3 September 2018

TenneT begins laying the NordLink subsea cable in the German North Sea

- *First 99 kilometres of the "green link" to be wound out below the North Sea between Büsum dike and southwest of the Island of Sylt*
- *Land cable section between dike and Wilster converter station to be laid in 2019 and 2020*
- *Exchange between German wind energy and Norwegian hydropower*

Transmission system operator TenneT has begun laying its "NordLink" subsea cable section in the German North Sea. During the next weeks TenneT will wind out 99 kilometres into the seabed between the cable landfall at the Büsum dike (Schleswig-Holstein) and southwest of the Island of Sylt through the tidal flat area (Wadden Sea).

Next year, another 55 kilometres of subsea cable will be laid in the German offshore area up to the border of the Danish territorial waters. Here, the cable end will be connected to the 228-kilometre-long cable section to be laid in 2018 and 2019 in the Danish North Sea area by means of a subsea cable joint. The 134-kilometre-long subsea cable section in Norwegian territorial waters is already complete. Construction of the 53-kilometre-long overhead line on Norwegian mainland is scheduled for completion in 2019. On German mainland, NordLink will be laid as an underground cable on a 54-kilometre route between Büsum dike and the Wilster converter station (Steinburg district) starting in 2019. Overall, the NordLink interconnector is 623 kilometres long. The "green link" will directly connect the energy markets of Germany and Norway for the first time and serve as an exchange between German wind energy and Norwegian hydropower.

The subsea cable work in the German sector will be carried out in close collaboration with the nature conservation agencies. TenneT complies with strict nature conservation requirements set out by the German Federal Maritime and Hydrographic Agency, National Park administration and the Ministry of Energy, Agriculture, the Environment, Nature and Digitisation of the Federal State of Schleswig-Holstein. Nature conservation construction site monitoring ensures careful and considerate operations within the Wadden Sea National Park. TenneT urges tourists and hikers in the Wadden Sea not to enter areas that are cordoned off for safety reasons and to keep sufficient distance to anchor cables.

Two horizontal drills of 550 metres in length were used across the land protection dike in Neuenkoog (by Büsum) and the empty conduits were drawn into the boreholes last year. The subsea cables to be delivered on a cable laying ship in case of high water springs are set to be drawn into these boreholes in autumn 2018, and will later be connected to the underground cable on the landward side of dike. The underground cable will then run to the Wilster converter station from there.

Background

NordLink connects two perfectly complementary systems for the exchange of renewable energy: German wind and solar power on the one side, and Norwegian hydropower on the other. The power line connects the capacities of Norwegian hydropower plants with those of wind and solar farms in Germany. The Norwegian water reservoirs essentially function as 'energy reservoirs': the water inside them is retained when energy is imported from Germany, especially when Germany has excess wind energy to offer.

In turn, they can come into play during peak consumption periods in Germany, and when there is little production from solar and wind power plants. Then Norwegian hydropower is transported to Germany.

German consumers can benefit from the positive effect on electricity prices resulting from the import of lower-priced hydropower. When limited activity of wind turbines and solar cells result in higher energy prices in Germany than in Norway, energy generated by Norwegian hydropower plants can be imported via NordLink. A considerable part of the socio-economic advantages of NordLink results from the profits generated by trading transmission capacity via the interconnector. These profits will be used to fund other grid projects or to lower energy rates.

German-Norwegian cooperation

The NordLink project will be implemented by the Norwegian TSO Statnett and DC Nordseekabel GmbH & Co. KG, each with 50% ownership. TenneT and KfW each have a 50% share in DC Nordseekabel. DC Nordseekabel is responsible for the construction and approvals on the German part of the project. Additional info at: www.nordlink.eu

DC motorway

NordLink itself will be built as a DC motorway without a ramp, i.e. as a point-to-point connection between the three-phase electric power grids in Germany and Norway. Due to the length of the route and the large transmission capacity, direct current is used for efficient transmission with low losses. Both cables (positive and negative poles) are connected to converter stations at each end. The converter stations will be built in Wilster, Schleswig-Holstein, and Tonstad in Norway. At these locations, the current will be converted from direct to three-phase electric power (or vice versa, depending on the transmission direction) and fed into the German or Norwegian three-phase electric power transmission grid to supply homes and businesses with green electricity.

Facts and Figures

- ✓ 623 km long, high-voltage direct current transmission (HVDC)
- ✓ A capacity of 1,400 MW at ± 525 kV
- ✓ Offshore: 516 km subsea cable
- ✓ Onshore: 54 km of underground cable (Büsum – Wilster/Schleswig-Holstein) and a 53-km overhead line (Vollesfjord – Tonstad/NOR)
- ✓ Grid connection points: the Wilster (GER) and Tonstad (NOR) substations
- ✓ To be completed by 2020

TenneT
http://www.tennet.eu

4 September 2018

Belgium scraps winter reserve for first time in 5 years

The Belgian government has cancelled its strategic winter reserve for the first time in five years despite some fears of a supply shortfall.

Grid operator Elia had previously advised the government this year that Belgium should have power capacity standby at 500 MW for the winter 2018-2019.

However, the government decided last week to drop those plans after re-calculating the available capacity in the market, according to the Flemish newspaper De Tijd on Tuesday.

The decision means the tender for emergency capacity planned this autumn will be cancelled.

The government's decision also came just two days before Engie Electrabel said it would delay maintenance outages at Doel 1 and 2, each 433 MW, until December.

Belgium has had its power supply reserve in place since its launch in 2014.

The government reckons the reserve is not required this year thanks to increased capacity from cross-border interconnectors and the expansion of Engie's Drogenbos 230 MW open cycle gas-fired plant to a 460 MW combined cycle unit from 24 September.

"No strategic reserve is needed because domestic production and import possibilities from abroad are sufficient," the energy ministry was quoted as saying.

In Elia's calculations for a winter reserve, a scarcity situation occurs when there is 1 GW nuclear capacity unavailable in Belgium and 4.5 GW offline in France.

However, fears of power shortages have mounted as only three out of the country's seven nuclear plants are currently offline and expected back close to the start of the winter. Belgium's nuclear reactor outage schedule in 2018:

Reactor	Output (MW)	Outage	Expected restart
Tihange 1	962	20 Oct	28 Nov
Tihange 2	1,008	19 Aug	31 Oct
Tihange 3	1,038	31 March	30 Sept
Doel 1	433	27 April	10 Dec
Doel 2	433	22 May	31 Dec
Doel 3	1,006	online	online
Doel 4	1,039	6 Aug	15 Dec

Montel News
http://www.montelnews.com

5 September 2018

European Commission drops tariffs on Chinese solar panels

The European Commission has dropped tariffs on solar panels imported from China after ruling that the benefits of lower prices to consumers and installers would outweigh any harm to manufacturers in the EU.

The minimum import price, which had been in place for almost half a decade, was allowed to expire at midnight on Monday (3 September).

The anti-dumping measure was first introduced in December 2013 to enable EU firms to compete fairly with Chinese producers, who they claimed were able to sell panels at artificially low prices due to large state subsidies.

The tariffs were extended twice – once in December 2015 and then again in March 2017. The minimum import price has been gradually reduced over time to bring the prices of imports in line with those on the world market.

The European Commission said allowing the tariffs to expire would be in the best interests of the EU as a whole, adding that new renewable energy targets had been factored into the decision.

In July, the Department for Business, Energy and Industrial Strategy announced plans to close the feed-in tariff scheme to new applicants from 31 March 2019 without implementing a replacement.

The removal of support for small-scale renewables is expected to devastate the solar sector, according to a survey of installers published by the Renewable Energy Association earlier this week, leading to widespread job losses and company closures.

Utility Week
http://www.utilityweek.co.uk

5 September 2018

FERC lets PJM delay next capacity auction from May to August 2019

The Federal Energy Regulatory Commission last Thursday accepted a request from grid operator PJM Interconnection to delay its next capacity market auction from May to Aug. 14-28, 2019, as it redesigns its market rules.

FERC invalidated PJM's capacity market rules in June and last month the grid operator asked the federal agency to allow it to delay its next auction if the regulators could not approve new market rules by the end of the year.

FERC last month also delayed initial filing deadlines for comments in the PJM capacity market docket from late August to Oct. 2, 2018. Federal regulators will need to make a final decision in the docket early next year to allow PJM to implement the market rules for its August auction, which will allocate capacity obligations for the 2022-2023 delivery year.

Utility Dive
http://www.utilitydive.com

6 September 2018

World's largest offshore windfarm opens off Cumbrian coast

Walney Extension will power 590,000 homes amid fears Brexit could stifle growth

The world's biggest offshore windfarm has officially opened in the Irish Sea, amid warnings that Brexit could increase costs for future projects.

Walney Extension, off the Cumbrian coast, spans an area the size of 20,000 football pitches and has a capacity of 659 megawatts, enough to power the equivalent of 590,000 homes.

The project is a sign of how dramatically wind technology has progressed in the past five years since the previous biggest, the London Array, was finished.

The new windfarm uses less than half the number of turbines but is more powerful.

Matthew Wright, the UK managing director of Danish energy firm Ørsted, the project's developer, said: "It's another benchmark in terms of the scale. This – bigger turbines, with fewer positions and a bit further out – is really the shape of projects going forward."

The energy minister Claire Perry said the scheme would help the UK, the world's number one in offshore wind installations, to consolidate its leadership and create thousands of high-quality jobs.

The supersizing of windfarms around the British coastline means Walney Extension will not hold its title for long.

ScottishPower's East Anglia One will be bigger at 714MW when it opens in 2020. Ørsted itself has even larger schemes in the works, including Hornsea One and Two (1,200MW and 1,800MW, respectively) off the Yorkshire coast.

Wright said it was "fantastic news" that ministers had recently committed to a timetable of auctions for clean energy subsidies every two years, starting in 2019. He said it was too early to say whether the company would submit its Hornsea Three windfarm, capable of powering 2m homes, into next year's auction.

But the executive warned that leaving the EU posed the risk of short-term disruption, and seamless borders and free-trade were important to Ørsted. "A hard Brexit or a last-minute no deal is probably the thing that would cause a problem in terms of supply chains and movement of goods and people," he said. In the long-term, however, any form of Brexit would not change the firm's interest in the UK and the fundamentals of the market. "We can deal with it," he said.

Wright said he was unfazed by the 'wind drought' that the heatwave brought to much of Europe this summer. "We will see some low wind periods, some high wind outputs," he said. But the record-breaking temperatures and wildfires would likely strengthen political action on global warming, he thought. "It does tend to focus the mind a little in terms of climate and energy policy. I think it does have an effect," he said.

Offshore windfarms provide nearly a tenth of the UK's electricity.

The Guardian
http://www.theguardian.com

6 September 2018

China Three Gorges pulls out of US$1.2bn West Seti hydro project in Nepal

China Three Gorges International Corporation (CTGI) has ended discussions with the Nepalese government regarding the US$1.2bn West Seti hydropower project (west Nepal) after both sides failed to reach a middle ground. Technical problems, the project's lowest than expected return on equity rate (12.5% instead of the required 17%) and its financial unfeasibility are the main drivers behind CTGI's decision in spite of the potential capacity optimization and the presence of a possible dollar-denominated power purchase agreement (PPA).

The project began in February 2012, when CTGI and the Investment Board of Nepal (IBN) signed a Memorandum of Understanding (MoU). The initial planned capacity was expected to stand at 750 MW but was later reduced to 600 MW.

The hydropower project is not the first one to be cancelled in Nepal. In November 2017, the government terminated a license awarded to China's Gezhouba Group for the construction of the 1,200 MW Budhi Gandaki hydropower project on grounds that it was attributed without any competitive bidding process.

Enerdata
http://www.enerdata.net

6 September 2018

European Cross-Border Intraday (XBID) Solution trades exceed 2.5 million since go-live

European Cross-Border Intraday (XBID) Solution trades exceed 2.5 million since go-live. Solution is stable and therefore availability of roll back systems has ceased.

Nominated Electricity Market Operators (NEMOs) and Transmission System Operators (TSOs) are pleased to announce that the number of trades in XBID since go-live in midJune has exceeded 2.5 million. The XBID solution has been running with stability and therefore, the Steering Committee has decided, in line with the contractual agreement between NEMOs and TSOs, to remove rollback systems.

The XBID solution has been running now for over two and a half months. The initial period after go-live is a critical phase and the project parties are very pleased that this has been delivered without any major incidents. The contractual agreement between the NEMOs and TSOs, the Intraday Operational Agreement, stipulates that roll back systems needed to be available for 2 months after go-live to provide mitigation should XBID fail. The Intraday Steering Committee have recognised that XBID is running with stability and therefore, rollback systems do not have to be kept available anymore.

Marking an important step towards creating a single integrated European intraday market, the XBID go-live with the 10 Local Implementation Projects has delivered continuous trading of electricity across the following countries: Austria, Belgium, Denmark, Estonia, Finland, France, Germany, Latvia, Lithuania, Norway, The Netherlands, Portugal, Spain and Sweden.

Many other European countries are due to take part in a second ‘wave’ go-live with XBID in 2019. XBID brings the whole European intraday continuous market together and complements the existing day-ahead market.

The XBID solution is based on a common IT system with one Shared Order Book, a Capacity Management Module and a Shipping Module.

It allows for orders entered by market participants for continuous matching in one bidding zone to be matched by orders similarly submitted by market participants in any other bidding zone within the XBID solution’s reach, as long as transmission capacity is available.

The intraday solution supports both explicit allocation on the German/French bidding zone border (as requested by the respective NRAs) and implicit continuous trading on all bidding zone borders taking part in the first go-live ‘wave’. It is in line with the EU target model for an integrated intraday market.

European-wide intraday coupling is a key component for completing the European Internal Energy Market. With the rising share of intermittent generation in the European generation mix, connecting intraday markets through cross-border trading is an increasingly important tool for market parties to keep positions balanced.

As the intraday market develops it will enable increased optimisation of the use of generation – especially variable Renewable Energy Sources – and will also enable demand response products to develop. The purpose of the XBID initiative is to increase the overall efficiency of intraday trading and so to create welfare benefits.

ENTSO-E
http://www.entsoe.eu

7 September 2018

National Grid to trial same day frequency response auction

National Grid is to trial same day frequency response procurement from June 2019.

The two year trial is “for a small volume of frequency response” but will enable less predictable technologies, such as wind, to participate, and give those with demand-side response a clearer picture of what may be required of them and when – as the first delivery window will be 23:00 hours the same day.

National Grid said the auction will be held every Friday morning with results published by early afternoon.

It will procure high frequency dynamic response, low frequency dynamic response, high frequency static response, and low frequency static response.

National Grid will publish its requirements for the following week ahead of the auctions. It also stated that the auction will aim to drive down prices and bids will be accepted in price order regardless of size.

The Electricity System Operator will run a webinar on the trial later this month.

The Energyst
http://www.theenergyst.com

9 September 2018

Go Live of congestion management on the German-Austrian Bidding Zone Border (DE-AT BZB) on 1st of October 2018

All relevant governance bodies – of Transmission System Operators and Nominated Electricity Market Operators (NEMOs) - have confirmed go live for the congestion management scheme at the border between Austria and Germany on the 1st of October 2018.

This bidding zone split is based on careful and transparent preparatory work from a large number of involved parties on European level over the last months. It will ensure safe grid operations especially in the upcoming winter period.

Implementation of congestion management scheme on the German-Austrian border was subject to approval by the competent regulatory authorities of the Central Western Europe (CWE) region. This approval was granted in early September. Updating and testing of systems and operational procedures for (long-term, day ahead, intraday and balancing) as well as the scheduling and nomination processes were performed successfully.

The final milestones for the implementation of the bidding zone border until 1st October are the following:

- ✓ Long-term auctions for the German-Austrian border will be opened on the 10th of September 2018 at 10:00, providing the first capacities on this border to the market. The information of the offered capacities will be published on the JAO website, which includes a period with reduced capacities (4.9 GW to 4.0 GW) from 4th to 11th of October 2018, due to maintenance on a cross-border line. Please be aware that long term capacities will be allocated in form of FTRs which do not need to be nominated.

- ✓ For the day ahead market, the first trading day including the German-Austrian border will be 30th September 2018, the first delivery day is 1st October 2018, ´
- ✓ The capacities for intraday will be based on the day ahead left-over capacities and will be released on 30th September 2018 at 22:00 for delivery on the 1st of October 2018 as well.

The introduction of the congestion management on the German-Austrian border is based on the Agency for the Cooperation of Energy Regulators' (ACER) decision on Capacity Calculation Regions (CCRs) from November 2016, that includes the introduction of a new bidding zone border between Germany and Austria. In addition, German regulator Bundesnetzagentur sent out an official request to the German TSOs requiring them to start preparations for the introduction of a capacity management mechanism. In May 2017, Bundesnetzagentur and the Austrian regulator E-Control agreed on the actual modalities for the introduction of congestion management at the German-Austrian border.

TenneT
http://www.tennet.eu

11 September 2018

Doosan to build a new 2 GW USC coal-fired plant in Indonesia

South Korean engineering company Doosan Heavy Industries (DHI) has signed a memorandum of understanding (MoU) with the domestic power company PT Indo Raya Tenaga (IRT) for the construction of the two 1,000 MW Jawa 9 & 10 ultra-supercritical (USC) coal-fired power plants in Cilegon (120 km from Jakarta, Banten province, Java, Indonesia). The total construction cost of the units is expected to amount KRW1,900bn (US$1.68bn), of which KRW1,500bn (US$1.33bn) for the contract with DHI.

The two units are currently scheduled to be built in 2023 and will be operated by IRT, a joint venture (JV) between PT Indonesia Power and PT Barito Pacific. USC coal-fired plants require less coal per MWh, have higher efficiency and lower fuel costs.

Enerdata
http://www.enerdata.net

11 September 2018

Siemens will build a 3.6 GW LNG-fired power plant in Bangladesh

German engineering company Siemens has signed a joint development agreement (JDA) with Bangladesh's state-held North-West Power Generation Company (NWPGCL) for the construction of a 3,600 MW LNG-fuelled power plant at Payra (southern Bangladesh). The two companies will set up a joint venture (JV) and will hold equal share in it.

The US$2.8bn project will be divided in three phases with a capacity of 1,200 MW each and will be built adjacent to the 1,320 MW Payra coal-fired power plant which is currently under construction. The first 1,200 MW phase will be commissioned by December 2021.The project will be built adopting an integrated approach regarding LNG sourcing, procurement, shipping, regasification, delivery to the facility, power generation and eventually power supply to the domestic grid.

Enerdata
http://www.enerdata.net

13 September 2018

World's largest tidal turbine unveiled

New 1MW marine energy system by Atlantis to be deployed later this summer

The world's largest tidal turbine was yesterday unveiled at a facility in Invergordon, Scotland, marking the culmination of a decade of development activity and moving tidal power one step closer to commercial viability.

The AK1000 was developed by Atlantis Resources Corporation, a developer of electricity-generating tidal current turbines, and is due to be installed on the sea bed and connected to the grid at a dedicated berth at the European Marine Energy Centre in Orkney later this summer.

The company said the turbine is capable of generating enough electricity for more than 1,000 homes and is designed for harsh weather and rough, open ocean environments such as those off the Scottish coast.

The giant AK1000 turbine has an 18 metre rotor diameter, weighs 130 tonnes and stands 22.5 metres high. It is capable of dispatching 1MW of predictable power at a water velocity of 2.65m/s.

Atlantis chief executive Timothy Cornelius said the unveiling and installation of the turbine marked an important milestone for the marine power industry in the UK.

"The AK1000 is capable of unlocking the economic potential of the marine energy industry in Scotland and will greatly boost Scotland's renewable generation capacity in the years to come," he said. "Today is not just about our technology, it is about the emergence of tidal power as a viable asset class that will require the development of local supply chains employing local people to deliver sustainable energy to the local grid. The AK1000 takes the industry one step closer to commercial-scale tidal power projects."

Atlantis claims the AK1000 development programme has already injected more than £5m into the UK's renewable energy sector and has provided employment across a broad range of sectors including design, engineering, fabrication and project management.

"We are at the start of a new industrial boom, akin to the development of the North Sea oil and gas fields," said Cornelius. "If we receive the same support from all levels of government that the oil and gas industry received to make the North Sea the success that it is, then the future is very bright for marine power and even brighter for Scotland."

The Guardian
http://www.theguardian.com