before end of April 2019, so we can apply the new discount to your invoice.

For more information visit: https://www.gov.uk/government/publications/climate-change-levy-supplier-certificate-pp11

Gas wholesale market forecasts are based on the market value of gas in early March 2019 and covering:

- 2019-20: the year from 1 April 2019 to 31 March 2020
- 2020-21: the year from 1 April 2020 to 31 March 2021
- 2021-22: the year from 1 April 2021 to 31 March 2022

Electricity wholesale market forecasts are based on the market value of baseload electricity in early March 2019 and covering:

- 2019-20: the year from 1 April 2019 to 31 March 2020
- 2020-21: the year from 1 April 2020 to 31 March 2021
- 2021-22: the year from 1 April 2021 to 31 March 2022

All rights reserved. No parts of this publication may be reproduced by any means without prior written permission from Orsted Sales (UK) Limited. All graphics in this document are for illustrative purposes. Dates and figures are based on available information and are subject to change. This report is produced by Orsted Sales (UK) Limited in conjunction with Cornwall Insight and provides general information and commentary on energy market trends. The opinions contained are the current opinions Orsted Sales (UK) Limited of Cornwall Insight for informational purposes only. They should not be construed as an offer, recommendation or solicitation to buy, sell or deal in any commodity, product or security or to enter in to any trading or investment activity whatsoever. Any use by you or any third party of any information or other material contained in or associated with this document signifies agreement by you or them to these conditions. The report makes use of information gathered from a variety of sources that have not been subject to independent verification. Orsted Sales (UK) Limited or Cornwall Insight do not give any representation or warranty regarding the accuracy or completeness of the information collected from market participants or from sources in the public domain. Orsted Sales (UK) Limited or Cornwall Insight do not make any warranties, whether express, implied or statutory regarding or relating to the contents of this report and specifically disclaim all implied warranties, including, but not limited to, the implied warranties of satisfactory quality and fitness for a purpose. While Orsted Sales (UK) Limited and Cornwall Insight consider that the information and opinions given in this newsletter/report and all other documentation are sound, all parties must rely on their own skill and judgment when making use of it. Whilst every effort is made to ensure the accuracy of any information or material contained in or associated with this document, neither of Cornwall Insight or Orsted Sales (UK) Limited, their affiliates and employees, either individually or collectively accept any responsibility for any loss, damage, cost or expense of whatever kind arising directly or indirectly from or in connection with the use by any person whomsoever of any such information or material; neither do they make any representation or warranty as to the accuracy or completeness of the data, information or statements contained herein.

Orsted Sales (UK) Limited. Registered office: Orsted Sales (UK) Limited, 5 Howick Place, London, SW1P 1WG Registered in England number: 2405635 VAT registration number: 129909382. © Orsted Sales (UK) Limited. 2019