A new venture on a virgin cable route has been announced by Bevan Slattery, connecting Oman with Australia – making this the „Great Southern Route“.

Meanwhile in South America, Google, Seaborn Networks and GlobeNet are all considering installing branching units into their existing or new build systems – to Panama, to Recife, to Porto Alegre.

Red Eléctrica has started the installation of the Menorca to Majorca submarine power cable. The „insane“ Sun Cable project gets more and more attraction in Singapore.

In this issue we have several Special Reports and I would like to highlight the contribution of Télécoms Sans Frontières, an organisation that provides invaluable rapid response emergency communication in disaster zones around the world. An organisation which needs all our support.

As usual, you will find the latest news about Offshore Wind Farms, Interconnectors, submarine telecom, wave and tidal systems in this issue.

The Editor

Eckhard Bruckschen
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TM05 diverless subsea trencher

Diverless subsea trenching ROV system
Powerfull trencher on tracks designed for the trenching and maintenance of submarine power cable links. TM05 can be fitted with a cutting wheel and jetting and/or eduction system

www.ldtravocean.com
Celtic Norse fibre optic cable between Norway and Ireland will be partnered by Vodafone Iceland to develop a branch into Iceland. It is also investigating the opportunity to develop a branch into Scotland, initially with the government’s infrastructure body, the Scottish Futures Trust and Host in Scotland, the datacenter umbrella body which it sponsors.

Celtic Norse will also be working with Aquacomms as its operations partner for the venture.

Celtic Norse CEO, Erling Aronsveen, said: “Celtic Norse heads into the Request for Price (RFP) with the confidence that a vendor will be selected to build the system by end the of December 2019 and the final stages of financing will be complete with the significant advantage of having a contract signed for a turn-key build.” In continuation he said: “Celtic Norse will provide a significant advantage to the new developing data centre industry in Norway and provide much needed resilience to the countries international connectivity.”

Vodafone Iceland is a member of a multi-sector partnership building one of the most technologically advanced data centers in Iceland. The construction will be in stages, the first of which is scheduled to be complete by the end of 2019. A key element for the Icelandic data center business is a reliable submarine cable connection between Iceland and Europe.

Heiðar Guðjónsson, CEO of Vodafone Iceland, said: “We are very pleased to be members of the consortium for the Celtic Norse project and we believe this initiative will significantly help us growing the data center business out of Iceland. The natural cooling in the Arctic and 100% renewable energy, will make data centers here the most environmentally friendly and efficient in the world. Celtic Norse might also add up synergies for an interconnected data center market, opening up for partnership or cooperation across the regions.”

James King, Chairman of Host in Scotland, said: “The digital team at Scottish Futures Trust has been working with stakeholders to build an understanding of how it could improve Scotland’s direct connectivity to Europe and USA. There is growing recognition that a direct connection would greatly benefit Scotland’s economy as well as improving national resilience by increasing the number of international subsea fibre links. I am therefore extremely pleased that we have developed this opportunity with Celtic Norse to further this ambition and we very much look forward to continuing to work with them to investigate the delivery of this strategic connection.”

“We are delighted to be Landing party in Ireland and providing system NOC services to the consortium. The proposed landing in Killala, Co. Mayo provides an ideal opportunity for resilient connectivity to Dublin, and beyond towards London, and provides for interconnectivity, via America Europe Connect (AEC-1) cable to New York and beyond. Aquacomms specializes in developing, building and operating Subsea cables; as a neutral, carriers’ carrier this allows us to deliver the best value in submarine cable infrastructure management”, stated Nigel Bayliff – CEO of Aquacomms.
NORWAY
MDL Wraps Up Another NCS Campaign with TechnipFMC

Maritime Developments (MDL) has returned to the Norwegian North Sea for the third year running to support TechnipFMC tie-back campaign in the basin. MDL’s horizontal spread, including a 4-track tensioner mounted on the client’s frame, Third-generation Reel Drive System (RDS) and deck deflectors were used for the installation of flowlines in a producing field in the Norwegian Continental Shelf (NCS).

In total 14 reels of product were deployed, ranging between 8.6m – 10.2m diameter. The deck layout was a replica of the 2018 spread, which enabled 4 product reels to be mobilised on the vessel and installed on a single journey.

Dave Gardiner, MDL BD & commercial manager, said: “Returning to the same field with the same client three years in a row is a clear testament to the successful relationship between TechnipFMC and MDL in executing North Sea SURF scopes. “The partnership approach between the two companies allows for improvements in safety, quality and cost of subsea operations, thanks to the familiarity of both project teams with the equipment, deck plans and one another – onshore and offshore.”
NORWAY
Maximum utilization of power from shore to Utsira High helps further reduce emissions

From 2022 the Johan Sverdrup field will supply the Gina Krog, Ivar Aasen and Edvard Grieg fields with power from shore. The area's licence partners have recently agreed on maximizing the utilization of power from shore to the area by enabling partial electrification of the Sleipner field centre as well. The overall area solution will contribute to an average reduction in CO₂ emissions close to 1.2 million tonnes of CO₂ per year. The Norwegian continental shelf (NCS) is leading in producing oil and gas with low greenhouse gas emissions. By enabling partial electrification of Sleipner and tie-in fields, we are making maximum utilization of the area solution for power from shore to the Utsira High to further reduce emissions from the NCS, says Anders Opedal, executive vice president for Technology, projects & drilling in Equinor. The original area solution for power from shore to the Utsira High comprises the Johan Sverdrup, Edvard Grieg, Gina Krog and Ivar Aasen fields. The power from shore solution included in the second phase of the Johan Sverdrup development will provide additional capacity of 35 MW in order to meet increased power demand from existing or additional fields in the future. Based on the result of recent negotiations by the licence partners, the Sleipner field centre, together with the Gudrun platform and other tie-ins, will receive power from shore to meet parts of their power demand. This solution will also ensure that the Lundin Norway-operated Edvard Grieg platform will be able to fully meet its power demand through power from shore. Emission reductions based on the Utsira High area solution are estimated at more than 1 million tonnes of CO₂ on average per year. Further emission reductions by partial electrification of Sleipner are estimated at more than 150,000 tonnes of CO₂ per year.

"I am pleased that the Sleipner licence partners support a solution enabling the Sleipner field centre and tie-ins to be connected to the power from shore solution. It was not an easy task to find a technical and commercial solution that meets the needs of all licences in this area, so I would like to thank all involved companies and Norwegian authorities who have helped ensure a maximum and holistic utilization of the power from shore capacity in the area," says Opedal.

The Sleipner field centre solution calls for Sleipner to lay a power cable to the Gina Krog platform, which will be connected to the Utsira High area solution by a separate power cable by the end of 2022. In certain periods the field's power from shore demand may exceed the capacity of the area solution. In such periods Sleipner will use gas turbines to cover its shortage.

The industry’s NOx Fund provides up to NOK 430 million to realize the partial electrification of Sleipner and tie-ins. The Sleipner licence partners are planning to make a final investment decision during the second quarter of 2020.

"This initiative is another example of the good work done by the industry, in good cooperation with Norwegian authorities, to meet ambitious goals for emissions cuts on the NCS. Due to the transition we are facing on the NCS, we must reduce the carbon footprint from our operations to protect and develop the value from the Norwegian shelf," says Arne Sigve Nyland, executive vice president for Development & production Norway in Equinor.
NORWAY
DOF Subsea and Kværner Team Up on Hywind Tampen Marine Ops

DOF Subsea and Kværner have signed a contract to collaborate and deliver marine operations for Equinor’s Hywind Tampen Project.
The contract will be executed in a 50/50 partnership (joint venture).

“Hywind Tampen will be the world’s largest floating offshore wind farm and is vital for industrialising solutions and reducing costs for future offshore wind power projects. The deep-water floating renewables market is on the verge of commercialization, and therefore this contract has strategic importance to DOF Subsea,” says Mons Aase, CEO in DOF Subsea.
The Hywind Tampen project will be installed offshore Norway, west of the city Bergen and will supply electrical power to the nearby oil and gas platforms Gullfaks A, B, C and Snorre A and B. The combined effect from the 11 turbines will be 88 megawatts and will replace about 35 percent of the five platforms’ energy demand. Today, the energy required to run these platforms is supplied by gas turbines.
The DOF Subsea – Kværner Hywind Tampen marine scope includes full project management, engineering, assembly site management, mooring system installation, units tow-to-field and installation of the floating wind turbine units at the Tampen area.
Several construction vessels will be deployed from DOF Subsea during project phases, including the 2011-built Skandi Skansen.

NORWAY
Equinor Picks JDR and Subsea 7 for Hywind Tampen Cabling

Subsea 7 has been tasked with installation of electrical cables and connection to the Snorre and Gullfaks platforms.
Steph McNeill, SVP Subsea 7 Renewables & Heavy Lifting, said: “We look forward to continuing our long-standing, collaborative working relationship with Equinor and supporting them on their energy transition journey, with the development of their pioneering floating offshore wind farm.”
Including Subsea 7 and JDR, Equinor also signed contracts with Siemens Gamesa Renewable Energy and Kværner. Kværner will execute its contract in a joint venture with DOF Subsea.
The Hywind Tampen investment will be close to NOK 5 billion ($542 million). All contracts are subject to final approval of the plan for development and operation (PDO) by Norwegian authorities.
The oil and gas platforms will be the first ever powered by a floating offshore wind farm.
The wind farm will be located some 140 kilometres from shore, between the Snorre and Gullfaks platforms in water depths between 260 and 300 meters. It will consist of 11 wind turbines, each turbine with a capacity of 8 MW.
The wind farm is scheduled to start production at the end of 2022.
NORWAY

JDR wins contract for first floating offshore wind project to power oil and gas platforms

The project will be the first worldwide to power oil and gas platforms using floating offshore wind – a far more technically challenging and less mature technology than traditional fixed-foundation offshore wind. Cables pose a particular challenge due to the high dynamic stress they must withstand, however JDR has already established itself as a leader in this fledgling sub-sector, delivering the world's first application of dynamic 66kV technology and breakaway system to the Windfloat Atlantic floating wind farm last year. The Hywind Tampen project will consist of 11 wind turbines developed by Equinor. The 8 MW turbines will have a total capacity of 88 MW, capable of meeting about 35 per cent of the annual power demand of the five Snorre A and B, Gullfaks A, B and C oil and gas platforms. The floating wind project is in water depths of 300 metres, much deeper than any previous floating wind project and is the first ever to power oil and gas platforms.

The 2.5 km long 66kV dynamic array cables will connect to the eleven turbines in a loop and the two static 12.9km and 16km export cables will be used to connect the loop to the Snorre A and Gullfaks A platforms. The greater water depth means the cable accessories will be especially designed to withstand higher water pressures.

Robert Weeks at JDR, comments: “We are delighted to win this project with Equinor. It’s a world-first and we are very proud to be a part of it. Floating wind is still in its infancy compared to fixed-foundation offshore wind, but has the potential to revolutionise how we generate power for deepwater platforms and on coastlines which only have access to deeper waters. As operators look to decarbonise production and countries look for more sources of renewable energy, floating offshore wind can make the difference, and we are committed to providing solutions and innovative technologies to help offshore wind flourish on a global scale.” The power cores for the cables will be manufactured by JDR’s parent company TF-Kable at its Bydgoszcz factory in Poland. All the cables and accessories will be assembled at JDR’s facilities in Hartlepool UK.

About JDR Cable Systems

JDR’s world-leading solutions bring power and control to energy systems in the global offshore oil, gas and renewable industries. For more than 20 years, we have built our success on our technical expertise and reliability. Every market we enter, every customer we serve, and every project we deliver benefits from exactly the same dedication to technical quality, service and support. In designing, manufacturing, delivering, installing and supporting subsea power cables and umbilical systems, our engineers and manufacturers are committed to providing products and services of the highest quality. We deliver consistently reliable solutions through our specialist engineering and experienced project management teams. Our 24/7 service and support throughout the product lifecycle meets even the most complex and demanding project requirements.

About TF-Kable Group

TFKable Group is a leading global producer of wires and cables, with major production facilities in Europe and sales offices globally. With their HQ in Poland, TFKable Group employs approximately 4,000 people and consists of several trading companies, with a significant number of production plants around Europe and a Cable Waste Recycling Department in Poland. TFKable Group offers 25,000 types of wires and cables, which are sold in 80 countries. With a consistent growth strategy based on client portfolio diversification, TFKable Group has cemented its position as a world leader in the cable business, with significant further development potential.
NOVACAVI has recently provided a couple of specially engineered mooring cables for the Lofoten-Vesterålen Cabled Ocean Observatory. The Lofoten-Vesterålen Cabled Ocean Observatory (LoVe) is a Norwegian infrastructure for marine research, monitoring and subsea technology development off the North Norway coast. Due to their peculiar harsh environmental application, these cables had to be conceived and manufactured to fulfill a wide range of data communication systems, while guaranteeing the following key features:

- Breaking strength up to 4400Kg
- Reinforced construction with fibers embedded into outer sheath
- Configuration for DSL and RS 485 communication Fiber Optic and Ethernet
- Watertightness
- Pressure, abrasion, & weather resistance
- Suitability for constant movement in seawater

"Engineering expertise, comprehensive knowledge of materials and a high degree of manufacturing precision enabled NOVACAVI to develop these application-specific cables entirely tailored to customer's requirements," the company said.
Tetraspar Demonstrator Project has signed a supply contract with UNITECH Offshore for a dynamic power cable and grid connection for the full-scale floating wind turbine demo outside Karmøy 2020. Tetraspar Demonstrator Project is a joint project for the demonstration of the TetraSpar floating wind turbine technology between Innogy SE, Shell and Stiesdal Offshore Technologies.

"UNITECH is very proud of being selected and to be given the opportunity to contribute to the success of the TetraSpar Demonstration Project. We are looking very much forward to continue working with the experts of Shell, Innogy and Stiesdal Offshore Technologies and to help move the floating wind industry closer to commercialization," said Gunnar Birkeland, CEO.

The FWT Zefyros (former Hywind Demo) has been chosen as the connection point (hub) to the onshore grid. Zefyros is owned by UNITECH and is part of the National Infrastructure Sustainable Energy Norwegian Catapult Center dedicated for these kinds of projects.
ASN is pleased to announce that the first phase of the Permanent Reservoir Monitoring (PRM) system for the Johan Sverdrup field, operated by Equinor in the North Sea, has been successfully installed and commissioned by ASN in mid-August 2019. The Optowave PRM system has acquired data during the first seismic data acquisition campaign at Johan Sverdrup. This is the first oil field where the baseline survey is performed before production start. Johan Sverdrup production started on October 5th, 2019.

The PRM system at Johan Sverdrup is based on the Optowave technology developed by ASN Norway. ASN has mobilized its resources in Trondheim, Greenwich, Calais and Paris to complete the engineering, manufacturing and installation of the first phase of the Johan Sverdrup PRM in 2019.

The PRM system at Johan Sverdrup will be used to develop the drainage strategy, to optimize production and to plan the location of new wells to be drilled. Equinor has an ambitious target to achieve 70 % oil recovery rate at Johan Sverdrup and the PRM system supplied by ASN will be a key enabler.

The PRM system at Johan Sverdrup is based on the Optowave technology developed by ASN Norway. ASN has mobilized its resources in Trondheim, Greenwich, Calais and Paris to complete the engineering, manufacturing and installation of the first phase of the Johan Sverdrup PRM in 2019.

Since the contract was awarded in January 2018, ASN manufacturing facilities in Trondheim, Greenwich and Calais have been ramping up to achieve the required production rates. Major investments have been made by ASN to develop a fit-for-purpose and effective marine installation methodology – including a custom-built TDM (Touch Down Monitoring) tool to control the seismic cables positioning during lay. All seismic stations have been installed within a target corridor of +/- 5m).

The Johan Sverdrup PRM system has recorded seismic data since mid-August 2019. Once captured, the data has been transferred to Equinor’s onshore processing centre. The acquired active seismic is being processed in order to provide the license with acoustic images of the reservoir. These images will be used to characterize the reservoir and will be compared over the years to assess changes in hydrocarbon production. The interpretation of the PRM data will contribute to an optimum oil recovery from the reservoir. Alain Biston, President of Alcatel Submarine Networks said “We are delighted to continue our cooperation with Equinor. It was a significant industrial challenge to implement this phase 1 of Johan Sverdrup PRM prior to start of production, and ASN is proud to have successfully achieved this important milestone. We will continue to support Equinor in the fulfillment of its roadmap towards oil field and off-shore processes digitization, which is key to enhanced oil recovery”.

The successful design, installation and operation of the PRM system at Johan Sverdrup is the result of hard work and excellent cooperation between ASN as a supplier and Equinor as the final user of the system. The Johan Sverdrup PRM system will be expanded in 2020 to cover a wider area, also including Stage II of the Johan Sverdrup field. Once completed, the PRM system at Johan Sverdrup will cover an area of 200 km2, becoming the largest system ever deployed. Johan Sverdrup is the third largest oil field on the Norwegian continental shelf with expected recoverable resources of 2.7 billion barrels of oil equivalent. The first phase of the development came into production in October 2019. The second phase of the giant development is due to come on stream in Q4 2022. The Johan Sverdrup partnership consists of Equinor (operator), Lundin Norway, Petoro, Aker BP and Total.
NORWAY
N0r5ke Viking On-Site survey of all subsea cable landing sites finalised

‘N0r5ke Viking’ subsea cable project hits important milestone: finalised on-site survey of all cable landing sites and determined location for ILA-shelters and available power.

NORWAY - GERMANY
Nexans is awarded Statnett’s HSE “Safe Prize” for the NordLink project

November 5, a proud Nexans team received the Statnett “Safe Prize” for outstanding HSE work on the NordLink project, the first interconnection between Norway and Germany.

For the 1400 MW NordLink project, Nexans has manufactured and installed 730 km of submarine cables in the Norwegian and Danish sectors.

“Nexans has delivered a demanding and complicated cable project. They have delivered on our HSE expectations as well as on quality and cost”, said Vice President Peer Olav Østli of Statnett when he presented the company’s HSE award, the Safe Prize. “The good results have been achieved through good and open cooperation, good planning, good employees and a well-documented management system”.

Statnett’s “Safe Prize” is an annual award to one of its suppliers’ who has excelled the most in the area of HSE.

“It means a lot to get this recognition from Statnett. Safety is our top priority in all aspects of project execution, from factory production to offshore and onshore installation. A big thank you to Statnett for the award and thank you to all our employees who have worked 1.35 million hours over 5 years in the NordLink project, and for the good results they have achieved” said Ragnhild Katteland, Vice President Subsea & Land Systems BG in Nexans.

The 1400 MW NordLink will connect the Norwegian and German electricity markets to exchange renewable energy. The cable connection is a collaboration between Statnett, TenneT and the German promotional bank KfW, and is scheduled to be put into commercial operation in 2021.
Swedish energy company Vattenfall and its partner Wallenstam have cancelled the Taggen offshore wind project in Sweden after the Swedish Armed Forces said no to the wind farm.

"Of course, it is regrettable that we are now forced to put down a large renewable energy project that we, together with Wallenstam, have been developing for over 10 years. Now we must focus on taking the lessons learned from Taggen into the next offshore project," said Mattias Sjöberg, Chairman of the Board of Taggen Vindpark AB, the special purpose company of Vattenfall and Wallenstam.

Back in 2012, Taggen Vindpark AB obtained a permit to build a 300MW wind farm located in Hanö Bay some 12 kilometres offshore Solvesborg comprising 83 wind turbines.

The company subsequently submitted a proposal to reduce the number of the wind turbines used to a maximum of 40 by deploying turbines with a larger individual capacity and with a maximum height of 220 metres. The wind farm was scheduled to start delivering electricity in 2024/25.

When the new permit application went to a referral, the Swedish Armed Forces said no not only to the new application, but to the project as such.

The Swedish Armed Forces dismissed the proposals due to the wind farm's vicinity to the Ravlunda shooting range which is located some 25 kilometres from Taggen's development area, Vattenfall said.

Vattenfall is investigating the possibility of connecting its Danish Kriegers Flak offshore wind to the Swedish Kriegers Flak II offshore wind farm.

According to Vattenfall, a cross border cable with a capacity of 300-400 MW could connect the two wind farms from 2025. The Danish Kriegers Flak will also connect to the operational German 288MW EnBW Baltic 2 offshore wind farm via the Kriegers Flak Combined Grid Solution, a partnership between Energinet and 50Hertz featuring two 150 kV cables. Trial operation of this link is scheduled for Q1 2020. It will be the world's first offshore wind interconnector project.

The 605 MW Danish Kriegers Flak offshore wind farm will feature 72 Siemens Gamesa turbines of 8.4 MW on monopile foundations. The Final Investment Decision for the project was made in late 2018 and is awaiting final approval of a supplemental Environmental Impact Assessment from the Danish Energy Agency (DEA). A public consultation will conclude in December and the DEA hope to grant final EIA permits for the project in January 2020 with a view to Vattenfall starting construction as soon as possible.

The 640 MW Swedish Kriegers Flak II project is in the re-permit phase to allow for higher tip heights and longer time for finalising construction. Subject to permit success, the wind farm could be constructed around 2024-2027.
DENMARK
Denmark Rolls Out New Subsidy Scheme for Offshore Wind

The Danish government has agreed on a new subsidy scheme for the Thor offshore wind project.

With the new scheme, the government said a stable settlement price is guaranteed for the power generated by the offshore wind farm and support is provided based on the difference between the agreed price and market price.

This means that if the market price is lower than the agreed price, the project owner receives support. If the market price is higher than the agreed price, the profit is divided between the project owner and the government if the profit becomes sufficiently large.

Support will be awarded through a Contracts for Difference (CfD) scheme, in which the winning bidder is awarded a 20-year contract.

The so-called payout ceilings, which act as a stop block for both government and owner payments, are expected to prevent the possibility that one of the parties bears the full cost risk of unexpected high or low electricity prices.

The amount of the payout ceiling from the government to the winning bidder is set at DKK 6.5 billion and from the winning bidder to the state at DKK 2.8 billion in 2018 prices.

The subsidy scheme will be adjusted every year to follow up with the price of electricity, the government said.

According to the Danes, the new scheme should help limit the expenditure on subsidies in case of a short-term decrease in electricity prices within a year.

The model is said to create predictability for project owners since in the long-term a minimum price for the power generated by the offshore wind farm is guaranteed.

“The producer receives support when their revenues are low, but pays money to the state when their revenues are high. It is a good solution, both for the state and for the offshore wind turbine manufacturer. It is at the same time a model that the Climate Council has recommended,” said Danish Minister for Climate, Energy and Utilities Dan Jørgensen.

Thor is the first of three 800MW offshore wind projects to be constructed in Danish waters before 2030, with an option for the developer to boost the wind farm’s capacity to up to 1GW.

The project will be built off Nissum Fjord in the North Sea and is expected to feature 13-15MW turbines set to be operational between 2024 and 2027.
The Danish Energy Agency (DEA) is inviting input for the environmental impact report (EIR) that will be prepared for the Aflands-hage and Nordre Flint offshore wind projects. DEA is inviting the public and relevant authorities to submit ideas and proposals for the two projects developed by Greater Copenhagen Utility (HOFOR) no later than 18 November. In March, the Danish agency granted permission to HOFOR to conduct preliminary studies for the establishment of the two offshore wind farms in Øresund (the Sound). The results of the feasibility studies will be compiled in the EIR, which must be submitted to the DEA by 31 December 2020. The 160MW Nordre Flint project would comprise between 16 and 40 turbines with an individual capacity of between 4-10MW. The total feasibility study area is circa 42km2, of which the potential area for offshore wind turbines amounts to approximately 17km2. The Aflandshage project would comprise 25-63 turbines with an installed capacity of 250MW. The turbines would again have the individual capacity of 4-10MW. The total feasibility study area is approximately 65km2, of which the potential area for offshore wind turbines is approximately 44km2.
DENMARK
AP Sensing Monitoring Kriegers Flak Cables

Danish transmission operator Energinet has selected AP Sensing to monitor the cables at the Kriegers Flak offshore wind project.

AP Sensing is monitoring a total of 300km of cable, using 6 Distributed Temperature Sensing (DTS) units with a range of 30-50km for thermal profiling and to detect thermal abnormalities and 9 Distributed Acoustic Sensing (DAS) units with ranges from 25-50km and 1 channel each for fault location. The company’s equipment is in use on the Kriegers Flak A and B offshore platforms, as well as on the onshore substations Bjaeverskov and Ishoj.

The monitoring solution also uses the SmartVision asset visualization software, which, as AP Sensing says, provides a real-time graphic overview of all distributed temperature and acoustic information at each of the substations. This is said to provide at-a-glance information on the condition of the power cable circuits and pre-defined sections for alarming, as well as intelligent data analysis and storage.

AP Sensing’s project engineering team commissioned and tested the systems in the spring.

The Kriegers Flak offshore wind farm will feature 72 Siemens Gamesa 8.4MW turbines installed 15-40km off the Danish coast and scheduled to be fully operational before the end of 2021.

POLAND
Poland Prepares Draft Offshore Wind Bill

The Polish Ministry of Energy has prepared a draft bill supporting the development of offshore wind energy.

According to the Polish Ministry of Energy, the draft is now set for further legislative work by the government followed by the public consultations phase.

The ministry said it began working on developing a dedicated act that supports the development of offshore wind farms in the Baltic Sea at the beginning of this year.

A range of partners interested in investing in the sector was invited to participate in the preparation of the regulations.

"It is the result of our intensive work and consultation with many partners, including sector and business representatives. I am convinced that the proposed regulations will significantly contribute to the future creation of a systemically formed offshore wind energy sector in Poland," said Poland’s Minister of Energy Krzysztof Tchórzewski. Minister Tchórzewski has also requested that the draft is included in the Council of Ministers’ legislative program. It is anticipated that the public consultation process will be launched within 2 or 3 weeks.

To remind, at the end of last year, Poland revealed plans to develop 8GW of offshore wind energy in the Baltic Sea by 2035.

POLAND
PKN Orlen Kicks Off Geological Surveys Offshore Poland

PKN Orlen has commenced geological surveys at its offshore wind farm license area in the Polish Baltic Sea.

The vessel sailed from the port of Gdansk to carry out the surveys at the circa 131km² area located some 23km from the coast which will accommodate up to 1.2GW of offshore wind.

The collected soil samples will be used to create a preliminary turbine placement plan and to pre-determine the optimal type and size of turbine foundations.

The duration of the work depends on the weather conditions in the Baltic Sea, PKN Orlen said.

According to PKN Orlen’s Executive Director for Energy, Jarosław Dybowski, environmental tests and wind measurements are also being carried out at the site.

Baltic Power, part of PKN Orlen, deployed a floating LiDAR at the offshore wind farm license area in April to study environmental impacts and wind conditions.
GERMANY

Prysmian successfully completes the DOLWIN3 Offshore Wind Farm Project in Germany

The contract was awarded by Alstom Grid on behalf of the Dutch-German Grid Operator TenneT. Prysmian Group provided the design, supply and installation of the cable systems.

Prysmian Group, world leader in the energy and telecom cable systems industry, announces the successful commissioning of the High Voltage Direct Current (HVDC) offshore grid connection project DolWin3, off the German North Sea coast. Prysmian had secured this project in February 2013, with a contract awarded by Alstom Grid (now GE Grid GmbH) on behalf of the Dutch-German grid operator TenneT. DolWin3, the third offshore grid connection in the ‘DolWin’ cluster, links the offshore converter platform DolWin Gamma, located approximately 85 km offshore in the North Sea, to the German mainland with the purpose of transmitting clean and renewable energy into the national grid. As a one-stop-shop service provider, Prysmian was responsible for the supply, installation and commissioning of the High Voltage Direct Current (HVDC) ±320 kV extruded submarine and land power cable connections with a rating of 900 MW and the associated fibre optic cable system, covering a 78 km land route and an 83 km subsea route. The cables were produced at the Prysmian Group’s centres of technological and manufacturing excellence in Arco Felice (Italy), Pikkala (Finland) and Delft (The Netherlands). “We are very proud of having contributed to the development of such an important renewable energy project proving our ability to provide tailor-made submarine cable solutions to support the growth of clean energy in Northern Europe,” stated Hakan Ozmen, EVP Projects, Prysmian Group. The completion and handover of this important project further confirms the Group’s ongoing successful relationship with TenneT, which in recent years has awarded a total of seven HVDC grid connection projects to Prysmian, including BorWin2 & BorWin3, Helwin1 & Helwin2, SylWin1 and the recently awarded Dolwin5.

About Prysmian Group
Prysmian Group is world leader in the energy and telecom cable systems industry. With almost 140 years of experience, sales exceeding €11 billion, about 29,000 employees in over 50 countries and 112 plants, the Group is strongly positioned in high-tech markets and offers the widest possible range of products, services, technologies and know-how. It operates in the businesses of underground and submarine cables and systems for power transmission and distribution, of special cables for applications in many different industries and of medium and low voltage cables for the construction and infrastructure sectors. For the telecommunications industry, the Group manufactures cables and accesso- ries for voice, video and data transmission, offering a comprehensive range of optical fibres, optical and copper cables and connectivity systems. Prysmian is a public company, listed on the Italian Stock Exchange in the FTSE MIB index.

GERMANY

DolWin6 Onshore Construction Starts in Emden

Transmission system operator TenneT has started construction work in Emden, Germany at the site of the onshore converter station which will be part of the DolWin6 grid connection. The foundation work for the converter station in Emden will continue over the next six months with one thousand piles up to 24 metres long being drilled into the ground to provide a stable foundation, TenneT said. Spain’s Dragados Offshore is responsible for the design, supply, construction, transportation and installation of the DolWin kappa platform, the centrepiece of the 900MW DolWin6 HVDC connection, and the accompanying jacket foundation. Siemens will supply the entire technology for the DolWin6 connection, as well as design and build the onshore converter platform in Emden. On the DolWin kappa platform, the three-phase current generated by the offshore wind farms is converted into direct current and transported to Hilgenniedersiel on the mainland by an approximately 45-kilometre long sea cable. From the landfall in Hilgenniedersiel, the electricity is transmitted to Emden via another 45 kilometre land cable where the onshore converter station and a transformer station will convert the direct current back into the three-phase current and feed it into the power grid onshore. TenneT plans to have the DolWin6 connection commissioned in 2023.
THE NETHERLANDS
TenneT Opens Tender for Hollandse Kust Noord Onshore Site Prep

TenneT TSO has issued a tender seeking site preparation work for the onshore substation that will collect electricity from the Hollandse Kust (Noord) offshore wind project. In the tender, TenneT is looking for a contractor to prepare the site in Wijk aan Zee on which the onshore substation for Hollandse Kust (Noord) will be located.

The value of the contract is EUR 750,000. It would begin on 2 March 2020 and conclude on 1 June 2020.

The deadline for submitting applications for the tender is 17 January 2020 by 17:00 local time. Hollandse Kust (Noord) is one of three offshore wind areas that the Dutch government chose to be developed by 2023 as part of the country’s Energy Agreement for sustainable growth. It consists of two 350MW sites located 18.5km off the coast. The zero-subsidy tender for Hollandse Kust (Noord) will be launched by the end of the year.
THE NETHERLANDS
TenneT Seeks Partners to Develop 2GW Offshore Link

Dutch-German offshore grid operator TenneT TSO has issued a tender for two high voltage direct current (HVDC) systems, offshore, and onshore converters for the 4GW IJmuiden Ver offshore wind zone. TenneT will develop two 2GW offshore HVDC grid connections for integrating IJmuiden Ver wind farms into the Dutch power grid.

As 2GW offshore HVDC systems which are proven safe, reliable, delivered on time, and cost-efficient have not yet been developed, the scope of this innovation partnership procedure is 2 x 2GW HVDC systems, offshore, and onshore converters. Offshore platforms and HVDC cables are excluded from the scope, as these will be tendered separately.

Other offshore HVDC grid connections with a capacity in the range of 2GW or more of TenneT in the Netherlands and in Germany may become part of the scope.

The time limit for the receipt of tenders or requests to participate is 25 November. The 4GW IJmuiden Ver is one of three sites identified by the Dutch Offshore Wind Energy Roadmap 2030. The three sites have a combined capacity of 6.1GW and are expected to help the Netherlands reach the target of 11.5GW of offshore wind capacity by 2030.

The wind farms at the sites are expected to be commissioned between 2024 and 2030.

THE NETHERLANDS
TenneT Issues UXO Survey and Clearance Tender

Dutch transmission system operator TenneT TSO B.V. has issued a tender for offshore unexploded ordnance (UXO) survey, identification and clearance at the zones identified in the Offshore Wind Energy Roadmap 2030.

The tender covers the 700MW Hollandse Kust Noord, the 700MW Hollandse Kust (west) Alpha, the 700MW Hollandse Kust (west) Beta, the 700MW Ten noorden van de Waddeneilanden, the 2GW Umliden Ver Alpha, and the 2GW Umliden Ver Beta. The contract will run from June 2020 to December 2029.

The tender will close on 16 December. TenneT plans to dispatch invitations to tender or invitations to participate to selected candidates on 27 January, 2020.

As the designated offshore grid operator for the future wind farms, TenneT is responsible for the engineering, procurement, installation, construction, and operation of the connections between the offshore wind farms, through converter platforms, to the onshore network.

The Offshore Wind Energy Roadmap 2030 sets out plans for the development of additional 7GW of offshore wind capacity in the Dutch North Sea between 2024 and 2030. The tenders for the new wind farm zones will be opened from 2021 onward, starting with the Holland Kust (west) zones.
THE NETHERLANDS
TenneT to Chip In for IJmuiden Ver Cable System Development

Transmission system operator TenneT plans to cover a portion of the costs needed to develop a submarine cable system for the two 2GW IJmuiden Ver offshore grid connection systems. A submarine cable system operating at a voltage level 525 kV DC, using extruded insulation types is needed for these two connection systems. Currently, a submarine cable system with such specifications is not available on the market. TenneT wishes to contribute to the development of this cable type and has now invited companies to apply for a development programme. Applications for participation in the development programme and subsequently a limited compensation for the costs of the cable system development can be submitted during the period from 16 December 2019 to 17 January 2020. The 4GW Ijmuiden Ver is one of three sites identified by the Dutch Offshore Wind Energy Roadmap 2030. The three sites have a combined capacity of 6.1GW and are expected to help the Netherlands reach the target of 11.5GW of offshore wind capacity by 2030. The wind farms at the sites are expected to be commissioned between 2024 and 2030.

THE NETHERLANDS
Boskalis begins Borssele Beta cable work

Royal Boskalis Westminster N.V. (Boskalis) has started export cable installation work for the Borssele Beta offshore grid connection project on behalf of Dutch-German transmission system operator TenneT. The connection system will have a capacity of 700 MW and will be completed in 2020. It is being developed to transmit energy ashore which was produced at the Borssele 3&4 wind farms. The wind farm will consist of 77 MHI Vestas V164-9.5MW turbines and with main construction work due to start in the fourth quarter of 2019. Commercial production is expected in early 2021. Boskalis recently completed export cable installation on another of TenneT’s offshore wind transmission system projects. The company installed two 61 km export cables for the Borssele Alpha offshore grid connection project. It deployed its cable lay vessel Giant 7 to complete the works. The 700 MW Borssele Alpha project will transmit energy generated by the Borssele 1&2 wind farm to the onshore grid and was officially announced as completed in September. Ørsted won the rights to the Borssele 1&2 site in July 2016. The project will consist of 94 Siemens Gamesa Renewable Energy SG 8.0-167 DD turbines with a combined capacity of 752 MW. The project is located 23 km off the coast of Zeeland (Westkapelle). It is expected to provide power to around 500,000 households once completed. Completion is currently scheduled for 2020.
The contract was awarded by TenneT TSO B.V. and Energinet SOV, Operators of the Dutch and Danish Power Transmission Grids.

COBRAcable HVDC Link is key for a sustainable European Energy Landscape

Prysmian Group, world leader in the energy and telecom cable systems industry, announces the successful completion of the HVDC test on the submarine interconnector COBRAcable that links The Netherlands and Denmark.

The announcement takes place during the COBRAcable link's official inauguration event, simultaneously held in Eemshaven (NL) and Endrup (DK), in the presence of representatives from the Dutch and Danish ministries, confirming the successful completion of the trial operation performed by the contractor.

Prysmian had secured this project in February 2016 with a contract awarded by TenneT TSO B.V. and Energinet SOV, operators of the Dutch and Danish power transmission grids, respectively.

Prysmian supplied and installed a ±320 kV HVDC bipole system, using singlecore cables with extruded insulation technology and running for a total route of around 325 km, from Eemshaven (NL) to Endrup (DK) via the German North Sea sector. The project includes two onshore lengths of 1 km on the Dutch side and 25 km on the Danish side that will connect the two onshore converter stations, provided under separate contract by Siemens. All submarine cables were produced in Arco Felice (Italy) and Pikkala (Finland), the Group’s centres of technological and manufacturing excellence for this type of cables. Land cables were produced in Gron (France), while telecom cables were manufactured in Vilanova (Spain) and Drammen (Norway).

COBRAcable is a very innovative and tight schedule turn-key project, standing out for its big cross-sections and the various construction methods and installation technologies used, which saw the employment of the Heavy-Duty Plough, Hydro-plow and Vertical Injector (able to reach a 10 m burial depth, and thus representing a point of reference for the industry) depending on the local water depth and composition of the seabed.

About Prysmian Group

Prysmian Group is world leader in the energy and telecom cable systems industry. With almost 140 years of experience, sales exceeding €11 billion, about 29,000 employees in over 50 countries and 112 plants, the Group is strongly positioned in high-tech markets and offers the widest possible range of products, services, technologies and know-how. It operates in the businesses of underground and submarine cables and systems for power transmission and distribution, of special cables for applications in many different industries and of medium and low voltage cables for the construction and infrastructure sectors. For the telecommunications industry, the Group manufactures cables and accessories for voice, video and data transmission, offering a comprehensive range of optical fibres, optical and copper cables and connectivity systems. Prysmian is a public company, listed on the Italian Stock Exchange in the FTSE MIB index.
THE NETHERLANDS - DENMARK
The COBRA Fiber Optic Cable – a new high capacity fibre connection between the Nordics and Western Europe

The interconnection between Denmark and the Netherlands has now been officially launched. In addition to power transmission, the submarine cable also provides a brand new low latency and high capacity connection for data traffic between the Nordics and Western Europe.

Next to the existing 325 km long high-voltage power cable which transports green wind power between Endrup in Denmark and Eemshaven in the Netherlands, a new optical fibre cable has been laid.

This cable, which is owned by TenneT TSO and Energinet, has primarily been installed to control the interconnection, with Danish company, Energinet, and Dutch company, Relined Fiber Network, being responsible for leasing out the extra capacity for commercial purposes. The submarine cable benefits from a unique location in comparison to competing connections and is fully diverse from these connections. As a result, a reliable and super-fast connection between Amsterdam and Copenhagen can be achieved via the cable.

Norwegian infrastructure company Tampnet, which owns and operates the world’s largest offshore high capacity communication optical fibre network, is the first company to make use of this new connection. Tampnet’s CEO, Per Helge Svensson, is thrilled to add this new route to Tampnet’s comprehensive network.

- The COBRA Cable is an important new connection for us that makes our network even more diverse and robust. Consequently our Carrier operations can now provide a new high capacity and low latency route between Stockholm and Amsterdam and Oslo and Amsterdam, serving our customers within Data Centres, media and gaming”, Svensson said.

Relined’s mission is to optimize the use of existing Dark Fiber networks in North West Europe. We want to provide nationwide coverage everywhere and be of great value when it comes to connectivity in the future. With the arrival of the COBRA Fiber Optic Cable, we are extending our footprint to the Nordics. And with Tampnet as our first customer, the first step has now been taken! We are very happy with this partnership and the fact that a company like Tampnet has faith in our organisation.

Energinet Associated Activity CEO Peter Jørgensen highlights that the fiber optic cable benefits Danish competitiveness:

- In Denmark we are seeing substantial interest from data centers in the digital super league and the cobra fiber optic cable will probably increase this interest as there is still capacity available. On a national scale, it will benefit us all that Denmark is seen as a central digital HUB for transit within Europe and we believe that our investment in the cable will be justified by leasing out the extra capacity.
THE NETHERLANDS - DENMARK
Netherlands, Denmark Inaugurate COBRAcable Interconnector

An official inauguration event for the 700MW COBRAcable subsea interconnector is being held today, 4 November, in both Eemshaven (the Netherlands) and Endrup (Denmark), in the presence of representatives from the Dutch and Danish ministries.

According to Prysmian, the cable supplier for the project, the inauguration follows the successful completion of the HVDC test on the interconnector. Prysmian supplied and installed a ±320 kV HVDC bipole system, using single-core cables with extruded insulation technology and running for a total route of around 325 km, from Eemshaven to Endrup via the German North Sea sector. The project includes two onshore lengths of 1km on the Dutch side and 25km on the Danish side that connect the two onshore converter stations, provided under a separate contract by Siemens.

The 325km subsea high-voltage direct current cable is an initiative of TenneT and the Danish electricity and gas grid operator Energinet. Construction of the COBRAcable started in 2016 and was completed earlier this year.

The COBRA cable will enable the Netherlands to import more renewable energy, mainly wind energy, from Denmark. The cable connection has been designed in such a way that it will also be possible to connect an offshore wind farm at a later stage.
BELGIUM

Living Stone Picks Up SeaMade Export Cables in Greece

DEME’s cable laying vessel Living Stone has departed Greece carrying the export cables for the 487MW SeaMade offshore wind farm in the Belgian North Sea. Living Stone loaded the export cables with a combined length of around 28 kilometres at Hellenic Cables’ facility in Soussaki. The vessel is currently en route to Vlissingen, the Netherlands. SeaMade comprises the 252MW Seastar and the 235MW Mermaid offshore wind projects which will feature 58 Siemens Gamesa 8.0-167 DD turbines installed some 40-50 kilometres off the coast of Ostend. It will be Belgium’s largest offshore wind farm once commissioned in 2020. SeaMade will have two offshore substations, which will collect the electricity produced by the wind turbines, convert it from 33kV to 220kV, and export it into the grid via Elia’s Modular Offshore Grid. The wind farm will be connected to the Modular Offshore Grid through the two 220 kV submarine high voltage export cables. In a consortium with Hellenic Cables, Tideway, part of DEME Offshore, is responsible for the export cable design, manufacturing and installation operations, and for connecting the wind farm’s high voltage substations to the Modular Offshore Grid. Seamade NV, a joint venture between Otary (70%), Electrabel (17.5%), and Eneco Wind Belgium SA (12.5%), is the project developer.
Hellenic Cables, the leading provider of turnkey cable solutions for the wind industry, celebrates the successful completion of Elia’s new modular offshore grid (MOG). The Belgian transmission system operator officially inaugurated the project in a ceremony attended by King Philippe of Belgium. The platform, located 40 km off the coast, is linked to the mainland through two 220 kV submarine cables provided by Hellenic Cables. In total, 91 km of 220 kV submarine cables were designed, manufactured and tested at Hellenic Cables’ integrated, submarine cables plant in Corinth, Greece. In addition, Hellenic Cables provided the sea joints, transition joints between submarine and land cables, cabling and terminations on MOG platform as well as on-site assembly works, acceptance testing upon completion of installation works and commissioning. Mr. Alexios Alexiou, Hellenic Cables’ General Manager, stated: “The MOG project marks our first and very successful collaboration with the Belgian TSO, Elia. As a company partly headquartered in Belgium through our parent company Cenergy Holdings SA, we are proud to contribute to the country’s environmental and sustainability targets with a project that helps harness Belgium’s enormous offshore wind potential. Further, the successful execution of MOG is testament to our commitment to competitive and high-quality solutions for the offshore wind industry globally”.

As further proof of Hellenic Cables’ strong commitment to support the growing offshore wind market, the Company is currently expanding its inter-array cables production capacity in its Corinth plant to supply a wide range of cables to offshore wind developers worldwide.

About Hellenic Cables
Hellenic Cables is one of the largest cable producers in Europe, manufacturing power and telecom cables as well as submarine cables for various industries, including offshore wind and interconnections, as well as turnkey power transmission and distribution projects. Hellenic Cables operates four plants in Greece and one in Bulgaria, including the submarine cables plant of its subsidiary, Fulgor, where the production and testing of some of the longest submarine cable lengths without joint on a worldwide basis is empowered by the Company’s state-of-the-art facilities and equipment. Hellenic Cables recently implemented a EUR 150 million investment plan for the production of high and extra high-voltage submarine cables at Fulgor plant. Looking ahead, additional investments in technology and innovative cable solutions are planned, as a way of contributing to the creation of a sustainable future for its stakeholders. Hellenic Cables represents the cable production segment of Cenergy Holdings SA. For further information please visit our corporate website at www.hellenic-cables.com

FRANCE
RTE launches offshore wind cable storage tender
French transmission system operator (TSO) RTE has issued a tender for the provision of cable storage facilities for the Saint-Nazaire, Courseulles-sur-Mer and Fecamp offshore wind farms off France. The 120-month contract involves the storage of 225 kV submarine power cables, junctions and accessories. The storage site must be located in a seaport closest to a pier and within 2 boat days of each connection, according to details of the tender. The service detailed in the tender includes unloading the delivered equipment, including cables from a cable vessel, storage in a secure site, control of the equipment, continuity of service seven days a week and 24 hours a day. In case of damage, the successful provider must carry order processing and shipping, preparation and loading of cables and accessories on the repair vessel and return damaged cables and accessories. The total volume for the three connections includes 3300 metres of submarine cables for bringing the power to land and 3600 metres of submarine cable for the landing.
EirGrid Launches Latest Consultation for the Celtic Interconnector

EirGrid is launching a 12 week consultation to help determine exactly where the Celtic Interconnector should be built. The state-owned company that develops and operates the national electricity grid is seeking feedback on the location of the converter station, a landfall location and the underground cable routes which make up the flagship project.

The Celtic Interconnector will provide the first direct energy link between Ireland and France via a 500km submarine electricity cable between East Cork and the north-west coast of Brittany. There will be a further approximately 40km of cables on land in Ireland and France. The interconnector will have a capacity of 700 megawatts (MW), enough to power 450,000 households. This is the latest round of consultation on the project. Between April and June the public was consulted on a shortlist of three proposed landfall locations on the coast of East Cork as well as six possible zones for a converter station, an industrial-type building with electrical equipment that converts direct current electricity to alternating current and vice versa.

Following that consultation and further analysis, Claycastle Beach is emerging as the best-performing landfall option while attention is being focussed on three locations for the converter station. These are at Kilquane, which is emerging as the best-performing option, Knockraha and Ballyadam. The public will be asked for any missing or new information relating to these options and the associated underground cable routes. All stakeholders and communities are invited to submit their feedback between Monday, 11th November and Sunday, 2nd February 2020. This can be done online, by attending public information days, or by email, phone or in writing.

The project has progressed to Step 4 of EirGrid’s six-step public consultation framework for infrastructure projects. Feedback during this consultation, alongside the results of ongoing studies, will help identify the final best-performing option in early 2020. The project will then progress to Step 5 and detailed environmental assessments will be carried out before the start of the formal planning process, which is expected in the second half of 2020.

The Celtic Interconnector is being jointly developed by EirGrid and Réseau de Transport d’Électricité, the electricity transmission system operator in France. It is expected to be completed in 2026. The interconnector will help Ireland achieve its climate change goals, put downward pressure on the cost of electricity, enhance security of supply and provide a direct fibre optic telecommunications link with Continental Europe.
UK - FRANCE
Hampshire councils vow to work together as Aquind interconnector plans are submitted

Councils around Hampshire have vowed to work together to protect roads and green spaces from the threat of ‘disruptive’ cables that could bring electricity from France. Portsmouth, Havant and East Hampshire councils said they will continue to co-operate once plans for the controversial Aquind interconnector are submitted to government tomorrow (October 31).

If approved, the cables are likely to run underground from Eastney in Portsmouth to a converter station in Lovedean.

A report on the scheme will be heard at a Portsmouth cabinet meeting with a recommendation to consider withdrawing the council’s objections.

But Portsmouth council leader, Gerald Vernon-Jackson, said: 'We are still going to stand our ground. ‘It’s mad bringing in an underwater cable into the middle of the most densely populated cities in the country. ‘We are working with several other councils to object to this and we will continue to oppose to them doing it.’

The final decision on the interconnector will be made by the government’s planning inspectorate.

Councillor Vernon-Jackson added: 'The government has decided the local council will not be allowed to make the decision. The council will continue to lobby the secretary of state.‘

Fears were previously raised by Portsmouth politicians around plans to tear up areas of the city including Bransbury Park and Eastern Road. The same concerns are felt by other authorities.

A spokesman for East Hampshire and Havant councils said: 'Issues surrounding the project include serious disruption to the old A3 when cabling is laid. ‘There are also concerns around construction traffic using local roads and the scale of the proposed building in countryside, close to the South Downs National Park. "East Hampshire District Council and Havant Borough Council are working with each other and with neighbouring authorities on this project and will continue to do so when the development consent order application is submitted to the planning inspectorate.'

The South Downs National Park Authority initially questioned the choice of Lovedean due to its proximity to the boundary of the national park.

A park authority representative said: 'We queried whether sufficient consideration had been given to alternative locations. ‘In addition to this, we raised concerns about the potential for landscape harm of such a large development. “We are now waiting for the details of the application to see if these matters have been adequately addressed.’

A spokesman for Aquind commented: ‘Following our consultation we have been working with a number of stakeholders, including Portsmouth City Council and other local authorities, to refine our proposals prior to submitting our development consent order application. ‘Aquind welcomes continued engagement with all stakeholders following the submission of the application.’

Portsmouth councillors will discuss the scheme at a cabinet meeting on Tuesday, November 5.

UK - GERMANY
NeuConnect included in European Commission list of priority energy projects

UK-Germany energy link named in latest list of Projects of Common Interest (PCI)

NeuConnect

NeuConnect has been included in the European Commission’s latest list of Projects of Common Interest (PCI) – the list announced this week represents the crucial infrastructure projects that the Commission believe can help meet its key energy objectives of sustainability, affordability and security of supply.

NeuConnect is a privately-financed £1.4bn / €1.6bn interconnector that will create the first direct link between UK and German electricity networks. By connecting two of Europe’s largest energy markets for the first time and integrating renewable energy sources in Germany and the UK, NeuConnect will help deliver a more diverse, resilient and sustainable electricity supply, while also helping to lower costs for consumers.

In announcing its latest list of Projects of Common Interest, the European Commission highlighted the selected projects as “another important move towards making our energy system more sustainable, more competitive and more secure”.

NeuConnect’s inclusion in the PCI list follows an open and transparent assessment process carried out by the European Commission over the past 18 months. Projects that secure PCI status are able to benefit from simplified planning permitting and the right to apply for EU funding from the Connecting Europe Facility.

NeuConnect CEO Christophe Vanhove said: “NeuConnect’s inclusion in the European
Commission's list of priority projects is a significant milestone and underlines the important role NeuConnect can play in delivering a secure, sustainable and affordable energy supply. PCI status will be an added boost to the strong progress we are making throughout this project, helping keep this vital energy link firmly on track.

News of NeuConnect’s inclusion in the European Commission’s priority list is the latest milestone in a period of strong progress for the project throughout 2019 including:

- **UK connection agreement secured**: In February, NeuConnect and National Grid Electricity Transmission (NGET) finalised a connection agreement to secure the UK connection point for the new interconnector.
- **Major procurement launched**: In April, NeuConnect unveiled over £1bn worth of business opportunities in the project’s Engineering Procurement and Construction (EPC) contracts, resulting in significant interest from the supply chain and contractors.
- **Planning consultations completed**: In June and August, public consultation events took place in the Isle of Grain in Kent and Wilhelmshaven, northern Germany, allowing the local communities in the UK and Germany to view and comment on the NeuConnect plans.
- **Project video unveiled**: To support the start of public consultation activity, a new video was created to set out the benefits of the NeuConnect project and the need for continued interconnection in the UK, Germany and Europe.

The coming months will see further progress including NeuConnect’s major procurement activities moving to ITT stage, and planning applications submitted for the onshore works in the UK (Isle of Grain, Kent) and Germany (Wilhelmshaven).

NeuConnect is being developed by an international, experienced consortium that includes Meridiam, Allianz Capital Partners on behalf of Allianz Group and Kansai Electric Power, with the project also supported by Greenage Power and Frontier Power as developers. The key partners bring a proven track record in delivering large-scale energy infrastructure.

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**UK – THE NETHERLANDS**

**Circle North Fibre Optic – Cable Repair**

Global Marine is preparing to undertake emergency cable repair to the Circe North fibre optic telecommunications cable in the North Sea in Netherlands EEZ approx. 10km from the Netherlands-UK median line. The CS Sovereign is scheduled to arrive on site 13th November 2019 to commence works. The duration of the cable repair will be approximately 5 days depending upon weather and other operational conditions.
UK
Voltaire secured for Dogger Bank Wind Farms

The world’s largest offshore wind farm, Dogger Bank Wind Farms, is delighted to welcome Jan De Nul’s Voltaire to the project. The new offshore jack-up installation vessel, with a lifting capacity of over 3,000 tonnes and standing taller than the Eiffel tower, is the largest of its kind in the world. The Voltaire will transport and install the world’s largest offshore wind turbines, GE’s Haliade-X, at Dogger Bank, which sits 130km off the Yorkshire coast. When complete, Dogger Bank will generate enough energy to power over 4.5 million homes every year – around 5% of the UK’s electricity needs.

The announcement marks the first contract placed for Voltaire, which will enter in to service in 2022. The vessel, named after the pioneering European Enlightenment philosopher, is fitted with a highly advanced exhaust filtering system by means of a Selective Catalytic Reduction system and a Diesel Particulate Filter, making it the very first seagoing installation vessel of its kind to be an Ultra-Low Emission vessel.

Philippe Hutse, Offshore Director at Jan De Nul Group: “We are delighted to be selected as the transport and installation contractor for the next generation of turbines at Dogger Bank. The size of this giant project coincides perfectly with the capacities of our jack-up vessel Voltaire. It underlines that we are entering in to a new phase of OWF construction. We are proud to be at the forefront of offshore wind construction at Dogger Bank.”

Paul Cooley, Director of Capital Projects at SSE Renewables: “Dogger Bank is an industry leading project and we, along with our joint venture partners Equinor, are very excited to welcome another industry leader, Jan De Nul Group, to the development of the largest offshore wind farm in the world.”

Halfdan Brustad, Vice President for Dogger Bank at Equinor: “Dogger Bank represents the leading edge of the offshore wind industry. We and SSE Renewables believe the addition of Jan De Nul Group’s groundbreaking vessel to our project will drive the industry forward and make it more competitive.”

Steve Wilson, Project Director of Dogger Bank Wind Farms: “Jan De Nul Group has a proven track record of transporting and installing new generation offshore wind turbines at scale. Delivering Dogger Bank will be a testament to the skills and expertise of all of our partners in the supply chain, so we are very pleased to welcome Jan De Nul Group on board. Bringing the Voltaire vessel into the Dogger Bank project means we now have the most innovative turbines on the market being installed by the largest jack up vessel ever seen in the industry.”

Dogger Bank Wind Farms secured 3.6GW of offshore wind contracts in the UK Government’s recent contracts for difference auctions. Record low prices were awarded for the three projects making up Dogger Bank Wind Farms: Creyke Beck A, Creyke Beck B and Teesside A. The project is now moving towards final investment decision, expected in 2020. SSE Renewables will lead the development and construction phases of Dogger Bank Wind Farms and Equinor will lead on operations.

About Dogger Bank Wind Farms
• A 50:50 joint venture between Equinor and SSE Renewables
• Consent was granted in 2015.
• Located in the North Sea, approximately 130km from the Yorkshire Coast.
• Water depth ranges from 20m to 35m.
• Each project will have an installed capacity of 1.2GW and will be able to power 1.5 million homes. Together, the projects can cover approximately 5% of the UK’s estimated electricity generation.
• The first project is expected to be operational in 2023.
• The WTGs will be installed on monopile foundations.
• The transmission system will be High Voltage Direct Current (HVDC) due to long distance to grid connection point.
• The Contract for Difference is a 15-year contract which will be indexed for inflation. The strike price will be paid for every MWh generated by the wind farms during the contract. After the CfD contract ends, the projects will receive the market price for electricity.

About SSE Renewables
SSE Renewables is the leading renewable energy company across the UK and Ireland, with a portfolio of around 4GW of onshore wind, offshore wind and hydro. Part of the FTSE-listed SSE plc, its strategy is to drive the transition to a zero-carbon future through the world class development, construction and operation of renewable energy assets. SSE Renewables owns nearly 2GW of onshore wind capacity with over 1GW under development. Its 1,450MW hydro portfolio includes 300MW of pumped storage and 750MW of flexible hydro. Its offshore wind portfolio consists of 580MW across three offshore sites, two of which it operates on behalf of its joint venture partners. SSE Renewables has the largest offshore wind development pipeline in the UK and Ireland at over 7GW.

About Equinor
Equinor is developing as a broad energy company, building a material position in renewable energy. Equinor now powers more than one million European homes with re-
UK
Voltaire secured for Dogger Bank Wind Farms

renewable offshore wind from four offshore wind farms in the United Kingdom and Germany. Equinor is building material offshore wind clusters in the UK, the US North East and in the Baltics. The company commissioned the world’s first floating offshore wind farm in 2017 off the coast of Scotland and is positioned for future floating wind options in several geographies, including UK, Norway and Asia.

About Jan De Nul Group
Design. Build. Connect. Jan De Nul Group shapes water and land. Worldwide. From complex offshore energy services, to large dredging and both land and coastal reclamation projects, to challenging civil construction programmes. Well integrated competences and investments lead to creative, sustainable and innovative solutions. In this way Jan De Nul Group delivers results that produces satisfied customers. Building a better future. - www.jandenul.com

UK
Rampion offline following cable failure

The Rampion offshore wind farm has been offline since 26 October following a fault in the project’s High Voltage Direct Current (HVDC) electrical transmission systems. This has rendered the project unable to transmit power ashore. Details on the fault have not been disclosed however it is suspected to be an issue with subsea cable.

The 400MW Rampion offshore wind farm is located 13km off the Sussex coast and provides power for over 340,000 homes annually. It features 116 MHI Vestas V112-3.45MW turbines and is owned by E.ON, Enbridge and a consortium comprising of the Green Investment Group, Macquarie European Infrastructure Fund 5 and the Universities Superannuation Scheme.

The project was officially put into operation in November 2018 after a three-year construction schedule involving a workforce of around 750 at peak times. An operations and maintenance base for Rampion is located in Newhaven Port’s East Quay within the Newhaven Enterprise Zone.
UK
Red Light for £709M Shetland Subsea Link

Energy regulator for Great Britain Ofgem said it is unable to approve a proposal by Scottish and Southern Energy Networks (SSEN) to build a 600MW subsea electricity transmission link from Shetland to mainland Scotland.

For Shetland, the cable would connect planned wind farm projects on Shetland with mainland Scotland allowing them to export electricity to the rest of Great Britain. In March 2019 Ofgem said it was minded to approve the estimated £709 million link. The proposal from SSEN for a 600MW transmission link was based on the largest planned project, Viking Energy Wind Farm, securing subsidies through the UK Government’s Autumn Contracts for Difference (CfD) auction.

The award of these subsidies would have provided confidence that the wind farm is likely to progress, and protection for consumers from the risk of paying for an underutilised transmission link to the Shetland Isles. However, the wind farm was not successful in securing these subsidies in last month’s auction.

For the Western Isles, Ofgem is unable to approve SSEN’s proposal to build a 600MW transmission link to connect the Western Isles to mainland Scotland. In March 2019 Ofgem said it was minded not to approve the estimated £623 million link, but would approve a revised submission for a 450MW link or consider the case for a 600MW link if consumers were more appropriately protected from the risk of paying for an oversized link. The proposal from SSEN for a 600MW transmission link was based on the two largest planned projects, Stornoway and Uisenis Wind Farms (formerly both Lewis Wind Power projects), securing subsidies in the recent auction.

Only one of the projects was successful, increasing the risk that consumers would be paying for a significantly underutilised transmission link. Ofgem has encouraged SSEN to submit revised proposals for both transmission links, including establishing more certainty for consumers that the wind farm projects will go ahead.
UK
First Subsea Guards Kincardine Cables

First Subsea has secured a contract with Spanish developer and construction company Cobra Group to provide cable protection systems (CPS) for Kincardine offshore wind farm. The company will supply eleven cable protection systems to the 50 MW floating offshore wind farm project 15 kilometers south of Aberdeen.

The CPS for floating offshore wind foundations was developed by First Subsea using its knowledge and expertise gained from connection systems previously used on O&G flexible flowlines and umbilicals. The system combines a mechanical diverless subsea connector and polyurethane bend stiffener that is connected to the floater during the pull in of the electrical power cable.

During operation lifespan of wind farm the CPS stiffens the cable at the point of entry and protects the cable from the effect of bending moments caused by the dynamic conditions offshore. The bend stiffener improves the fatigue life of the cable in nearshore areas which traditionally sees higher frequency loading than floating facilities further offshore, First Subsea explained.

• Nexans is SSE’s preferred supplier for the design, manufacture and installation of the onshore and offshore export cables for the 1,075MW Seagreen wind farm project
• Nexans will supply and install the three 65 km offshore export cables and three 20 km onshore export cables for the project

Nexans has been appointed by SSE as the preferred supplier to design, manufacture and install the onshore and offshore export cables for the Phase 1 development of the Seagreen offshore wind farm project. Currently under construction off the Angus coast, Phase 1 comprises the Seagreen Alpha and Bravo wind farms. With a combined capacity of 1,075MW, they will form the largest windfarm project in Scotland when they come on line in 2024.

Nexans will supply and install the three 65 km offshore export cables and three 20 km onshore export cables for the project.

Seagreen Project Director John Hill said: “We are pleased to announce Nexans as our preferred supplier to design, supply and install the onshore and offshore export cable. Nexans is one world leaders in this field and this agreement is a major step forward for the Seagreen project.”

Vincent Desale, Nexans SEVP for the Subsea and Land System Business Group commented: “We are delighted to receive this agreement from SSE and we are excited to help being to bring the biggest windfarm in Scotland to life.”

About Nexans
Nexans brings energy to life through an extensive range of advanced cabling systems, solutions and innovative services. For over 120 years, Nexans has been providing customers with cutting-edge cabling infrastructure for power and data transmission. Today, beyond cables, the Group advises customers and designs solutions and services that maximize performance and efficiency of their projects in four main business areas: Building & Territories (including utilities, e-mobility), High Voltage & Projects (covering offshore wind farms, submarine interconnections, land high voltage), Telecom & Data (covering data transmission, telecom networks, hyperscale data centers, LAN), and Industry & Solutions (including renewables, transportation, Oil & Gas, automation, and others).

Corporate Social Responsibility is a guiding principle of Nexans’ business activities and internal practices. In 2013 Nexans became the first cable provider to create a Foundation supporting sustainable initiatives bringing access to energy to disadvantaged communities worldwide. The Group’s commitment to developing ethical, sustainable and high-quality cables also drives its active involvement within leading industry associations, including Europacable, the NEMA, ICF or CIGRE to mention a few.

Nexans employs nearly 27,000 people with industrial footprint in 34 countries and commercial activities worldwide. In 2018, the Group generated 6.5 billion euros in sales.

Nexans is listed on Euronext Paris, compartment A. For more information, please visit: www.nexans.com
ScottishPower Renewables (UK) Limited has submitted the Development Consent Order (DCO) applications for the East Anglia TWO and the East Anglia ONE North offshore wind farms to the UK Planning Inspectorate. The Planning Inspectorate received the DCO applications on 25 October. From the day after receipt of the applications, the Planning Inspectorate has 28 days to review the applications and decide whether or not to accept it. The acceptance decision on these applications should be made by Friday, 22 November 2019. The East Anglia TWO project is located some 37 kilometres off the Port of Lowestoft and covers an area of 218.4km². Initial studies have indicated a potential generating capacity of up to 900MW. The wind farm will consist of up to 75 wind turbines and up to four offshore platforms. With a capacity of up to 800MW, East Anglia ONE North is located 36 kilometres from its nearest point to the port at Lowestoft, covering an area of 208km². The wind farm will comprise up to 67 wind turbines and up to four offshore platforms. Construction is expected to start in early 2024 and the wind farms are expected to be operational by mid-2027.
UK

Ofgem Rules on Thanet OWF 2015 Cable Fault

UK energy market regulator Ofgem has accepted Thanet OFTO Limited’s claim on a partial outage in electricity transfer in 2015 due to an export cable fault. As a result, Thanet OFTO Limited’s reported system incentive performance shall be adjusted to offset the full duration of the outage.

The reported system incentive performance for incentive year 2 (beginning 1 January 2015) was 482,192.30 MWh. The Thanet offshore transmission system encountered issues on 23 February 2015 and identified an export cable fault to be the root cause of the problem. Inspection and repair started immediately, with the transmission brought back to full operation on 7 July that year.

Since then, Thanet Offshore Wind Farm (TOWL) has also confirmed the reduction in system availability as attributable to a Root Cause as defined in the Cable Indemnity Agreement, while Thanet OFTO Limited has been working on pinpointing what led to the export cable fault.

The offshore transmission owner has submitted multiple updates to Ofgem, with the last two reports providing the results of investigations into the cause of the reduction in system availability. According to the reports, the fault on the export cable was caused either by the failure to earth the copper tubing surrounding the fibre optic cables at the offshore substation – which occurred during the subsea cable installation, or the outer plastic sheath of the fibre optic cables not uniformly semiconducting due to a defect in the manufacturing process.

Ofgem concluded that Thanet OFTO Limited acted in accordance with Good Industry Practice by having in place operational and maintenance procedures that are consistent with Good Industry Practice.

The UK energy market regulator also added that after the initial failure event, the transmission system owner “took prudent and timely steps to identify the root cause of the fault, restore transmission services and mobilised appropriate resources to repair the fault in a timely manner.” Here, Ofgem pointed out that Thanet OFTO Limited arranged the deployment of a temporary vessel that allowed the works to begin while the preferred vessel was unavailable immediately.

In May 2018, Ofgem brought a similar decision for a similar claim for an outage that happened in 2016. Namely, Thanet offshore transmission system suffered a cable failure on 5 March 2016, with a temporary repair undertaken and services restored on 28 April 2016. A permanent repair was carried out between 5 September and 10 October 2016.

Thanet OFTO Limited submitted the full facts of the claim for assessment on 27 January 2017, along with independent technical analysis, commissioned by the insurance assessor ERA. The report concluded the likely cause of the cable failure was combination of two factors: “Jointer error in the preparation of the copper to aluminium weld which led to a raised weld and hence a reduction of insulation thickness over the weld” and “poor amalgamation of the conductor screen tapes allowing insulation material to be forced under the tapes leaving the edge of the conductor screen tapes forming a stress raiser.”

Ofgem accepted the cable failure as an exceptional event and directed that Thanet OFTO Limited’s reported system incentive performance be adjusted to offset the full duration of service reductions. The reported system incentive performance for incentive year 3 (beginning 1 January 2016) was 198,765 MWh – 195,165 MWh for the period from 5 March to 28 April, and 3,600 MWh for the period from 9 October to 10 October 2016.

Thanet OFTO Limited is owned by Equitix (80%) and Balfour Beatty (20%).
EUROPE

UK

UK Prime Minister Pledges Offshore Wind Target Increase

UK Prime Minister Boris Johnson has pledged to increase the UK’s 2030 offshore wind target from the current 30GW to 40GW if his Conservative party wins the general election. UK’s current target to have 30GW of connected offshore wind capacity by 2030 was set with the launch of a new joint government-industry Offshore Wind Sector Deal this March. The Offshore Wind Industry Council (OWIC) welcomed Johnson’s announcement, saying that the expansion of offshore wind in the UK will boost the ability to reach net-zero emissions at low cost using a technology that can deliver at scale. “The announcement contains a key commitment to taking cross-Government actions to enable us to reach 40GW by 2030,” said Benj Sykes, OWIC Co-Chair and UK Country Manager for Ørsted. “Offshore wind is now cheaper than gas, nuclear and coal and creates tens of thousands of jobs. As the world leader in offshore wind, this is a technology that the UK is right to be proud of. We look forward to working with whichever party forms the next Government to implement the actions we need to deliver an increased target for offshore wind.” The next general election in the UK is scheduled to take place on 12 December.

UK

Specialist Marine Consultants Secures Triton Knoll Work

Specialist Marine Consultants Ltd (SMC) has secured a contract to provide marine coordination services during the construction of the Triton Knoll offshore wind project. SMC will provide some 30 site technicians to maintain the offshore foundations and assets, including statutory inspections and testing requirements for the assets to remain in service and accessible. Additionally, the company will provide, manage and re-certify specialist offshore Personal Protection Equipment (PPE) and will be responsible for Triton Knoll’s inspection requirements for the vessels supporting the project construction. “It is an important step in our ambitions for growth, and means we now have the chance to employ more people from the area,” said Ian Coates, Managing Director at SMC. “Locally, we would hope to create around 35 jobs through the construction period – bringing new people into the sector and hopefully retaining them to work on future projects. We will also be investing in kit from local regional and UK suppliers, as well as using local vessel inspectors.” Offshore construction is due to start in the first quarter of 2020. The activities will take place out of Triton Knoll’s new base, currently under construction in Grimsby. Triton Knoll will comprise 90 MHI Vestas turbines, each with a maximum installed capacity of 9.5MW. The 857MW wind farm is owned by innogy, J-Power, and Kansai Electric Power.
UK
LOC Wins Contract for Hornsea Two Marine Warranty Services

Ørsted has contracted LOC Group to carry out Marine Warranty Surveyor (MWS) services for the Hornsea Project Two offshore wind farm in the UK. Under the 18-month agreement, LOC London and LOC Singapore will execute all MWS work on the project’s substations. “Hornsea Two is a game-changing renewable energy project in terms of both scale and value. Our suppliers are a pivotal part of the project team and play an important role in realizing the project,” said Peter Clusky, Senior Supply Chain Development Manager at Ørsted.

“We continue to deliver on our commitment to support the development of a competitive UK supply chain that can benefit from the many opportunities in Ørsted’s global portfolio of projects in the UK and around the world.”

Sembcorp Marine is in charge of fabricating the offshore substation and the Reactive Compensation Station (RCS) for Hornsea Project Two at its yard facilities in Singapore, as part of a contract signed in May 2018. Semco Maritime will develop the electrical and mechanical basic engineering design of the structures.

The 1.4GW Hornsea Project Two will feature 165 Siemens Gamesa 8MW turbines installed some 89km from the Yorkshire coast. It will become the world’s biggest offshore wind farm when operational in 2022.

UK
ABB HVDC Gear for World’s Largest Offshore Wind Farm

ABB has secured a contract to supply its high-voltage direct current (HVDC) Light® converter systems to connect the Dogger Bank offshore wind project to the UK transmission network. In the first-ever use of the HVDC technology in the UK’s offshore wind market, ABB will supply technology with one of the smallest environmental footprints, due to the most compact station design combined with the lowest energy losses in the power industry, the company said.

ABB will supply the HVDC Light® converter systems, while Aibel will deliver two HVDC offshore converter platforms. In 2016, ABB and Aibel announced their partnership on the design, engineering and optimization of offshore wind connections. Developed by Equinor and SSE Renewables, the 3.6GW Dogger Bank Wind Farms consist of three offshore wind farm projects, Creyke Beck A and B, and Teesside A. Located around 130 kilometres off the UK’s North East coast each project will have a capacity of up to 1.2GW and will feature GE Haliade-X 12 MW wind turbines. ABB has been awarded contracts for Creyke Beck A and Creyke Beck B.

“This is an important milestone for Dogger Bank with a groundbreaking HVDC technology solution enabling a competitive solution for offshore wind at a long distance from shore,” Halfdan Brustad, Vice President for Dogger Bank at Equinor, said.

“This will be the first offshore HVDC solution in the UK which opens up new markets and opportunities. The appointment of Aibel and ABB demonstrates cross industry collaboration bringing best expertise into a successful Dogger Bank delivery.”
EUROPE

UK
EU Okays Joint Control of Walney Extension OFTO

The European Commission has approved the acquisition of joint control over the transmission operator for the Walney Extension offshore wind farm by Diamond Transmission Corporation (DTC), Infrared Capital Partners (IRCP) and Chubu Electric Power. Diamond Transmission Partners Walney Extension, the holding company of the offshore transmission owner, is currently solely controlled by DTC. The Commission concluded that the proposed acquisition would raise no competition concerns because the companies’ activities do not overlap. The transaction was examined under the simplified merger review procedure. Walney Extension comprises 40 MHI Vestas 8MW turbines and 47 Siemens Gamesa 7MW turbines located off the coast of Cumbria. The 659MW offshore wind farm was officially inaugurated at the beginning of September last year.

UK
Macquarie Doubles Gwynt y Môr Stake as Siemens Bows Out

Macquarie Infrastructure and Real Assets (MIRA) has reached an agreement with Siemens AG to acquire an additional 10 per cent stake in Gwynt y Môr offshore wind farm in the UK. MIRA has managed a 10 per cent stake in Gwynt y Môr since 2017 following Macquarie Group’s acquisition of the Green Investment Bank. “Offshore wind is a great success story for the UK and an important component of the country’s clean growth strategy,” Leigh Harrison, Head of MIRA EMEA, said. “We are pleased to be supporting its continued development – bringing additional long-term institutional capital into the sector to support the UK’s transition to a future powered by renewables.” Gwynt y Môr is a 576MW offshore wind farm positioned 13 kilometres off the coast of North Wales. Operational since 2015, Gwynt y Môr is comprised of 160 Siemens 3.6 MW wind turbines spread across 80 square kilometres. Following the completion of the transaction, the wind farm will be owned by innogy (50%), Stadtwerke München (30%), and MIRA (20%). Via its managed funds, MIRA currently oversees investments in 10 offshore wind farms around the UK. With a total combined capacity of 2,966MW, the portfolio represents approximately 38 per cent of the UK’s total offshore wind generation capacity.
UK
Production start-up for cables to the world’s largest offshore windfarm - Hornsea 2

1.3 million - a number worth remembering. That’s the number of UK households to be supplied with renewable power when Hornsea 2, comes into operation. Nexans is proud supplier of the export cables. Last week everyone working in our manufacturing plant in Halden was invited to mark the production start-up.

Nexans in Halden contributes to writing history as we begin to produce the cables that will distribute the power from the world’s largest wind farm to shore, in addition it will be the most affordable power produced by an offshore windfarm to date. It is the renewable energy company Ørsted that builds the Hornsea 2 wind farm, about nine miles off the coast of Yorkshire. When put into full operation in 2022, it will produce a full 1.4 GW, equivalent to the electricity needs of 1.3 million households. The project is an important contribution to the UK’s targets for renewable electricity generation and to achieve their goals for energy security and carbon emissions reduction.

Facts about Hornsea 2 project:
- Location: About nine miles from the coast of Yorkshire.
- Capacity: 1.4 GW
- Number of turbines: 165

Nexans’ Delivery:
- 214 km three phase 245 kV HVAC PEX export sea cables (3 parallel circuits) that will deliver the cheapest electricity from an offshore wind farm to date.
- These cables will form part of the coastal part of the export circuit and connect the wind farm’s transformer station with the onshore transformer station.

Great dimensions
The submarine cables that will provide the British with renewable power are far from what you can imagine of cables inside their house. With a cross-section of 25 cm and an average weight of 90 kg per meter, just over 11 meters corresponds to about 1 ton.

UK
SSEN progresses with Pentland Firth East Cable Replacement

Scottish and Southern Electricity Networks (SSEN) continues to make good progress with its project to replace one of the two subsea electricity distribution cables that connect Orkney to mainland Scotland, with the completion of a marine survey of the proposed route.

The marine survey was carried out by specialist contractor, Global, during September and October and was accompanied by a series of open-door events in Orkney and Caithness to give interested parties an opportunity to learn more about the Pentland Firth East project and comment on the proposals.

SSEN now intends to apply to Marine Scotland for a marine licence for the essential works in December, with cable production expected to complete by March 2020. Installation of the 33kV cable, which will follow the existing route from Murkle Bay, near Thurso, to Rackwick Bay on Hoy, is scheduled to start in April 2020 with energisation later that summer.

The Pentland Firth East cable was identified for replacement after routine inspections found it was coming to the end of its operational life and a long-term solution was needed to maintain a safe, secure and reliable power supply to homes and businesses in Orkney.

In October, Ofgem published its decision to reject a proposal from SSEN to fund the £30m project through a high value ‘reopener’ of the RIIO-ED1 price control. SSEN remains highly disappointed with this outcome and, concurrent with the cable replacement, is engaging with Ofgem to establish alternative mechanisms for the recovery of efficient expenditure related to the project.
UK
Wave walker to carry out Scottish windfarm geotechnical survey

Neart na Gaoithe will be undertaking a geotechnical survey within the boundaries of the Neart na Gaoithe offshore wind farm nearshore Export Cable Corridor for 22 days approximately, depending on weather. The survey will involve the collection of intertidal and marine boreholes and will be undertaken using a ‘walk-able’ jack-up barge, WaveWalker 1. The barge will be towed to site by a tug, Neptun 10, which will remain on site for the duration of the survey. Both vessels are in the South of Holland at the moment.

The Geotechnical survey is due to commence no earlier than 25th November within the nearshore area and will be carried out by Fugro, operating out of the Port of Leith. Up to three vessels will be present on site at any one time, including a Guard Vessel.

WaveWalker 1 is an innovative, eight-legged ‘walking’ jack-up barge designed, according to the owners and operator, especially for marine operations in rough seas, surf zones, beaches and other intertidal locations. It is claimed that the barge can walk at speeds of up to 40 metres per hour. WaveWalker 1 was designed, built and is owned by WaveWalker BV, a joint venture between Fugro, based in the UK, and Van Oord in The Netherlands.

The Neart na Gaoithe (NnG) offshore wind farm will be located 15.5 km off the Fife coast and covers an area of approximately 105 km2. EDF Renewables UK acquired the project in May 2018 as part of a competitive bidding process.

According to the developers, the project has the potential to generate 450MW of renewable energy, which is enough power to supply around 375,000 Scottish homes – more than the whole of Edinburgh and will offset over 400,000 tonnes of CO2 emissions each year.

The NnG site was chosen because it combines technical, economic and environmental deliverability. Some of the criteria that formed part of the site selection process included; water depth, ground condition, expected energy yield, access to port facilities and more.

NnG is one of two Scottish offshore wind farms to have won a Contract for Difference (CFD). It gives the wind farm an inflation-linked strike price for the electricity it produces for a period of 15 years.
SSEN Transmission is set to begin a programme of ground investigations for the Shetland HVDC Connection project along the proposed onshore cable route from Weisdale Voe to the site of the Kergord Converter Station. The work will be undertaken by contractor BAM Ritchies and local firm Frank L John (Shetland) Ltd and are slated to begin on 28 October. Work will last for approximately four weeks, dependent on weather.

Ground investigation works are a part of the project development process and the results of these investigations will inform the final design of the proposed onshore cable route, which connects the proposed subsea cable and converter station elements of the project.

A team of 30 will be undertaking the works, which will include drilling trial pits, as well as monitoring and conducting environmental and archaeological surveys. Overseeing the works will be a team of environmental and archaeological inspectors who aim to ensure any environmental impact is monitored and kept to a minimum.

The team will be based at a temporary compound to be constructed from 25 October near Setter, north of Lerwick, and may also use smaller additional compounds on site for supplies and equipment. To carry out the ground investigations around 30 bore holes will be drilled with rigs towed by specialised lightweight Hagglund vehicles with rubber tracks, which are valued for their low impact on peat lands.

Project Liaison Manager Kelly Scott Said: “We held an information event at Sound Public Hall earlier this month where we provided updates on the project and shared information on our upcoming ground investigation works with members of the local community. We would like to thank everyone who came along to meet the team.

“Ahead of works we would like to thank the local community for their patience while we carry out our ground investigation works. We will work to keep disruption to a minimum and to apologise for any inconvenience which may be caused.”

The project was one of two Scottish Isles projects submitted by SSEN that Ofgem refused to approve (on 24 October 2019). Ofgem encouraged SSEN to submit revised proposals for both transmission links.

The progression of the Shetland HVDC project remains subject to regulatory approval from the Ofgem which in turn is subject to Shetland developers demonstrated commitment to take their projects forward.
UK
Power cables coming ashore at Budleigh awaiting final approval

Power cables coming ashore at Budleigh Salterton are awaiting final approval with the date of construction pushed back to 2021.

The FAB (France-Alderney-Britain) project is seeking to lay two pairs of underground and underwater electrical cables between substations at Menuel, in France, and near Exeter via the island of Alderney.

The 220 kilometre interconnectors will make landfall on the UK side in Budleigh near Lime Kiln car park.

In 2017, FAB Link Ltd gained outline planning permission for a converter station at Broadclyst and a certificate of lawfulness for an underground cable along Granary Lane, in Budleigh.

Now project leaders are waiting for the final approval from the French energy regulator and construction is expected to get underway next year.

An FAB spokesman said: “The FAB Project aims to increase the amount of electricity traded between the UK and mainland Europe to enhance Britain’s energy security, allow greater use of low-carbon electricity and help keep costs down for consumers.

*International infrastructure projects of this nature require long-term development and construction commitment before the benefits can be delivered.

*The sooner we can complete the project, the sooner the benefits will flow to consumers and businesses in both countries.”

The five-year project, which is a joint venture between FAB Link Ltd and RTE, will allow 1,400 megawatts of electricity to be shared between France and the UK.

Once the transmission cable makes landfall in Budleigh, it would travel underground along a route parallel to the River Otter, crossing the Otter Valley to a converter at Exeter Airport.

The electricity would then be fed into the National Grid at a newly-installed substation at Broadclyst, providing mitigation against power shortages.

FAB Link Ltd says currently the two existing interconnectors between the UK and Europe have a capacity of 3,000 megawatts, representing less than five per cent of existing electrical generation.

Construction is expected to be completed by 2025.

UK
Bombora Seeks Subsea Cables for mWave Demo

Bombora has launched a tender call for the supply of subsea cables and connectors for its mWave wave energy converter.

The Perth-born wave power company with its European base at Pembroke Dock, has set the deadline for receipt of completed tenders for November 25, 2019.

Bombora also said that the contract could be awarded by December 2, 2019.

The company plans to use the Marine Energy Test Area off the coast of Pembrokeshire to demonstrate its 1.5-megawatt (MW) wave energy converter.

Last year the company was awarded a £10.3-million grant from the European Regional Development Fund through the Welsh Government, which brings a total inward investment of £17 million.

In addition, Bombora has recently secured a seven figure working capital facility with the Development Bank of Wales.

Bombora plans to place a full-scale demonstration model of mWave on the seabed for six months of testing early next year.

Once the device has completed its testing, Bombora will be looking for opportunities to sell mWave to commercial wave farm developers.
Guernsey Electricity has completed the installation of the new undersea electricity cable (GJ1), linking the Island to France via Jersey, in just 12 months, which ensures Guernsey is once again importing more than 90% of its energy from low carbon and renewable sources. As outlined in the company’s 2018/19 annual report and accounts, the failure of the current link in October 2018 created significant operational, financial and environmental challenges for Guernsey Electricity. Following an initial repair and subsequent analysis, a decision was taken to replace the undersea section of GJ1. The decision was based on the financial and environmental impact of not being able to operate the cable at full capacity.

Chief Executive Officer of Guernsey Electricity, Alan Bates, said: "Without reliable importation, security of supply to the Island would continue to be adversely affected. The inability to operate the cable above 25% of capacity resulted in the remainder of our electricity demand being generated at the power station. The additional cost of this was over £11m for the year and produced an associated 216,000 tonnes of carbon dioxide. Our view was that this was a totally unacceptable environmental and financial position and therefore, an opportunity was taken to replace, rather than continue to keep repairing the cable."

Mr Bates added that the Guernsey Electricity team responded at an incredible pace with a revised tactical and strategic plan that enabled the cable to operate at reduced capacity before being replaced. This allowed Guernsey Electricity to continue to import 55% of the Island’s demand from renewable and low carbon sources throughout 2019. "The dedication of all the Guernsey Electricity teams to ensure this level of importation was maintained, and provide the remainder of the Island’s needs through the power station should be recognised,” said Mr Bates.

“We are proud of the successful replacement of GJ1, which was completed as a matter of emergency in record time. I would like to take the opportunity to thank all teams at Guernsey Electricity and the cable manufacturer NKT for their hard work throughout the course of the project. The ongoing support and patience of our stakeholders and the general public in both Guernsey and Jersey has also been greatly appreciated."

The failure of GJ1 reinforces the importance of securing a diverse and sustainable supply of electricity for Guernsey and reducing the reliance on fossil fuels. A clear direction for the energy transition will be pivotal in defining the diversity and security of the Island’s future energy supply, including local renewable generation and storage.
IRELAND - UK
euNetworks delivers new critical fibre infrastructure in the UK and Ireland

End to end network system with high fibre count cable covering 1,000 km from Dublin to Manchester to London and Lowestoft

euNetworks Group Limited ("euNetworks"), a Western European bandwidth infrastructure company, today announced that it has undertaken a strategic investment, building critical internet infrastructure linking Dublin to London and Lowestoft. This state of the art, ultra high capacity duct and dark fibre system utilises new ultra low loss fibre to deliver the lowest cost per bit. That specification plus the unique routing of the system meets the needs of companies transporting multiple terabits of data traffic.

Super Highway 1 links Dublin via submarine cable to Southport, and then on to Manchester, London, and Lowestoft, directly connecting key data centres. This major investment in UK national infrastructure complements euNetworks’ ongoing investment in Dublin, London and Manchester. It also delivers the first new subsea cable system (Rockabill) in the North Irish sea for some years.

euNetworks is focused on delivering high bandwidth data centre to data centre connectivity between and within cities in Europe. Super Highway 1 will support the ongoing investment by companies building out data centres in metropolitan areas, as well as expanding their presence in regions. Construction started in March 2019 and services will be delivered to customers in week commencing 25 November 2019. This new ultra low loss network is entirely new fibre deployment. It includes 1,000 kilometres of high fibre count cable, 340 new chambers, 239 new fibre joints, 2 new cable landing stations and 4 new ILA/PoP sites. The low loss fibre deployed on the terrestrial route is Corning SMF28 Ultra G657 fibre. Corning SMF28-ULL G654C has been used in the Rockabill subsea system.

The new subsea cable has been optimised for lowest attenuation, with a subsea distance beach man hole to beach man hole of 221km. The route follows a historically established highly reliable subsea corridor, while being diverse from other live and planned systems. euNetworks worked with McMahon Design & Management Ltd ("MDM") to undertake the subsea build, with MDM managing the development concept, permitting, licensing and cable lay. The shore end work at Portrane and then Southport was undertaken in July 2019 and the main lay cable works completed in early September 2019.

“Super Highway 1 is an important investment in Western European bandwidth infrastructure,” said Brady Rafuse, Chief Executive Officer of euNetworks. “Critically for our customers this network development continues our approach of delivering highly scalable, owned and operated fibre based infrastructure to support their needs.”

“Data centre connectivity remains critically important to business today,” added Rafuse. This new fibre system delivers vital infrastructure to support the many businesses in Ireland and the UK whose connectivity requirements continue to grow, including the numerous hyperscale companies with a strong and growing presence in Ireland and beyond.”

“We extend our thanks to all those who have worked with us on this important project. We look forward to working closely with our customers in these regions, delivering the bandwidth experience and scale they need,” said Rafuse.
Planning applications have been submitted for the marine components of the project:

- Major milestone for development of project, marking start of planning application process
- Public consultations offer opportunity for stakeholders to input further

Public consultation is beginning following submission by Greenlink Interconnector Limited of planning applications for the project’s marine components on both sides of the Irish Sea. In Ireland, a Foreshore Licence application has been submitted to the Department of Housing, Planning and Local Government (DHPLG)’s Foreshore Unit. In Wales, a Marine Licence application has been submitted to Natural Resources Wales.

Both planning applications are for the offshore aspect of the project and there will be separate applications and consultation processes for the onshore works in County Wexford and Pembrokeshire, where the cables come ashore.

The Greenlink interconnector will connect the electricity grids of Great Britain and Ireland. It is one of Europe’s most important energy infrastructure projects and brings benefits on both sides of the Irish Sea for energy security, jobs and the cost-effective integration of low carbon energy.

Angus Norman, Project Director for Greenlink Interconnector Limited commented: “This is a major milestone for the development of the project, marking the start of the consenting process. It represents the culmination of a considerable amount of technical, environmental and commercial analysis to design a project of the highest quality with valuable input from a range of stakeholders.

Along with the recent signing of our grid connection agreement with EirGrid – another significant milestone – the Greenlink project is on a clear pathway towards the start of construction. We look forward to helping Ireland and the UK realise the benefits of greater interconnection – for regional jobs and supply chain, energy security, competition and decarbonisation.”

Procurement for the major construction contracts is currently under way and agreements have now been signed for connecting to the grid in Ireland and Wales, with EirGrid and National Grid respectively. The project is expected to have a three-year construction programme before commissioning in 2023.

In Ireland, the interconnector comprises a subsea cable intended to come ashore under the beach at Baginbun Beach in County Wexford and continuing underground to a converter station located near to the existing Great Island substation. This Foreshore Licence application is for the marine component of the project out to the 12 nautical mile limit. The consultation begins today, 12th of November 2019.

In Wales, the interconnector comprises a subsea cable intended to come ashore under the beach and dunes at Freshwater West in Pembrokeshire and continuing underground to a converter station located near to the existing Pembroke substation. This Marine Licence application was submitted to Natural Resources Wales in June 2019 and has now been validated, launching a public consultation tomorrow (Wednesday 13 November).

Both applications are being advertised in the local media and the planning documents are available to view on the Greenlink website https://www.greenlink.ie/planning. Stakeholders are being encouraged to comment on the applications by 8 January 2020 through the following:

- In Ireland: www.housing.gov.ie/planning/foreshore/applications/greenlink-interconnector-wexford

It should be noted that these planning applications cover consenting for the offshore marine aspect of the project only. Planning applications for the onshore works in Wales and Ireland will be made separately in due course.

A fourth round of public exhibitions and consultation will be held in Co Wexford and Pembrokeshire before the end of the year. Dates will be confirmed and advertised soon.

About Greenlink:

Greenlink is a proposed interconnector linking the power markets in Ireland and Great Britain. The project comprises a subsea and underground cable and associated converter stations to connect EirGrid’s Great Island transmission substation in County Wexford (Ireland) and National Grid’s Pembroke transmission substation in Pembrokeshire (Wales). It has a nominal capacity of 500MW. The project is being developed by Greenlink Interconnector Limited and is expected to be fully operational in 2023. The project is considered of critical importance in Europe and has been awarded “Project of Common Interest (PCI)” status by the European Commission. More details at: www.greenlink.ie@Greenlink_JC
Companies plan to build offshore wind farm 10km off east coast and close to the capital.

An Irish-German partnership has moved a step closer to building a €1.5 billion wind farm off the east coast.

German energy giant, Innogy and Irish player, Saorgus, plan to build an offshore wind farm, dubbed Dublin Array, 10km off the east coast and close to the capital, capable of generating enough electricity for up to 600,000 homes.

Innogy confirmed that it has applied to the Department of Planning for a foreshore licence that will allow completion of surveys needed for the project.

The move is a key part of the preparations for building and designing the electricity generating plant.

However, if the department approves the application, this will not amount to permission to proceed with construction.

Saorgus and Innogy intend building the wind farm on 2,440 hectares across the Kish and Bray banks. The plant will include 60 to 100 turbines, which will generate the electricity, along with two cables connecting the northern and southern ends of the area with the mainland.

The proposed wind farm will stretch from a point east of Booterstown in south Dublin to east of Greystones in Co Wicklow. It will have the capacity to generate up to 600 megawatts of electricity.

Innogy’s surveys will cover a larger area in Dublin Bay, taking in the environment, geology, seabed, wind speeds and other factors likely to influence the plant’s design and construction.

Innogy pledged to work closely with fishermen, shipping companies and other marine users, such as sailing clubs, while it is doing the work.

Peter Lefroy, the German group’s project manager, said the venture was committed to developing a “meaningful approach to supporting local communities” as required by the Government’s renewable energy support scheme.

**What will the final bill be?**

A statement said that Dublin Array would cost more than €1 billion to build. Earlier this year, Innogy chief operating officer Hans Bünting estimated the final bill at between €1.2 billion and €1.5 billion.

Dublin Array’s developers hope the project will benefit from a new Government support scheme for renewable energy that will guarantee revenues for generators.

The proposed scheme will involve an auction through which those players that provide the cheapest power will get support. This is meant to keep down the cost of providing the aid, as homes and businesses will ultimately pay for it through their electricity bills.

The European Commission will shortly rule on whether or not the scheme breaches state aid rules.

Dublin Array is one of several big generating projects planned for the Irish Sea on the back of an expected surge in demand for electricity. Economic growth and data centres that are mushrooming around the capital are spurring this expansion in demand.
PORTUGAL
First WindFloat Atlantic Turbine In Place

The first WindFloat Atlantic turbine has arrived at its final destination off the coast of Viana do Castelo in Portugal. The fully-assembled platform and its 8.4MW MHI Vestas turbine set off from the Spanish Port of Ferrol towards its final destination 20km off the coast of Viana do Castelo yesterday, 21 October.

“We’re breaking new ground with the WindFloat Atlantic installation, so we’re intent on gathering the necessary data and insights to carry forward into future floating offshore wind projects,” said Flemming Ougaard, MHI Vestas Chief Operations Officer. In the coming months, two other platforms will be added to complete the wind farm which, with its 25MW installed capacity, will be able to generate enough energy to supply the equivalent of 60,000 users each year. The three floating structures – stretching 30m in height and with a distance between each one of their columns of 50m – will form the first floating wind farm in continental Europe. The project is led by the Windplus consortium, comprising EDP Renewables (54.4%), Engie (25%), Repsol (19.4%), and Principle Power Inc. (1.2%).

PORTUGAL
AW-Energy Splashes WaveRoller Off Portugal

Finnish-based wave energy technology developer AW-Energy has deployed its WaveRoller device offshore Peniche, a seaside municipality and a city in Portugal.

“I am delighted to confirm we have successfully installed WaveRoller 820 metres offshore from Peniche. At this phase of the installation, we are collecting data 24/7 to monitor the performance of the device using motion, pressure and strain gauge sensors that are engineered in to its panel, foundation and bearings,” said Christopher Ridgewell, CEO of AW-Energy Oy. “The data we are receiving indicates WaveRoller is operating well and performance is in accordance with our expectations.” Extended sea trials are being used to fine-tune the WaveRoller’s control system to maximise its performance and yield. Engineers are also monitoring the device’s performance using the company’s next generation monitoring software which can be used to remotely access the device by any of the engineers from anywhere in the world and at any time, to help assess and manage the performance of WaveRoller. Ridgewell says: “The next phase of the project is injecting the power output to the Portuguese National Transmission Grid from the onshore substation. Commissioning work is already in progress with the local authorities to connect the substation to the local grid which will ensure residents of Peniche can benefit from sustainable energy supply using wave energy.” The deployment of WaveRoller in Peniche is an important step forward in AW-Energy’s mission to test the end-to-end commercial and technical capabilities of its latest wave energy device.
**SPAIN**

**Saipem and Wello in Spain WEC Project**

Saipem and Wello have undertaken to work together for the successful execution of their first joint project. This will be in the framework of the memorandum of understanding signed last September regarding the deployment of WEC Penguin technology for the production of energy from marine waves.

The project involves the deployment of WEC Penguin technology at the Biscay Marine Energy Platform (BiMEP) test area, an open sea marked zone dedicated to supporting research and technical testing of prototype floating Marine Renewable Energy Devices (MREDs).

BiMEP is situated in the North of Spain, offshore the Basque coast of Bilbao. Saipem will provide Wello with the transportation and installation of the WEC Penguin "WEC2" from a yard in the Orkady Islands, where it is currently located, to the BiMEP test area.

Works encompass towing, mooring installation, deployment of the WEC2, operation & maintenance and other marine works.

This first joint project demonstrates the competitive advantages of the cooperation agreement between Saipem and Wello OY and establishes a model that can be applied to several business opportunities in the near future, Saipem said.

Francesco Balestrino, Renewables and Green Technologies Business Development Manager of Saipem’s XSIGHT Division, said: “Following the cooperation agreement signed last September, this project represents Saipem’s first opportunity to perform a project in the marine energy field that is consistent with our diversification strategy. It also proves Saipem’s commitment to provide its clients with new sustainable solutions. Specifically, we aim to apply WEC Penguin innovative technology to the traditional infrastructures of the Oil & Gas market, such as energy efficiency for offshore platforms as well as integration with other renewable sources.”

**SPAIN**

**W2POWER Prototype Completes Tests Offshore Spain**

The W2POWER prototype, the first multi-turbine wind floating platform in Spain designed by the Spanish company ENEROCÉAN S.L., was decommissioned from the PLOCAN’s test site on 17 October.

The testing of the 1:6 scale prototype was carried out between June and October with an aim to collect information from different parameters that will allow further development and optimization of this multi-turbine platform.

This test was carried out within the framework of the WIP10 + project (WIND INTEGRATED PLATFORM FOR 10+ MW POWER PER FOUNDATION).

The project has been coordinated by ENEROCÉAN (Spain), with the participation of INGETEAM (Spain), GHENOVA INGENIERIA (Spain) and TENSION TECHNOLOGY INTERNATIONAL (UK), and PLOCAN as an outsourcing entity.

The project has been funded within the framework of the European call Era-Net DEMOWIND, co-funded by several institutions including the Centre for the Development of Industrial Technology (CDTI).
SPAIN

Red Eléctrica starts the submarine cable laying works for the electricity link that will connect the islands of Menorca and Majorca

- Commissioning is scheduled for the third quarter of 2020.
- The interconnection is comprised of a three-core 132 kV submarine-underground cable that has a total weight of 2,300 tonnes.
- The route includes 41 km of cable laid on the seabed, at a maximum depth of 81 meters, and 12.4 km of cable installed underground in Menorca and 800 meters in Majorca.

Just a year after the Spanish Council of Ministers authorised the construction of a new electricity cable between Menorca and Mallorca, the cable laying ship ‘Skagerrak’ is already in Punta Sa Guarda (Ciudadela) to begin the preparations to carry out the subsea cable laying work for this interconnection. Once the reconnaissance tasks and preparatory work have been completed regarding the established subsea route to be used to lay the submarine cable, the next step will be carried out immediately once the weather conditions guarantee a sufficient time window that ensures the integrity and physical safety of the cable installation and of the teams that will carry out the cable laying work.

This new interconnection, which is scheduled to be commissioned in the third quarter of 2020, will connect Menorca with the entire Balearic Islands’ electricity system and with the Spanish peninsula. With a cost of 84 million euros, it will decisively improve the security and quality of supply in Menorca, facilitate progress in the energy transition of Menorca and the Balearic Islands, maximize the evacuation of renewable energy under safe conditions for the system and reduce CO2 emissions in Menorca.

The works underway were visited today by the Vice President of the Balearic Government and Regional Minister of Energy Transition and Productive Sectors, Juan Pedro Yllanes; the Chairwoman of the Island Council of Menorca, Susana Mora; the head of Industry and Energy of the Government’s Council of Menorca, Santiago García; the mayoress of Ciudadela, Joana Gomila, and the mayors of the other municipalities of the island. After seeing first-hand the area where the submarine cable will land, the authorities visited the Ciudadela Substation. This facility is not only an essential infrastructure for the interconnection project between the two islands, but it will also be a key tool for the development of renewable energy in Menorca and will contribute to making the existing grid more reliable and secure.

The Skagerrak, owned by the Norwegian company Nexans, has begun the subsea laying of the new cable in Cala en Bosc (Ciudadela, Menorca). These works are estimated to end one week later in Cala Mesquida (Capdepera, Majorca).

The link is comprised of a three-core 132 kV submarine-underground cable, weighing about 2,300 tonnes (56.5 kg per meter) and which connects the substations of Ciudadela and Cala Mesquida, in Menorca and Majorca, respectively. The route includes 41 km of cable laid on the seabed, at a maximum depth of 81 meters, and 12.4 km of cable installed underground in Menorca and 800 meters in Majorca. The land sections of the link in the two islands are buried underground.

The shore landing points at both ends of the link are carried out by means of horizontal directional drilling, a technique that allows the installation of an underground conduit/pipe with absolute control. In this way, it is possible to avoid the obstacles of the terrain and guarantee the minimum environmental impact, especially through the safeguarding of Posidonia Oceanica and other phanerogam meadows that are present at both coastal areas where the landing points are foreseen.

In the case of Cala en Bosc, the horizontal directional drilling has a total length of 310 meters with a maximum depth of 25 meters, while in the case of Cala Mesquida, it has a length of 800 meters, with a submarine route with a maximum depth of 20 meters and a land route section of 276 meters under the beach.

For the cable laying operations, the Skagerrak is equipped with a dynamic positioning system and different monitoring devices for accurate cable laying, thus ensuring that the work is performed according to the designed layout and which seeks to avoid any impact on the environment.

Once the entire cable has been laid, work will be conducted until March to protect the submarine link by burying the cable in the seabed using jetting and trenching techniques. The purpose of this protection is, among others, to maximise the integrity and safety of the link, especially in the face of external aggressions derived from illegal anchoring practices.
A deep-sea observatory is born in the Eastern Ligurian Sea

EurOcean Member CNR continues to expand its marine research infrastructures. The study of climate change, the protection of the marine ecosystem and the mitigation of natural hazards are the main objectives of the new deep sea-deep observatory Levante Canyon Mooring, recently launched by EuroOcean Member CNR in the Eastern Ligurian Sea, off Cinque Terre.

The new deep-sea observatory is a collaboration between the CNR and the following institutions:
- Ligurian District of Marine Technologies (DLTM)
- National Institute of Geophysics and Volcanology (INGV)
- Italian Navy Hydrographic Institute (IIM)

The marine research infrastructure fills an existing gap in the Mediterranean ocean observation system with an advanced multi-disciplinary observatory. The Levante Canyon Mooring facility is equipped with a set of instruments that will allow to study various oceanographic parameters, such as salinity, temperature and currents, down to 600 metres.

The state-of-the-art observatory is part of a multidisciplinary monitoring network operated by CNR and represents the latest step in the construction of a vast system of acquisition and processing of marine data.

Montenegro - Italy
Montenegro, Italy Turn on Undersea Power Cable

The Italian and Montenegrin presidents say the project is symbolic of the European integration of the Balkans.

The ceremony of launching the undersea cable between Montenegro and Italy.

The presidents of Italy and Montenegro ceremonially turned on an undersea power cable connecting the two countries via the Adriatic sea on Friday, 15th of November 2019, making Montenegro a Balkan energy hub at the flick of a switch.

The cable, running 423 kilometres along the Adriatic seabed at depths of more than 1,000 metres, represents a new transit route for energy, connecting the electricity systems of Italy, Montenegro, Serbia, Bosnia and Herzegovina and Romania.

Installed at a cost of 1.15 billion euros, the project consists of an interconnection between Montenegro and Italy, the construction and enhancement of the internal 400 kV network in Montenegro, and the construction of 400 kV overhead lines between Montenegro, Serbia and Bosnia. It is operated by Italian electricity transmission system operator Terna.

"This project represents not only a solid energy connection between Montenegro and Italy, but a model of further integration of the European continent," Montenegrin President Milo Djukanovic said at a ceremony in Lastva Grbaljska, near the walled coastal town of Kotor, when he pressed the ‘On’ button at the Montenegrin end of the cable.

The Montenegrin government told Terna in July that several countries in eastern and southeastern Europe had expressed interest in agreeing with Montenegro on use of the cable.

Djukanovic’s Italian counterpart, Sergio Mattarella, fired up the connection on the other side of the sea, telling media: “Establishing an energy connection is a crucial condition for the progress and development of modern society.” Infrastructure, he said, “brings us closer together and makes us feel that we are part of the same project, share resources and strengthen our common aspirations.”
GREECE

Hellenic Cables celebrates the inauguration of Kafireas wind farms

Hellenic Cables, the leading provider of turnkey cable solutions for the wind industry, has supplied Enel Green Power with 45 km of 150 kV high-voltage submarine cable that is transferring to mainland Greece the energy produced by Enel Green Power’s 154 MW Kafireas wind farms complex, located in the island of Evia.

The cable, operational since August 2019, was designed, manufactured and tested at Hellenic Cables’ integrated, submarine cables plant in Corinth, Greece. In addition, as main contractor for this turnkey project, Hellenic Cables also successfully performed installation, protection and burial of the submarine cable under the seabed, transition joints between submarine and land cables as well as cabling and terminations on Evia landing site.

Mr. Alexios Alexiou, Hellenic Cables’ General Manager, stated: “It has been an honor to be part of Kafireas. The successful delivery and execution of this project is proof of our commitment to provide competitive and high-quality solutions for the wind industry globally”. The Company is currently expanding its inter-array cables production capacity in its Corinth plant to supply a wide range of cables to offshore wind developers worldwide.

About Hellenic Cables
Hellenic Cables is one of the largest cable producers in Europe, manufacturing power and telecom cables as well as submarine cables for various industries, including offshore wind and interconnections, as well as turnkey power transmission and distribution projects. Hellenic Cables operates four plants in Greece and one in Bulgaria, including the submarine cables plant of its subsidiary, Fulgor, where the production and testing of some of the longest submarine cable lengths without joint on a worldwide basis is empowered by the Company’s state-of-the-art facilities and equipment. Hellenic Cables recently implemented a EUR 150 million investment plan for the production of high and extra high-voltage submarine cables at Fulgor plant. Looking ahead, additional investments in technology and innovative cable solutions are planned, as a way of contributing to the creation of a sustainable future for its stakeholders. Hellenic Cables represents the cable production segment of Cenergy Holdings SA. For further information please visit our corporate website at www.hellenic-cables.com
The Kafireas project concerns the interconnection of 16 Wind Farms located at the southern part of Evia Island (southeast of Karystos) to the Hellenic mainland Power Grid at Pallini EHV Center (Attica region). The interconnection was configured by a 150kV power line, which was split in two independently operating circuits.

The project was divided in two (2) Phases and cable routes, phase 1 (RK2 - south cable) and phase 2 (RK1 - north cable).

Fulgor S.A. awarded ASSO a contract for the execution of geophysical/geotechnical survey, cable laying, landing and protection of the above-mentioned RK2 submarine cable of approximately 45km length.

ASSO’s scope of work included i.e. PLGR, Cable Lay, Post-lay Mattress Installation, Post-lay burial operations, etc.

ASSO used the cable lay vessel „Atalanti“, the trencher AssoTrencher IV and other in-house spreads to perform the work.

ASSO has successfully delivered the Kafireas Interconnections
GREECE

Final deals inked for Crete’s power link to mainland

A EUR 365 million undersea electric cable between Greece’s largest island and the southeastern tip of the Peloponnesian peninsula is set to come online soon.

Independent Power Transmission Operator SA said the accompanying contracts for the interconnection between Crete and the mainland were signed on October 25 with Intrakat and Elektromek-Nari. The entity, which also goes by as ADMIE and IPTO, revealed the deals are worth EUR 4.5 million and EUR 5.5 million, respectively, and that they cover the construction of the Molaoi-Termatiko line and the Statcom station. In total, the two facilities are worth EUR 5.65 million and EUR 9 million, respectively.

The country’s transmission system operator (TSO) noted the agreements for the main sections of the interconnection were signed a year ago and that their implementation is underway. The government and the European Union are cofinancing the project and the European Investment Bank (EIB) provided funding.

The island’s first power link with the rest of Greece is part of the national energy plan, which foresees shutting down all power plants fueled by lignite by 2028. The EU member state aims to significantly increase the share of energy from renewable sources.

The alternating current cable is laid at depths of as much as one thousand meters. At 132 kilometres, it would be the longest in the world.

Manos Manousakis, chairman of the board and chief executive, highlighted the many years of studies and efforts leading to the realisation of the endeavour. He said the electric interconnection would strengthen the island in energy terms and ensure supply for the winter months. “With the completion of the second interconnection, Crete-Attica, the energy isolation of Crete will be completely ended and the conditions for the exploitation of the island’s renewable energy potential will be set,” ADMIE’s boss added.

The other grid system, called Ariadne, is worth EUR 1 billion. It will have two 328-kilometre high voltage direct current (HVDC) cables under the Sea of Crete and the Myrtoan Sea.

GREECE

NKT involvement in the Attica-Crete interconnector project

Today, 15th of November 2019, Ariadne Interconnector, a wholly-owned entity by ADMIE, the Greek Transmission System Operator, has announced that NKT has been evaluated as best bidder for delivery and installation of the onshore power cable systems for the Attica-Crete interconnector project.

NKT can confirm this evaluation while referring to the fact that no bilateral contractual agreement has been entered yet.

The project budget is EUR 115m (approx. DKK 860m), corresponding to approx. EUR 105m in standard metal prices (approx. DKK 780m). At this point of time NKT has no further comments to the Attica-Crete project, and refers to its normal procedure for prompt provision of information to the financial market.
EuroAsia Interconnector, the 1,000MW electricity link connecting the grids of Israel, Cyprus and Greece, has secured the necessary planning permission to start construction of the first converter station that will be built in Kofinou.

The permit, issued by the Planning Bureau, is for the construction of the high voltage direct current (HVDC) converter station, as well as the landing points of the cable, keeping the project on target for completion by December 2023.

Kofinou will be the point where the two cables – Israel-Cyprus and Cyprus-Greece – will meet, transmitting electricity from there to the European continental grid.

Energy Ministry sources said that the subsea cable, that will have an ultimate capacity of carrying 2,000MW, will end the electricity isolation of Cyprus from the rest of the EU and help reduce consumption costs, by buying electricity as a commodity from the European energy markets.

“If Cyprus has excess electricity production, either from the main power station or from solar parks and wind farm producers, this commodity can even be sold in the European market, generating revenue for our economy,” the source said.

The government official explained that it has to do with managing tariffs and keeping production costs as low as possible, transforming Cyprus into a net-energy producer and seller.

This follows the recent discovery of rich natural gas deposits in the offshore areas bordering Israel and Egypt, with Nicosia signing the first exploitation agreement earlier in November.

“With countries like Israel already aware that it will have a surplus, they will carry the natural gas to power stations from where it will be produced into electricity and carried by this cable to Cyprus, Greece and the rest of Europe.”

The project, launched in 2012, is included in the fourth PCI List of European ‘projects of common interest’ announced in October, making it eligible for EU grants from the “Connecting Europe Facility” (CEF) and low-cost financing from institutions such as the European Investment Bank.

In June, a 33-year land lease agreement was signed at the Ministry of Energy, Commerce and Industry in Nicosia, for the construction of the HVDC converter station in Kofinou, with the project promoter having the option to renew the lease for two more periods of 33 years each.

At the same time, further environmental, technical and other studies have already been commissioned and the relevant permits received from the Cyprus authorities. Construction cost for the first phase of the 1,000MW cable is estimated at €2.5 bln, ensuring energy security and contributes towards the emission and EU energy targets by lifting the energy isolation of Cyprus.
TURKEY
World Bank: Turkey has 70 GW of offshore wind potential

Turkey has nearly 70 gigawatts (GW) of technical potential for offshore wind, according to the new World Bank Group report Going Global: Expanding Offshore Wind in Emerging Markets.

The report presented eight case studies on the technical potential for offshore wind in Turkey, Brazil, India, Morocco, the Philippines, South Africa, Sri Lanka and Vietnam, where such potential was calculated based on wind speed and water depth.

For offshore areas within 200 kilometers off the coast, the technical potential for offshore wind in these eight countries totaled about 3.1 terawatts, according to the World Bank.

This amount is well above these eight countries’ current installed power generation capacity and about three times the installed electricity generation capacity of all 28 EU countries, the World Bank said.

The report also detailed Turkey’s technical potential for offshore wind. "The most attractive areas for offshore wind lie in the northwest of the Aegean Sea where wind speeds reach 9 meters per second," the report said.

It added that the largest area with the potential for offshore wind had a bottom-fixed potential of 6 GW and 19 GW of floating wind.

A fixed offshore wind farm means that turbines sit on a stable base, but this configuration is only suitable in waters up to 50 meters deep. However, floating offshore wind farms are tethered to the seabed for stability and to reduce drift. These wind farms allow additional wind power generation at water depths exceeding 50 meters.

Turkey wants to add offshore wind to its energy mix in the coming years, and based on this aim, the country plans to offer, for the first time, a total of 1.2 GW of capacity with a total investment volume forecast to exceed $3 billion.

"The Sea of Marmara and the Black Sea have good wind speeds of 7–8 m/s. There are many pockets of opportunity along the western coast and to the southeast," the World Bank stressed.

Areas with water depths of less than 50 meters have the technical potential to generate a total of 12 GW and in waters of 1,000 meters depth, a further 57 GW, according to the report.

The World Bank added that areas to the north must account for shipping lanes between the Aegean Sea and the Black Sea, although these can be facilitated by careful planning.

"As all the areas are coastal, projects must engage local stakeholders and manage visual impacts, especially their effect on tourism," it warned, adding that due to heavy marine traffic in the Marmara and Black Sea coasts, careful navigational planning will be required.

The World Bank said that as transmission networks to demand centers in the north and west are quite strong with 380 kilovolt (kV) and 154 kV lines, reinforcement will be needed to accommodate offshore wind, especially for projects of more than 1 GW.

The group underlined that Turkey has some synergies with the wider European offshore wind market, but no offshore wind farms have yet been built in the Mediterranean.

Gülay Uçar, an energy expert at GOO Energy and Investment Consultancy, said that Turkey has greater potential in offshore wind energy than many European countries.

"Therefore the interest of foreign investors in offshore wind energy projects is expected to increase over time. This increase is expected to expand into projects worldwide thanks to rapid improvements in technology," she explained.

Uçar stressed the number of projects that will help Turkey realize its true offshore wind potential is projected to boost over the next five years.

"Turkey needs to make this potential count. I think Turkey can attract almost $3 billion of offshore wind investment in the medium term," Uçar noted, adding that the required regulations need to be put in place to facilitate investor interest in the sector.
MEWO have 30% female surveyor staff in their offshore pool.

MEWO have 50% female project managers in their project management staff.

MEWO have 50% female staff in their back office support.

MEWO have 100% Polish staff with nearly 150 persons. MEWO have no freelancers / contractors in their offshore teams.

MEWO have an approx. average staff age of 30 yrs old. This within an industry quoting an average aging workforce for many years of over 55yrs.

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MOROCCO
ODYSSEA Project to Launch Sea Observatory in Morocco

The EU-funded ODYSSEA Project will launch North Africa’s first fully operational sea observatory in Morocco’s Al-Hoceima National Park. ODYSSEA is in advanced stages of developing, operating and demonstrating an interoperable and cost-effective platform that fully integrates networks of observing and forecasting systems across the Mediterranean basin, addressing both the open sea and the coastal zone. ODYSSEA novel instrumentation systems have been built and the first glider mission in the North Aegean trench, Greece was completed collecting environmental data from surface to 750 meters depth. Another mission will be launched at its Morocco observatory at Al-Hoceima, operated by project partner Association for Integrated Resource Management (AGIR). Developed by ODYSSEA partner ALSEAMAR, the SeaExplorer underwater glider is an autonomous sensing platform designed to collect water column data with wide spatio-temporal coverage. The two gliders developed in the context of the ODYSSEA Project carry three sets of cutting-edge sensor payloads, designed to optimize the monitoring capacity of observatories’ networks. The launch of both gliders will enable ODYSSEA to provide information from the southern Mediterranean and eventually to develop valuable services for local communities and the Blue Economy sector. The glider, deployed in Morocco will be used for documenting and mapping sea mammal populations, sonar ping echo, maritime traffic, health and conditions of marine habitats, human noise, and carrying out basic Environmental Protection Engineering (EPE) studies. Houssine Nibani, AGIR’s President, said: “The platform will enable us to close the gap between the Northern and Southern Mediterranean shore.”
At the AfricaCom international congres in Cape Town, Orange has announced the construction of a new international backbone network in West Africa. This infrastructure will be built around a terrestrial fibre optic network coupled with submarine cables and will benefit from centralized supervision. This multi-regional West African network will connect to the rest of the world through various submarine cables and will link up all the main capital cities in the region: Dakar, Bamako, Abidjan, Accra, Lagos…

The network will offer high levels of resilience and seamless availability thanks to diversified paths. As a result, a complete range of international connectivity services with accelerated delivery will be proposed. This includes IPL (International Private Line) services with bandwidth of 2 Mbps to 100 Gigabits and EPL (Ethernet Private Line) offers enabling natively secure point to point connections (L2 VPN) and available bandwidth from 2 Mbps to 10 Gigabits.

Orange is also offering international stakeholders access to its extensive solutions portfolio: hosting, OP transit, mobile data services (IPX), voice services, security, content delivery networks…

This new network is designed to provide large-scale international capacity and, in consequence, will help support the development of a digital ecosystem and meet business needs in West Africa. In addition to recent investments in the MainOne next-generation submarine cable connecting Senegal and Côte d’Ivoire to Europe, the West African backbone network represents a new stage in the development of Orange’s international connectivity in Africa. Alioune Ndiaye, CEO of Orange Middle East and Africa, said: “For Orange, this West African backbone network represents a major investment that will secure availability of international connectivity and will enable us to meet the demand for increased bandwidth necessary for the continued digital development of regions within the zone.”

Jérôme Barré, CEO of Orange Wholesale and International Networks, said: “Through this project, Orange is clearly demonstrating its leadership and expertise in the design, deployment and operation of international network infrastructure. We are delighted to be able to offer our West African customers’ reliable, secure and high-quality international connectivity that connects them to the rest of the world.”

The commercial launch of the West African backbone is planned for the second quarter of 2020 and will consolidate Orange’s position as a regional leader. Orange is present in 19 countries in Africa and the Middle East and has around 125 million customers as of 30 September 2019. With revenues of 5.2 billion euros in 2018, this area is a strategic priority for the Group. Orange Money, its mobile-based money transfer and financial services offer is available in 17 countries and has 45 million customers. Orange, a multi-service operator and benchmark partner of the digital transformation, provides its expertise to support the development of new digital services in Africa and the Middle East.

About Orange
Orange is one of the world’s leading telecommunications operators with sales of 41 billion euros in 2018 and 148,000 employees worldwide at 30 September 2019, including 88,000 employees in France. The Group has a total customer base of 268 million customers worldwide at 30 September 2019, including 209 million mobile customers and 21 million fixed broadband customers. The Group is present in 27 countries. Orange is also a leading provider of global IT and telecommunication services to multinational companies, under the brand Orange Business Services. In March 2015, the Group presented its new strategic plan “Essentials2020” which places customer experience at the heart of its strategy with the aim of allowing them to benefit fully from the digital universe and the power of its new generation networks.

Orange is listed on Euronext Paris (symbol ORA) and on the New York Stock Exchange (symbol ORAN).

For more information on the internet and on your mobile: www.orange.com
AFRICA

ANGOLA

Innovo and Sparrows Deliver West African Flexible Lay Spread

Innovo and Sparrows have completed a flexible lay spread contract for a major oil and gas, tier 1 contractor in Angola. The contract has been executed with Innovo’s Innodrive 700T electrical Reel Drive System (RDS) and a Sparrows tensioner integrated with under-deck carousel. The Innodrive RDS, designed for laying or retrieving flexible flowlines, umbilicals, mooring wires and power cables, is said to be one of the most powerful and reliable electrical reel drive systems in the world. Innovo’s scope of work included the design, build and installation of the associated vessel grilles, reel saddles, reel loading guides along with installation and operation of the RDS system. Sparrows’ 15-ton tensioner was modified for vertical use, tested and calibrated by Sparrows’ UAE branch before being installed on the vessel and mounted onto a diverter chute frame for spooling product into and out of an under-deck carousel under controlled tension. The diverter chute and tensioner support frame were designed and fabricated by Innovo, along with modifications to the carousel spooling chute and the integration of the Innodrive RDS with the Sparrows tensioner. Innovo’s 700T RDS will now re-locate to the Middle East following the successful completion of this West African contract. Garry Millard, corporate business development director of Innovo, said: “This was a great example of how Innovo and Sparrows work jointly together to offer equipment and expertise to clients worldwide under a sole contract. We worked together effectively on this fast track project to provide a fully integrated service.” Mike Morrison, global head of cable & pipe lay solutions of Sparrows, added: “Sparrows and Innovo demonstrated excellent collaboration to deliver the most efficient and technically compliant solution for the client. Sparrows performed the engineering, tensioner modifications and project management locally in Dubai and Abu Dhabi and this was a great example of the extent of Sparrows’ diverse service offering in the Middle East.”

EAST AFRICA

SEACOM Outage

On the 22 October 22:00 GMT SEACOM was experiencing a service-affecting outage on its subsea cable system between Mombasa and Zafarana. All linear transmission traffic on the SEACOM Subsea Cable system on the East Coast of Africa, to and from Europe were affected. Customers with IP or other managed network services terminating between Dar es Salaam and South Africa remained unaffected but experienced a slight increase in latency as traffic was routed over SEACOM’s West Coast transmission links. On 23 October 12:00 GMT SEACOM was up and running again. All linear transmission traffic on the SEACOM Subsea Cable System from South Africa, Mozambique, and from the East Coast of Africa, to and from Europe has been restored. SEACOM is still investigating the cause of the outage and will provide necessary updates as and when more information is available.
SEYCHELLES
Seychelles Company Plans New Cable, 5G Network

Intevision, a television and Internet service provider based in Seychelles, has announced an expansion plan that includes the roll out of a 5G mobile network in 2020 and a new submarine fiber optic cable system.
Pan-African telecoms group Liquid Telecom has today launched the fastest direct land-based fibre link connecting East to West Africa via the Democratic Republic of Congo (DRC).

This coast-to-coast digital corridor follows the completion of Liquid Telecom’s new high-capacity fibre link running 2,600km across the DRC and the company’s ‘One Africa’ broadband network, which is vastly improving transcontinental communication. Liquid Telecom’s latest fibre expansion connects the company’s network on the Atlantic coast at Muanda in the DRC, via Liquid Telecom’s international subsea cable partners. It then runs directly East to Kinshasa and through the DRC onto Lubumbashi in the South, connecting with other cities in between, including Kikwit, Kananga and Kolwezi. The link then crosses the DRC border into Zambia, integrating there with Liquid Telecom’s existing and rapidly expanding pan-African terrestrial fibre network.

“Liquid Telecom has connected East to West Africa with the most direct digital corridor across the southern hemisphere. We have set a new benchmark and achieved a historic milestone in our vision to create a more connected Africa,” said Nic Rudnick, Group CEO of Liquid Telecom (pictured).

“This new extension connects the DRC to neighbouring Tanzania and Zambia with onward connectivity to Liquid Telecom’s ‘One Africa’ broadband network fast approaching 70,000km. It is central to the company’s vision to create a single fibre network spanning the entire African continent - North to South and East to West. “Bringing major continents closer together via the most direct fibre link connecting East to West Africa via DRC is history in the making,” added Nic Rudnick. “In 2018 Liquid Telecom launched direct land-based fibre link between Cape Town and Cairo and in July this year, we started work on connecting South Sudan to the rest of the continent. By connecting East to West Africa via DRC with a direct land-based fibre link, more African cities, more communities and more businesses will have access to reliable and faster internet connections than ever, and many for the first time. This will bring proven economic and social benefits throughout the country, including vastly improved health care, education, social welfare and trade as we continue to expand Liquid Telecom’s ‘One Africa’ Broadband Network.”

Commenting on the developments, Dobek Pater, director at Africa Analysis, said it was a significant milestone. “What Africa has been lacking until now was a direct east to west telecommunications backbone. Liquid Telecom has achieved what African states and organisations have been contemplating for years without success. It deployed a high-capacity fibre optic backbone connecting subsea cables on the East Coast of Africa with cables on the West Coast of Africa,” Pater said.

“By doing this, it not only considerably shortened the communications route between East and West Africa and contributed to keeping the traffic local, it also laid the groundwork for connecting millions of Africa’s citizens (especially in the DRC) to the internet and the world. This is a significant milestone in continued expansion of modern telecommunications infrastructure across the African continent, supporting governments’ policies aimed at closing the digital divide within their countries and ultimately ensuring ubiquitous connectivity.”
Scn SubCableNews.com

Pakistan

Submarine Cable Fault Disrupts Internet Services in Pakistan

Internet users faced difficulties in accessing online content throughout the county after an international submarine cable developed a technical fault, apparently due to Cyclone Kyarr in Arabian Sea on Tuesday, 29th of October 2019.

Due to an international submarine cable fault, internet services have been impacted in Pakistan, said Fariha Shah, a spokesperson for The Pakistan Telecommunication Company Limited (PTCL). However, she declined to comment on nature of the fault, saying that her technical team has not yet informed her about the fault.

The PTCL also issued an alert on social media, saying their teams are working on fully restoring internet services. “We regret to inform you that due to international submarine cable fault, internet services are impacted across Pakistan. Our technical teams are working on fully restoring internet services,” it said in a tweet.

“We apologize for any inconvenience caused and thank you for your patience.”

On the 30th of October 2019 PTCL informed their customers that the fault in the SEA-ME-WE-4 cable had been rectified and internet services were restored.
The Chennai-Andaman and Nicobar Islands (CANI) submarine cable systems project is expected to be completed by 2020, an official of the Japan-based NEC Corporation, the company implementing the 2,300 km long undersea project, said.

Earlier, the state-run Bharat Sanchar Nigam Limited had placed an order with NEC Technologies India Pvt. Ltd. (NECTI) to design, engineer, supply, install, test and implement an optical submarine cable system connecting Tamil Nadu’s capital Chennai and the union territory of Andaman & Nicobar Islands (A&N Islands) in the Bay of Bengal.

NECTI, the parent company of NECTI, will manufacture the optical submarine cable at its facility in Japan and provide technical assistance during the turnkey implementation, Atushi Kuwahara, Head of Administration, Submarine Network Division, NEC Corporation stated.

On the current status of the project, he said the submarine cable and repeaters have been manufactured but it will take another year to complete the project. Now what is left is “cable loading, cable laying (done by ship), CLS installation and commissioning tests. This will be the first landing of a cable in the islands,” he said, adding that it will allow residents and tourists to connect with the rest of the world using high speed internet services.

Kuwahara, however, did not disclose the total value of the project.

Compared to satellites, using internet connection through submarine cables is more reliable, cost efficient and of large capacity, he said, adding that it is best for telecom infrastructure, applications like HD TV, high speed internet, data transmission, high speed mobile terminals, among others.

"The cable system will provide the A&N Islands with sufficient bandwidth for supporting voice and data connectivity that enable the implementation of e-governance initiatives, such as the establishment of enterprises and e-commerce facilities," as per NEC Corporation.

"The system will also assist educational institutes in sharing knowledge and will play a significant role in driving the "Digital India" vision, a campaign launched by the Government of India to ensure that government services are made available to citizens electronically," according to the company.

Speaking on the importance of the project, the official said once completed, it will open the gateway to Southeast Asian markets for the company.

Besides CANI, the company is undertaking two more cable projects -- 3,500-km long Hong Kong-Guam (HK-G) cable system project and 9,500-km long Japan-Guam-Hong Kong (JGA) project -- he said.

NEC Corporation has over 98,000 employees and operations in public, enterprise, telecom carrier, system platform and various other sectors in over 168 countries and territories, including India.
Indonesian Government authorities on Monday, 14 October 2019 announced the completion of its ambitious fiber optic project (Palapa Ring Project) to connect the under-developed regions of the country’s east, including the restive region of Papua. The telecommunication network containing approximately 13,000 kilometers of fiber optic network is intended to deliver high-speed internet services to the down trodden areas. The telecommunication network consists of fiber optic cables, Microwave transmitters, and towers. The fiber optic cable goes via land and under the sea on its way towards the eastern region. The total project cost is estimated at 7.63 trillion rupiahs, which is approximately US$540 million. The network was built on public-private partnerships.

A statement issued by the Cabinet Secretariat said that the final leg, called the East Palapa Ring project, consisted of a 6,878 km cable connecting Papua, some islands in the Maluku region and East Nusa Tenggara. President Joko Widodo said the project should provide “a sense of justice” for Indonesians who live in the eastern part of the country because they will be able to access the internet at the same speed as others in Southeast Asia’s largest economy.

The government completed the West Palapa Ring project covering the western half of the country in March 2018, while construction for similar infrastructure in the center of Indonesia was finished earlier this year.

The new telecommunication network will strengthen the businesses, connecting small and medium enterprises’ products to national, even global networks. Indonesian President Mr. Joko Widodo described the network as the “highway in the sky”. During the inaugural occasion, the president urged Indonesians not to use the internet to spread fake news and hate speech. Though he did not refer to any particular incident, Papua, which encompasses Indonesia’s two easternmost provinces, has seen an upsurge in protests and unrest for weeks. The government curbed the internet temporarily in response. Security forces said the most deadly incident, during which 33 people were killed in the town of Wamena on Sept. 23, was triggered by a hoax about racial slurs made against students by a teacher.

A former Dutch colony, Papua was formally incorporated into Indonesia in 1969, after a disputed vote of about 1,025 hand-picked tribal leaders. The result of the plebiscite was overseen and endorsed by the United Nations.

Palapa Ring is a national fiber optic network development project that will reach as many as 34 provinces, 440 cities/districts throughout Indonesia with a total length of submarine cables reaching 35,280 kilometers, and cables on land as far as 21,807 kilometers.

**INDONESIA**

**Installation ongoing**

The installation of the Tanjun Pandan- Sungai Kakap cable system is currently ongoing. The cable system is 348 km long and connects Sungai Kakap in Kalimantan with Tanjung Pandan on Belitung island.
ASIA

MALAYSIA
Power Cable installation ongoing

A 26.5 km 132 kV submarine cable between the Main Intake Substation (PMU) from Perlis, Peninsular Malaysia to Langkawi Island is currently being installed. This project will further strengthen the supply of electricity to Langkawi Island consumers. Using the simultaneous method of lay & bury using water jetting, the submarine cable will be buried 3 m deep into the seabed, using a cable installation barge. The project is managed by the Unit Construction (500kV), Department of Grid Development, led by Project Director Jr. Hj. Mazlipha bin Hj. Mahmud.

VIETNAM
APEM Surveying Wildlife at Vietnam’s 3.4GW Offshore Wind Project

APEM Ltd has begun conducting aerial surveys at the Thang Long offshore wind project in Vietnam. Under a contract with Enterprize Energy, APEM is conducting baseline digital aerial surveys to collect data on birds and marine mammals at the project site offshore Ke Ga Cape.

According to the UK-headquartered company, the surveys will be collected with ultra-high resolution imagery using a statistically robust grid-based survey design. “We have carefully chosen the best technical partners to ensure the success of the project,” said James Blanchard, HSEQ Director at Enterprize Energy. “We look forward to working with APEM and their Vietnamese aircraft providers on this important aspect of our survey plan for the Thang Long Offshore Wind Farm.”

In June, Enterprize Energy received a site survey license for the 3.4GW Thang Long project. Based on the results, the necessary planning, environmental, and feasibility reports will be prepared. The Thang Long project will be developed in five 600MW phases and one 400MW phase. The first 600MW phase will comprise 64 9.5MW turbines expected to be operational in late 2022 or early 2023. The remaining 600MW phases are scheduled to be commissioned by 2026. The wind farm will feature MHI Vestas turbines.
TAIWAN
Geoquip's GMR302 Supports Normand Baltic Work in Taiwan

The system was mobilized onto the Normand Baltic, and assisted with the completion of the geotechnical campaign. The scope of work comprised PCPT, SPCPT and high quality undisturbed sampling in boreholes over 115m deep. The data will enable optimized foundation design for the wind farm development, Geoquip noted.

The GMR302 rig is suitable for drilling, coring, sampling and testing in all soil conditions in shallow waters. The rig operates with 5½" or 6" API drill string and can reach combined water and borehole drilling depths down to 360m.

Geoquip Marine’s GMR302 drill rig has supported Solstad’s Normand Baltic in the offshore geotechnical investigation for the renewable energy sector in Taiwan.
TAIWAN

Hai Long Offshore Wind Farm and CSBC DEME Wind Engineering (CDWE) join forces for the first large-scale Balance of Plant contract in Taiwan offshore wind

In Taipei, the Hai Long Offshore Wind (OFW) Project signed Taiwan's first large-scale Balance of Plant (BOP) Preferred Supplier Agreement (PSA) with local company CSBC DEME Wind Engineering (CDWE), marking another significant milestone in realising the localisation of Taiwan's offshore wind industry.

The Hai Long Project consists of Canadian-based independent power producer Northland Power International (NPI), Yushan Energy Pte Ltd and Mitsui, who have joined forces to develop the Hai Long 2 and 3 wind farms in zones 18 and 19 offshore Changhua. CDWE is a joint venture between CSBC Corporation, Taiwan and DEME Offshore.

Today's agreement with CDWE is for the BOP package of the Hai Long project and includes the Engineering, Procurement, Construction and Installation (EPCI) of the foundations, inter array cables, export cables and transportation and installation of the turbines. From the start of the bidding process, Hai Long and CDWE have worked closely together, committing to meeting the localisation requirements of the Industrial Development Bureau and Bureau of Energy. To that end, CDWE launched a large-scale audit consultation of Taiwanese steel fabricators and marine engineering services providers in February 2019, to assess local capabilities and set up a local team under its direction. Beginning in 2023, offshore installation works will take place, optimising local materials and skills in constructing the Hai Long 2 and 3 OWF.

CDWE was set up by CSBC and DEME Offshore this February to facilitate co-operation with European experts and to ensure the availability in Taiwan of foreign expertise in the fields of project management, fleet management, installation techniques and marine works safety. CDWE Chairman (and CSBC President) Robert Tseng stated that CDWE’s expertise should become a pillar of localisation and a driving force for Taiwanese marine engineering professionalism. CDWE also signed a PSA for the WTG transport and installation scope of CIP’s Changfang-Xidao OWF in May 2019. Today’s large-scale EPCI agreement marks the realisation of an important step in localisation, as the local content involved in every step of the project from engineering to installation will be maximised. Hai Long OWF will be a litmus test for localisation.

Robert Tseng further explains that this type of large-scale Balance of Plant scope is the most challenging contract form in offshore wind: the contractor must have an enormous amount of expertise in marine works and project management, and concurrently also have the right vessels to make the project a success. This contract award is also an important step in the development of CDWE and its fleet in Taiwan by the cooperation with DEME Offshore main installation vessels. The optimal vessel selection and good project management skills evidenced by CDWE should make this project a resounding success.

This PSA ceremony is held under the auspices of the Ministry of Economic Affairs’ officials as well as the participating local contractors’ senior management. Under the leadership of CDWE, this PSA can become the driving force for the internationalisation of the Taiwanese marine engineering industry and the localisation of Taiwanese offshore wind. This will allow Taiwan a more stable supply of green energy, and a confident future outlook.

About DEME

DEME Offshore is a global solutions provider in the offshore oil, gas and renewables industry. The company has an unmatched track record in the transport and installation of foundations, turbines, cables and substations for offshore wind farms. DEME Offshore is a subsidiary of the DEME Group, a world leader in the highly specialised fields of dredging, marine engineering and environmental remediation. The company can build on more than 140 years of know-how and experience and has fostered a pioneering approach throughout its history, being a front runner in innovation and new technologies.

DEME’s vision is to work towards a sustainable future by offering solutions for global challenges: a rising sea level, a growing population, reduction of CO2 emissions, polluted rivers and soils and the scarcity of natural resources. Although DEME’s activities originated with the core dredging business, the portfolio diversified substantially over the decades, including dredging and land reclamation, solutions for the offshore energy market, infra marine solutions and environmental solutions.

While the company’s roots are in Belgium, DEME has built a strong presence in all of the world’s seas and continents, operating in more than 90 countries worldwide. DEME can rely on 5,200 highly skilled professionals across the globe. With a versatile and modern fleet of over 100 vessels, backed by a broad range of auxiliary equipment, the company can provide solutions for even the most complex projects.

DEME achieved a turnover of 2.65 billion euros in 2018. www.deme-group.com
Jan De Nul Group completes Formosa 1 Phase 2 Offshore Wind Farm scope

After four months of installation activities, Jan De Nul Group announced the completion of an extensive EPCI scope for foundations, power cables and scour protection on the Formosa 1 (Phase 2) Offshore Wind Farm, owned by Formosa 1 Wind Power Co. Ltd., a partnership of Ørsted (35%), JERA (32.5%), Macquarie Capital (25%) and Swancor Holding (7.5%), located in Miaoli County, Taiwan.

Jan De Nul Group engineered, procured and installed twenty offshore wind turbine foundations consisting of a monopile and transition piece with a grouted connection. Around the monopile foundations 56,000 tonnes of scour protection have been installed. In addition, seventeen inter array cables and three subsea export cables of 33kV were designed, procured, installed, buried, terminated and tested. On land, the connection with the substation was made through 12 km of land power cables.

Local supply chain engagement
In addition to some international service and product providers, Jan De Nul Group engaged and contracted various service and subcontract agreements with local companies in Taiwan. In addition to using the Port of Taichung as a marshalling harbour, Jan De Nul Group utilised the local supply chain for quarried rock production, rock load-out operations, storage and transport of the foundation structures, beach pull assistance works, dive support supply, various support vessels, installation of transition joint bays, HDD ducts, land cables installation, and many other minor services.

Peter De Pooter, Manager Offshore Renewables at Jan De Nul Group:
"Our local integration in Taiwan has been ongoing for the last 20 years thanks to our various maritime activities throughout the region. In the past year, we have signed different agreements with local suppliers for this project in Taiwan. Leveraging the local supply chain fits perfectly in our philosophy of involving local companies as much as possible in offshore wind construction."

Jan De Nul Group had its first project in Taiwan in 1995. Since 1999 the Group has been at work nonstop offering its services to the offshore oil and gas industry, as well as to the main Taiwanese ports (Taipei, Taichung, Kaoshiung and Mailiao). With two other Offshore Wind Farms currently underway with completion in 2020 and 2021 respectively, Jan De Nul Group continues to play a leading role in Taiwan’s renewable power generation future.

Facts about the Formosa 1 Phase 2 OWF
The wind farm is owned by Formosa 1 Wind Power Co. Ltd., a partnership of Ørsted (35%), JERA (32.5%), Macquarie Capital (25%) and Swancor Holding (7.5%).

The offshore wind farm is located around 6 kilometres off the west coast of the Miaoli district in the Taiwan Strait, with water depths ranging between 15 and 30 metres. The project comprises of 2 phases: an earlier phase 1 of two wind turbines with a total capacity of 8MW. A second phase added 20 offshore wind turbines with a total capacity of 120MW to Formosa 1’s current 8MW capacity. Formosa 1 is the first commercial-scale offshore wind farm in Taiwan before 2020. The monopiles range from 752 to 1,230 tonnes with a maximum diameter of 8.4 meter and a length ranging from 60.1 to 79.5 meter. The transition pieces weigh 465 tonnes and consists of five internal platforms, an external platform and boat landing.

The cable installation and trenching support vessel Willem de Vlamingh successfully installed the seventeen inter array cables and three 33kV export cables.

About Jan De Nul Group
Design. Build. Connect. Jan De Nul Group shapes water and land. Worldwide. From complex offshore energy services, to large dredging and both land and coastal reclamation projects, to challenging civil construction programmes. Well integrated competences and investments lead to creative, sustainable and innovative solutions. In this way Jan De Nul Group delivers results that produces satisfied customers. Building a better future. - www.jandenul.com
Following the award of the Engineering, Procurement, Construction and Installation (EPCI) of the foundations and subsea cables for the Formosa 2 Offshore Wind Farm (OWF) in May 2019, Jan De Nul Group is on track with all project preparations.

Aligning closely with the project financial close, reached by the Client on 29 October, the first milestone achieved by the Jan De Nul project team is the award of the submarine cable supply and foundation fabrication contracts. Formosa 2 will use piled jackets, where Saipem and Sembcorp between them, will fabricate the jackets, and EEW will manufacture the pin piles. In line with Jan De Nul commitments to develop the Asian offshore wind supply chain, all jacket components will be manufactured in Asia providing opportunities for local skills development and manufacturing jobs including within Taiwan.

“We are pleased to announce a positive investment decision and that we are now ready to commence construction of the Formosa 2 offshore wind farm”, says Kimberly Cram, Project Director of Formosa 2. “Once completed the Formosa 2 offshore wind farm will generate enough green electricity to power 380,000 homes. The project represents a significant contribution to Taiwan’s renewable energy targets and we look forward to working closely with our local and international partners to ensure its successful completion.

Peter De Pooter, Manager Offshore Renewables at Jan De Nul Group, adds: “The foundation fabrication will start later this year with the first pin piles available in Taiwan by mid-2020. LS Cable will supply the subsea cables and as such, all key suppliers and subcontractors have been secured. We will commence the offshore construction in Spring 2020.

**About Formosa 2 OWF Project**

Developed by Macquarie’s Green Investment Group* and Swancor RenewableEnergy Company Ltd., the 376MW Formosa 2 OWF will have 47 Siemens 8MW turbines on jacket foundations in up to 55m water depth. Formosa 2 OWF is the third Taiwanese OWF contract for Jan De Nul Group and is three times the capacity of the first two projects, Changhua OWF and the Formosa 1 Phase 2 OWF. Under this contract Jan De Nul Group will be responsible for the foundation design, fabrication and installation, as well as for the design, supply and installation of the subsea cables.

*Macquarie Capital has announced it will now develop and invest in green energy projects in Taiwan through Macquarie’s Green Investment Group (GIG) platform. GIG is Macquarie’s global platform for principal investment in the green economy and its mission is to accelerate the transition to a greener global economy. For more information about GIG, please visit [www.greeninvestmentgroup.com](http://www.greeninvestmentgroup.com)*

**About Jan De Nul Group**

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TAIWAN
CSBC-DEME Wind Engineering (CDWE) signs contracts for the Zhong Neng offshore wind farm in Taiwan

Taiwan based CSBC-DEME Wind Engineering (CDWE) and the Zhong Neng Wind Power Corporation Preparatory Office have signed two contracts for the Zhong Neng offshore wind farm project. The contracts include transportation and installation of foundations, as well as a Preferred Bidder Agreement (PBA) for transportation and installation of wind turbines.

The 300 MW Zhong Neng offshore wind farm, developed by China Steel Corporation, is planned for completion in 2024. In order to implement the localisation policy required by the Taiwanese government, the Zhong Neng Wind Power Corporation Preparatory Office has worked closely with CDWE, with the aim of maximising local content. China Steel Corporation makes every effort to invest in local wind turbine component production and steel structure fabrication.

CDWE is a joint venture of CSBC and DEME Offshore in Taiwan. CDWE has signed a Preferred Bidder Agreement for the WTG transport and installation scope of CIP’s Changfang-Xidao offshore wind farm in May 2019. Recently CDWE also signed a Preferred Supplier Agreement with Hai Long Offshore Wind for a large-scale Balance of Plant (BOP) scope.

The two contracts signed today mark another milestone in CDWE’s strategy for business diversification and its role as a pioneer and driving force in the localisation of offshore wind developments, making further contributions to Taiwan’s renewable energy potential.

About DEME
DEME Offshore is a global solutions provider in the offshore oil, gas and renewables industry. The company has an unmatched track record in the transport and installation of foundations, turbines, cables and substations for offshore wind farms. DEME Offshore is a subsidiary of the DEME Group, a world leader in the highly specialised fields of dredging, marine engineering and environmental remediation. The company can build on more than 140 years of know-how and experience and has fostered a pioneering approach throughout its history, being a front runner in innovation and new technologies.

DEME’s vision is to work towards a sustainable future by offering solutions for global challenges: a rising sea level, a growing population, reduction of CO2 emissions, polluted rivers and soils and the scarcity of natural resources. Although DEME’s activities originated with the core dredging business, the portfolio diversified substantially over the decades, including dredging and land reclamation, solutions for the offshore energy market, infra marine solutions and environmental solutions.

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DEME achieved a turnover of 2.65 billion euros in 2018. www.deme-group.com

TAIWAN
Kim Heng Inks Cable Laying MoU for Wind Projects in Taiwan

Kim Heng Offshore & Marine Holdings Limited (the “Company” and, together with its subsidiaries, the “Group”), an established integrated offshore and marine value chain services provider, is pleased to announce that its wholly owned subsidiary Kim Heng Shipbuilding & Engineering Pte Ltd (“KHSE”), has entered into a Memorandum of Understanding (“MOU”) with an established subsea cable installer to collaborate with each other in respect of the offshore windfarm cable-laying projects in Taiwan.

The Parties have agreed to cooperate to pursue submarine cable-laying work for the Taiwan windfarm renewables projects and will work towards signing a formal contractual agreement.
TAIWAN
Taiwan Floats Plan to Add 10GW More Offshore Wind by 2035

Taiwan’s Ministry of Economic Affairs plans to set a goal of developing further 10GW of offshore wind capacity between 2026 and 2035. During the inauguration of the Formosa 1, Taiwan’s first commercial offshore wind farm, the President of Taiwan, Tsai Ing-wen, asked the Ministry of Economic Affairs to propose the plan which would see 1GW of capacity added annually from 2026 to 2035. This is on top of the already set goal of developing 5.7GW of offshore wind capacity by 2025. The Ministry of Economic Affairs believes that the wind farms to be built from 2026 onward will have a bidding price lower than than the average price of electricity sold to users in 2025.

The new plan will also contain local content requirements. The government’s current policy of promoting localization has achieved good results, the ministry said. It has attracted many foreign companies to set up Asia-Pacific production bases in Taiwan, and form strategic alliances with local supply chains to jointly enter the Asia-Pacific market.

CHINA
Rongxin Huiko Electric to Supply Rudong OWF Converter

Rongxin Huiko Electric (RXHK) has won a contract to supply a set of converter valves for the onshore converter station of the Rudong offshore wind demonstration project in China. RXHK will supply ±400kV 1,100MW VSC HVDC converter valves for the station, including all insulators and AC-DC hardware fittings, together with the valve cooling and auxiliary system, control system, access platform for maintenance, spare parts and special tools.

The equipment is scheduled to be delivered to the site by September 2020. The Rudong offshore wind farm HVDC demonstration project is located in the southeast of Jiangsu Province on the northern edge of the Yangtze River Delta. The project, with a total installed capacity of 1,100MW, comprises three wind farms, which are owned by China General Nuclear Power Corp (CGN) Nantong Ltd and China Three Gorges (CTG) New Energy Corp Nantong and Rudong Ltd.

Electric power generated by the wind farms is transmitted to three separate offshore AC substations via 35kV cable and transformed to 220kV before it is further transmitted to the offshore converter station. The power is converted to DC and then transmitted to DC and then transmitted to an onshore converter station via a single, two core ±400kV cable. After being converted to 500kV AC in the onshore converter station, the power flows into the China State Grid Jiangsu power network.
CHINA
ZTT Joined Hands with China Three Gorges New Energy, to Seek Common Development

On November 9, the signing ceremony of China Three Gorges New Energy and ZTT Cooperation Symposium and the Three Gorges Rudong Offshore Wind Power Project was held in Rudong. Wu Qiren, deputy general manager of China Three Gorges New Energy (Group) Co., Ltd., Xue Chi, president of ZTT Group, and Xue Rugen, deputy general manager of ZTT Group attended the ceremony. Liu Bing, general manager of China Three Gorges New Energy Jiangsu and Zhejiang Company, and Xue Jianling, vice president of ZTT Marine Industry Group, signed the contract on behalf of both parties. At the beginning of the activity, Xue Chi reviewed the cooperation process between ZTT and China Three Gorges. Thanks to the trust of China Three Gorges Group, ZTT had the honor to participate in the construction of the offshore wind power projects such as the Three Gorges Da-feng and the Three Gorges Xiangshui. In the Xiangshui project, ZTT had close cooperation with China Three Gorges to develop and produce China’s first three-core 220kV ultra-high voltage AC submarine cable, opening a new era of China’s three-core ultra-high voltage AC submarine cable, and leading the development of the industry. The ±400kV DC submarine cable ZTT provided for the Three Gorges Rudong H6# project which will be implemented soon, would be another milestone in the history of China’s submarine cable development. According to reports, the Three Gorges New Energy Jiangsu Rudong 800MW (H6, H10) offshore wind power project and the China Guangdong Nuclear Power New Energy Jiangsu Rudong 300MW (H8) offshore wind power project, use flexible DC transmission technology to transmit electrical energy. It becomes China’s first Offshore wind power access project, with the flexible DC transmission technology applying for grid connection with the voltage level of ±400kV. After completion, it will become the flexible DC submarine cable transmission project with the highest voltage level in China. ZTT will provide ±400kV DC submarine cable/land cable, accessory accessories and submarine cable installation EPC services for the project.

About ZTT Group

ZTT Group, a global and leading manufacturer is active in the research development, design, production, supply, and installation complete with a wide product range for telecom, power, renewable energy and in the oil & gas industries. ZTT was listed on the Shanghai Stock Exchange (Stock Code 600522.SH) on Oct 24, 2002. ZTT has broken through the US$7.84 billion marks in revenue in 2018. A truly global company whose products are shipped to 147 countries. ZTT stronghold comprises 58 overseas branch offices, 6 registered subsidiaries, over 60 plants (inclusive of 7 overseas plants), 7 research & development centers and over 15,000 employees.

CHINA
Nanxun Island connection installed

On November 1st, on the sea surface 200 meters northwest of Nanxun Island in Wenzhou, Zhejiang Province, the 5,000-ton submarine cable construction ship "Qifan No. 9" put a section of the submarine cable into the water and began the landing of the first end of the submarine cable. The submarine cable installation between Nanxun Island and the main land in Zhejiang Province, which was not connected to the land-based power grid, officially began. According to the plan, Lamma Island will be put into operation before the end of the year, completely bidding farewell to the “lone network” era of diesel generators. This will greatly promote the tourism and fishery development of Nankai Island in the “Bihai Xianshan” and make the island more beautiful. The submarine cable laid this time is a 35 kV submarine cable, which has been developed and manufactured in China. The cable length is 43.9 km. The cross-linked polyethylene is used as the insulating material. It has no pollution to the environment and has a service life of 30 years. The power supply is safer and more stable and reliable.
SOUTH KOREA
Aker Solutions Enters Korean Floating Wind Pact

WindPower Korea, EDP Renewables and Aker Solutions have formed a consortium with the ambition to develop an initial 500 megawatt floating wind farm off the coast of Ulsan Metropolitan City in South Korea. The consortium was formed as EDP Renewables and Aker Solutions have invested in the development company Korea Floating Wind Power (KFWind), joining founding shareholder WindPower Korea. Principle Power, which had a role in originating the KFWind project portfolio, will supply its WindFloat foundation technology for the project.

KFWind signed a memorandum of understanding with the City of Ulsan in January 2019 to cooperate on the development of floating wind projects and support the industrial development of the Ulsan region to serve as a manufacturing hub for domestic and export offshore wind markets. The WindFloat technology will enable the installation of floating platforms in deep waters that were previously inaccessible, and where the best wind resources in Korea can be harnessed. The consortium has been committed from the beginning to working hand-in-hand with the local fisheries associations and stakeholders to ensure that projects are well-sited and developed responsibly.

EDP Renewables and Aker Solutions acquired a significant stake in KFWind from WindPower Korea, a project developer which remains a minority shareholder, and from Principle Power, which will exit the shareholding.
SAMOA – NIUE – COOK ISLANDS – FRENCH POLYNESIA
Manatua Cable Consortium Approves Installation Ops

Manatua Cable System

- New submarine cable system will be the first in Cook Islands and Niue -
- Unique international collaboration to transform regional speed, resilience and affordability -
- Landings in Tahiti and Bora Bora, French Polynesia; Rarotonga & Aitutaki in Cook Islands; Niue and Samoa - Cable on target to be live by June 2020

A crucial meeting of regional telecommunications leaders has approved the final stages of planning for the installation of the Manatua – One Polynesia Cable. The new optical fibre submarine cable will span the South Pacific, transforming speed, capacity, resilience and affordability. The six landings will be in Tahiti and Bora Bora in French Polynesia, Rarotonga & Aitutaki in the Cook Islands, Apia, Samoa and Niue. It is the first fibre connectivity to Niue and the Cook Islands. Manatua is a groundbreaking collaboration initiated in April 2017 with the signing of an international treaty by the President of French Polynesia, the Prime Minister of the Cook Islands, the Prime Minister of the Independent State of Samoa, and the Premier of the Government of Niue. In the Cook Islands, Telecom Niue Limited (TNL) in Niue, and Samoa Submarine Cable Company (SSCC), in the Independent State of Samoa, met in Apia this week to approve detailed installation plans. The cable is already in the region following manufacture in New Hampshire, USA by submarine cable industry leader SubCom, who was successful in the extensive supplier selection process held in 2018. Transfer of the 3700km cable from the delivery freighter Thorco Liva onto specialist cable laying vessel SubCom Reliance is currently underway. Cable lay operations will commence in Samoa in November, Niue and Cook Islands in December, and finish in French Polynesia in January 2020. The meeting marked the culmination of 12 months of inten-
Cook Islands
Cooks submarine cable landing station underway

The government of the Cook Islands has hosted an inauguration ceremony for the Rarotonga Cable Landing Station, while works on a similar facility in Aitutaki will commence shortly. The two landing stations, scheduled to be completed in February 2020, will house the Manatua submarine cable aiming to connect Apia (Samoa) to To'ahotu (Tahiti) via a two/three fibre pair trunk, with branching units to Niue, Aitutaki (Cook Islands, one fibre pair), Rarotonga (Cook Islands, three fibre pairs) and Vaitape (French Polynesia, one fibre pair). The 3700 kilometre long cable will provide internet connectivity for both Rarotonga and Aitutaki. The landing station will house telecommunications equipment and is expected to be ready for service in February. The Cook Islands deputy prime minister, Mark Brown, says the new cable is vital for the economy. He says it will enable the country to engage fully with the rest of the world. The system – to be deployed by SubCom – will be owned and operated by the Manatua Consortium, which consists of French Polynesian telco Office des Postes et Telecommunications (OPT), Avaroa Cables Limited (ACL), Telecom Niue Limited (TNL) and the Samoa Submarine Cable Company (SSCC).

Solomon Islands
Solomon Islands Undersea Cable to Go Live February: Deputy PM

Prime Minister gave no further details of the expected February roll-out date but said the Solomon Islands Government is committed to carrying out all preparatory work required for the system to go live by February 2020. Mr. Maelanga also stated that such developments alone cannot bring about a transformative impact for the country both economically and socially. He said such an impact can only be achieved through solutions that promote equitable benefits to Solomon Islands’ indigenous landowners in terms of investment and development. Meanwhile, according to the Solomon Islands Submarine Cable Company (SISCC), the Alcatel owned cable laying ship, the Ile de Brehat has completed the laying the Honiara to Auki branch of the Coral Sea Submarine Cable System’s domestic network. On the 31st of October 2019, Noro in the Western Province and Taro in Choiseul Province were connected to the domestic network. According to the SISCC, a robust period of testing will follow the completion of the domestic network before the system is expected to go live in early 2020.
PNG DataCo Limited has announced to Internet Service Providers (ISPs) and carriers, ICT operators and representatives that services on CS2 are now on offer for commercial start in January 2020.

In a presales cocktail meeting, attended by representatives from ISPs ICT operators, partner’s business houses and various diplomatic corps, the wholesale ICT provider; also announced a special presales offer. The offer to sign up in the month of November for a 12 month contract, will have a discounted price. Additional in the offer, is 1 month trial with installation fees being waved.

PNG DataCo General Manager for Commercial Services Mr Une O’Ome gave insights on the status of the massive CS2 project stating that by 2020, PNG will experience massive improvements in reliability and speed of services and will have price drops in the use of internet services. The benefits to the technological advance is being described as one of the most important technological milestones to be reached in PNG.

PNG DataCo Limited has compared that in 2014, the cost of internet use was exhorbently high with prices around USD 1300 mbps per month compared USD 179 per Mbps per month and will be further reduced to USD 98 per Mbps per month for a 1 Gbps connection January 2020 when CS2 is commercialized. Basically, the cable is to have a technical maximum capacity of 20 terabytes per second a initial available capacity of 100Gbps and is said to transform ICT delivery in the PNG Market. Explaining the network connectivity, PNG DataCo says, currently there are fibre optic transmission infrastructure in parts of PNG (Madang, Lae, Alotau and Port Moresby and the Highlands provinces) but by mid next year all provincial capitals will have fiber including additional international cable connectivity into Jayapura to provide options and redundancy apart from existing connections to Guam and Sydney on the PPC-1 Cable.

With regards to latency (delay), the ICT wholesaler said Port Moresby will have lower latency at about 38ms roundtrip an improvement from Satellite which has 300ms and other international cable options of about 80ms.

“So CS2 is part of a bigger plan. Our whole mission is to connect the country and CS2 provides one of the international connections in the whole plan, the domestic connectivity is also addressed under the Kumul Domestic Cable Network for distribution around the country” Mr O’Ome said.

Mr O’Ome thanked the Government of PNG for the support and also the Government of Australia and its people for funding majority of the CS2.

Kumul Telikom Holding Chairman Johan Volkerink congratulated PNG DataCo Limited under the leadership of the Managing Director Paul Komboi for the major achievement and placing PNG on the map.

“This is the internet backbone for PNG and there is no doubt we all need to use it going forward. We must make sure, there is maximum utilization of this wonderful national asset. Furthermore we need to make sure we earn back the investment, the Government of PNG put in place.”
VICTORIA
Offshore wind power in Australia: the first wind farm advances

The first proposed offshore wind farm in Australia, which could provide enough energy for more than 1.2 million homes with wind turbines, will begin scientific testing this month off the Victorian coast near Gippsland. The test comes when the trade union movement launches a campaign to pressure state and federal governments to pave the way for the wind power project to move forward. The Star of the South wind farm is expected to provide up to 2,000 megawatts of wind power, approximately 18 percent of the state’s energy demand, and will cost between $8 billion and $10 billion. In a few weeks, the company will begin detailed studies of wind and wave conditions in the area of 496 square kilometers on the south coast of Gippsland. It will also carry out environmental studies on marine and bird life. If feasible, the wind farm is scheduled to provide “full power” by 2027.

AUSTRALIA - TASMANIA
Fourth subsea data cable for Tasmania edges closer

Feasibility explored for fourth connection to mainland.

The business case for a fourth subsea telecommunications cable connecting Tasmania to the mainland is firming after an investigation found it “likely to deliver significantly increased capacity” to the island state.

The construction of a new cable is being considered as part of the Marinus Link project, which is being jointly funded by TasNetworks and the federal government.

Like Basslink before it, the project is primarily for an electricity interconnector cable connecting Tasmania and Victoria’s electricity grids. However, a telecommunications cable could also be included on the route, allowing the electricity interconnector to be monitored, as well as to carry internet traffic. TasNetworks said in its initial feasibility study [pdf] earlier this year that the telecommunications cable could be deployed at an “incremental cost”, though it was described only as an “opportunity” at that point. As first reported by the Advocate, it appears the business case for a new telecommunications cable is firming, with a detailed assessment expected by the end of the year. “The potential benefits have been investigated further and are likely to deliver significantly increased capacity via additional optical fibre across Bass Strait,” a TasNetworks spokesperson said.

“There will be quite a bit more information provided in our upcoming business case assessment report due for release in December 2019.”

Tasmania is presently connected to the mainland via three subsea internet cables, one operated by Basslink and two by Telstra.

The state has courted the possible entry of a third operator - and fourth cable - for some time. At one point it appeared that SubPartners - now INDIGO - would be that operator, but a deal with the state government was never reached. Internet capacity in and out of Tasmania is still charged at a premium compared to terrestrial inter-capital routes.

Vodafone recently called on the Australian Competition and Consumer Commission (ACCC) to look at lowering the premiums.
AUSTRALIA - TASMANIA
KIT’s Basslink says will comply with 'unnecessary' pricing directive

The pricing directive from Hydro Tasmania was set out in a market statement on Oct 18. Hydro Tasmania said at the time that the bidding instructions will reduce the risk of the Basslink cable operating above its design limits.

Under Hydro Tasmania’s instructions, from Nov 1 to May 31, the last 33 megawatts of Basslink’s 478 MW capacity can only be used when the wholesale electricity price reaches the market price cap.

Basslink chief executive Malcolm Eccles said on Monday: “The pricing instruction given by Hydro Tasmania is unnecessary as it is based on multiple assumptions, hypotheses and disputed information. In Basslink’s opinion, the pricing instruction may result in a series of deviations to various compliance responsibilities and legal requirements of Hydro Tasmania.”

Nevertheless, Basslink has “no choice but to comply” with Hydro Tasmania’s pricing instruction under the Basslink Services Agreement, it said.

Basslink noted that Hydro Tasmania received a preliminary recommendation on July 24 from DNV GL to limit the interconnector’s capacity as part of an initial evaluation that has not been validated, is based on assumptions, and is subject to ongoing analysis by DNV GL.

In response, Basslink provided Hydro Tasmania an independent response from its experts, Cable Consulting International, which expressed concerns about the reliability of the information used by DNV GL to come up with its recommendation.

Despite these concerns, Hydro Tasmania has not provided Basslink with any further work or investigation conducted by DNV GL beyond the preliminary evaluation three months ago, Basslink said.

Basslink also said the pricing instruction will further restrict its import and export limits and impact Tasmania’s energy security as summer approaches.

While Basslink is able to make the interconnector available at 500 MW (from the sending end), Hydro Tasmania’s directive will reduce availability from the National Electricity Market (NEM) on a sustained basis and lessen the competition in the NEM impacting supply and pricing, according to Basslink.
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Local representatives are sounding the alarm about Petersburg’s connection to its main source of electricity. The Southeast Alaska Power Agency, or SEAPA — Petersburg’s wholesale power provider — is investigating why an underwater transmission line failed in late September and whether it can be fixed.

Petersburg lost power on the afternoon of Sept. 29 and the culprit has been identified as a power line that connects the community to SEAPA’s Tyee Lake hydroelectric plant. SEAPA officials say a fault occurred on a submarine cable about two thousand feet off the shoreline of Woronkoski Island between Wrangell and Petersburg. The problem spot is about 300-400 feet under water. The cables were installed in 1982 on the ocean floor across the Stikine Strait.

Bob Lynn is a Petersburg borough assembly member and is the community’s voting member on the SEAPA board of directors. He told the assembly that the community is now being supplied on a backup cable. “Now the spare cable is in use and this cable is out. If one of those other cables went out everything’s out of synch and Petersburg will not have power,” Lynn said. “So it’s a pretty critical problem that they’re working on right now.”

That spare cable in use now is actually three separate ones, transmitting that electricity in three phases. And the one that failed did go around what looks like an underwater cliff. That problem cable for some reason has also moved away from others installed in the same place. The power agency in 2018 contracted for the inspections of all its submarine cables by Remote Operated Vehicle. That work was done last year and the review of the problem this year shows potential problems with the backup line, that’s Petersburg’s last connection to Tyee power.

“Once we looked at this fault, we also looked at the other three cables,” said Robert Larson, Petersburg’s alternate on the SEAPA board. “It turns out that two of those three cables are suspended in water, they’re suspended 30 feet up in the water column, for over a thousand feet. They were never designed for that. So we need to have this fixed because we don’t know what the future’s going to bring for those other three cables. If one of those goes down then we’re looking at running diesels for a year.”

The price of electricity skyrockets if that happens. The SEAPA board members say the agency has borrowed an ROV from the University of Alaska to investigate and hired a geologist to look at whether the ocean floor has shifted since the cable was installed. SEAPA also may hire a cable consultant to look at the next steps.

“We’ve got emphasis on this to get this fixed and the other communities agree, there’s no question,” Lynn said. “But we just have to do it systematically and look at the data and see what we come up with.”

Lynn said the board heard that mobilization costs alone for the equipment to install new cable could cost $1 million, while the fix itself could cost millions of dollars as well. That might mean SEAPA looks at replacing other submarine cables in Southeast Alaska at the same time.
Crosslake Fibre announced that the first new fibre-optic cable constructed between Toronto and New York in almost two decades is complete and has entered commercial service.

The diverse, ultra-low latency route connects Toronto’s largest carrier hotels, Equinix TR2 at 45 Parliament Street and 151 Front Street West, to Equinix NY4 in Secaucus, New Jersey with multiple extensions to various points-of-presence in both cities. Crosslake Fibre provides lit and dark fiber services interconnecting Toronto, Secaucus, NJ and Buffalo, NY using the route. The historic cable traverses Lake Ontario from Toronto to New York State utilizing a specialized 192 fiber strand submarine cable that is 36 miles (58 km) in length. Using current technology, the cable, which is less than 2 inches in diameter, can provide up to several thousand terabits per second of capacity throughput.

"The new network provides the lowest latency performance, physical geographic diversity, and ultra-high capacity throughput for customers," states Mike Cunningham, CEO of Crosslake Fibre. "This backbone Internet infrastructure benefits the financial markets, data centers, content delivery networks, the gaming eco-system, payment processing, and Internet download speeds, in addition to being a catalyst for economic development."

"The physical distance between the major business and financial markets in New York, New Jersey and Toronto just got shorter," states Fergus Innes, SVP of Crosslake Fibre. "For the first time, this new network route delivers sub 9ms RTD performance between these core markets. Crosslake’s ‘Velocity’ service portfolio offers the financial community a number of options to enhance their connectivity to these important markets."

"It is exciting to see a homegrown company like Crosslake Fibre deliver critical infrastructure between Toronto and New York. When companies like Crosslake Fibre choose Toronto, it further demonstrates the growth we are seeing in our technology sector," says Mayor John Tory. "As the world becomes increasingly digital, it is vital for the success of our city to continue to support important infrastructure like this fibre-optic cable and the companies that are spearheading these projects."

Crosslake Fibre is backed by middle-market private equity firm Tiger Infrastructure Partners. "Crosslake Fibre is an innovative and ambitious company that fits neatly with our philosophy of investing in growing infrastructure platforms," states Emil W. Henry, Jr., CEO and Managing Partner of Tiger Infrastructure Partners. "It is pleasing to see the investment thesis prove out as Crosslake’s initial network comes into service and it progresses onto its next network on the Crosslake Fibre platform, CrossChannel Fibre."

**About Crosslake Fibre**

Crosslake Fibre is an operator and developer of telecommunications routes in North America and Western Europe. Our innovative approach to fibre-optic development is focused on providing wholesale, enterprise, and financial customers with physically diverse, low-latency connectivity over next-generation networks.
TerraSond, an Acteon company, has completed a high-resolution geophysical survey for Mayflower Wind, a joint venture between Shell New Energies US LLC and EDPR Offshore North America LLC. The two-month campaign, which began in July 2019, surveyed an area, 20 miles south of Martha’s Vineyard, Massachusetts, USA, that can support up to 1,600 MW of offshore wind. The wind farm is scheduled to deliver energy in the mid-2020s and has the potential to power up to 680,000 homes. The project is TerraSond’s first with Mayflower Wind.

TerraSond acquired high-resolution geophysical data using a complete suite of equipment in water depths from 35 to 65 m. A sub-bottom profiler, a medium-penetration seismic system, a side-scan sonar, a multibeam echosounder, a magnetometer and passive acoustic monitoring sensor were deployed from the Geosea DP2 multipurpose support vessel. The acquired data are now being processed for delivery in November.

“We used our offshore-wind-sector expertise to deliver a successful geophysical survey for Mayflower Wind,” says Pedro Regino, TerraSond project manager. “As always, we put safety and the environment first. The environmental monitoring plan, which included protected species observers and passive acoustic monitoring operators, resulted in no environmental impacts or harm to marine life, successfully meeting Mayflower Wind’s safety ambitions.”

“The execution of this important survey work displayed the core values of Mayflower Wind: it was done safely, environmentally consciously and utilized a key local port: New Bedford,” said Mayflower Wind President John Hartnett. “Completing this survey was a critical step for Mayflower Wind.”

About TerraSond
TerraSond, an Acteon company, has grown to become one of the most experienced, agile and multidisciplinary client-focused survey companies. It delivers innovative, reliable geospatial solutions and has a strong company-wide culture in health, safety, the environment and quality. www.terrasond.com.

About Mayflower Wind
Mayflower Wind, a 50/50 joint venture between Shell New Energies US LLC and EDPR Offshore North America LLC is developing an offshore wind lease area with the potential to supply up to 1.6 GW of clean renewable wind energy to the electricity customers of New England. Mayflower has offered bids into procurement processes for offshore wind generation in Massachusetts and Connecticut.


About EDP Renewables
EDP Renewables (Euronext: EDPR) is a global leader in the renewable energy sector and the world’s fourth-largest wind energy producer. With a sound development pipeline, first class assets and market-leading operating capacity, EDPR has undergone exceptional development in recent years and is currently present in 14 markets (Belgium, Brazil, Canada, Colombia, France, Greece, Italy, Mexico, Poland, Portugal, Romania, Spain, the UK and the US). Energias de Portugal, S.A.(EDP), the principal shareholder of EDPR, is a global energy company and a leader in value creation, innovation, and sustainability. EDP has been included in the Dow Jones Sustainability Index for 13 consecutive years.

www.edp.com
MASSACHUSETTS

Vineyard Wind Forms Cable Pact in Connecticut

US offshore wind developer Vineyard Wind has formed a partnership with Marmon Utility for the establishment of manufacturing capabilities at Marmon’s Connecticut facility producing Kerite cables to supply some or all of the inter-array cable cores for the Park City Wind project.

The agreement will go into effect if Vineyard Wind is awarded long-term contracts from Connecticut to provide 800MW or greater of offshore wind power in response to their 2019 solicitation.

Under the planned partnership, Marmon Utility will invest up to USD 4 million to hire personnel and make equipment upgrades in their Kerite power cable facility that will allow the company to manufacture specific offshore inter-array cables needed for the Park City Wind project.

In turn, Vineyard Wind is committed to selecting Kerite cable brand as its preferred cable supplier for at least 50% of the project, which will make Kerite the first American Tier 1 Supplier in offshore wind, the developer said.

“The partnership between Vineyard Wind and Marmon Utility to establish the first American Tier 1 Offshore Wind Supplier in Connecticut is an incredible opportunity for the state to truly develop a world-class offshore wind industry,” said Vineyard Wind CEO Lars Thaaning Pedersen.

“Today’s announcement is an exciting step in the right direction but it is only the beginning. Similar to the aerospace sector, we believe that manufacturers all over the state can be a part of this emerging industry, creating long-term jobs and economic opportunity for Connecticut residents.”

The supply contract would lead to nearly USD 40 million in direct expenditures in Connecticut, while the Seymour facility expansion would create an estimated 35 permanent FTE jobs. Over the next decade, the expanded facility could create up to 350 FTE jobs and almost USD 400 million in direct revenue in Connecticut, Vineyard Wind said.

“Marmon Utility is excited about the opportunity to partner with an innovative company like Vineyard Wind and become the first American Tier 1 Offshore Wind supplier of power cables,” said Angelo Santamaria, President of Marmon Utility, Power Cable.

“A contract of this magnitude will create Connecticut manufacturing jobs, generate economic opportunity, and establish the Marmon Utility and our Kerite brand of power cables in the emerging renewable energy sector for decades to come.”

Vineyard Wind’s Park City Wind proposal includes options to develop an up to 1,200MW project. The project could generate upwards of USD 1.6 billion in direct economic benefits and create as many as 12,000 direct, indirect, and induced fulltime equivalent (FTE) jobs across Connecticut, according to Vineyard Wind.

MASSACHUSETTS

Mayflower Wind Drops Anchor Offshore Massachusetts

Mayflower Wind Energy LLC, a joint venture of Shell New Energies US LLC and EDPR Offshore North America LLC, has submitted a winning bid in the second Massachusetts offshore wind solicitation.

Mayflower Wind anticipates that its 804MW “low cost energy” project, located more than 20 miles south of Nantucket with expected start-up in 2025, will provide long term prices below the original price cap of USD 84.23/MWh, a USD 3.7 billion in electricity rate reduction over the term of the contract, and creation of up to 10,000 jobs in Massachusetts including both offshore jobs and onshore opportunities.

“Mayflower Wind is proud to have been selected to provide low cost renewable energy to Massachusetts,” said Mayflower Wind President John Hartnett.

“Development of the Mayflower Wind project will contribute to the building of an offshore supply chain on the South Coast and across the Commonwealth, helping to launch a new clean, safe and innovative sector of our economy. We look forward to working with all of our stakeholders to ensure a safe and successful project.”

Back in August, Mayflower Wind joined Vineyard Wind, a joint venture between Copenhagen Infrastructure Partners (CIP) and Avangrid Renewables and the winner of the state’s first RFP, and Bay State Wind, a 50/50 joint venture between Ørsted and Eversource, in responding to the second offshore wind solicitation in Massachusetts. Mayflower Wind is now expected to negotiate long-term contracts with the state’s utilities by 13 December.

The long-term contracts will be submitted to the Department of Public Utilities for approval by 10 January 2020.
NEW JERSEY
Ørsted and PSEG to Negotiate Stake Sale in New Jersey Offshore Wind Farm

Ørsted and Public Service Enterprise Group (PSEG), a New Jersey-based utility, will enter into exclusive negotiations for PSEG to potentially become an equity investor in Ørsted’s Ocean Wind project. Subject to negotiations toward a joint venture agreement, advanced due diligence and any required regulatory approvals, PSEG would acquire 25% of Ocean Wind. Ocean Wind is a 1,100MW offshore wind project located 15 miles off the coast of Atlantic City. Subject to permitting and final investment decision, Ocean Wind is expected to be commissioned in 2024. The wind farm will feature GE Haliade-X 12 MW wind turbines.

Back in June, the Ocean Wind project, proposed by Ørsted with support from PSEG, was selected to negotiate a 20-year offshore wind renewable energy credit (OREC). Ørsted is also working on the project with the non-utility affiliates of PSEG, which are providing energy management services and potential lease of land for use in the project development.

New Jersey’s Governor Phil Murphy set out the goal of developing 3.5GW of offshore wind capacity by 2030 by signing the A-3723 – the Renewable Energy bill in May. Ocean Wind is the first project to be selected under the new legislation.

NEW YORK
New York’s Offshore Wind Bid Winners Sign OREC Deals

The New York State Energy Research and Development Authority (NYSERDA) has finalized contracts for the Empire Wind and Sunrise Wind offshore wind projects. NYSERDA signed 25-year OREC purchase-and-sale agreements with the joint venture of Ørsted A/S and Eversource Energy for its 880MW Sunrise Wind and with Equinor for the 816MW Empire Wind.

“New Yorkers know all too well the devastating impacts of climate change and the catastrophic consequences if we do not act urgently,” Governor Andrew M. Cuomo said. “By finalizing the contract awards for the nation’s largest offshore wind procurement, we are realizing the positive impacts these projects will have on the environment, while diversifying our economy and bringing significant economic benefits to the Empire State.”

NYSERDA concurrently submitted its comprehensive filing, Launching New York’s Offshore Wind Industry: Phase 1 Report, to the New York State Department of Public Service, which documents the results of the state’s first large-scale offshore wind solicitation with a combined total capacity of nearly 1,700MW.

Governor Cuomo announced the Empire Wind and Sunrise Wind in July. Combined, the projects, which offered prices around 40% less than anticipated from early 2018 analysis, are expected to create more than 1,600 jobs and result in USD 3.2 billion in economic activity including major investments to upgrade existing New York ports in downstate New York and up the Hudson River to the Capital Region.

On 15 November, NYSERDA will host an Offshore Wind Technical and Training Workshop at Farmingdale State College on Long Island for local businesses, training providers, labor organizations and educators to coordinate with developers, component manufacturers and service suppliers to identify the technology and training needs of Sunrise Wind, Empire Wind and future offshore wind projects.
Maine Aqua Ventus Gets Power Contract

The Maine Public Utilities Commission (PUC) has approved the power purchase contract for the Maine Aqua Ventus floating offshore wind project. The Maine PUC said it had voted unanimously to approve the contract for the 12MW demonstration wind farm that will be located offshore Monhegan Island in the Gulf of Maine.

“The Commission is pleased to approve this contract which provides MAV the opportunity to demonstrate the commercial viability of this technology while also providing Maine with a new clean renewable energy resource,” said Maine PUC Chairman Philip L. Bartlett.

In June, the Governor of Maine Janet Mills signed into law legislation requiring the PUC to approve the power purchase contract for the project, after delaying the decision on the agreement in January 2018 to allow more time for public comment. Maine Aqua Ventus will deploy two 6MW turbines on VolturnUS, the floating concrete semi-submersible hull designed by the University of Maine (UMaine). The 12MW project is expected to be installed offshore in 2020.

CONNECTICUT
Ørsted and Eversource Reveal USD 100 Million Constitution Wind Commitment

Ørsted and Eversource are planning to make more than USD 100 million in direct financial commitments in Connecticut if their Constitution Wind project is selected in the state’s Request for Proposals (RFP) for offshore wind generation.

According to the developers, Constitution Wind’s economic development commitments will strategically invest in local port infrastructure for direct use by the offshore wind industry, as well as catalyze regional economic activity.

Ørsted and Eversource stated that the project will help renew the economically distressed City of New London, develop an offshore wind workforce from local skilled labor, and advance climate mitigation and resiliency.

“We are delivering unmatched investments into Connecticut that will support Connecticut workers and drive economic activity and future growth while also helping the state meet its recently strengthened climate change mandates,” said President of Ørsted North America and CEO of Ørsted U.S. Offshore Wind Thomas Brostrøm.

The parties have also committed to investing USD 57.5 million for upgrades to New London State Pier, an underutilized state asset, to accommodate the industry and create an offshore wind staging hub in Connecticut.

In addition to the direct economic development commitments, the local Constitution Wind project work, which includes the pre-assembly and load out of turbines and secondary steel fabrication, is an additional USD 143 million investment in the state, the companies said.

As reported, Ørsted and Eversource submitted a bid in October to develop their Constitution Wind project some 65 miles off the coast of New London. Through the RFP, Connecticut is seeking to develop up to 2GW of offshore wind. The RFP builds off of multi-resource solicitations in 2018 in which Connecticut bought 304MW of offshore wind from the Revolution Wind project, also being developed by Eversource and Ørsted.
Avangrid Renewables has submitted an application to the US Bureau of Ocean Energy Management (BOEM) for permission to install equipment to measure wind speeds and sea conditions at the Kitty Hawk offshore wind lease off North Carolina. The permission is expected to be granted in spring 2020, Iberdrola, Avangrid Renewables’ parent company, said.

The developer completed geophysical surveys in the area where the first phase of the project will be sited earlier this month. The surveys included multibeam bathymetry, magnetic measurements, side scan sonar imaging, seabed stratigraphy, benthic sediment sampling and video imaging to characterize seabed/sub-surface conditions at the site.

Avangrid Renewables secured the rights to develop the 122,405-acre lease area offshore Kitty Hawk in May 2017. The lease area has a potential generating capacity of 1,486MW.
ONTARIO - PENNSYLVANIA
Lake Erie electrical cable could generate $3 billion for Ontario taxpayers

A Canadian Seabed Research crew conducts a technical survey of Lake Erie for ITC's submarine cable project.

ITC plans to install a 117-kilometre electrical link under Lake Erie from Nanticoke to Erie, Pa.

ITC proposes to install a 117-kilometre electrical link under Lake Erie from Nanticoke to Erie, Pa., to connect Ontario's Independent Electricity System Operator (IESO) with 13 U.S. states.

An underwater electrical cable that runs from Nanticoke to Erie, Pa., along the bottom of Lake Erie would allow power producers in Ontario to export surplus power to the 60 million people in 13 states that make up North America's largest electricity market.

That's the pitch from ITC Holdings, the Michigan company seeking $1.2 billion from investors for a Lake Erie Connector that would act as submarine toll road for electricity.

Public utilities, private producers and customers would be able to sell and buy surplus power from both shorelines and receive savings and greater reliability, according to Jon Jipping, chief operating officer for ITC, a subsidiary of Canadian energy giant Fortis.

"The project is fully permitted, we're ready to go in terms of construction," said Jipping, who estimates Ontario taxpayers could reap $3 billion in benefits over 30 years if utilities such as Ontario Power Generation or Hydro One sign on.

The trouble is the project has been shopped for three years and no one has jumped aboard.

"There was an excitement a couple of years ago, but it's kind of quiet because it's not built," Jipping said.

Part of the reason is infrastructure of this magnitude is stuck in a queue of power priorities and electricity is often off the radar of the public until the lights go out.

ITC learned hard lessons in blackout of 2003 when the six-month-old Michigan company's grid was among the first to go dark. Tough new regulations that followed the blackout powered up ITC's business as reliability on transmission lines became the watchword.

The Lake Erie Connector's "firewall" is described by ITC as protection against a catastrophic power surge, like the one that caused cascading faults during that blackout 16 years ago.

And the cable's 117-kilometre starting point near the former coal-fired generating plant in Nanticoke means power would be sent directly south to a Pennsylvania hub instead of longer routes around the lake on "congested" transmission networks.

But the nature of cable and its technology would also allow power to be easily shipped to Ontario in case the province finds itself short of capacity in the summer, when air conditioners are running and electricity use peaks, or when nuclear reactors are offline during upgrades, Jipping said.

The 1,000 megawatts travelling on the roughly 20-centimetre-thick cable is enough to keep the lights on in Hamilton and Niagara Falls.

The Lake Erie Connector's high voltage direct current (HVDC) technology has advanced in leaps since it emerged in 1950s and was refined in the 1990s with more environmentally sound plastic components, Jipping said, adding that HVDC is the current standard for collecting power from offshore wind turbines in the North Sea among other land and sea applications across the world.

Over the past century, DC technology has come full circle in Hamilton.

In the late 1800s, DC was the method proposed by Thomas Edison to transmit hydroelectric power from Niagara to factories in Hamilton. But another inventor, Nikola Tesla, promoted an "alternating" solution.

Sparks flew as Edison pitched his DC against competitor Westinghouse and its AC method, conceived by Tesla. AC won out and a record 50-kilometre transmission line was built to stretch from the DeCew Falls hydroelectric site to Hamilton.
Mertech Marine Projects (MMP) completed the removal of four shore ends on the west coast of the USA. After a preparation and permitting period of almost two years, the MV Layla today pulled the last cable end on board. We would like to thank our project team, our subcontractors and most of all our client for their trust in MMP.

Mertech Marine Projects is a joint venture between Mertech Marine (submarine cable recovery and recycling) and WIND (marine operations and logistics).

ATP Cable Plough

Europe’s Leading Cable Plough Contractor of subsea connections, estuary crossings and on shore installations.

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The Federal Communications Commission (FCC) has updated the status of an application submitted by ARCOS-1 USA and A.SurNet (ASN) – seeking to modify their cable landing licence for the 8,700km ARCOS-1 submarine cable system to include a new authorised landing point in Cojimar (Cuba) – to blocked.

Empresa de Telecomunicaciones de Cuba (ETECSA), the incumbent telecommunications provider in Cuba, was scheduled to provide the cable landing station (CLS) for Segment 26.

Columbus Networks Limited (CNL), or a wholly-owned and controlled subsidiary of CNL, was scheduled to act as the landing party in Cuba, with Segment 26 jointly owned by CNL and some of the ARCOS consortium members, while ETECSA would acquire an indefeasible right of use (IRU) on some capacity on Segment 26 from CNL. Construction of Segment 26 was to be completed by CNL using an international submarine cable supplier.
Re-connecting the people of Montserrat to the global information superhighway

In a move set to bring myriad opportunities for economic growth to the people of Montserrat by connecting them to the global knowledge economy, the Government of Montserrat through the Capital Investment Programme for Resilient Economic Growth (CIPREG) signed a landmark multi-million-dollar deal with Southern Caribbean Fiber (SCF), a wholly-owned subsidiary of Digicel Group, for the installation of a new subsea fibre optic cable system.

Made possible through the UK-funded Programme, the transformational 15-year agreement, worth in excess of XCD$16m, sees SCF managing, maintaining and operating a new 25 kilometre fibre optic cable which paves the way for faster, more reliable and more resilient internet connectivity through Guadeloupe and Antigua. The agreement also provides for ten years of high speed broadband internet access for the delivery of its services for the Government of Montserrat for free.

SCF won the contract as part of a competitive international tendering process, and aims to complete the installation of Montserrat’s new fibre optic system by the summer of 2020.

Commenting on the landmark agreement, The Premier and Minister of Finance, Honourable Donaldson Romeo said; “It’s been a long road but now we stand ready to reap the rewards of being a part of a connected global digital economy. This project is truly transformational; constituting a major step forward in our development efforts and positioning us strongly as a foreign investment destination.”

Governor of Montserrat, His Excellency Andrew Pearce, OBE said “It is inspiring to see the UK investment programme for Montserrat bearing fruit after many months of rigorous negotiation. Better, faster and more resilient internet services will make a significant difference to people’s lives and provide new entrepreneurial opportunities.”

Chief Executive Officer of Southern Caribbean Fiber, Valery Bijou, said; “With connectivity comes opportunity. We are delighted to be partnering with the Government of Montserrat to help provide an interconnected empowered future for the people of Montserrat. In a few months, Montserrat will take its place in the digital economy and be able to drive transformational progress to the benefit of all – and as a Caribbean-based provider, we’re excited to be powering that progress.”

Montserrat has been without international fibre optic connectivity for more than 20 years, when the eruption of the Soufriere Hills Volcano cut the island off from its undersea branch of the Eastern Caribbean Fibre System. Since then, all of Montserrat’s international telephony and data communications have been routed via a microwave network to Antigua.

The Project will be overseen by the Programme Management Office in the Ministry of Finance, and the Department for Information Technology and E-Government Services (DITES) under the portfolio of the Office of the Premier.

Head of the Programme Management Office, Martin Parlett; Director of DITES, Denzil West; Permanent Secretary, Office of the Premier, Daphne Cassell; and Premier, Honourable Donaldson Romeo.

Southern Caribbean Fibre System

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CARIBBEAN

GUADELOUPE

Orange Marine started deployment of GCIS

The 118km system, dubbed Guadeloupe Cable des Iles du Sud (GCIS), will comprise the rollout of 24 pairs of passive optical fibres between five landing points on the islands of Grande-Terre (St Francois), La Desirade (Beausejour), Marie-Galante (St Louis), Les Saintes (Terre de Haut) and Basse-Terre (Capesterre-Belle-Eau).

The new cable, commissioned by the Regional Council of Guadeloupe and estimated to cost EUR10 million (USD11.3 million), is scheduled to be ready for service (RFS) in Q4 2019.

Orange Marine is set to commence the deployment of a submarine cable linking the southern islands of Guadeloupe today (8 November), following the arrival of the Pierre de Fermat vessel on location on 7 November.
VENEZUELA – COLOMBIA – BRAZIL - ARGENTINA
GlobeNet to Pass Fiber Through Venezuela, Colombia to Brazil

Submarine cable system operator GlobeNet will take fiber optics connection to Boa Vista, capital of Brazil’s northernmost Roraima state, passing the optical network through Venezuelan territory out from the city of Maiquetía. The Brazilian wholesale telecoms provider will also take fiber out from Colombia’s Barranquilla to Tabatinga, on the Brazilian border with Colombia and Peru. The Colombian cable will most likely be deployed along the bed of the Amazon river, but project details, investment figures and launch dates for both initiatives were not disclosed.

According to GlobeNet’s managing director Carlos Schoeninger, the company is eyeing demand from local service providers who lack proper connectivity in those regions, as well as for the delivery of global content producers.

“It’s a huge challenge crossing fiber through the Venezuelan territory,” Schoeninger said at the Telcomp telecom event in São Paulo. “But we need to interiorize data inside the territories.”

GlobeNet networks encompass 23,500km from Brazil to the US, with landing points in Barranquilla, Maiquetía and Bermuda. The company has points of presence and datacenters in Miami, New York, Caracas, Bogotá, Rio de Janeiro, São Paulo and Fortaleza.

MALBEC CABLE
GlobeNet is also mulling a new branch to its Malbec Brazil-Argentina cable, with a connection landing nearby Porto Alegre, capital of Brazil’s Rio Grande do Sul state. The new cable system will link Rio de Janeiro and São Paulo to Buenos Aires and is being deployed in collaboration with Facebook.

“Co-sharing Malbec was key to dampen the impact of the peso devaluation in the early stages of the project,” said Schoeninger. According to the executive, the entire 2,500km Argentina-Brazil route is expected to be activated by next June. It will connect to GlobeNet’s Brazil-US cable.

GUYANA
Orient Cable repairs power cable
Orient Cable has assisted Guyana Power and Light Incorporated (GPL) with the emergency repair work for a 69kV subsea cable, which has been damaged by anchor after 7 years’ of operation. The experienced offshore team did a great job there with quickly call-off and the cable is re-energized to transfer power.
BRAZIL
EPE points to 700 GW potential for wind power generation in the Brazilian sea

To get an idea of the potential, the country currently has 15.5 GW of installed wind energy capacity, but has no offshore park.

The Energy Research Company (EPE) has identified favorable winds in Brazil for the development of offshore wind energy projects, the so-called offshore plants, throughout the Exclusive Economic Zone, highlighting some areas in the coast of the Northeast, Southeast, and south.

Preliminary studies of the state-owned company, linked to the Ministry of Mines and Energy, pointed potential for the generation of 697 gigawatts, for winds with speeds between 7 and 7.5 meters per second.

Estimates of the potential are part of a study under development by EPE called the “2035 Offshore Wind Roadmap”, and will be discussed next week at the OTC Brazil 2019 international congress, historically focused on oil and gas, but which opened energy-related debates this year.

Mariana Species, in a joint note sent by EPE and OTC to Reuters, said that she believes that the exchange of experience and information gathered by the oil industry is important for the analysis of the economic viability of an offshore wind project.

EPE expects that the Roadmap, which is still being prepared, will bring discussions on technological, regulatory, environmental and associated costs, as well as considerations related to the connection of these projects to the National Interconnected System.

Mariana Species said in the note that she believes that the exchange of experience and information gathered by the oil industry is important for the analysis of the economic viability of an offshore wind project.

If future offshore wind resources are to be harnessed, this information could be useful for refining cost analyzes and defining which technologies, especially in relation to the type of foundation, are best suited for each context,” said Mariana.

As an example of the initiative, Petrobras (PETR3; PETR4) signed last September a memorandum of understanding with Norwegian Equinor for possible joint investments in offshore wind in Brazil.

Renewable energy is not on Petrobras’ priority agenda, which is focusing on oil exploration and production. However, the oil company is still studying the subject.

OTC Brazil 2019 Chairman Marcos Assayag also noted that the offshore industry is aware of the opportunities created by the energy transition to low carbon energy.

“Hence the offshore renewables programming that, for the first time in history, this year entered the agenda, first in Houston and now here in Brazil,” he said. "We will have a busy panel with 11 participants, including representatives from Petrobras and Equinor, which already operates in this sector in Europe."

"If future offshore wind resources are to be harnessed, this information could be useful for refining cost analyzes and defining which technologies, especially in relation to the type of foundation, are best suited for each context,” said Mariana.
BRAZIL
Branch to Recife in planning

Seaborn Networks mulls creating a 500km branch for its Seabras-1 cable to Recife, Pernambuco state, in Brazil’s north-east, to help offload traffic in a region becoming saturated with cable landings in Fortaleza, Ceará state capital. The projected investment in the Recife branch exceeds 200mn reais (US$50mn), the city administration said. Seaborn CEO Larry Schwartz stated that Recife opens interesting opportunities and “it’ll definitely happen.” Schwartz declined to give an estimated activation date, saying the project is still in the site assessment phase. Seaborn’s main focus with the Seabras-1 is the financial industry. Activated in 2017, this cable connects the cities of Praia Grande, São Paulo state coast, to New Jersey, in the US, through a 10,500km route. The company boasts Sebras-1 as being the only direct route between the financial centers of São Paulo and New York, which ensures very low latency rates. Recently, Seaborn signed a partnership with connectivity firm Anova to provide ultra-low latency between the Chicago and São Paulo stock exchanges. In addition to Recife, Seabras-1 is ready to provide future links to Rio de Janeiro and to Brazil’s south, among other localities, if need be.

BRAZIL
Branch to Porto Alegre

A branch to Brazil’s south is planned by GlobeNet, which owns together with Facebook a 2,500km cable called Malbec connecting Rio de Janeiro and Las Toninas in Argentina, with a branch in Praia Grande, on the coast of São Paulo state. The idea is to add to Malbec a branch in the capital of Rio Grande do Sul state. “We will announce very soon the entry into Porto Alegre,” regional director Joselito Bergamaschine stated. As for the rest of the system, GlobeNet completed in June the marine survey for the Malbec cable, which is expected to be fully activated in the second quarter of 2020. Overall, GlobeNet owns and operates an underwater cable network covering over 23,500km. According to Bergamaschine, Malbec is one of the world’s largest capacity cables, with up to 130Tb/s.
PORTUGAL - BRAZIL
Global Parks and EllaLink partner to launch ‘Sines Tech Hub’, a next generation Innovation and Data Center hub in Portugal

The EllaLink Group and aicep Global Parques – Gestão de Áreas Empresariais e Serviços, the Portuguese expert in management of industrial parks and business location solutions, are partnering to promote the Sines Tech – Innovation & Data Center Hub in Sines, Portugal.

Sines Tech – Innovation & Data Center Hub is strategically positioned for the joint development of subsea cable systems and data center infrastructures, both at the core of today's Internet. This Innovation & Data Center Hub of which EllaLink is the inaugural customer combines, in one location, "open access" to cost-effective land, high power density networks including access to nearby solar panels parks, high availability backhaul routes to Madrid and Lisbon, as well as a robust and secure subsea cable landing site. Momentum is building amongst operators keen to participate in the launch of construction works planned for 2021. Filipe Costa, aicep Global Parks’ CEO, stated: "EllaLink's project offering high capacity connectivity between Europe, Latin America and Africa marks the launching of our Sines Tech – Innovation & Data Center Hub.

The Sines Industrial and Logistics Zone in Portugal is a perfect place for a data center hub as it provides a large area of open industrial land with high-power density, offering all the infrastructure and utilities needed for telecoms use. Diego Matas, Chief Operating Officer of EllaLink, added "I am delighted to announce our collaboration with Global Parks in promoting Sines as a new Atlantic hub addressing the demand for diverse data center connectivity and an alternative cable landing site in Portugal. EllaLink evaluated multiple landing locations during the project development phase and Sines was the optimum fit. Sines Tech will provide an environmentally friendly integrated subsea and terrestrial solution for all our customers and partners alike, supporting EllaLink’s open access and carrier neutral philosophy."

The EllaLink System is being built with state-of-the-art technology landing 7 fibre pairs in Sines. EllaLink is scheduled to be Ready for Service in 2020.

About aicep Global Parks
aicep Global Parques – Gestão de Áreas Empresariais e Serviços is a company specialized in industrial parks management and business location services. Global Parks is focused on helping investors find the right site in Portugal through its procurement and consulting services, subsequently managing the installation of national and overseas investment projects.

Global Parks has distinctive business location solutions under direct management, which can host all kinds and sizes of projects. ZILS – Sines Industrial and Logistics Zone has a clear Atlantic vocation and easy and fast access to national and international trade routes, due to its contiguity to Port of Sines. Mainly an Energy cluster, for Oil & Gas, Zils Global Parques has 2,375ha of areas dedicated to industrial, logistics and services activities, hosting large companies such as Galp, Repsol and EDP. The BlueBiz – Península of Setúbal Business Park is innovative and attractive for several sectors of activity, namely aeronautics, but also automobile logistics and agribusiness.

Portugal Site Selection is an innovative web platform, power by aicep Global Parques, which allows investors to find industrial, logistics and services sites in Portugal that meet the requirements and needs of their business, based on Geographic Information Systems (GIS) and using multicriteria analysis. This tool promotes Portugal as a business host by showing the country’s abilities, infrastructures and virtues for the role.

To learn more visit: https://www.globalparques.pt and http://www.portugalsiteselection.pt

About EllaLink
EllaLink is an advanced optical platform offering secure high capacity connectivity on a unique low latency transatlantic route serving the growing needs of the Latin American and European markets. The EllaLink network directly connects Brazil and Europe, linking the major hubs of São Paulo and Fortaleza with Lisbon, Madrid and Marseille.

The EllaLink System is being built with state-of-the-art coherent technology initially offering 72Tbps of capacity over four direct fibre pairs between Europe and Brazil. The landing sites in Fortaleza (Brazil) and Sines (Portugal) have been secured and EllaLink is scheduled to be Ready for Service in 2020. EllaLink is a privately funded and independent company committed to providing products and services on a Carrier Neutral and Open Access basis.

To learn more visit ella.link
PORTUGAL - BRAZIL
EllaLink achieves major project milestones: marine survey, manufacturing and operator licenses

EllaLink announced that it has been granted operator licenses by the Agência Nacional de Telecomunicações (ANATEL) in Brazil and the Autoridade Nacional de Comunicações (ANACOM) in Portugal. With marine survey operations completed and commencement of manufacturing activities the EllaLink system is on track for being ready for service in 2020.

Diego Matas, Chief Operating Officer of EllaLink, said: “Award of the telecoms operator licenses in Brazil and Portugal is a significant regulatory step for the EllaLink project. We remain fully committed to offer to the market a unique optical platform between Europe and Latin America that will go ready for service by the end of next year.”

EllaLink is a state-of-the-art optical platform offering secure high capacity connectivity on a unique low latency transatlantic route, linking the major terrestrial and subsea hubs in Europe and Latin America. The EllaLink system integrates terrestrial fibers with a subsea system that directly connects Brazil and Europe, linking the major hubs of São Paulo and Fortaleza with Lisbon, Madrid and Marseille.

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PORTUGAL - BRAZIL
EllaLink and Telxius collaborate to bring next generation connectivity to Latin America and Europe

The EllaLink Group and Telxius, the telecommunication infrastructure company of the Telefónica Group, announced that they have signed a collaboration agreement for international subsea capacity and terrestrial connectivity in Latin America, including cable landing facilities in Fortaleza, Brazil. The complementary infrastructure owned by EllaLink and Telxius will enable European traffic to reach Rio de Janeiro, São Paulo and other key cities in Brazil and across Latin America.

Already under construction, EllaLink is an open state-of-the-art 4 fiber pair submarine cable system designed to satisfy the growing demand for traffic between Europe and Latin America. The system will offer the first ever direct fiber route between the two regions, thus avoiding the traffic congestion of the North Atlantic and offering the absolute lowest latency when compared to existing routes. By offering route diversity to all the existing cable systems, EllaLink will provide a uniquely secured traffic protection route between Europe and Latin America.

Rafael Arranz, Chief Operating Officer of Telxius for its Cable Business, said:

“We are proud to closely work with EllaLink on this project, which will further advance communications between Europe and Latin America. This collaboration will leverage on the extensive Telxius’ subsea cable network and its terrestrial extensions across Latin America. In particular, Telxius’ Fortaleza cable landing station interconnects subsea cables stretching towards three continents: America (Central and North), Africa and Europe (with EllaLink). Telxius’ BRUSA, with its 138 Tbps, is currently the highest capacity and lowest latency subsea cable connecting the Americas, potentially extending EllaLink’s reach and ability to serve their customers even further.”

Diego Matas, Chief Operating Officer of EllaLink, added: “I am delighted to announce our collaboration with Telxius which supports EllaLink’s primary objective of providing advanced products and services on a carrier neutral and open access basis. The Telxius facility in Fortaleza provides the ideal landing solution for a next generation subsea system like EllaLink, while strengthening Telxius’ transatlantic route diversity.”

About Telxius
Telxius is the infrastructure company of the Telefónica Group including tower and subsea cable business segments. Telxius effectively serves customers through an international network of 87,000 km of high capacity fiber optic subsea cables already in operation, including the two highest capacity systems in the world, MAREA and BRUSA, to go up to 100,000 km by 2021. In addition, the company features an extensive 17,550 tower portfolio, being the leading tower company in Spain, Germany, Peru and Argentina and a main provider in Brazil and Chile. For more information, please visit www.telxius.com

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PORTUGAL - BRAZIL
EllaLink receives Global Carrier Award for Best Subsea Project of the Year

EllaLink has received a Global Carrier Award in the illustrious category “Best Subsea Project of the Year” during a ceremony held in London and taking place as part of the Capacity Europe 2019 conference. This much coveted award demonstrates true recognition of the project’s success from industry leaders, peers and the market at large.

The key factors that led the jury of industry experts to select EllaLink are:
- Creation of a new diverse route connecting Latin America and Europe;
- Provision of the first low latency coherent network between these two continents;
- New secured landing in Sines, avoiding other congested areas in Portugal and creating a new cable landing station in a site ideal for data center expansion;
- Openness and neutrality working in close partnerships with clients;
- Openness to onward connectivity between Asia and Latin America thanks to the choice of providing secure and diverse routes to Marseille.

Alfonso Gajate, Member of the EllaLink Board and project founder exclaimed “I am proud of this award that is a recognition of the commitment and perseverance that has gone into the project since it was first conceived back in 2012. Ross Mullins and I have been joined along the way by key anchor tenants, our investor Marguerite, team members, partners and a lot of external supporters all sharing the belief that a direct link between Europe and Latin America was strongly needed.”

Philippe Dumont, CEO of EllaLink, added “EllaLink is honored to have received this award which is a testament to the forward-looking view that has driven the development and implementation of this project. I would like to thank our anchor customers CVT, EMACOM, RedClara and GEANT, as well as Telebras, for their trust. We are working closely within our eco-system to bring to the market an alternative choice for those wishing to cross the Atlantic. Operations are progressing on schedule for achieving a ready for service date in 2020.”

Michael Dedieu, Managing Partner of Marguerite and Chairman of the board of EllaLink, declared: “Marguerite II joined EllaLink as financial sponsor back in May 2018 to finalize the development of this landmark project and to fund its construction. This accolade recognizes this asset’s quality as well as the tremendous amount of work accomplished by the management team over the last 18 months”.

The Global Carrier Awards are the wholesale telecom’s largest global industry celebration uniting industry leaders from across the international carrier community.

PORTUGAL – NIGERIA – SOUTH AFRICA
Marine route survey soon completed

The survey vessel Fugro Gauss will soon complete the marine route survey of the Equiano cable route.
Trial successfully completed in a collaborative effort to provide a direct, low latency Trans-Atlantic path from Luanda to Boca Raton.

Angola Cables and Nokia have announced that they have collaborated to provide a direct optical connection between Africa and North America. The fiber-optic routing between San-gano in Angola and Boca Raton, Miami in the USA has completed final acceptance trial. “By optically interconnecting the deployed MO-NET and South Atlantic Cable System (SACS), Angola Cables is able to further reduce latency between content providers in North America and the rapidly growing data consumption markets in Africa,” says Ângelo Gama, Angola Cables CTO. Directly connecting the two cable systems through an express optical route – the first ever between Africa and North America – results in reduced latency between the continents and greatly simplifies the turn-up of services. SACS, owned and managed by Angola Cables, consists of four fiber pairs between Fortaleza, Brazil and Luanda, Angola. The consortium-owned MONET system connects Fortaleza, Brazil with Boca Raton, Florida. Latencies on this network show improved performance, with the routing between Luanda, Angola and Miami, Florida having been reduced to 123.4ms, and between Cape Town and Miami to 162ms. Between Johannesburg and Miami, latency has been reduced to just 180ms. Backhaul operators, ISPs, CDNs and users most notably in the sub-Saharan region of Africa can benefit from vastly improved latencies on existing traffic routings. “For example, the connection between Johannesburg and New York City will be reduced by up to 18% using the direct SACS and MONET fiber optic connection,” notes Gama.

The field trial leveraged Nokia’s 1830 Photonic Service Switch wavelength division multiplexing (WDM) platform. Powered by the Photonic Service Engine coherent digital signal processor, the 1830 PSS successfully transmitted optical wavelengths over 12,635 km directly from Angola to Florida, reducing latency by 30% compared to existing routes. “We are employing technology that makes more efficient use of the existing subsea cables. Due to Nokia 1830 PSS technology, an optical connectivity without regenerators can be set up across the SACS and MONET cable systems. This connection will register the highest bitrates and lowest latency between Africa and the USA through direct routing,” so says Carlo Corti, Director of the Optics Business Development, MEA, Nokia. “We are proud to help our customer to establish an optical pathway that can deliver content and information for the benefit of people in Africa and the USA.” The trial of this direct optical route between Africa and USA was successfully completed on 11 November 2019, and the network is available for commercial use.

**About Angola Cables**

Angola Cables is a multinational company operating in the global ICT marketplace providing tailored connectivity solutions for the wholesale and corporate segments. With a robust subsea cable infrastructure and highly interconnected IP network, Angola Cables offers customers greater access to the world’s largest IXP’s, Tier 1 operators and global content providers. Through SACS, Monet and WACS submarine cable systems the company directly connects the Americas, Africa, and Europe and has established partnerships to reach Asia. Angola Cables’ manages the Tier III Data Center AngoNAP Fortaleza (Brazil) and the Data Center AngoNAP Luanda (Angola) as well as the PIX facility in Brazil and Angonix – one of the largest Internet Exchange Points (IXP’s) in Africa. The company offers a range of digital services across multiple industries from customised Cloud solutions to digital gaming resources. For more information, visit our website: www.angolacables.co.ao/en/

**About Nokia**

We create the technology to connect the world. We develop and deliver the industry’s only end-to-end portfolio of network equipment, software, services and licensing that is available globally. Our customers include communications service providers whose combined networks support 6.1 billion subscriptions, as well as enterprises in the private and public sector that use our network portfolio to increase productivity and enrich lives. Through our research teams, including the world-renowned Nokia Bell Labs, we are leading the world to adopt end-to-end 5G networks that are faster, more secure and capable of revolutionizing lives, economies and societies. Nokia adheres to the highest ethical business standards as we create technology with social purpose, quality and integrity.

For more information, visit our website: www.nokia.com
We are pleased to announce that Curie, a Google-owned subsea cable, has been successfully installed and tested. We are currently connecting it to Google’s network, and expect the private cable to begin transmitting data in Q2 2020, powering Google services like Gmail, Search, YouTube and Google Cloud.

Equipped with four 18 Tbps fiber-optic pairs and running from the United States to Chile, Curie is 10,500 kilometers long and delivers 72 Tbps of much needed bandwidth to South America. Curie landed in Valparaiso last April, and was the first subsea cable to connect to Chile in 19 years. The historic landing was made possible in partnership with SubCom, a global partner for undersea data transport, which engineered, manufactured and installed the Curie system ahead of schedule.

We are excited to announce we’re adding the first Curie branch into Panama. Once operational, this branch will enhance connectivity and bandwidth to Central America, and increase our ability to connect to other networks in the region, providing resiliency to our global cloud infrastructure. For seamless integration, SubCom has also been selected to supply the Curie branch to Panama.

By owning and operating our own subsea cables we can add a layer of security beyond what’s available over the public internet, and can plan effectively for the future capacity needs of our customers and users around the world. Commissioned in 2018, Curie was our third wholly-owned subsea cable. Since then, we’ve also commissioned Dunant, which crosses the Atlantic from the Virginia coast in the U.S. to the French coast; and Equiano, which will route from Portugal to South Africa. Once again, we’re reminded that the cloud isn’t in the sky—it’s in the ocean.
US – JAPAN - PHILIPPINES
PLDT Adds International Capacity with Jupiter Subsea Cable

PLDT has finalized the technical and management agreements with a consortium of international providers to further increase its capacity and resiliency of its direct undersea fiber links to the United States and Japan through the trans-Pacific cable system called ‘JUPITER’. Spanning 14,000 kilometers, the new undersea fiber will connect to PLDT's cable landing station in Daet, Camarines Norte and will provide additional capacity of more than 22Tbps from the Philippines directly to and from Japan, and 17.6Tbps to the West Coast in the US.

“This project will enable us to further improve the capacity and resilience of the country’s international connectivity and thus continue to deliver unparalleled world-class internet service to our customers,” said Alfred S. Panlilio, PLDT chief revenue officer. The new cable system is expected to be completed and operational by third quarter next year.

“This investment is of strategic importance given that a significant amount of content are downloaded by data users from servers abroad, particularly from the United States and Japan,” he added.

After getting the National Telecommunications Commission’s (NTC) approval to participate, PLDT is investing USD 136.7 million in the project with a consortium of global companies that include Amazon, Facebook, SoftBank, PCCW Global and NTT Communications.

“JUPITER not only provides increased capacity going to business-relevant markets, it likewise adds strategic diversity options out of multiple international cable systems and complex landing stations which businesses can choose from,” added Jojo Hernandez, head of PLDT and Smart Enterprise Business Group.

Under the open cable model, consortium participants in the JUPITER cable system are acquiring the fiber cables themselves, not just a share of the system's fiber capacity.

“This new model in constructing international cable systems will allow us to be more agile and responsive to the needs of our customers,” said PLDT vice president for International Submarine Cable Networks, Gene Sanchez. “We expect that this new project will further complement our existing network systems and address the increasing data traffic consumption of our PLDT fiber-to-the-home subscribers, enterprise business customers, and our LTE mobile data users.”

US – JAPAN - PHILIPPINES
Vote on Tierra Del Mar Cable Ends in Tie, Reconvene for Nov. 14

The Tillamook County Planning Commission held a hearing on Oct. 24 to deliberate the request by property owner Edge Cable Holdings for conditional use approval and similar use determination to approve the installation of the Jupiter Submarine Cable System, a fiber-optic cable system and landing site on a rural residential zoned property, located within the Tierra Del Mar area north of the Pacific City/Woods Unincorporated Community.

Mark Roberts said Goal 11 says "necessary for public health" and doesn’t think the application has proven that. Goal 11 of the Comprehensive Plan reads “Public facilities and services are defined by the goals as ‘projects activities and facilities which the planning agency determines to be necessary for public health, safety and welfare.’ This does not mean that the service or facilities are publicly owned but that they are necessary for public health, safety and welfare.”

Commission member Gale Ousele asked if the impact issue is a separate issue and dangerous for the commission to look at the impact of land and beyond.

A chairman said the cable is similar enough to any other cable. He said many other buried cables (like powerlines) are less benign that the fiber optic cable would be. He said the cable should be considered similar use.

The commissioners voted but it was a tie – 3 to 3. Sarah Absher, director of the planning staff, asked if there is anything in the bylaws that talks about a tie.

Commission member Gale Ousele asked if the planning commission has to decide.

Absher said yes. Kurt Heckeroth, commission chair, said there is no language in the bylaws that addresses a tie.

Absher spoke with Michael Kittell, attorney at Albright Kittel, and Phil Grillo, land use attorney at Davis Wright Tremaine, and Chad Allen, who was absent at the Oct. 24 hearing, and agreed to reconvene at 7 p.m. Thursday, Nov. 14, at the Board of Commissioners conference rooms at the Tillamook County Courthouse.
Infrastructure will improve digital connectivity and embrace high-quality standards across Southeast Asia and the Pacific

The Overseas Private Investment Corporation (OPIC), the U.S. Government’s development finance institution, announced that it plans to work with Trans Pacific Networks (TPN) to support the world’s longest subsea telecommunications cable, which will span the Indo-Pacific region. The announcement was made at the 2019 Indo-Pacific Business Forum.

“The internet provides unmatched social and economic benefits, from facilitating trade, to improving education, and advancing financial inclusion,” said OPIC’s David Bohigian. “Yet in many regions of the world where it is needed most, persistent challenges including high costs and outdated technology restrict widespread adoption of digital connectivity. In order to fully realize the positive power of the internet, efficient, affordable, and well-run physical infrastructure is essential.”

The TPN subsea cable will be a critical element of the Indo-Pacific’s digital infrastructure, ultimately strengthening networks and increasing capacity while reducing internet costs in the region.

On completion, the TPN cable will be the first subsea route to directly connect Singapore, Indonesia, and the U.S., and will have the capability to serve several markets in Southeast Asia and the Pacific. The project will be developed on terms that prioritize quality, high social and environmental standards, and financial sustainability. By improving the availability, quality, and cost effectiveness of internet and communications technology, the cable will serve as a powerful driver of economic development and quality of life improvement in the Indo-Pacific. It will advance U.S. efforts to expand digital connectivity through responsible and transparent infrastructure development in the region. At the 2018 Indo-Pacific Business Forum, Secretary of State Mike Pompeo announced the Digital Connectivity and Cybersecurity Partnership—a whole-of-government initiative to promote an open, reliable, and secure internet.

The project also advances cooperative efforts between OPIC, Australia’s Department of Foreign Affairs and Trade (DFAT) and Export Finance Australia (EFA), and the Japan Bank for International Cooperation (JBIC) to promote principles-based infrastructure development through their Trilateral Infrastructure Partnership and newly announced Blue Dot Network initiative.

The announcement comes as OPIC prepares to transform into a new, modernized agency called the U.S. International Development Finance Corporation (DFC). Equipped with a more than doubled investment cap of $60 billion and new financial tools, DFC will have more resources to invest in priority regions such as the Indo-Pacific and expanded flexibility to collaborate with key partners on shared goals including quality infrastructure development.

About The Overseas Private Investment Corporation

The Overseas Private Investment Corporation (OPIC) is a self-sustaining U.S. Government agency that helps American businesses invest in emerging markets. Established in 1971, OPIC provides businesses with the tools to manage the risks associated with foreign direct investment, fosters economic development in emerging market countries, and advances U.S. foreign policy and national security priorities. OPIC helps American businesses gain footholds in new markets, catalyzes new revenues and contributes to jobs and growth opportunities both at home and abroad. OPIC fulfills its mission by providing businesses with financing, political risk insurance, advocacy and by partnering with private equity fund managers.

OPIC services are available to new and expanding businesses planning to invest in more than 160 countries worldwide. Because OPIC charges market-based fees for its products, it operates on a self-sustaining basis at no net cost to taxpayers. All OPIC projects must adhere to best international practices and cannot cause job loss in the United States.
HONG KONG – TAIWAN - US
HKA cable installation in full swing

The CLV Ile de Sein is currently installing the HKA cable system, from the BU 1, off Manchester (California) towards Taiwan.
WORLD

DXN Limited Signs Southern Cross Cable Limited

Pre-fabricated modular data centre specialist, DXN Limited, is pleased to announce the execution of a contract of approx. AU$2.4m with Southern Cross Cable Ltd (SCCL) to supply state-of-the-art modular cable landing stations in the Pacific. Matthew Madden, CEO, DXN Limited said that the contract was for three deployments in the Pacific, located in Fiji (Savu Savu), Kiribati and Tokelau. “We are very excited to be a part of this critical project for the Pacific region, providing SCCL with key elements for the cable landing stations for Southern Cross NEXT. We are confident that our products will provide a robust and reliable solution to the people in the Pacific Islands for the 25-year plus life of the cable. I am very pleased that our pre-fabricated modular solutions measure up to the stringent design and engineering requirements required by SCCL.”

Southern Cross NEXT will provide data connectivity between Sydney, Auckland, and Los Angeles and is scheduled for completion by January 2022. The new route will also provide critical international cable connectivity to the Pacific Islands of Fiji, Tokelau and Kiribati.

The new Southern Cross NEXT cable system will expand the existing Southern Cross eco-system and allow Southern Cross NEXT customers to leverage Southern Cross’ extensive point-of-presence network and access infrastructure already in place. It will also allow Southern Cross NEXT customers to flexibly assign new and existing capacity across the three routes across the Pacific, connecting Australia, New Zealand, Fiji and the United States, maximising diversity and resiliency.

Laurie Miller, CEO Southern Cross Cables said: “In looking for a solution for the Pacific Islands, we wanted the highest quality engineering to match our ambitions for the new cable. DXN Limited showed they can deliver all of that quickly, even in a challenging location like the Pacific. With a team located in the region, and an ability to offer a full turnkey solution compliant to Australian standards, the DXL offer was extremely compelling. We look forward to working closely with DXN on delivering such an important infrastructure project for the Oceania region”

Construction of the landing stations will commence mid-November, with deployment to be completed in 2020. Engineered to exacting standards, the facilities are designed to work flawlessly, even during the most demanding climatic conditions. They will include integrated standby power from batteries and a diesel generator, which provides protection from power glitches, and a full suite of security capabilities to protect operations from unwanted attention.

The new Southern Cross NEXT cable is expected to be certified as RFS in January 2022, bringing 72Tbps of total design capacity between Sydney (Australia), Auckland (New Zealand) and the US. The US-Australia Trunk will have a length of 13,483km and land at existing landing points in Sydney (Australia) and Hermosa Beach (California). The Takapuna Branch will connect a branching unit on the main trunk to Takapuna (New Zealand); it will have a length of 1,301km and will comprise two fibre pairs, one of which is an express pair connecting Takapuna directly to Hermosa Beach and Sydney. The 309km Suva Branch will land at an existing facility in Suva (Fiji) and will consist of one fibre pair, to be owned and operated by Fiji International Telecommunications. The Savu Savu Branch (comprising one fibre pair and owned by the Fiji government) will stretch 305km to a newly-established landing point in Savu Savu (Fiji).

The Apia Branch will link the main trunk with Apia (Samoa) via one fibre pair with a length of 310km and will be owned by the Samoa Submarine Cable Company (SSCC). The Nukunonu Branch (owned by the Telecommunication Tokelau Corporation) will also comprise one fibre pair and will stretch 53km to a newly built landing station in Nukunonu (Tokelau). The 377km Kiritimati Branch, owned by Bwebwerikinet Limited, will connect the main trunk to a new landing facility in Tabwakea, Kiritimati (Kiribati) and will comprise one fibre pair.
AUSTRALIA - SINGAPORE
Sun Cable finds appetite in Singapore

The $20-billion-plus Sun Cable solar export project backed by billionaire Mike Cannon-Brookes has found "definite interest" among Singaporean electricity retailers as it moves towards milestones on funding and approvals for the ambitious investment.

Sun Cable chief executive David Griffin reported the positive sentiment after meetings in Singapore last week, including with retailer iSwitch, which has already voiced appetite to buy power from the project.

Switch chief commercial officer Andrew Koscarsky said a partnership with Sun Cable "would be of great benefit for iSwitch and would also provide a limit to the amount of oil price exposure that we have to hedge via futures markets".

"This is because of the strong and over-reliant oil price linkage that exists in the Singapore power market," he said.

iSwitch, as Singapore’s fastest-growing electricity retailer and the country’s largest "green" retailer, is always looking for strategic partnerships to help with its product offerings and also hedging and risk management, he said.

"Our business is highly scalable and, as a foundation customer, we would be confident of satisfying a good portion of the off-take, with additional flexibility," Mr Koscarsky said.

Discussions were also held with the Singapore government, and while Mr Griffin wouldn’t comment, it is believed to be open to the plan, which would see electricity from a giant 10-gigawatt solar farm near Tennant Creek exported about 3800 kilometres through a submarine cable to the city state.

While the project is still in the early stages, Mr Griffin said work was nearing completion on the draft notice of intent with the aim of lodging it in December with the Northern Territory Environmental Protection Authority to formally start the environmental approvals process.

A subsea desktop survey of the cable route from Darwin to Singapore has been completed, with the aim of subsea survey work starting early 2020.

Meanwhile, news of other investors that will cover the up to $100 million of initial funding needed to progress towards a final investment decision is expected in early November. A go-ahead for the project is targeted at the end of 2023, with start-up in 2027.

The 10 GW solar capacity would be integrated with 20-30 gigawatt-hours of storage. The underwater cable would be high-voltage, direct current (HVDC) to reduce transmission losses.

Mr Griffin, a former head of development at wind power producer Infigen Energy, said the certainty that Sun Cable could offer electricity retailers in Singapore about future prices played in favour of the venture, which is competing against imported LNG as a potential energy source for Singapore.

"It’s about the stability of the pricing we offer because it’s very hard for other generators to offer long-term prices because of the nature of their fuel source," he said. “We can offer 30-year prices.”

Early discussions have begun with potential supplies for the major pieces of equipment for the project, Mr Griffin said.

JAPAN – GUAM - AUSTRALIA
JGA-South cable installation ongoing

The CLV Ile de Re is continuing with the installation of the JGA-South cable system towards the Sunshine Coast and Sydney.
OMAN - AUSTRALIA
New Subsea Cable to Provide New Express Route Between Australia and EMEA and Complete New “Great Southern Route”

SUB.CO announced that it has selected Subcom (formerly known at TE Subcom) to build a new international subsea cable system that will directly connect Muscat, Oman to Perth, Australia called “OAC” (Oman Australia Cable).

Once completed, OAC will be the only express cable between continental Australia and EMEA, providing the first secure, diverse and low latency route between the two continents. As OAC will not pass through the Sunda Strait or South China Sea, the system will avoid many of the issues being experienced by other cable systems in those areas and form part of a new “Great Southern Route” between continental US, Australia and EMEA.

SUB.CO provides cable system design, consultation and can also assist with cable systems development and associated assets. With ownership interests in Indigo West and Central cable assets as well as the OAC cable project, SUB.CO is demonstrating a commitment to investment in strategic submarine cable assets helping fuel the growth in cloud connectivity around the world.

Bevan Slattery, founder of SUB.CO said, “I am delighted to be building a new, express route providing diversity and low latency between Australia and EMEA, while at the same time avoiding some of the challenges associated with building through the shallows of the Sunda Strait and busy South China Sea. For me, the Oman Australia Cable is the final piece of an important puzzle to improve Australia’s resiliency and recognises the growing importance of Oman in becoming the new “Cloud hub” in EMEA.”

Cloud Growth in Australia and Oman
In the past twelve months, Perth has seen significant investment in submarine cables and cloud hosting facilities with three new submarine cable systems completed (ASC along with Indigo West and Indigo Central) and two new major data centre facilities commissioned (NEXTDC P2 and Equinix PE2). Both Microsoft Azure and Amazon Web Services have established Cloud on-ramps in Perth for regional availability zones (AZ) and others are expected to be announced soon.

“OAC will be highly complementary to the recent submarine cables between Perth and Singapore as well as Indigo Central, which will be used to extend OAC to Australia’s cloud capital – Sydney” said Mr Slattery.

In deciding to land the cable in Oman Mr Slattery sighted recent investment from major cloud, network and data centre providers in the region as key reasons for selecting Muscat Oman. Muscat in Oman has 15 submarine cables terminating today and will soon have a new Equinix facility being operated under a joint venture between Equinix and Omantel. Speaking with customers and potential customers, it has become apparent the industry has selected Oman as the key hub for EMEA and the gateway between Asia, the Middle East, Europe and Africa. Having visibility to the upcoming investment by major cloud providers in the region is only going to further enhance Oman’s position for the foreseeable future.

OAC is expected to commence manufacturing later this year and is scheduled to be completed by December 2021.
After a long waiting time The CLV Asean Explorer has repaired the cable fault in the SEA-ME-WE-3 cable system, close to Merak in Indonesia.
INDIA – MIDDLE EAST – WESTERN EUROPE
Ciena Completes Upgrade of IMEWE Submarine Cable

IMEWE (India-Middle East-Western Europe), the ultra-high capacity fiber optic submarine cable system, is deploying Ciena’s (NYSE: CIEN) coherent optical solutions and automation software to address network capacity requirements in the region. Leveraging leading edge technologies, Ciena’s solutions provide IMEWE with a network capable of delivering immediate capacity upgrades while providing a foundation for continued growth.

Key Facts:

- IMEWE is deploying Ciena’s GeoMesh solution based on the 6500 packet-optical platform with Ciena’s Manage, Control and Plan domain controller software to upgrade its submarine network with increased bandwidth capacity and improved network management.
- IMEWE is using Ciena’s WaveLogic Ai technology to deploy 200G per wave on the majority of the IMEWE digital line section. WaveLogic Ai improves on the last generation of technology and is capable of delivering a 400G-optimized engine that drives twice the capacity per channel, three times the distance at the equivalent capacity, and four times the service density to support innovative client services at less than half the power.
- The professional collaboration of IMEWE Procurement Group and Ciena enabled successful migration of 36.6 terabits per second of live traffic with minimum impact. This was possible due to the smart project planning and coordination among all the cable stations across the IMEWE network.
- In addition to its deep expertise in optical networking and submarine deployments, Ciena has proven experience where the IMEWE cable system is deployed. This allows IMEWE to take advantage of best-in-class deployment and support services, receiving a completely personalized approach to its network infrastructure investment to deliver next-generation submarine networks.

Executive Quotes:

“Ciena developed an attractive solution for IMEWE Upgrade III using a proven technology, which will efficiently enable IMEWE to meet future bandwidth requirements. Ciena has been able not only to understand our current network requirements but has provided a scalable network development path for future growth.” - Ali Amiri, Chairman, IMEWE Management Committee

“With the explosion of new builds on both the Atlantic and Intra Asia, the connectivity demand between Asia and Europe has never been so high. IMEWE is playing a critical part in addressing this demand and will do so in the foreseeable future.” - Ian Clarke, Vice President of Global Submarine Sales, Ciena

About IMEWE
IMEWE (India-Middle East-Western Europe) submarine cable is an ultra-high capacity fiber optic submarine cable system which links India & Europe via Middle East. The three fiber pair system with total length of approximately 12,091km is well complemented with nine terminal stations forming a consortium of nine leading telecom carriers from eight countries.

https://www.imewecable.com/

About Ciena
Ciena (NYSE: CIEN) is a networking systems, services and software company. We provide solutions that help our clients create the Adaptive Network™ in response to the constantly changing demands of their users. By delivering best-in-class networking technology through high-touch consultative relationships, we build the world’s most agile networks with automation, openness and scale. For updates on Ciena, follow us on Twitter @Ciena, LinkedIn, the Ciena Insights blog, or visit www.ciena.com.
EUROPE - ASIA

FEA repair completed

The CLV Ile D’Aix attended a fault of the FLAG Europe-Asia (FEA) cable system, close to Gibraltar on the 23rd of October. The repair operation was completed on the 29th of October.
A useful application of vessel motion data in cable installation operations

by Peter-Emil S. Johannessen* and co-writer Israel Martinez Barrios, Havkonsult

Introduction

To reduce the environmental influences (waves/weather) during offshore operations, offshore construction vessels usually collect the vessel motion data with their motion reference unit (MRU) equipment. These data will then be fed into the dynamic positioning (DP) system of the vessel or the heave compensation of offshore cranes, for any motion compensation during marine operations.

The vessel motion data can also be used in the live assessment of weather window prior to start of operations, also known as “vessel motion for decision support”, which is a less well-known application of these data. In this application, the recorded vessel motions will be used to forecast upcoming vessel motions, together with the seafarer experiences of vessel crew, to make a sound decision whether the intended operation can be carried out.

However, it is observed that the “vessel motion for decision support” method is seldom practiced in the offshore power cable laying industry in today’s market, in comparison to offshore heavy lifting and military (missile firing, etc.) operations. In this article, we will further discuss the benefits and methods behind this application for the power cable industry, in order for them to utilize the forecasted vessel motions during their cable installation operations, see illustration of a typical free cable lay operation in Figure 1.

Figure 1: Free cable lay operation terminology (source: DNV GL)

Background

In uncertain or unfavourable weather conditions, it is critical to decide whether an offshore cable installation campaign can be continued or must be put into a waiting on weather (WoW) scenario. This decision is made by means of offshore experiences (construction manager, captain, engineer), marine warranty surveyor (MWS) and weather forecast, and sometimes based on a set of installation weather limitations developed from installation analyses during the design phase.

In most cases, the weather limitations derived from installation analysis are conservative due to conservatism in the development of the hydrodynamic model and the requirements from the classification society standards. This conservation will usually lead to a gap between analysis...
(theoretical weather limitation) and operational experiences from the construction team and may produce unnecessary conflicts among the construction team.

**Why should we use vessel motions for decision support?**

So how can this gap between operational experiences and theoretical weather criteria be reduced? One contributor is to make use of real time vessel motions. In the section below, we have shortlisted the main benefits compared to a typical design weather limitation.

- **Reduced weather assessment process**: By utilisation of vessel motion criteria for decision support, the number of parameters being investigated on-site will be reduced, and the decision-making process will be simplified. Normally the weather criteria are determined by Hs (both wind waves and swell), peak period, wave heading relative vessel bearing, wave spreading, etc. However, if vessel motion is used as criteria during cable installation, the operation window can be determined by one parameter, namely the vertical chute motion.

- **Decision Support Approach 1**: Vessel RAOs (response amplitude operators) and onsite weather forecast is used to derive forecasted vessel motions. The predicted vessel motions can be presented in a similar manner as the weather forecast received every sixed hour which is normally used to live-assess the weather window. In addition, real time vessel motions are used to verify earlier predicted vessel motions and the conservatism in the hydrodynamic model will be better understood.

- **Decision Support Approach 2**: Real time vessel motion can be used to forecast future vessel motions. For instance, 20 minutes real time vessel motion data can be used to predict a 3-hour maximum response by means of extreme value distributions, always under the assumption that the input parameters, such as sea state or vessel heading, are not likely to change. Consequently, if the weather is coming up the forecasted vessel motions under Approach 2 is no longer valid. However, forecasted vessel motion under Approach 1 is still valid, but keep in mind that these forecasted values are based on RAOs.

- **Data Storing and Processing**: By recoding real time vessel motions, these historical data can be further used to simulate how the vessel behaves in different sea states, and the hydrodynamic models of the vessel can be further improved. In many cases vessel models are developed without significant experimental data that can be used to reduce their conservatism. Over time and with sufficient amount of data, the database of recorded vessel motions can be used to forecast vessel motions without the need for model RAOs and wave spectrums. Approach 1 will be less dependent on hydrodynamic simulations.

**Why can we use vessel motion for decision support?**

Now back to the main subject of this article. How can we make sure that the vessel response tells us, with confidence, the behaviour of the power cable on the seabed?

From a simple time-lapse of a free cable lay simulation in Orcaflex it can be easily seen that the cable bending at the touch down point peaks just after where the lay wheel/chute has the highest velocity, see Figure 2. Figure 2 also shows that the oscillating behaviour for the two parameters is equivalent.
Based on numerous simulations with different parameters (cable properties, water depths, laybacks, seastates, etc.), the results confirm that the vessel motion and cable behaviour are correlated.

Figure 3 shows the correlation between chute velocity and minimum bending radius (MBR) and chute velocity and minimum touchdown tension for three different laybacks. Followingly, it means that we can define a chute velocity limit which will indicate whether the cable integrity is compromised or not. As a comparison, if subsea structures are to be installed it is not possible to only define the operational criteria by means of crane tip motions as the structure behaviour also depends on water surface motions. Surface motion effects on a thin cylinder (cable) moving up and down in the water column can be neglected.

Figure 2 Time series of chute velocity and cable bending at touch down point. Chute velocity is multiplied with a scaling factor to align the amplitudes (source: Havkonsult)
Figure 3 presents relation between min. MBR and chute velocity and min. cable tension and chute velocity. If the forecasted vessel motion, including alpha factors, indicates a max velocity of 2.0m/s the cable MBR will not go below approx. 7 meter and the cable integrity is not compromised (source: Havkonsult)

Conclusion

It is in our opinion that the vessel motion should be used for decision support during offshore cable laying operations. By utilizing Approach 1 and/or Approach 2 the number of parameters which needs to be assessed on-site is significantly reduced. The offshore team will have tools and figures available which gives a closer relation to real time motions compared to weather limitation criteria derived from conservative installation analysis. Finally, storing MRU data for different sea states gives the opportunity to provide forecasts which are less dependent on vessel models and generic wave spectrums.

*Corresponding author, Email: pej@havkonsult.com
“theNile” – The new blood line of Africa

By Spark Bangla Submarine Cables Ltd.

Connecting AFRICA with the rest of the World

“theNile” is going to be one of the longest cables down the East Coast of Africa and will cover all countries of the IORA, the Indian Ocean Rim Association. Thirteen countries of the East Coast will be directly connected by “theNile” cable: Egypt, Eritrea, Ethiopia, Kenya, Madagascar, Mozambique, Seychelles, Somalia, South Africa, Tanzania, Djibouti and Comoros Island.

At the same time internet bandwidth of the rest of the 40+ countries of Middle, West and North Africa will be improved using home grown proprietary new technology of Spark Bangla Submarine Cables Ltd. (SBSCL) itself.

Experts are anticipating that the cable will have a similar impact on Africa as the river Nile itself, with its historic influence from the dawn of the civilization of human history till today.

The Engineering and Design department of Business Lab Ltd (END) has reported the final specification of the cable as below:

<table>
<thead>
<tr>
<th>Number of fibre pairs:</th>
<th>8/16 Pairs</th>
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</thead>
<tbody>
<tr>
<td>Capacity:</td>
<td>40Tbps</td>
</tr>
<tr>
<td>RFS:</td>
<td>31/12/2022</td>
</tr>
<tr>
<td>Length:</td>
<td>TBC</td>
</tr>
<tr>
<td>Cost:</td>
<td>TBC</td>
</tr>
</tbody>
</table>

Picture: “theNile” proposed cable system
“theNile” will be part of the Bay of Bengal Gateway 2 (BBG2) project, which consists of three Express Ways. Express Way 1 (EW1) will come from Europe (Bilbao in Spain) to Hongkong and enter into the Red Sea by crossing Egypt. In the Red Sea it will be connected to Express Way 2 (theNile) and continue towards South Africa and Asia. As a result, all East Coast countries of Africa will be connected with North African countries by EW1: Morocco, Tunisia, Algeria and Libya.

The Indian Ocean Rim Association (IORA) is a dynamic inter-governmental organization aimed at strengthening regional co-operation and sustainable development within the Indian Ocean region through its 22 Member States and 9 Dialog Partners.

The total population of IORA members is 2 Billion. About 1.8 Billion extra population will be connected by theNile. It will be the shortest path to mainland China and Australia from Africa by using other low latency cables in this region.

Picture: 22 IORA Countries

The Internet growth rate of Africa from YR2000 to June 30, 2019 was 11,481%. The total population of the African continent is 1.2Billion, of which 460Million will be connected by theNile. As of June 30, 2019, the internet user rate is 39.8% highlighting the digital divide as the rest of the World’s internet user rate is 60.9%. The primary target of theNile is to improve connectivity with the opportunity to increase it to up to 64.8%.

Depending on where you are in Africa, purchasing a gigabyte (GB) of mobile internet data can cost as much as $35. Only more networks can reduce the price and increase affordability. Likewise, more submarine cables can bring more bandwidth and therefore a decrease in price.
The Indian Ocean is a neglected part of the submarine cable industry for its geographical position. All OTT and content providers are mainly EU, UK and USA based. Hongkong and Singapore will become eventually two major hubs leaving India, South Asia and East Africa in the dark of global digitization. There is a great need for a network concept in the Indian Ocean.

theNile has been developed to fulfill the gap of bandwidth requirement between Asia and Africa, including Australia.

theNile will eventually be connected with 41 countries by BBG2. BBG2 has been designed to reach the East Coast of America from Spain; both North America and South America from Cape Town and the West Coast of America from Hongkong and Sydney. BBG2 is a 57000km long cable including theNile. Targeted Ready for Service (RFS) of 40000km by 2023 and the rest of 17000km by 2025.

www.sbscl.net
Télécoms Sans Frontières (TSF), the 1st NGO focusing on emergency-response technologies

When a disaster hits your town or city, what would your instinctive reaction be? More often than not, it would be pulling your mobile phone out of your pocket, and contacting your loved ones. But when the network is down or saturated, how would you do that?

Of course, you’ll say that phone calls are no longer the only way to contact your loved ones. No doubt on your telephone you have several ways to reach your friends and family (Facebook? Twitter? WhatsApp? Skype?), but without internet, how would you Tweet your 240 characters? How would you use Facebook’s Safety Check to let your contacts know you survived?

Here’s where TSF’s support comes into play.

From the Kosovo Crisis to Hurricane Dorian, by way of earthquakes and tsunamis: Disaster response, TSF’s core activity

Everything started in the ‘90s, when TSF’s founders realised, during different humanitarian operations throughout the first Gulf war and the Balkan crisis, that victims of humanitarian crises needed the possibility to communicate with their loved ones. Since its foundation in 1998, TSF’s core mission has thus been to empower populations and responders in humanitarian crises by delivering reliable connectivity with a two-fold approach: free calls and connectivity for the victims and Internet connection for humanitarian coordination.

Take Cyclone Idai that hit Mozambique last spring. It has been one of the strongest cyclone hitting the country in decades, with strong winds and heavy rains. It destroyed almost 80% of the economic infrastructure and for over a month many areas remained without electricity and fully operational mobile networks. The official death toll was confirmed at over 1,000 deaths, more than 1,523 people have been injured, and nearly 146,000 internally displaced. TSF’s team deployed from its headquarters in France and installed the first connection in Beira, the most affected city, only two days after the impact to facilitate the humanitarian response of the first organisations arriving on the ground.

In the following weeks, TSF teams conducted activities both for the population and for humanitarian coordination. They carried out Humanitarian Calling Operations (HCO) in schools reconverted as temporary shelters in and around the city of Beira. These allowed people who had lost their phone, who were not able to charge them or had no credit, to contact their loved ones, tell them they were fine and seek help, often for the first time after the disaster.

“What TSF did here was very important for the community because most of them lost their phones, have no money to buy credit or no electricity to charge them.”

Salvador, Community leader of Nhanhemba,
In parallel, satellite equipment has been installed and made available, in different affected areas, to the benefit of several local and international organisations to facilitate and speed up their operations. The first few days following a disaster are the most crucial.

Be it for pulling families out from under the rubble, providing drinking water to communities where rivers have been polluted or setting up an emergency field trauma facility, telecommunications will always be the backbone behind the coordination of any relief operation. Satellite communications are the most reliable in a disaster situation, and TSF deploys a fleet of equipment to ensure that within the first few hours after a crisis, the United Nations, the local government and NGOs all have a way to communicate and circulate information in operations centres at the heart of a crisis.

In total, TSF teams helped over 2,500 beneficiaries and conducted 26 humanitarian calling operations with 89% of first calls. They provided connections in 6 coordination centres, to the benefit of more than 90 humanitarian organisations such as IFRC, WFP, MSF, Team Rubicon, ICRC, IOM, FAO, Care, UNICEF... as well as the local government staff of the Instituto Nacional de Gestao de Calamidades (INGC).

**While humanitarian crises evolve, TSF always adapts its response and technological solutions to the beneficiaries’ needs**

In addition to this core activity, TSF also develops, adapts, and makes available innovative and cost-effective solutions to a wide range of humanitarian crises, assisting migrants, refugees, displaced people and other disadvantaged communities in different areas, including education, healthcare, women’s rights and food security.

For example, recently migration crises have been developing in different parts of the world, where massive population displacements require a tailored humanitarian response. In Bosnia, for example, thousands of migrants trying to enter in the European Union are blocked at the border with Croatia. In order to support the humanitarian response to this crisis, TSF installed a high-density Wi-Fi network in the 20,000m² Bira Temporary Reception Centre. Since the connection has been installed, more than 13,600 devices have been connected on the open Migrant Wi-Fi and more than 385 on the secure Humanitarian Wi-Fi. Building on a similar mission carried out in 2015 in Serbia, Macedonia and Greece, TSF’s technical teams managed to adapt their technical solution to the constraints of the field. A very heterogeneous population with a wide variety of types of smartphones, a metal hangar with metal containers and the...
considerable space to be covered by a connection that would need to sustain hundreds of simultaneous connected devices; these were some of the technical challenges TSF’s technicians had to face once arrived at the Bira centre.

Thanks to over 20 years of experience in the field, TSF teams have been able to rapidly understand the context, challenges and needs, and adapt their response accordingly. This ensured that people who have often had to suddenly leave their home countries and who have been travelling for months, even for years, can keep a family link. An Internet connection that for them is far more than just comfort; it is a psychological relief, support in making decisions and hope of a brighter future.

Similarly to its operations in Bosnia, TSF is now active in other prolonged humanitarian crises such as the Venezuelan migration crisis, the Central American migration crisis, or the Syrian war. While they are all different for context, needs and response, the core objective of TSF’s response remained unchanged since its foundation: giving a voice to people silenced by humanitarian disasters through technologies and telecommunications.
The International Cable Protection Committee (ICPC) is a non-commercial, non-profit international community of interest comprising 170 Member organisations from 65 countries who are active in the critical activities of regulating, operating, building, securing and maintaining submarine cable infrastructure. ICPC Members take care of over 97% of the world’s submarine telecommunications cable infrastructure, and an increasing number of international submarine power cables.

The ICPC Plenary will be held at the hotel Novotel Madrid Center from 28th – 30th April 2020 inclusive. Attendance at the ICPC Plenary provides significant benefits for members, presenters and exhibitors. The theme for the 2020 ICPC Plenary is:

**ICPC 2020 Vision:** Reliability, Security, Resilience and Sustainability of vital international submarine cables

The ICPC now seeks presentation abstracts that address this broad theme. Recommended topics include, but are not limited to the following:

- **Reliability:** How science, engineering, survey and planning developments enhance the reliability of submarine cable systems
- **Security:** Sharing the burden of keeping critical international infrastructure secure by working with authorities, stakeholders and other seabed users
- **Resilience:** Protecting international telecommunications and power cable systems through collaboration, innovative design and optimum routing
- **Sustainability:** Better science, technology, law, manufacturing, installation and repair so submarine cables remain neutral to benign in the marine environment

The ICPC Plenary attracts global attendance and provides valuable opportunities to exchange ideas on the planning, installation, operation, protection and maintenance of cables, to learn from colleagues facing similar challenges, and to get up-to-date with environmental and legal aspects of submarine cables. The Plenary Agenda includes presentations, round tables, interviews, exhibits and networking opportunities. More information on the ICPC can be found at: [www.iscpc.org](http://www.iscpc.org).

**Abstracts, Important Dates and Presentations**

a) Abstracts can be submitted online by clicking [here](#).

b) Presentations should be a maximum of 25 minutes long, including approximately 5 minutes for questions and answers, formatted in accordance with the ICPC guidelines that will be provided.

c) The ICPC will evaluate all submissions based on content, relevance and quality.

d) Overt marketing presentations will not be accepted. One slide stating the presenter’s affiliation and its activities can be included at the beginning or end of the presentation.

e) The cut-off date for abstract submission is Friday 31st January 2020.

f) Decision notification to presenters by Friday 28th February 2020.

We look forward to meeting you in Madrid.
ACE WINCHES
ACE Winches Gets Additional Balmoral Boost

Balmoral recently made a seven-figure investment in ACE Winches which will be used to strengthen ACE’s equipment fleet. The investment follows Balmoral’s previous boost of some £10 million at ACE Winches in 2017, aimed at expanding its international reach in the offshore heavy lifting, renewables and decommissioning markets.

Jim Milne, chairman and MD of Balmoral Group and chairman of ACE Winches, said: “There are huge opportunities as the global energy market recovers from the recent downturn and we are pleased to be able to assist ACE with their growth plans.”

“There is a highly committed and skilled team in place at ACE and we have every confidence that by working ever more closely with them we can significantly strengthen their market position.” Both companies are privately owned and have experienced overseas success that has been recognised in the shape of five Queen’s Awards for International Trade between them.

Alfie Cheyne, CEO at ACE Winches, said: “We are grateful to Jim and the Balmoral team for their ongoing interest in ACE Winches and look forward to working with them to deliver even more technologically advanced equipment and heightened service levels to our valued client-base worldwide.”

AKER SOLUTIONS
Aker Solutions Outlines Low Carbon and Renewables Target

Aker Solutions said it aims to generate about half of its revenue from renewable or distinct low carbon solutions by 2030, according to the company’s 20/25/30 strategy. According to the company, the oil and gas industry will remain its biggest market, but over the next decade Aker Solutions plans to have a more balanced portfolio of products and technologies that either generate renewable energy or removes or substantially reduces CO2 emissions.

“The world will continue to see rising energy demand and the challenge for our industry is the need to deliver this with a significantly lower carbon emissions,” said Luis Araujo, chief executive officer of Aker Solutions. “No company is better positioned than Aker Solutions to deliver the solutions to realize renewable energy offshore and at the same time decarbonize the oil and gas industry.”

20/25/30

In its updated enterprise strategy the company said it aims to derive 20 percent of its revenue from renewable energy and 25 percent from distinct low-carbon solutions. The renewable energy solutions will primarily come from floating wind while the low carbon segment is a set portfolio of existing Aker Solutions offerings, including: carbon capture, utilization and storage (CCUS), subsea gas compression, electrification of production assets and unmanned platforms.

“Growth in segments such as renewables and CCUS increases the addressable market for Aker Solutions,” said Araujo. “Our ambition is to become the recognized leader in low carbon offerings and sustainable solutions. We will achieve this through realizing our long-term ambition of 20/25/30.”
ANGOLA CABLES
Angola Cables and DE-CIX Partner to Bring the World’s Largest Interconnection Ecosystem to Brazil

Angola Cables, a telecom multinational and connectivity provider within Brazil’s wholesale market, has partnered with DE-CIX, the world’s leading Internet Exchange (IX) operator to offer premium interconnection services to a variety of neutral IXs for operators and datacenters across Latin America. The objective of the partnership is to expand capabilities and boost internet providers’ businesses via the South-South Atlantic connection.

ISP’s will be able to connect to over 100 countries and more than 1,700 carriers worldwide.

“Through our advanced telecommunications networks, we want to build ‘digital bridges’ between continents and countries to help businesses and economies grow within the Southern Hemisphere,” says Antônio Nunes, CEO of Angola Cables.

DE-CIX’s Regional Director South Europe Theresa Bobis says there are major benefits arising from the partnership. “From now on, Angola Cables as a DE-CIX reseller will be able to provide Internet Service Providers (ISPs) with a reliable low-latency network and high-quality access to premium network interconnections and internet exchanges in Europe, the Middle East, India and North America.

Interconnections from São Paulo and Fortaleza to Lisbon and, at this time, plan to interconnect to the same Brazilian cities to the DE-CIX Internet Exchanges in New York, Madrid and Frankfurt.

Partnership is set to expand global connections for Latam ISP’s and Content Networks Angola Cables, an official reseller for DE-CIX worldwide will focus on developing remote peering links with ISPs and content networks in over 100 countries across Europe, the Middle East, India and North America.

DE-CIX global interconnection ecosystem provides premium interconnection services to more than 1,700 operators, ISPs and content networks in over 100 countries across Europe, the Middle East, India and North America.

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About Angola Cables
Angola Cables is a multinational IT Solutions operating in the Brazilian market since 2016, focused on the sale of solutions for data center infrastructures, sale of connectivity, Cloud services for IP providers and ISPs for with service needs and digital connections. Currently, it operates the SACS, Monet and WACS cable systems, manages two data centers, AngoNAP Fortaleza and AngoNAP Luanda in Angola, and manages Angonix, an Internet Exchange Point, which is among the top five internet exchanges in Africa, and pix Fortaleza which was launched in August 2019 and is today the third largest PTTCE and is growing at 4X band traffic above schedule, 47.12GB.

Through its network, the company connects directly to Africa, Europe and the Americas, and has established partnerships to connect to Asia. For more information, please visit: https://www.angolacables.co.za/en/

About DE-CIX
DE-CIX is the world’s leading Internet Exchange operator. Having started operations in 1995, DE-CIX in Frankfurt am Main is the Internet Exchange (IX) with the world’s highest data throughput at peak times, at more than 7.5 Terabits per second at peak traffic.

In total, DE-CIX serves over 1700 network operators, Internet service providers (ISPs), and content providers from more than 100 countries with peering and interconnection services at its 18 locations in Europe, the Middle East, India, and North America. Further information is available at: www.de-cix.net

AQUATIC
Aquatic Supports Airborne O&G Spooling Works

Aquatic recently completed spooling support work scope to Airborne Oil & Gas at their base in Ijmuiden, in The Netherlands. Aquatic supplied a 200Te Powered Reel Drive System, a 15Te Tensioner System, a 200Te Under Roller System and a Level Wind System.

Aquatic’s equipment and personnel assisted Airborne Oil & Gas at their base for a month, to complete the spooling of Thermoplastic Composite Pipe Flowlines onto 11.4 m diameter reels.

These products together with the reels will then be heading down to West Africa for the offshore installation phase.
AVANGRID RENEWABLES
New CEO Takes Helm at Avangrid Renewables

Avangrid Renewables has appointed Alejandro de Hoz, currently the company’s Vice President of Offshore Wind, to the role of President & CEO. He succeeds Laura Beane, who has decided to leave the company.

“We have a growing renewables business with strong expertise in core areas of onshore wind and solar, and we continue to develop our expertise and leadership in the nascent offshore business in the US. With his broad renewables experience in both onshore and offshore wind, Alejandro is a great fit to lead Avangrid Renewables into this next phase of growth,” said Avangrid CEO James P. Torgerson.

“I would like to thank Laura for her dedication to the company for nearly 25 years, most recently leading the organization for the last three years. Her leadership helped position our renewables business for continued growth and our entry into offshore wind.”

Prior to Avangrid Renewables, de Hoz was Offshore Business Performance director for Iberdrola charged with preparing the company’s offshore wind pipeline for competitive auction processes in the UK and Germany. Previously, he held positions within the Iberdrola group developing the onshore wind business internationally in France, Mexico and Brazil. De Hoz holds a degree in physics from the University Complutense of Madrid and an MBA from ICADE University of Madrid.

Avangrid Renewables is developing the first US commercial-scale offshore wind farm, Vineyard Wind, in a joint venture with Copenhagen Infrastructure Partners. The US-based company is a subsidiary of Avangrid and part of the Iberdrola Group.

BERNHARD SCHULTE OFFSHORE
Bernhard Schulte, MidOcean Wind Set Up US Offshore Wind Joint Venture

Bernhard Schulte Offshore (BSO) and MidOcean Wind (MOW) have entered into a joint venture to build and operate support vessels for the U.S. offshore wind industry. According to the parties, the Connecticut-based joint venture signals a new chapter of cooperation which began in late 2018 when BSO and MOW partnered in WIN-DEA Offshore US to provide a single point of contact for offshore wind customers in the U.S. Within the joint venture, BSO and MOW also intend to explore opportunities in other sectors of U.S. merchant shipping.

“Wind farm owners and turbine manufacturers will be able to reduce their risks by working with our team,” said Bradley Neuberth, Vice President at MOW.

“MidOcean will ensure the vessels will be Jones Act compliant and delivered as agreed. Bernhard Schulte Shipmanagement as the operator of the ships will bring the learnings of the European wind farm projects into the U.S. market. We have been working closely with the Schulte Group for more than a year and the time is right to formalise our partnership on offshore wind vessels.”

BIBBY HYDROMAP
Bibby HydroMap have taken the 56m DP1 survey vessel Glomar Vantage on charter from GloMar Shipmanagement BV

The vessel will initially provide support to existing operations before becoming available for new projects in Q1 2020.

Bibby HydroMap CEO Gary Collins comments:

“The charter of the Glomar Vantage puts the company in a strong position going into 2020. We are delighted to be working with GloMar Shipmanagement and look forward to a successful project.”

Glomar Shipmanagement CEO Klaas Weij comments:

“We are excited to embark on a term charter with Bibby HydroMap and support them in their current and future projects, kicking off with winter coverage on our key Dutch Renewables market.”

The Glomar Vantage is a 56m multi-disciplined survey vessel rebuilt in 2008, providing accommodation for up to 28 personnel with an endurance of >30 days. A spacious working deck area and survey laboratory provide benefits for large-scale multi-disciplined geophysical and UXO survey campaigns and with a 3.8m x 3.8m moonpool, 5T A-frame, 12T crane and 33T moonpool gantry crane, the DP1 vessel is also ideally suited to geotechnical and ROV campaigns.
BANGLADESH SUBMARINE CABLE COMPANY LTD.
Submarine Cable Company’s profit jumps eightfold

Credit goes to a boost in bandwidth usage through second cable; it inked primary deal for third cable

Bangladesh Submarine Cable Company Ltd’s (BSCCL) net profit climbed eight times last fiscal year, on the back of a boost in bandwidth usage through a second undersea cable.

The state-run cable company’s net profit rose to Tk 58.58 crore in 2018-19 from Tk 7.33 crore in 2017-18, according to its annual financial statement.

The company also clocked the highest ever single year revenue of Tk 195.57 crore last fiscal year during its decade-long journey.

The BSCCL has decided to offer only 16 percent cash dividend to shareholders, meaning it will have to set aside Tk 27 crore from the net profit, said Managing Director Mashiur Rahman.

In 2017-18, the company declared 5 percent cash dividend, the lowest since its listing in 2012.

“We have decided to go for another undersea cable and for that we will have to save some money to bear the expenses,” said Rahman.

In order to connect with SEA-ME-WE-6 (South East Asia–Middle East–Western Europe), an optical fibre submarine communications cable system, the BSCCL will need Tk 600 crore.

The cable company has decided to earmark Tk 30 crore from last fiscal year’s net profit. In the next two years, the BSCCL will have to do the same, Rahman said.

“As we are a profitable company, the government is unwilling to support us to implement a project. So, we have to mobilise funds on our own.”

The company will borrow from development partners to bankroll the third cable.

“But our intention is to take as less loans as possible to keep the instalment size smaller and ensure more profit for us in the future,” he added.

The BSCCL has leeway to borrow from the government by issuing shares, Rahman said.

The company has signed a memorandum of understanding with the SEA-ME-WE 6 consortium and would ink the final contract in the first quarter next year.

The country will be connected with its third undersea cable in June 2023, adding 10 terabits per second bandwidth to the national capacity.

Bangladesh was connected with its first undersea cable, SEA-ME-WE 4, in 2006 and with the second one, SEA-ME-WE 5, in 2017. The SEA-ME-WE 4 initially had 10 Gbps capacity but it was later increased to 300 Gbps and it will last only five more years. Thanks to the SEA-ME-WE 5, the BSCCL received 1,500 Gbps but it rose to 2,300 Gbps with technical advancements.

Once the country gets connected with the third cable, it would boost the cable company’s revenue and increase profit as the country is moving towards digitalisation.

In the last few years, bandwidth consumption has doubled in Bangladesh and this growth trend will continue in the coming days.

As of September, the country’s total international bandwidth consumption reached 1,250 Gbps, of which the BSCCL is supplying 650 Gbps, officials said. The rest is imported from India.

The government owns 73.84 percent stake in the company, while institutional investors own 11.20 percent, foreign investors 3.03 percent, and general public 11.94 percent.

CALDIVE
Caldive invests more than £10m in new offshore construction vessel

Invergordon firm Caldive has invested more than £10 million in a new offshore construction vessel, creating 18 jobs.

The 108ft ship – the Isle of Jura – is expected to expand the diving and marine service company’s operations internationally.

In particular, it is hoped it will boost Caldive’s capacity to service clients in the renewable energy industry.

The investment was supported by £7.5m in funding from Clydesdale Bank.

Caldive managing director Iain Beaton said: “This is a colossal step forward for our business. Historically, we’ve been limited to inshore work, with a 60-mile range from port.

“This vessel, besides being far more powerful than those in our existing fleet, provides unlimited navigation – she can go anywhere in the world.”

The 18 new jobs have been created to operate and service the ship, taking the total workforce to 68 people.

Bosses aim to double turnover to £10m over the next two years as a direct result of the purchase.

Caldive’s teams work across projects including pipeline construction, ship inspection, and repair and subsea cable installation.

Graeme Johnston, commercial relationship manager, Clydesdale Bank, said: “Our help will give their brand a major boost in the renewable energy space – a sector that is often dominated by larger foreign competitors.”
COMPANY NEWS

Ciena
Telia Carrier Strengthens European Network with Ciena

Telia Carrier has announced an agreement with Ciena to further increase capacity in its European footprint. To maintain its position and capture growth in its long-haul transport network, Telia Carrier has chosen Ciena (NYSE: CIEN) to be the supplier of a new Open Optical Line System (O-OLS) in Europe. The selected system will be deployed from the beginning of 2020 and will provide increased capacity across the European FLAP (Frankfurt, London, Amsterdam and Paris) markets, as well as linking-up additional key locations in the Telia Carrier network, to create a European Express Network.

“The new O-OLS from Ciena provides greatly increased scalability, enabling us to strengthen our European network within our core transport infrastructure as the demand for high-performance capacity services in this region continues to grow,” said Staffan Göjeryd, CEO, Telia Carrier.

Additionally, Telia Carrier will deploy Ciena’s Waveserver transponders, powered by Wavelogic Ai and WaveLogic 5 Extreme coherent optics, which can be deployed not only in the new O-OLS in Europe, but also in other existing Line Systems in the Telia Carrier network, in both Europe and the United States. This further strengthens Telia Carrier’s position as one of the first Tier 1 operators to push for true openness and the ability to run alien wavelengths within its infrastructure on both sides of the Atlantic.

“Europe is an important market for long-haul fiber connectivity so being able to deploy and maintain a scalable and adaptive network is key,” said Jamie Jefferies, Vice President and General Manager, EMEA at Ciena. “Working with industry leaders like Telia Carrier supports our relentless pursuit of network innovation, enabling network providers to deliver richer, more connected experiences for their customers.”

Top-ranked global backbone
For more than two decades Telia Carrier’s global fiber backbone has grown organically, without acquisitions. It was the first network to successfully transmit 1 Tb/s in super channels on its U.S. network and recently announced the first real-time transmission of 600Gb/s wavelengths in a live production network. According to Dyn Research’s global backbone rankings, Telia Carrier’s global IP backbone, AS1299, is currently ranked number one. The company enables worldwide connectivity by connecting more than 300 Points of Presence (PoPs) across Europe, North America, Asia, and the Middle East.

About Telia Carrier
Telia Carrier owns and operates one of the world’s most extensive fiber backbones. Our mission is to provide exceptional network infrastructure and services – empowering individuals, businesses and societies to execute their most critical activities. By working close to our customers, we make big ideas happen at the speed of fiber. Discover more at teliacarrier.com.

About Ciena
Ciena (NYSE: CIEN) is a networking systems, services and software company. We provide solutions that help our clients create the Adaptive Network™ in response to the constantly changing demands of their users. By delivering best-in-class networking technology through high-touch consultative relationships, we build the world’s most agile networks with automation, openness and scale. For updates on Ciena, follow us on Twitter @Ciena, LinkedIn, the Ciena Insights blog, or visit www.ciena.com.

C-Job
C-Job Unveils Autonomous Underwater Maintenance Dredger

C-Job Naval Architects has revealed its concept design of an Autonomous Underwater Maintenance Dredger (AUMD) in Trondheim, Norway. The AUMD concept design developed by C-Job’s Research and Development department is specifically created for maintenance in port environments.

This design requires significantly less power compared to a conventional dredger. The AUMD is equipped with a 16MWh battery pack that provides enough power for up to 12 hours of maintenance dredging, the company noted.

Rolph Hijdra, Autonomous Vessels Research Lead at C-Job, said: “When we developed this exciting design, we performed a comparison study with a conventional Trailing Suction Hopper Dredger. This showed that the Autonomous Underwater Maintenance Dredger requires 55% less propulsion power and by submersing the vessel we could reduce the suction head cutting the dredge pump power demand by 80%.”

The submersion of the design also increases operability as it mitigates wave motions as it’s capable to remain submerged throughout the dredging cycle.

Rolph continued: “Autonomous shipping provides enormous potential for ship owners, with both technical design and economic benefits. According to our research, even with a conservative approach, we found that with the AUMD ship owners can expect nearly twice as much profit after 15 years. Though there’s a higher initial investment, operational costs are much lower which makes it an interesting option for companies to consider.”

While the Research and Development team focused on reduced power demand, su-
C-JOB
C-Job Unveils Autonomous Underwater Maintenance Dredger

stainability, and operability, they also considered other aspects of the design. This includes emergency access which can be obtained through the diver’s lock included in the design.

Tim Vlaar, technical director at C-Job, added: “In order for autonomous vessels like the Autonomous Underwater Maintenance Dredger to become reality more work is needed and requires all stakeholders such as class, port authorities, Autonomous Technology companies and launching customers to come together. Of course, continued development of autonomous vessel designs is also needed to fully explore the possibilities autonomous shipping presents even further.”

DATAVERSE-AIM LTD
Contract award for Dataverse-AIM Ltd

Dataverse-AIM Ltd are delighted to have been awarded a contract to supply Zennor Petroleum with Dataverse asset integrity management software for use in managing their North Sea assets.

Dataverse is an established application used by numerous Companies in the O&G and Offshore renewables sectors. It is an intuitive application, developed for viewing, editing and quality control of offshore asset inspection data. The program is graphically rich in its presentation of 2D and 3D data and is designed to enable the Integrity Manager to quickly review/analyse anomalies and communicate planned maintenance requirements to repair and maintenance teams.

By linking asset events with survey data and non-spatial information (such as videos, reports, and images), Dataverse essentially creates an integrated project environment that provides the Integrity Manager the essential information needed to manage the site assets.
DEEPOCEAN GROUP
DeepOcean announces name of Subsea Trenching Business as ENSHORE SUBSEA

DeepOcean Group, (DeepOcean), announced that from 1st November 2019 its world renowned subsea trenching division shall become Enshore Subsea.

Today, we are excited to reveal the new name and brand for the subsea trenching division. From 1st November 2019, DeepOcean’s world-renowned trenching divisions will become Enshore Subsea, known as Enshore. At Enshore, we have the world’s most technically advanced and comprehensive portfolio of seabed trenching and seabed tooling technology, a leading inhouse geosciences service, and a dedicated team of experienced and passionate engineering and technical professionals ready to deliver our services to all customers, anywhere in the world.

By developing these world leading services under the new dedicated Enshore branding, we are working towards our vision to become the world’s leading subsea services provider.

Enshore will be based at the Port of Blyth in the North East of England, from where we develop, maintain and operate the largest tool kit of subsea trenching vehicles; including the Pipeline and Pre-cut Ploughs, Mechanical Cutters, Jet Trenching ROVs and Cable Ploughs and will operate worldwide.

With a focus on technology and innovation, Enshore will continue to be at the forefront of advanced seabed technologies as an independent supplier of seabed tool and vehicle services around the world.

About DeepOcean
DeepOcean is a leading, subsea services provider, servicing any equipment with specialised expertise. We serve the Oil and Gas and Offshore Power markets with Inspection, Maintenance and Repair, Subsea Construction, and Project Management and Engineering through Life-of-Field from inception to decommissioning.

We deliver value to 3 subsea markets; Inspection, Maintenance and Repair, Subsea Construction, and Cable Lay and Trenching with State-of-the-art vessels, over 50 ROVs, 12 subsea trenching assets, and an in-house tool manufacturing and extensive ready to use tool pool. The company has offices in Norway, UK, US, Netherlands, Mexico, Ghana, Congo, and France. We are globally recognized, locally differentiated. For further information: www.deepoceangroup.com

Funds advised by Triton are the largest shareholder of DeepOcean. The Triton funds invest in and support the positive development of medium-sized businesses headquartered in Northern Europe, Italy and Spain. The 38 companies currently in Triton’s portfolio have combined sales of over €14.7 billion and around 72,500 employees. For further information: www.triton-partners.com

DIGITAL REALTY
Digital Realty To Combine With Interxion
Strategic Transaction to Position Combined Company as Leading Global Provider of Data Center Solutions with Enhanced Presence in Major European Metro Areas

Digital Realty (NYSE: DLR) and Interxion (NYSE: INXN) announced that they have entered into a definitive agreement to combine their businesses to create a leading global provider of data center, colocation and interconnection solutions. Under the terms of the agreement, Interxion shareholders will receive a fixed exchange ratio of 0.7067 Digital Realty shares per Interxion share. The transaction values Interxion at approximately $93.48 per ordinary share or approximately $8.4 billion of total enterprise value, including assumed net debt.1

Completion of the transaction is subject to customary closing conditions, including approval by shareholders of Interxion and shareholders of Digital Realty.

Transaction Delivers Key Strategic and Financial Benefits
Globally Expanding Connected Communities of Interest: The combined company will extend Interxion’s successful strategy of creating and enabling valuable communities of interest in Europe by extending it across the combined company’s global footprint. This combination will build upon Digital Realty’s successful track record of hyperscale development and will represent an extension of the connected campus strategy that empowers enterprise customers to leverage the right products – from colocation to hyperscale footprints – to create value by efficiently deploying critical infrastructure and seamlessly connecting to a robust and growing universe of cloud platforms and connectivity service providers. The combined company will be uniquely positioned to meet the growing global demand from cloud platforms, service providers and enterprises seeking colocation, hybrid cloud and hyperscale data center solutions as IT architectures are re-engineered to support the explosive growth of data in modern business models.

Complementary European Footprint and Product Offering: Interxion’s European business (currently consisting of 53 carrier and cloud-neutral facilities in 11 European countries and 13 metro areas including Frankfurt, Amsterdam, Paris and Interxion’s Internet Gateway in Marseille) is highly complementary to Digital Realty’s European footprint, given Digital Realty’s established presence in London and Dublin. The combination will create a leading pan-
European data center presence, offering consistent, high-quality services with low-latency access to approximately 70% of the GDP in Europe. Enhances Ability to Serve Multinational Customers on a Global Scale: Interxion’s well-established relationships with leading global cloud, digital media platform operators and multinational enterprise customers are expected to significantly bolster Digital Realty’s existing European platform. Similarly, Digital Realty’s relationships with many of the leading cloud platform operators and global enterprises along with its access to low-cost capital will meaningfully extend the breadth of the combined company’s value proposition to a global customer base. The combined company’s enhanced capabilities to address and solve the public- and hybrid-cloud architectural requirements of its global customer base will allow it to build upon each company’s current relationships with leading global customers while also enabling it to effectively compete in the broader target markets. Combined Development Capacity Provides Significant Embedded Growth Potential: Interxion has a robust pipeline of data center development projects currently under construction, with over $400 million invested to date and a total expected investment of approximately $1 billion. These projects represent roughly a 40% expansion of Interxion’s standalone critical load capacity, are significantly pre-leased and are expected to be delivered over the next 24 months, representing a solid pipeline of potential future growth for the combined company. In addition, the combined platform will maintain strategic land holdings in key growth metros across Europe, providing the potential for significant long-term development value creation. Creates Substantial Anticipated Cost Efficiencies and Financial Benefits: The size and scale of the combined company is expected to produce a highly efficient cost structure and industry-leading EBITDA margins. The combination of the two companies is expected to create an opportunity to realize cost savings. Upon closing, the transaction is expected to enhance the combined company’s long-term growth prospects and is expected to improve its cost of and access to capital. “This strategic and complementary transaction builds upon Digital Realty’s established foundation of serving market demand for colocation, scale and hyperscale requirements in the Americas, EMEA and Asia Pacific and leverages Interxion’s European colocation and interconnection expertise, enhancing the combined company’s capabilities to enable customers to solve for the full spectrum of data center requirements across a global platform,” said Digital Realty Chief Executive Officer A. William Stein. “The transaction is expected to be accretive to the long-term growth trajectory of the combined organization, and to establish a global platform that we believe will significantly enhance our ability to create long-term value for customers, shareholders and employees of both companies.” “We are excited to deliver this compelling opportunity for all our stakeholders while bolstering our ability to offer a truly global platform to serve our customers’ needs,” said Interxion Chief Executive Officer David Ruberg. “As part of Digital Realty, stakeholders will have the opportunity to continue to reap the benefits of the value that we have created via the communities of interest approach in our carrier- and cloud-neutral European data center portfolio. They will also be able to participate in the value created by extending our approach across Digital Realty’s global footprint, complementary customer base and significant presence in the Americas, EMEA and Asia Pacific. We also believe our stakeholders will benefit from Digital Realty’s investment grade balance sheet and lower cost of capital. We look forward to working closely with Bill Stein and the entire Digital Realty team to consummate the transaction and combine the best of our companies to build the world’s preeminent data center provider.”

Leadership, Corporate Governance and Integration
Digital Realty Chief Executive Officer A. William Stein will serve as CEO of the combined company. Interxion Chief Executive Officer David Ruberg will serve as the Chief Executive of the combined company’s Europe, Middle East & Africa (EMEA) business, which will be branded “Interxion, a Digital Realty company” at the close of the transaction. Mr. Ruberg is expected to transition out of the role as Chief Executive of the EMEA business at some point within approximately one year of completion of the transaction. Mr. Ruberg will lead the combined company’s effort to organize and execute a program to identify and develop high-value communities of interest across the combined company’s platform. He will play a leadership role on certain of the combined company’s key global customer accounts, bringing to bear his longstanding relationships and thought leadership.

Digital Realty Chief Financial Officer Andrew P. Power will serve as CFO of the combined company. Digital Realty EMEA Managing Director Jeffrey Tapley will work jointly with Mr. Ruberg on the integration of Interxion’s and Digital Realty’s businesses. The board of directors of the combined company will consist of nine board members designated by Digital Realty and one board member designated by Interxion. Laurence A. Chapman, the current Chairman of the Digital Realty Board of Directors, will serve as Chairman of the Board of Directors of the combined company. Digital Realty and Interxion employees will play a pivotal role in the success of the combined company and will be treated accordingly. Digital Realty and Interxion believe the employees of the combined company will have expanded career opportunities based on the expectations of enhanced growth prospects for the combined company. The process of transitioning from two separate organizations to a combined global entity will be fair, consistent, and transparent, recognizing the importance of preserving the rich cultural and country diversity within the combined business.

About Digital Realty
Digital Realty supports the data center, co-
DIGITAL REALTY
Digital Realty To Combine With Interxion

location and interconnection strategies of customers across the Americas, EMEA and APAC, ranging from cloud and information technology services, communications and social networking to financial services, manufacturing, energy, healthcare and consumer products. To learn more about Digital Realty, please visit digitalrealty.com or follow us on LinkedIn, Twitter, Facebook, Instagram and YouTube.

About Interxion
Interxion (NYSE: INXN) is a leading provider of carrier- and cloud-neutral colocation data centre services in Europe, serving a wide range of customers through more than 50 data centres in 11 European countries. Interxion’s uniformly designed, energy efficient data centres offer customers extensive security and uptime for their mission-critical applications.

With over 700 connectivity providers, 21 European Internet exchanges, and most leading cloud and digital media platforms across its footprint, Interxion has created connectivity, cloud, content and finance hubs that foster growing customer communities of interest. For more information, please visit www.interxion.com.

EDS
EDS Gets New Managing Director

High voltage engineering specialist EDS, part of James Fisher and Sons, has appointed Ryan Henderson as its new managing director.

Henderson will become managing director on 1 January 2020 at which point Ken Ritson, current MD and founder of the business will take up a new role as a non-executive director.

Prior to joining EDS, Henderson spent over 20 years at Northern Ireland Electricity as well as 2 years working for Vattenfall and EDF immediately prior to joining EDS.

Ritson said: “This is not a decision I have taken lightly and after several months of planning, I now feel that this is the right time for the change to take place. I have no doubt whatsoever that Ryan is the best person to take up the position of Managing Director and I am confident that he will successfully lead EDS on the next stage of its journey.”

Henderson added: “I am thrilled to be taking up the position of Managing Director of EDS. With such an excellent reputation within the industry, they are a company that I am proud to work for. It is a great honour to take up the position and be given the opportunity to lead the company, especially at a time when the renewables sector is in such a great place.”

Fergus Graham, executive director at James Fisher & Sons, said: “I am delighted that Ryan is taking on this leadership role at such an exciting time for James Fisher as we grow our renewables businesses. The EDS acquisition has been a resounding success, and we are very pleased that Ken will be staying with the Group and helping to shape our future in the renewables market.”

About EDS HV Group
EDS HV Group offers high voltage engineering solutions to the renewables industry, from conceptual design, through to installation and operations and maintenance. Our mission is to help the industry maximise their high voltage network availability.

The company has gained masses of experience at over 40 offshore and onshore windfarm in the UK and Europe including:

- London Array
- Greater Gabbard
- Rampion
- European Offshore Wind Development Centre (EOWDC)
- Teesside
- Gwynt y Môr
- Blyth Offshore Demonstrator Wind Farm
- Ormonde
- Hornsea
- Sandbank

For more information visit www.edshv.com

About James Fisher and Sons plc
James Fisher and Sons plc is a leading provider of specialised services to the marine, oil and gas and other high assurance industries worldwide. As an innovative and fast-growing organisation, our highly skilled team and over 170 year heritage enables us to deliver solutions to the most demanding operational and technical challenges faced by our customers. By leveraging our global reach, deep operational understanding, breadth of capability and the enthusiasm and commitment of our staff, James Fisher has become a trusted partner of major corporations, government agencies and other valued customers around the world. For more information visit www.james-fisher.com
EGS GROUP
EGS adds a new vessel to its fleet and completes geotechnical campaign in Taiwan

Following the chartering of the Greatship Rachna and the commissioning of its latest heave compensated geotechnical drilling rig in Q2 2019, EGS secured a project for the largest international offshore wind developer off Changhua County in Taiwan. The Scope of Work consisted of acquiring PCPT data and undisturbed samples in boreholes over 90m deep for the WTG foundation design study. The project was successfully completed on time at the end of September and without any HSE incidents.

The latest EGSA-20 drilling rig mobilized onboard the Greatship Rachna in accordance with LRS standards was designed and fabricated in Singapore in Q2 2019. EGS opted for a twin derrick design with innovative safety features to improve working conditions for the drilling team by providing a safer environment on the drilling floor. The various tooling available onboard has been specially selected to tackle challenging geological conditions on offshore windfarm sites in Taiwan, Japan, and South Korea. In addition, the twin derrick design provides an ideal platform to deploy a 200kN Seabed CPT through the moonpool to further increase productivity on large windfarm projects in areas where typhoons and monsoonal weather conditions severely restrict operation windows.

Greatship Rachna, which has proven to be an excellent platform to work in the challenging conditions of the Taiwan Strait, will be available for geotechnical work in the Asia-Pacific region from Q1 2020.

EMIRATES INTEGRATED TELECOMMUNICATIONS COMPANY
Batelco and du established Arc

UAE-based Emirates Integrated Telecommunications Company (EITC), which operates under the brand du, and Bahrain’s Batelco have established a regional intelligent network provider called Arc in a bid to ‘to simplify connectivity across hubs in the Middle East with interconnected data centre solutions. Arc is working with carriers, data centres, cloud and internet exchange (IX) partners across the region to continually expand its reach and grow across markets. It enables customers to build flexible and agile network ecosystems and deliver digital experiences to end users. As an initial phase, Arc is connecting over 30 PoPs, integrating data centres in the UAE and Bahrain, and connecting terrestrial and submarine cable systems.

ENI
Eni, CDP, Fincantieri and Terna Create New Wave Energy Company

Eni, Cassa Depositi e Prestiti, Fincantieri and Terna have inked an agreement to set up a company for the development and manufacturing of wave-energy power plants. The agreement was signed in Ravenna by the chief executive officers of Cassa Depositi e Prestiti, Fabrizio Palermo, of Fincantieri, Giuseppe Bono, of Terna, Luigi Ferraris, and of Eni, Claudio Descalzi, in the presence of the Prime Minister, Giuseppe Conte.

This agreement, which follows the understanding signed in April, will launch the first phase of a joint project to convert the Inertial Sea Wave Energy Converter (ISWEC) pilot project, an innovative system that transforms energy generated by waves into electricity, into an industrial scale power station, making its application and use immediately available.

The partnership agreement will focus on two phases: during the first phase, the companies will develop a business model and define a deployment plan for Italy. At the same time, the first ISWEC industrial installation will be completed near Eni’s Prezioso platform in the Strait of Sicily, in the Gela offshore, with a launch planned for the second half of 2020.

During the second phase, the parties will work on the formal constitution of the new company, in addition to devising a plan for the production and development of activities, starting with the implementation in Italy’s minor islands first, and abroad at a later stage.

Eni’s CEO Claudio Descalzi said: “This agreement fits perfectly in our strategic plan for decarbonization and applies to Eni’s remar-
ENI
Eni, CDP, Fincantieri and Terna Create New Wave Energy Company

Kable experience in both offshore activities and the management of highly complex projects. On the basis of those skills, we set up and installed the first industrial application of ISWEC in record time for this sector. The collaboration with three Italian excellencies like CDP, Terna and Fincantieri, will allow to make available an outstanding asset of know-how and therefore accelerate the industrialization process of this technology, unlike other similar projects.” CDP will promote the project by focusing, together with the other parties, on managing the institutional relations with national and local establishments. Moreover, together with each of the parties involved, it will evaluate economical and financial profiles and the most suitable forms of financial support to the energy produced within the project. CDP CEO Fabrizio Palermo said: “This agreement, as the result of collaboration among companies in which the CDP Group has a stake, intends to develop an extremely innovative technology. This system will generate value both locally and for the whole community, and is consistent with our strategy that aims at gradually directing our group’s activities and investments towards the support of the energy transition and against climate change.” Fincantieri will offer its industrial and technical shipbuilding skills for the development and deployment of the first full scale industrial application. Fincantieri CEO Giuseppe Bono remarked: “This large-scale industrial and technological cooperation, that sees our company working together with the likes of Eni, Terna and CDP, opens a new frontier in Italy for the utilization or renewable energy, while managing to enhance our country’s morphology at the same time. Fincantieri is recognized as the leading authority in the naval and maritime field and we are confident that, thanks to the synergies among the parties, this state-of-the-art project will mark a turning point for the sustainable development of the country.” Terna will contribute with its industrial and technical know-how applied to electric engineering for the development and deployment of the first full scale industrial application and its integration with the power grid. CEO of Terna, Luigi Ferraris added: “The initiative launched in association with Eni, CDP and Fincantieri will allow us to further share our experience and know-how in innovation, technology and research applied to the energetic transition. It’s an important partnership that, using new enablers, will help to boost our country’s role within the European energy system, in an increasingly decarbonized and sustainable scenario.” ISWEC is an innovative system which can allow to overcome the limits that have so far hindered the deployment of wave energy conversion technologies in the past. The agreement will be subject to subsequent binding contracts that the parties involved will define according to the applicable law, included that which regulates operations among related parties and antitrust.

EQUINIX
Equinix opens SY5 Sydney data centre to expand national footprint

Data centre operator Equinix has opened its eighth international business exchange (IBX) data centre in Sydney, SY5, and is already hosting infrastructure for other businesses. The Alexandria-based data centre is the operator’s largest in Australia to date and contains an initial capacity of 1,825 cabinets. When completed, it will have a total colocation space of approximately 25,000 square metres and 9,225 cabinets. SY5 offers multiple connectivity options to users, one of which being Equinix Cloud Exchange Fabric, allowing for connections to be made to providers including Alibaba, Amazon AWS, Google Cloud, Microsoft Azure, SAP Cloud, Oracle and SoftLayer. Network edge services are also available, allowing for businesses to deploy network function virtualisation from multiple vendors to digital supply chains.

SY5 is interconnected to the other seven IBX data centres, having access to more than 160 network service providers, 280 cloud and information technology (IT) service providers, over 75 financial services businesses and more than 60 content and digital media organisations. Users can also set up direct links from Australia to New Zealand, US, Fiji, Guam, American Samoa, Hawaii and Singapore via the Southern Cross Cable, PIPE Network’s PIPE Pacific Cable, the Hawaiki Submarine Cable and Vocus Group’s Australia Singapore Cable. Businesses that have already chosen SY5 to host their infrastructure include Servers Australia and AnyCast Networks. SY5 is Equinix’s 16th IBX data centre in Australia and saw an initial investment of approximately $224 million.

The establishment of SY5 is part of Equinix’s investment of nearly $750 million to build or expand projects in key metropolitan areas across the Asia Pacific region, with projects planned for Sydney, Melbourne and Perth in Australia, as well as Hong Kong, Osaka, Seoul, Shanghai, Singapore and Tokyo.

Jeremy Deutsch, president of Asia Pacific at Equinix, said the operator is looking to “continuously evolving our services to interconnect our customers at the digital edge, a critical part of digital transformation efforts of many enterprises, cloud providers and network providers”.

“Equinix is committed to expansions of our platform and innovations of our technology make us a trusted advisor for our customers to help accelerate their digital transformation journeys,” Deutsch said.

“I look forward to seeing Equinix continue our growth in Australia as part of our expansion plans in the region.”
Berlin-based EvoLogics has introduced “Poggy” – a new bionic autonomous underwater vehicle (AUV) that uses Fin-Ray technology.

The vehicle is being developed as part of BONUS SEAMOUNT collaborative R&D project and made its first dives at Breaking The Surface 2019 workshop in early October 2019.

Nicknamed “Poggy”, the AUV is a one of a kind, novel bionic design with two propulsion thrusters and two independent flexible “tails” that give the robot unique mobility features, the company explains.

Its dual-tail construction is an original idea that stemmed from previous work on EvoLogics’ Manta Ray AUV and its lifelike “flapping wing” propulsion system. The design was simplified and optimized – the robot lost the wings, and its tail was divided in two.

Together with the rigid part of the body, the progressively bendable tails perform as two adjustable hydroplanes that in every steering position have an overall streamlined shape. The new concept facilitates outstanding roll and depth control combined with low drag performance.

Both parts of the dual-tail use independent bionic Fin-Ray drives and allow for precise heave, pitch and roll adjustments, enabling dynamic climbs and dives, levelled gliding and bottom following.

Due to the small size of its basic AUV components, “Poggy” is said to have an excellent payload capacity and can carry multiple sensors and instruments at the same time. In addition, the dual-tails facilitate unique manoeuvres that could open new opportunities for sensing and monitoring: the vehicle was designed to keep any desired roll angle and maintain a steady glide, even at very low speeds.

At Breaking The Surface 2019 in Biograd na Moru, Croatia, EvoLogics team performed the first sea trials of the “Poggy” prototype as part of a workshop on underwater communication and networking for UUVs.

The goal of BONUS SEAMOUNT is to develop innovative autonomous vehicles and integrated sensor systems for complex real-time sea surveying, analysis and monitoring, and then to apply these in the study of submarine groundwater discharge (SGD) in the Baltic Sea. SEAMOUNT UUVs would locate and monitor SGD and associated nutrients and/or pollutants in coastal waters.

Coordinated by EvoLogics, SEAMOUNT project is funded within the framework of “BONUS – Science for a better future of the Baltic Sea region”, the joint Baltic Sea research and development programme. Project partners are EvoLogics GmbH (Germany), Christian-Albrechts-University Kiel, Institute of Geosciences (Germany), Leibniz Institute for Baltic Sea Research (Germany), Geological Survey of Denmark and Greenland (Denmark), Geologian tutkimuskeskus – Geological Survey of Finland (Finland), Maritime Institute in Gdansk (Poland), NOA (Poland).

FCC changed status to unblocked

The FCC has changed the status of the application filed by Hawaiki Submarine Cable USA (HSC USA), HCL Limited Partnership (HCL LP) and Australia’s specialist infrastructure investment manager Palisade Investment Partners for the transfer of de facto control of HSC USA from HCL Limited Partnership to Palisade to ‘unblocked’.

Palisade and HCL LP entered into binding agreements to become equity partners in September 2018, with funds managed by Palisade Partners acquiring an equity ownership interest in HCL LP. As a result of the transaction, Palisade has acquired a combination of redeemable preference and ordinary equity interests in HCL LP that equate to 30% of the voting rights in HCL LP (with Palisade holding 10% of the ordinary shares and 100% of the preferred shares in HCL LP). However, the Department of Justice (DoJ) requested in January 2019 that the FCC defer action on the application, pending a DoJ review of the matter.

The construction of the Hawaiki submarine cable commenced in March 2016 and the FCC granted the US cable landing licence in December 2017. The Hawaiki System – which entered into service in July 2018 – has five segments and currently lands in five locations: Sydney, Australia; Mangawhai Heads, New Zealand; Tafuna, American Samoa; Kapolei, Oahu, Hawaii; and Pacific City, Oregon (US).

The Hawaiki System’s capacity and facilities of the main trunk are 100%-owned by the HCL LP (excluding the spur to American Samoa, which is owned by the American Samoa Telecommunications Authority (ASTCA)). In addition, HSC USA owns and operates the Hawaiki System’s cable landing station in Oahu (Hawaii).
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**FCC**

**Pro-forma assignment of FA-1 to RGL DIP**

The Federal Communications Commission (FCC) has been notified of the pro forma assignment of the cable landing licence held by Global Cloud Xchange (GCX) for the FLAG Atlantic-1 (FA-1) cable system from RGL to Reliance Globalcom Limited, Debtor-in-Possession (RGL DIP) in connection with the pending bankruptcy of RGL DIP and its affiliates. The FCC originally licensed the FA-1 system in 1999, and the cable entered commercial operations in June 2001. GCX and certain GCX’s affiliates filed for bankruptcy protection under Chapter 11 in September 2019; during the pendency of the bankruptcy proceeding, Michael Katzenstein, RGL DIP’s Chief Restructuring Officer, will oversee RGL DIP’s management and the operations of the FA-1 cable system.

The amount of data traveling from the U.S. to Brazil is growing at a 30 percent CAGR due to broadband adoption, bandwidth-heavy application adoption, and a broader business shift of Brazilian businesses to the cloud. At the same time, many legacy U.S.-Brazil network systems are nearing end-of-life and need to be replaced. Seaborn’s latest generation transoceanic network platform is a simple solution for network buyers looking to quickly phase out current end-of-life systems. “Our vision is defined by flexibility: we pioneered a pay as you grow business model and the most responsive service delivery capability based on customer’s requested due date that enables all purchasers of US to Brazil network services,” said Larry Schwartz, chief executive officer, Seaborn Networks.

Seaborn’s dedication to giving its customers the flexibility they need to grow and evolve makes them an ideal partner for us, and we look forward to continuing to push boundaries to give our shared customers the very best.”

For more information on the subsea cable to South America, Asia or the South Pacific go to www.seabornnetworks.com.

On emergence from bankruptcy, certain GCX creditors or other equity purchasers will own the successor entity to GCX Limited DIP, and indirectly, the successor entity to RGL DIP – rather than Reliance Communications Limited (RCOM), the current ultimate parent of RGL DIP and GCX Limited DIP, and its largest shareholder Anil Ambani.

**FLEXENTIAL®**

**Flexential® Expands Its FlexAnywhere™ Offering to Latin America with Seaborn Networks**

_New subsea cable provides the lowest latency route to Brazil_

Flexential, a leading provider of data center colocation and hybrid IT solutions, today announced it is expanding its FlexAnywhere offering, providing customers direct access to Seaborn Networks’ transoceanic platform for the low latency, high-speed, 72-terabit-per-second seamless connection to Latin America. The Latin American subsea cable, called Seabras-1, spans from New York/New Jersey, U.S. to Sao Paulo, Brazil. Via this new partnership with Seaborn, Flexential now offers a route on Seabras-1, the only non-stop path between the commercial centers of the U.S. and Brazil, giving Flexential customers the lowest latency available in the market. Latency-sensitive applications rely heavily on the shortest and most stable network paths, and Seaborn has architected its solution to deliver on both fronts.

“With the Latin American subsea cable, we are delivering on our promise of expansion by offering the fastest and most reliable wholesale route from the U.S. to Brazil,” said Chris Downie, chief executive officer, Flexential. “Just like our New Cross Pacific cables to Asia and the Hawaiki submarine cable to Australia and New Zealand, the Seabras-1 to South America is built for performance that is second to none. This enables us to provide our customers with more connections to the world through the latest generation of high-capacity, ultra-low latency service delivered in a fraction of the time of legacy suppliers.”

The vision is defined by flexibility: we pioneered a pay as you grow business model and the most responsive service delivery capability based on customer’s requested due date that enables all purchasers of US to Brazil network services,” said Larry Schwartz, chief executive officer, Seaborn Networks. “Flexential’s dedication to giving its customers the flexibility they need to grow and evolve makes them an ideal partner for us, and we look forward to continuing to push boundaries to give our shared customers the very best.”

For more information on the subsea cable to Brazil network systems, who trust it to deliver core data center solutions of colocation and connectivity, as well as, cloud, managed solutions and professional services, Flexential’s robust suite of assets spans 21 markets and comprises 40 highly redundant and connectivity-rich data centers. For more information on Flexential, please visit www.flexential.com. Flexential is a registered trademark of the Flexential Corp.

About Flexential

Flexential offers flexible and essential services that help organizations optimize their journey of IT transformation while simultaneously balancing cost, scalability, compliance and security. The company, headquartered in Charlotte and Denver, is committed to building trusted relationships and delivering tailored solutions that suit the individual needs of its customers. Flexential is deeply invested in the success of its customers, who trust it to deliver core data center solutions of colocation and connectivity, as well as, cloud, managed solutions and professional services. Flexential’s robust suite of assets spans 21 markets and comprises 40 highly redundant and connectivity-rich data centers. For more information on Flexential, please visit www.flexential.com. Flexential is a registered trademark of the Flexential Corp.

About Seaborn Networks

Seaborn Networks is a leading developer-owner-operator of transoceanic submarine fiber optic cable systems, including Seaberas-1 between Sao Paolo and New York. Seabras-1 is the only direct POP to POP system between Sao Paulo and New York/New Jersey, offering the lowest latency route between B3 and the trading exchanges in New Jersey. For more information, please visit www.seabornnetworks.com.
FUGRO
Fugro Joins South Korean Offshore Wind Services Arena

Fugro has signed a memorandum of understanding (MOU) with Underwater Survey Technology 21 (UST21) in a move that opens up the South Korean offshore wind farm market. The agreement with UST21 will facilitate collaboration on marine projects in South Korean waters, whereby Fugro will expand UST21’s local hydrography capacity to provide site characterisation services, including geotechnical, geophysical and offshore metocean solutions. In return, UST21’s local hydrographic expertise will provide logistical and operational support to Fugro’s offshore metocean projects. For example, in conjunction with UST21, Fugro will shortly deploy several Seawatch Wind LiDAR buoys offshore South Korea to perform vital wind resource assessments.

“We are extremely pleased to announce the signing of this MOU with UST21, with whom Fugro has great synergy. By combining Fugro’s offshore site characterisation expertise with UST21’s hydrographic capabilities in South Korea, we are now well positioned to capitalise on the growing South Korean wind farm market,” explains Jerry Paisley, Fugro’s regional director for Marine Site Characterisation in Asia-Pacific.

FUGRO
Fugro to monetise part of its interest in Global Marine

Fugro has taken notice of today’s press release from HC2 Holdings, Inc. (HC2) in which it announces the sale by Global Marine Group (GMG) of its stake in Huawei Marine Networks (HMN). Through its ownership of 23.6% in GMG, Fugro will be able to monetise part of its noncore interest in GMG. GMG has agreed to a sale of its 49% stake in HMN to Hengtong Optic-Electric Co Ltd, in a transaction that values HMN at $285 million, and Fugro’s stake in HMN at approximately $33 million. Initially, GMG will sell 30% of HMN (which represents a value of approximately $20 million for Fugro) and retain a 19% interest under a two-year put option agreement. Completion of the sale is expected in the first quarter of 2020, subject to customary closing conditions, with proceeds delivered to GMG at that time. Fugro’s share of the net proceeds from the sale will be utilised to reduce its outstanding debt position.

Mark Heine, CEO: ‘I am very pleased with the outcome of this transaction, which is a step towards monetising our non-core assets, in line with our Path to Profitable Growth strategy. We will continue to work towards a full divestment of our remaining position in GMG. In this process, we are fully aligned with HC2.’

About Fugro
Fugro is the world’s leading Geo-data specialist, collecting and analysing comprehensive information about the Earth and the structures built upon it. Adopting an integrated approach that incorporates acquisition and analysis of Geo-data and related advice, Fugro provides solutions. With expertise in site characterisation and asset integrity, clients are supported in the safe, sustainable and efficient design, construction and operation of their assets throughout the full lifecycle.

Employing approximately 10,000 talented people in 65 countries, Fugro serves clients around the globe, predominantly in the energy and infrastructure industries, both offshore and onshore. In 2018, revenue amounted to EUR 1.7 billion. The company is listed on Euronext Amsterdam.

About HC2 and GMG
HC2 Holdings, Inc. is a publicly traded diversified holding company. For further information, see www.hc2.com. GMG is a leading provider of offshore engineering services to the telecommunications, oil & gas, and renewables industries. For further information, see www.globalmarine.co.uk.
**GULF BRIDGE INTERNATIONAL**

**Gulf Bridge International and Microsoft partner to accelerate cloud connectivity in the Middle East**

Gulf Bridge International’s partnership with Microsoft provides secure connectivity to Microsoft’s Azure ExpressRoute, supporting regional cloud adoption

Gulf Bridge International (GBI), a high-performance, low-latency global connectivity provider, and Microsoft have signed a Memorandum of Understanding (MOU) that will support regional cloud adoption amongst key organisations in the region, as witnessed by GBI’s Chairman H.E. Sheikh Saoud bin Abdulrahman Al Thani.

The strategic partnership will enable organisations to gain faster access to the Microsoft Azure Cloud, availing high performance, security and compliance to better transform their business operations.

GBI is an ExpressRoute connectivity partner, that enables customers to benefit from low latency and private cloud connectivity. This guarantees a highly available and secure solution, that delivers a quality digital experience for mission-critical workloads. GBI’s customers and partners alike, benefit from a connection to the Cloud and connections across the globe with the lowest latency times between the region and Europe.

“We are continually exploring new ways to optimise digital experiences for enterprises, and our partnership with Microsoft represents one of the many milestones taken on GBI’s transformation journey,” said Abdulla Al Rwaili, executive director and managing director at GBI. “The partnership will enable organisations of all kinds to make the move to the cloud with confidence and provide a foundation for digital transformation. We look forward to enabling more organisations to benefit from the flexibility and agility of the cloud.”

Microsoft’s Azure ExpressRoute allows organisations to create private connections between the Azure Cloud and infrastructure on-premises or in a colocation environment. These connections do not go over the public internet, thus offering greater reliability, faster speeds, lower latencies, and higher security than typical Internet connections. Leveraging ExpressRoute connections to transfer data between on-premises systems and Azure has been known to yield drastic cost benefits.

“Our partnership with GBI is another step forward in enhancing connectivity across the country and access to the cloud.” Said Lana Khalaf, country manager, Microsoft Qatar. “As Microsoft ExpressRoute partner for Azure, GBI will provide fast and secure connectivity to customers with access to Microsoft cloud and accelerate their digital transformation journeys.”

GBI’s Cloud Connectivity solutions are built on industry-standard software-defined wide-area network (SDWAN) technology, allowing enterprises to control, manage, and monitor their network. GBI’s advanced SDWAN quality of service and application-aware options enables enterprises to allocate bandwidth to mission critical applications, providing increased flexibility and scalability.

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**GULF BRIDGE INTERNATIONAL**

**Batelco and Gulf Bridge International (GBI) Strengthen Partnership**

The Collaboration between Batelco and Gulf Bridge International (GBI) ensures the delivery of enhanced solutions between the Middle East and Europe. Mutually benefiting the customers of both companies, Batelco, the Kingdom of Bahrain’s leading digital solutions provider and GBI (Gulf Bridge International), a global cloud, connectivity and content enabler, have reaffirmed their long standing partnership during a meeting at Capacity Europe 2019.

Batelco and GBI are strengthening their relationship and taking it to the next level by boosting their collaboration goals to ensure delivery of accelerated connectivity between Bahrain and Europe for the customers of both companies. Businesses and end users will experience optimized performance when using applications and services including Cloud, content and communication solutions. Furthermore, the collaborative efforts will lead to improved competitive prices which will benefit customers of both GBI and Batelco.

Batelco CEO Mikkel Vinter said, “We are delighted to continue with our long standing and fruitful partnership with GBI and build on the sound platform that we have developed over the years, further enabling us to leverage on the partnership to deliver enhanced connectivity between the Middle East and Europe and deliver high performance services for our customers.”

Batelco Chief Global Business Officer Adel Al-Daylami added, “The strong connectivity supported by GBI helps us to fulfil high internet and data demands regionally and globally for our customers. Furthermore, the capacity and diversity of routes available through the partnership supports our objectives and vision for the growth of Global Zone, the neutral transit zone, and (continues on p.140)
GULF BRIDGE INTERNATIONAL
Batelco and Gulf Bridge International (GBI) Strengthen Partnership

Manama IX, the carrier neutral internet traffic exchange platform, both located in the Kingdom of Bahrain. The combination of GBI’s network boosted by Batelco’s Gulf Network (BGN) served to support Batelco’s comprehensive plans which are designed to deliver a robust national and international infrastructure. Both the GBI and BGN Networks are supported by Batelco’s 24/7 Network Operations Centre (NOC).

GBI CEO Cengiz Oztelcan commented that GBI is excited to witness the evolution of the partnership with Batelco and looks forward to continuing with the close working relationship to deliver value for customers. “We are committed to delivering exceptional digital experiences for our mutual customers and their end users, across the business and consumer space. Together with Batelco, we are helping to shape the digital future of the Middle East. This partnership marks the first step, of many on our journey to achieving our goals outlined in GBI's Strategy 2022.” Mr. Oztelcan added.

Batelco’s efforts and plans are focused on the expansion of its global network and development of strong partnerships with leading organisations, to deliver innovative solutions and support the growing economic diversity of the Kingdom.

GLOBAL CLOUD XCHANGE
Bankrupt Undersea Cable Firm Ditches Ch. 11 Sale Plans

Bankrupt undersea cable company Global Cloud Xchange announced that it has vacated a sale process in its Delaware Chapter 11 and is moving forward with plans to emerge as a standalone company when it completes its reorganization.

In a news release, Global Cloud said it plans to seek approval in December for its debt-for-equity plan, which is supported by more than 75% of its lenders and will slash $150 million of its debt load.

After completing an initial phase to seek a potential buyer, the company said it decided to terminate the sale process and move forward with its plan to hand over ownership to its creditors.

"While we had a responsibility to evaluate all potential opportunities, we at GCX are thrilled to move forward as an independent company supported by a group of existing lenders that believe in our team and the opportunities ahead of us," said company Chairman and CEO Bill Barney. "We are confident this ownership structure — and the additional financial strength it provides — will allow us to continue to honor our commitments to employees, customers and suppliers, build upon our strategic plan and emerge as an even stronger company."

Global Cloud Xchange operates one of the world's largest undersea fiber optic cable networks, spanning over 66,000 kilometers with 46 "landing stations" in 27 countries, according to court filings. The company employs more than 900 people and its main offices are in Hong Kong, Mumbai and London. Global Cloud Xchange said it employs about 35 people in the U.S., and some of its business entities are incorporated in Delaware. For the past few years the company has grossed between $360 million and $400 million in revenue, according to court filings.

Global Cloud is a subsidiary of Reliance Communications Ltd., an Indian telecom company.

Global Cloud is represented by M. Blake Cleary, Matthew B. Lunn, Jaime Luton Chapman and Jared W. Kochenash of Young Conaway Stargatt & Taylor LLP, and Chris L. Dickerson, Brendan M. Gage, Robert A. Dixon Jr. and Todd M. Schwartz of Paul Hastings LLP.

The case is In re: GCX Limited et al., case number 1:19-bk-12031, in the U.S. Bankruptcy Court for the District of Delaware.
GLOBAL MARINE GROUP
Global Marine Group Sells Its Stake in Huawei Marine Networks

Global Marine Group, a HC2 Holdings’ Marine Services Segment, has agreed to sell its stake in Huawei Marine Networks, its 49% joint venture with Huawei Technologies, to Hengtong Optic-Electric.

The sale of GMG’s interest values HMN at $285 million, and GMG’s 49% stake at approximately $140 million.

Under the agreement, GMG will sell 30% of HMN to Hengtong at closing and retain a 19% interest in HMN under a two-year put option agreement at the greater of the same equity value or fair market value.

Hengtong is also purchasing Huawei’s full 51% stake and will own 81% of the joint venture upon the closing of both sales, and 100% upon the exercise of GMG’s put option.

Completion of the sale is expected during the first quarter of 2020, subject to customary closing conditions, with proceeds delivered to GMG at that time. After satisfaction of any pending obligations and in concert with any sale of Global Marine Systems Limited (GMSL), HC2’s share of the net proceeds from the HMN sale will be utilized to reduce debt at the HC2 holding company level.

“We are very pleased at the outcome of the joint venture sales process,” said Philip Falcone, chairman, president and chief executive officer of HC2. “We want to thank our partners at Huawei, with whom we have had a great working relationship since our acquisition of GMG five years ago, for successfully growing the joint venture and completing over 98 projects globally since inception. Inking this deal now further sets the stage for a potential sale of GMG, including the main operating subsidiary, Global Marine Systems Limited, which continues to be a top priority for us as we close out 2019.”

Huawei Marine was created in 2009. The pending sale is part of a trend that has seen submarine network deployment companies in play as submarine cable construction booms. TE Connectivity sold its SubCom unit to Cerberus Capital Management in November 2018. Ekinops investigated the acquisition of Alcatel Submarine Networks earlier this year but decided against such a purchase.

GLOBAL OFFSHORE
Global Offshore Charters Solstad’s CSV

Solstad Offshore has been awarded a long-term contract with Global Offshore, part of the Global Marine Group for the construction support vessel (CSV) Normand Clipper. The contract is scheduled to start in the first quarter 2020 and have a duration of 3 years. In addition to the fixed term, the deal also includes 5 years options thereafter, Solstad said.

Global Offshore will utilize the vessel to support its cable lay operations within the renewable energy and oil & gas sectors.
GLOBENET
GlobeNet’s Malbec subsea cable wins Best Americas Project at Capacity Global Carrier Awards

The new system is recognized for improving connectivity between Argentina, Brazil, South America as a whole and the USA. Deployed in collaboration with Facebook, the Malbec subsea cable system brings Argentina fully into the GlobeNet network, providing seamless connectivity between the Southern Cone of South America, Brazil and the United States. Using the latest enhancements in fiber optic technology, such as SDM (Spatial Division Multiplexing), it will deliver double the current international capacity to Argentina. As a result, the new infrastructure will allow much greater high-speed access to social media content, streaming and cloud services throughout the region.

“Argentina, Brazil and South America as a whole represent a burgeoning digital economy that requires state-of-the-art infrastructure to satisfy the pressing demands of the years ahead,” says Eduardo Falzoni, CEO of GlobeNet. “The Malbec project is a testament to our capabilities, expertise and commitment to the region where we have been operating for 20 years. For us, this award recognizes just how important the subsea cable will be to the overall digital transformation of the Americas when fully complete by July 2020.”

Over the past year, Latin America has experienced a surge of innovation and investment in its telecommunications landscape. From brown and greenfield data center developments to new subsea cables, regional governments continue to encourage new projects as enterprises increasingly demand high-speed access to cloud services, streaming content, and other bandwidth-intensive Internet of Things (IoT) and edge computing applications. According to IDC, by 2022, over 20% of Latin American enterprise cloud deployments will include edge computing.

To meet the digital and network needs of the region, GlobeNet continues to invest in upgrades to its infrastructure and service offerings. With the Malbec subsea cable project, GlobeNet is essentially future proofing the entire region’s telecommunications landscape for the stringent network demands of the years ahead.

GOOGLE
Google data center project in Uruguay under way

Google plans to build a data centre for storage and server management within Uruguay’s Science Park in the Canelones area, it was announced. It will be Google’s second such facility in Latin America, the other one being in Chile.

The US giant expects to have one of its 14 data centers in a space of more than 20 hectares in the duty-free zone of the Science Park in Canelones, it was reported. Negotiations for the Uruguay enterprise gained momentum when then Industry Minister Carolina Cosse visited Google’s headquarters on the west coast of the United States over two years ago but the project’s blueprint dates back to 2012.

Google’s decision was reportedly based on the installation in 2017 of an underwater cable between the Uruguayan beach resort of Punta del Este and the city of Fortaleza in Brazil, in addition to a submarine fiber optic cable that connects the Santos and Fortaleza (Brazil) with Boca Raton (Florida, USA). In November 2015 a contract between Google and Uruguay’s communications company Antel enabled the latter to become the sixth largest international telecommunications services provider in South America. Google is already involved in the deployment of the “Curie” cable under the Pacific Ocean between the US coast and the Chilean port of Valparaíso, plus the “Tannat” line linking the region’s Atlantic coast with the United States.

On October 11, Canelones local authorities granted Google the permits to add the Uruguayan facility to the 13 already operating worldwide: six of them in the United States, three in Europe, three in Asia and the Chilean one.
Global Renewables Shipbrokers (GRS) and COLI Schiffahrt & Transport have entered a strategic partnership that will see the two companies jointly offering services in the offshore wind market in Japan.

“With COLI a competent and experienced partner in the field of break bulk and project cargo – especially between Europe and Far East – is by our side,” said Matthias Mroß, GRS Managing Partner. “With CPC Consolidated Pool Carriers (Asia) Co. Ltd. the COLI Group has already been successfully established in Japan since 1997.”

According to GRS, offshore wind in Japan is progressing in a dynamic way, with large scale projects on the horizon. “The market entry to Japan is ideal at this point in time,” Mroß said. “Currently all levers are set in motion to achieve the ambitious plans for the expansion of offshore wind energy in Japan. We have monitored the offshore renewables market in Japan for a long time. Now we take the opportunity to enter this market. Building on our experience and expertise, we can ensure that mistakes will be avoided and expansion targets achieved.”

At the end of 2018, the Bill on promotion of use of territorial waters for offshore renewable energy generation facilities passed both houses of Japan’s National Diet. The law enables the development of offshore wind farms outside port-related areas. In July of this year, the Japanese government announced that it had designated eleven areas as potentially suitable for the development of offshore wind farms. The government plans to issue a tender to select offshore wind farm developers after completing site surveys and further identifying specific “promotion areas” for offshore wind.

GTT COMMUNICATIONS, INC.
GTT Upgrades Key European Network Routes to Meet Growing Demand

GTT Communications, Inc. (NYSE: GTT), a leading global cloud networking provider to multinational clients, announced today the upgrade of its fiber network across several of its European routes. The network upgrades enhance the capacity and performance capability of GTT’s Tier 1 global IP network footprint for its enterprise and carrier clients.

GTT has upgraded routes that connect network points of presence in London, Amsterdam, Frankfurt and Paris, including the subsea link between the United Kingdom and The Netherlands, along with an additional route in southern Europe that connects Madrid and Marseille. GTT has also deployed more fiber capacity on its metro networks in Paris and Marseille. The upgrade to the Marseille metro network extends to multiple subsea cable landing stations. Additionally, GTT has expanded its European network footprint by deploying a new point of presence in Belgrade, Serbia. GTT utilized Infinera’s FlexILS line system and high-performance ICE4 optical engine with instant bandwidth to complete the upgrades. These technologies work together to double network capacity, enhance the network’s software-defined capabilities and provide clients with faster service delivery.

“Europe is a major market for GTT, and we are continuing to invest in our advanced network infrastructure to support clients’ ever increasing bandwidth requirements,” stated Rick Calder, GTT president and CEO. “This is a further demonstration of GTT’s commitment to deliver on its purpose to connect people across organizations, around the world and to every application in the cloud.”

About GTT
GTT connects people across organizations, around the world and to every application in the cloud. Our clients benefit from an outstanding service experience built on our core values of simplicity, speed and agility. GTT owns and operates a global Tier 1 internet network and provides a comprehensive suite of cloud networking services. For more information on GTT (NYSE: GTT), please visit www.gtt.net.
Guernsey Electricity’s underlying business performance has been good over the past 12 months despite replacing the undersea cable to France via Jersey (GJ1), and the resultant costs of energy generation on-island, which wholly contributed to a loss for the financial year 2018/19.

The company reported an operating loss of £7.8m for the year, before pension settlement gains, compared with £1.2m in 2017/18. The loss includes £3.4m of non-cash impairments of assets associated with the importation of electricity. Over the period £11.4m of cash was re-invested back into business activities, which represents an increase of £3m from the previous year.

The company continues to benefit from a strong balance sheet with a fixed asset base of £133.9m.

Alan Bates, Chief Executive Officer of Guernsey Electricity, said the past year had been challenging in many respects but Guernsey Electricity had performed credibly.

“The costs of initially repairing and then replacing GJ1 and utilising the power station for 12 months, along with the impact of Brexit on our foreign exchange dealings, has affected us significantly. We have however, overall, achieved a commendable underlying result which has seen bold decisions taken for the long-term benefit of the company and Guernsey.”

Mr Bates added, “Despite the impact of the recent cable issues, our underlying financial performance continues to fall significantly below the level required to fund necessary investments in the Island’s electricity infrastructure and this remains an important issue as we plan for the future.

“In addition to recovering today’s costs, we anticipate an increase in renewable self-generation and storage as technology develops and we need to facilitate this in a fair way for all islanders. While customers use less electricity from the grid, a large proportion of our costs to maintain the grid as back-up supply will remain fixed and unaffected by the reduced amount of electricity used.

“Our current tariff structures, which have been in place since 1993, are not fit for this future and therefore, need to be comprehensively restructured to allow for infrastructure investments and to meet the changing energy needs and behaviours of our customers. This will be a priority for us in 2020.”

Other highlights from the financial statements are a pension fund transfer to the States of Guernsey Combined Pool to reduce the risks of pension provision and generate a book accounting gain of £18.2m. There has also been a 2.2% decrease in electricity usage locally which reduced sales by £1.6m, attributed to improvements in energy efficiency in appliances and in buildings, as well as milder weather.
HAWAIKI SUBMARINE CABLE LP
Anycast selects Hawaiki as primary AU-US capacity provider

- Anycast expands reach in the US and strengthens its service portfolio with new PoP in Oregon
- Hawaiki transpacific cable chosen for carrier-neutrality, greater reliability and lower latency
- Anycast Virtual ISP platform now primed for better service delivery

Hawaiki Cable System
Hawaiki Submarine Cable has announced the signing of a deal with Australian wholesale network provider Anycast Networks which will now use the year-old transpacific cable as its primary source of capacity between Australia and the US.

A recent entrant to the Australian connectivity market, Anycast markets a suite of virtualised, one-to-many, services running on Ethernet to local and international businesses, backed by a network spanning Australia, the Asia Pacific, UK and US.

Tom Berryman, Chief Executive Officer of Anycast said Hawaiki's unique position as the only carrier-neutral capacity provider in the Pacific was a key factor in Anycast’s decision, with the company now confident of having secured “international connectivity with future-proof capacity” enabling it to more quickly scale and adapt to the fast-evolving needs of its customers.

“Specifically, this deal with Hawaiki gives us more direct access to the US at competitive prices, enabling even more flexibility across the Anycast service portfolio including, and significantly, our Virtual ISP platform,” Berryman added.

“It will also enable us to deliver better customer services on our Ethernet platform over the Hawaiki cable to Oregon, Seattle, San Jose, and Los Angeles with latency as low as 133ms RTT, including the ability to enter a new market in less than 24 hours”. Virtual ISP is a global platform making it easier for MSPs (managed service providers) and ISPs, to supplement their own physical networks and ultimately deliver better services to their customers.

Remi Galasso, Chief Executive Officer of Hawaiki welcomed Anycast as exactly the sort of agile and innovative customer the cable was built to service.

“We look forward to helping Anycast realise further opportunities for innovation and growth as demand for capacity continues to rise sharply throughout Oceania, the Pacific and internationally,” he said.

About Hawaiki Submarine Cable LP
Hawaiki Submarine Cable LP, headquartered in Auckland, New Zealand, owns and operates the Hawaiki submarine cable system (Hawaiki). Hawaiki is the first and only carrier-neutral submarine cable linking Australia, New Zealand, Hawaii and Oregon, on the U.S. west coast. For more information, visit www.hawaikicable.co.nz.

About Anycast
Anycast Networks operates and delivers high performing IP services across its global IP network. Operating Melbourne and Sydney offices, Anycast operates the most connected IP Transit network in Australia today. For more information, visit www.anycast.com.

HYDROID
Seaglider AUV Division Makes Hydroid Switch

Hydroid, a subsidiary of Kongsberg Maritime, has integrated the Seaglider autonomous underwater vehicle (AUV) division into its organization.

The transfer of Seaglider from Kongsberg Underwater Technology, Inc. (KUTI) allows Hydroid to leverage complementary technologies and markets across the REMUS and Seaglider product lines.

Integrating Seaglider into Hydroid also increases the range of technical solutions and program management support that can be offered to customers, the company said.

“We look forward to leveraging the strengths of these advanced technologies to enhance both product lines and offer a more diverse set of solutions to our customers,” said Duane Fotheringham, president of Hydroid. KUTI’s current office in Lynnwood, WA has been remodeled so that Hydroid will occupy approximately 18,000 square feet of space for Seaglider engineering and manufacturing. The integration of the Seaglider team grows Hydroid to over 200 employees. KUTI will no longer be a subsidiary of Hydroid and will align its business with Kongsberg Maritime in Houston, TX. It will continue to provide Full Picture solutions to customers, focusing on sonars, acoustics, subsea docks and monitoring, and underwater science sensors.
INFINERA
South America’s Gtd Increases Capacity with Infinera’s Optical Transport Solutions

Infinera announced that Gtd, a Chilean multi-service telecommunications provider in South America, has deployed Infinera solutions to significantly increase capacity across its terrestrial network in Chile and its subsea networks for “Prat,” a submarine optical fiber project that will provide high-quality internet for Gtd’s national territory in Chile. Gtd selected Infinera for its nationwide network to deliver resilient, secure, and high-capacity communications services to meet the needs of wholesale, enterprise, and residential customers.

Gtd's new subsea optical fiber cable will allow the creation of a digital connectivity ring that will prepare Chile for the arrival of technological investments and position the country as a gateway to other countries in South America. The subsea network deployment doubles the internet speed currently available to Chile, connecting 12 cities and making Gtd’s network an ideal alternative in the market. Gtd’s new optical network, based on Infinera’s solutions, is designed to support 99.999% reliability and improve uptime for Gtd’s customers.

“Deploying Infinera enabled us to make significant upgrades in our metro and long-haul fiber networks, bringing much-needed broadband services to users across Chile and South America,” said Fernando Gana Barroilhet, Chief of Infrastructure Strategy at Gtd. “Infinera’s robust solutions increase our capacity and enable us to seamlessly scale our network to help us broaden our addressable market with high-performance services and set us on the right path for future services and applications.”

Infinera worked closely with its local partner Raylex to offer a best-in-class solution to fit Gtd’s needs.

“We are pleased to work closely with Gtd and Raylex to meet Gtd’s commitment to delivering innovative, high-quality communications,” said Bob Jandro, Senior Vice President, Worldwide Sales at Infinera. “Infinera’s combined solutions enhance Gtd’s national network and deliver the capacity, resiliency, and security required to achieve Gtd’s network goals.”

Infinera’s optical networking solutions will be featured this week at Futurecom 2019 at São Paulo Expo in Brazil.

About Infinera
Infinera is a global supplier of innovative networking solutions that enable carriers, cloud operators, governments, and enterprises to scale network bandwidth, accelerate service innovation, and automate network operations. The Infinera end-to-end packet-optical portfolio delivers industry-leading economics and performance in long-haul, subsea, data center interconnect and metro transport applications. To learn more about Infinera visit www.infinera.com, follow us on Twitter @Infinera and read our latest blog posts at www.infinera.com/blog.

INFONAS
Infonas deploys Ciena solution to expand network over GCCIA cable system

Infonas, a telecoms operator in Bahrain, is connecting the GCC countries (Bahrain, UAE, Kuwait, KSA and Qatar) through a high-speed DWDM network over Gulf Cooperation Council Interconnection Authority (GCCIA) cable system.

The upgrade enables Infonas to provide 10G, 100G services and beyond to our end customers. Using sophisticated management capabilities, services can be provisioned in minutes.

“Infonas network is powered by Ciena’s 6500 packet-optical platform equipped with WaveLogic coherent technology which expands capacity and provides the flexibility to support a range of high-speed services,” said Hamad Al-Amer, managing director at Infonas. He added, “due to the increasing demand for high-speed services, Infonas has completed the full upgrade of the network to support the connectivity requirements between the major cable landing stations in the region.”

In addition, Infonas connects its regional network to its nodes in London and Frankfurt through a diverse low latency routes to enable the latency-sensitive customers to reach Europe effectively.
INSTALLIT
New contract with DeepOcean

Installit has been awarded a long-term contract with DeepOcean AS for three full time senior project engineers. The assignments consist of providing engineering services for installation and replacement of umbilical and flexible risers on floating platforms on the Norwegian Continental Shelf. Installit is proud to continue to strengthen our relationship with DeepOcean, who is one of the leading global subsea services providers.

JD-CONTRACTORS A/S
JD-Contractors adds the AHTS “Boulder” to the fleet

In 2018 JD-Contractors A/S’s sister company JD Crafts A/S acquired the vessel Maersk Boulder from Maersk Supply Services. The vessel was initially bareboat chartered to a third party. In the summer of 2019 the vessel was returned to JD Crafts, and the vessel has subsequently been overhauled and renamed “Boulder” and she will now be operated commercially by JD-Contractor A/S.

Only a week after the vessel was returned from the bareboat charter, JD-Contractor mobilized the vessel for a project on the Seameade (SeaStar/Mermaid) offshore wind farm in Belgium. The vessel was during the project employed on an Offshore Target Removal and UXO Inspection Campaign identifying and clearing boulders and potential UXO objects.

On completion of the job on the SeMade project, the vessel returned to Denmark for a complete overhaul of equipment and machinery. The vessel was dry-docked in the beginning of October for its main survey, repainted and overhauled. Once again, a changed and upgraded vessel emerged from the dry-dock to begin its new duties, operating as a part of the JD-Contractor fleet in JD-Contractor company colours. Following its recent Bollard Pull test in Norway (resulting in a 220 ton certified bollard pull) Boulder continued onwards to “Flekkefjord” to carry out an anchor handling operation in connection with a Rig-Move for “SR Group AS”.

With Boulder’s accommodation for 43 persons, 220-ts bollard pull and 250-ts lifting capacity in the A-frame, the “Boulder” is now ready for service. Both in the Renewables sector as well as in the Oil & Gas sector. Boulder is designed for a variety of work roles including deep-water anchor handling, towing subsea plough systems, subsea and ROV support work, mooring operations, towing of rigs as well as general supply and cargo support operations. This specialized vessel has a high operational criteria, optimal safety conditions and state-of-the-art equipment to achieve its goals in a professional and cost-effective manner.

JDR
Jon Vail appointed as Strategy Director of JDR

JDR is pleased to announce the appointment of Jon Vail as Strategy Director and a member of the Board of Directors. Jon Vail, who joined JDR on 1st October, 2019, will be responsible for developing JDR’s overall strategy for future growth and will champion continuous business improvement. An MBA graduate from Henley Business School, Jon brings a wealth of experience to JDR, having previously held the role of UK Engineering Director at BICC Cables and senior roles at Ducab HV Cable Systems, most recently as CEO.

Jon Vail said: “I am delighted to be joining JDR at a time of great promise for the global energy sector. It is an honour to have the opportunity to work for an industry leader, particularly one which is supporting British exports by manufacturing cables in the UK”. Jarek Romanowski, CEO said: “Jon will bring some great experience to our senior team and to JDR’s Board; we are looking forward to working with him.”
MAATS TECH
Cable Infinity completed first project

MAATS client KCS have reported that the Cable Infinity vessel, has successfully completed its first project, installation of 500km of telecom cable using the MAATS designed 2000Te carousel, telescopic spooling arm and 40Te over boarding sheaves. This is a great achievement for the vessel, and we look forward to hearing about the success on another upcoming project to be announced soon.

MACARTNEY CANADA
MacArtney Canada Adds Head of Sales

MacArtney Canada has appointed Darren E. Penney as head of Item Sales for Central and Eastern Canada. Previously employed by Xeos Technologies and Seimac, Darren E. Penney brings with him 20 years of industry experience in technical sales and service.

Tom Knox, general manager of MacArtney Canada, said, “Macartney Canada and at large the MacArtney Group are excited to welcome Darren to the sales team. Darren’s many years of experience, knowledge and industry contacts made his appointment an easy decision, and we look forward to working together.”

In his new role, Darren will primarily support customers in finding solutions to their connectivity and data acquisition needs, as well as assisting new and existing MacArtney customers with all their underwater technology needs.

MACARTNEY
MacArtney Tech for MMT

MacArtney has recently supplied the latest NEXUS MK C multiplexer to Swedish marine survey specialist MMT. The NEXUS MK C is the latest delivery in a series of seven multiplexers provided to MMT since 2018. Working in close collaboration with Reach Subsea, MMT ordered the customised NEXUS MK C connectivity solution (named the Super MUX by MMT) from MacArtney Underwater Technology earlier this year.

Multiplexers, designed to simultaneously transmit data along a single channel of communication, provide operators with the opportunity to gather numerous types of data at once.

The NEXUS MK C is a fully customised plug-and-play multiplexer for work class ROVs. Fitted to new ROVs or as an upgrade to existing systems it can handle data for ROV setups that require multiple cameras, sonars, attitude sensors, manipulators, cable and pipe trackers, MacArtney explains.
MACARTNEY
MacArtney Expands Operations with Italian Branch

MacArtney Underwater Technology is set to launch its newest operation, MacArtney Italy, supporting local Italian customers with the global MacArtney brand. With a renewed focus on expanding its global footprint, MacArtney Underwater Technology will be offering the system solution technology and expertise to the Italian underwater technology markets. With new office in Bologna, MacArtney will be geographically well-positioned to service Italian underwater technology industries and institutes on both coasts. At the helm, new managing director, Vincenzo Mauro, will be bringing a strong sales and technical background in underwater technology and connectivity. Vincenzo began his career as a professor of Navigation, Oceanology and Meteorology in the early 90s, venturing into new waters in the private sector aboard an oceanographic and geophysical survey vessel in the late 90s, followed by a move into underwater technology sales and later into a range of management positions. Vincenzo Mauro said, “I believe with great motivation in this new and exciting professional experience that finalizes the successful cooperation began with the MacArtney Group in March 2015. Today we have a great opportunity to bring MacArtney’s excellence as a world leader in underwater technology to Italian customers and to meet their needs more effectively. “I know that I will work side by side with, and share this new path with a team of eager people. People eager to take on the challenge of sustainable growth for MacArtney Italy, particularly as we work towards a more environmentally aware economy that will characterize the offshore market in the coming years.”

MERMAID
Mermaid Wins Middle East Contract Extension

Mermaid’s joint-venture company in Middle East has secured a three-year contract extension for offshore inspection, repair and maintenance services with an oil and gas national company. The extension is in direct continuation to its initial seven-year contract period, whereby Mermaid will continue to provide a suite of diving services using its DP2 saturation dive support vessel Mermaid Asiana along with remotely operated vehicles, specialized diving equipment and divers. Mermaid’s joint venture partner will provide other offshore vessel related services and logistics. The Singapore-listed company said its portion of the total contract value for the three-year extension period is estimated to be approximately USD 162 million. The start of the three-year extended period will be initiated in phases with all phases scheduled to start during the fourth quarter of 2019. "For Mermaid, this contract extension is the result of the excellent service that we provide and represents a stream of stable revenue over the next three financial years. It is also in line with our strategic initiative to maintaining our presence in the region and as a platform for further growth and expansion”, said Chalermchai Mahagitsiri, CEO of Mermaid.

MMT SWEDEN AB
MMT sets up a local branch in Trinidad and Tobago

As a continuation of the inspection/IMR work performed the past two years together with Reach Subsea in Trinidad and Tobago, MMT has now established a local branch. This is the next step to further increase the work capabilities in the region.
MMT SWEDEN AB
MMT establishes a US office

MMT has a local entity established in Boston, Massachusetts. The main purpose is to further strengthen the efforts in providing high quality geophysical and geotechnical marine surveys along the US East Coast for the offshore renewables market. “We consider this move to be of great strategic importance. The aim is to strengthen the local presence and enhance the use of local resources”, says Per-Olof Sverlinger, CEO of MMT Group.

NEXANS
Nexans celebrates the next step in the construction of its Aurora cable installation vessel

On 15 October 2019, Nexans hosted the grand block ceremony that represented a key step in the construction of its ground-breaking cable installation vessel, the ‘Nexans Aurora’. The vessel’s hull is currently being built at the CRIST shipyard in Poland. It will be completed at Ulstein Verft in Norway, with delivery planned for 2021.

The grand blocks are the major components in the construction of the hull. They are being assembled at CRIST, in the Polish port of Gdynia. Representatives from Nexans, the shipbuilders, the ship designer and other project partners were present at the celebration.

The Aurora design is based on the combined experience of Nexans, Skipsteknisk, Ulstein Verft and MAATS Tech, each world leaders in their own fields. The aim is to produce a subsea cable and umbilical systems installation vessel for worldwide operations, covering the full range of shallow and deep subsea activities.

Ragnhild Katteland, Vice President Subsea & Land Systems expresses that “The construction of this ground-breaking cable laying vessel is a major milestone in our long-term strategy for the future of the global energy market. It will enable Nexans to maintain and extend our position as an important turnkey player in the field of subsea cables. In particular, the capability to install cables at even greater depths will contribute to securing the world’s energy supply and advancing the transition to environmentally friendly green electricity from renewables. Nexans Aurora will be a crucial asset.”

“The vessel is well prepared for complex construction tasks in severe weather conditions anywhere in the world. Ulstein Verft will carry out the final outfitting, commissioning and testing prior to the vessel’s delivery in 2021, and we are well prepared and eager to finalize this newbuild project for Nexans,” states managing director Lars Lühr Olsen at Ulstein Verft.

Bringing energy to the world
Nexans Aurora builds on over a century of Nexans’ experience in submarine cable installation to bring cable installation to the next level in terms of capacity and capability. With a 10,000-ton capacity, split turntable, and a world leading vessel design, Aurora is well prepared for complex construction tasks in severe weather conditions anywhere in the world. The DP3 cable laying vessel represents a next step in offshore renewables with high manoeuvrability and station keeping capabilities. She will be outfitted for power cable laying, including bundle laying, cable jointing and repair and cable system protection and trenching. The vessel will play a vital role in installation of Nexans’ cutting-edge high voltage (HV) submarine cables that will bring more energy to the world, helping connect offshore wind farms to the grid, supporting electrification of offshore oil and gas installations and creating interconnectors between countries.

About Nexans
Nexans brings energy to life through an extensive range of advanced cabling systems, solutions and innovative services. For over 120 years, Nexans has been providing customers with cutting-edge cabling infrastructure for power and data transmission. Today, beyond cables, the Group advises customers and designs solutions and services that maximize performance and efficiency of their projects in four main business areas: Building & Territories (including utilities, e-mobility), High Voltage & Projects (covering offshore wind farms, submarine interconnections, land high voltage), Telecom & Data (covering data transmission, telecom networks, hyperscale data centers, LAN), and Industry & Solutions (including renewables, transportation, Oil & Gas, automation, and others). Corporate Social Responsibility is a guiding principle of Nexans’ business activities and internal practices. In 2013 Nexans became the first cable provider to create a Foundation supporting sustainable initiatives bringing access to energy to disadvantaged communities worldwide. The Group’s commitment to developing ethical, sustainable and high-quality cables also drives its active involvement within leading industry associations, including Europacable, the NEMA, ICF or CIGRE to mention a few. Nexans employs nearly 27,000 people with industrial footprint in 34 countries and commercial activities worldwide. In 2018, the Group generated 6.5 billion euros in sales. Nexans is listed on Euronext Paris, compartment A. For more information, please visit: www.nexans.com
NATIONAL COMMUNICATIONS AUTHORITY
Nkom set to launch NOK 100m subsea competition

Norway’s National Communications Authority (Nkom) is set to announce a tender competition this month that will help to fund new subsea fibre cable projects. Norway is one of the most digitised countries in Europe, but the dependency of most of its transmitted data traffic through Sweden and the Copenhagen area is a huge vulnerability for the country from a diversity and security point of view.

To address this, the Norwegian government has now allocated NOK 100 million (£8.5 million) of the state budget to the initiative. Funding will be awarded following tenders and will help to create additional secure and robust routes to improve today’s traffic management.

The measure will ensure the establishment of open and non-discriminatory wholesale access for internet service providers (ISPs) for a period of at least seven years. The aid shall cover the documented additional costs arising from the provision of fibre capacity for the said purpose and under specified conditions.

The EFTA Surveillance Authority (ESA) has approved support for capacity in new submarine fibre cables abroad and it supports the measure to help reduce the vulnerability of international electronic communications to and from Norway.

The Ministry of Local Government and Modernisation (KMD) and Nkom are in discussions with ESA on the legal framework for granting the support of the scheme.

“It is very gratifying that we can now start this important work. This will make the internet access to and from Norway more robust.”

The news comes after Celtic Norse, the 2,000km cable linking Norway to Ireland, partnered with Vodafone Iceland to develop a branch in Ireland and Nordic data centre provider DigiPlex is making headway on its NOK 600 million project to build two new data centres near Oslo, Norway. Bulk Infrastructure AS has also launched its Nordic Gateway.

The Ministry of Municipalities and Modernisation has asked Nkom to announce a tender competition as soon as possible.

NKT
NKT signs service agreement with TenneT for high-voltage cable systems

The German-Dutch power grid operator TenneT has awarded NKT a service contract covering cable jointing of offshore high-voltage power cables.

NKT has been awarded a three-year service agreement contract by the German-Dutch power grid operator TenneT covering the cable jointing part of a larger offshore service agreement. The contract covers the cable jointing work for seven power cable systems and includes a tailored preparedness plan designed by NKT to ensure minimum downtime in case of damages to the high-voltage power cables, which originally was manufactured by NKT. For NKT, the agreement supports the company’s strategic focus to grow its service business as the industry attention for power cable service is expected to increase in the years ahead. The global transition to renewable energy creates a growing demand for reliable power cable connections for the expansion of both offshore wind and the interconnected onshore power grids.

“We are pleased to continue our close relationship with TenneT supporting the ongoing work to increase the share of renewable energy in the power grid. The agreement with TenneT is a milestone for NKT and our ambition to become the preferred service partner in the market. With the agreement, we support TenneT with our experienced jointing technicians, specially designed tools and equipment as well as guaranteed mobilisation time in order to minimize the potential downtime, says Oliver Schlodder, Executive Vice President and Head of Applications, Service & Accessories.

In total, the seven TenneT power cable systems covered by the service agreement deliver more than 3,000 MW of power. By providing power cable jointing services to one of the largest transmission system operators in Europe, NKT continues to support the ongoing transition to renewable energy in Germany and the Netherlands.

About NKT
NKT has pioneered the cable industry since 1891, and today we are still proactively meeting the world’s constantly growing need for power. We achieve this with our unparalleled energy transportation expertise and cost-effective manufacturing at the highest technological level, and with the regeneration of the environment in sharp focus. We have a ‘glocal’ mindset rooted in trusted partnerships, and we firmly believe that by working together we can shape the future and use our passion to bring power to life. NKT is a global and recognized provider of turnkey AC/DC cable solutions with headquarter in Denmark. We employ approximately 3,400 people and realized a 2018 revenue of EUR 1,434 million. NKT is listed on Nasdaq Copenhagen. www.nkt.com. www.nkt.com
NTT Ltd.
NTT creates undersea cable unit in Singapore to meet data traffic demand

Japanese telecommunications giant NTT has launched a submarine cable unit in Singapore to capitalise on the growing demand for connectivity in Southeast Asia.

NTT Ltd., the London-based firm in charge of the group’s overseas businesses, launched Orient Link Pte. Ltd. with two partners earlier this month, with plans to start laying an undersea cable in December, Hajime Miyazaki, director of the London unit, stated in a recent interview.

The cable to link Singapore, Southeast Asia’s leading financial center, with other Asian countries, is scheduled to start running in two years. Orient Link was set up with a capital of $119 million together with Tokyo-backed Fund Corporation for the Overseas Development of Japan’s ICT and Postal Services Inc. and Singapore-based Wen Capital Pte. Ltd.

NTT holds a 42 percent stake in the venture, with the telecoms infrastructure fund also known as Japan ICT Fund taking a 38 percent holding and Wen Capital owning the remaining 20 percent.

The government fund, which assists Japanese telecoms firms to spread their wings overseas, plans to inject up to $78 million into Orient Link, it said in a media statement on Oct.10.

In Southeast Asia, Singapore boasts the highest number of submarine cables installed as well as data centers operated by global information technology giants, Miyazaki said.

The Singapore unit will solely undertake the upcoming cable construction to help achieve speedy decision-making, flexible fundraising and timely service launch, he added.

OCEANTEAM SOLUTIONS
Oceanteam Solutions’ 2000Te and 4000Te demountable carousels available for rental

Back from a multiple-year contract, where both carousels worked on installation projects in German and UK waters without any downtime, the equipment arrived at our base in Velsen, the Netherlands this week. Besides some small maintenance works, the carousels are available immediately for long- or short-term project possibilities.

The carousels can be used for subsea cable & umbilical installation, transport and on- and offshore storage.

Features 2000Te carousel:
- 2000Te Load Capacity
- 17m Basket Outer Diameter
- 5m Inner Core Diameter
- 5.7m Basket Height

Features 4000Te carousel:
- 4000Te Load Capacity
- 24m Basket Outer Diameter
- 6m Inner Core Diameter
- 5.1m Basket Height

Both carousels come with a recognised third party verification certificate (CE). The equipment has an impressive track record; the 2000Te carousel was used for subsea cable transport from Asia to Europe in 2016, onshore storage and spooling of subsea cables in the Netherlands in 2017 and for subsea cable installation works in the North Sea area from 2018-2019. The 4000Te carousel was used for subsea cable transport from Asia to the Middle East in 2014-2015 and for subsea cable installation works in the North Sea area from 2016-2019.

Also a nice feature; due to its demountable design the carousels are sea and road transportable in 40ft containers to any mobilisation site worldwide. You will benefit from savings on transport costs by containerisation or trucks, the ability to transport easily from A to B and lower vessel time as equipment mobilisation can be done on the quayside. Oceanteam also has available loading towers, tensioners, cable highways, chutes and powered quadrants to support the main equipment.

If you would like to receive more information please contact our sales department via info@oceanteamsolutions.com or +31 20 535 75 70.
OCEANTEAM SOLUTIONS
Solutions extends storage contract of 100+ kilometres subsea cable for one of its premier clients

The extension follows a successful two and a half years of storage of client’s subsea cables in Oceanteam Solutions’ 5300Te carousel at its cable storage facility in Velsen, the Netherlands. With this extension the contract will run well into 2020 with possible further extension options. The company also provides long-term cable storage in its 1100Te carousel to this client, one of Europe’s biggest cable manufacturers. The contract covers port facilities, cable storage and handling by Oceanteam Solutions’ experienced cable handling crew. Oceanteam Solutions is the world’s largest independent offshore wind solutions provider. With currently six carousels, loading towers and other ancillary equipment, the company executes short- and long-haul cable transport services, cable logistics and cable handling solutions on a global basis. At its deepwater base in Velsen, the Netherlands, Oceanteam Solutions conducts mobilisation and demobilisation activities, provides long-term and short-term cable storage capacity and acts as a cable hub in a strategic location. The company further facilitates the offshore wind contractors and developers with cable lay equipment. Oceanteam Solutions’ pool of experienced staff, equipment and engineering capabilities is Lloyd’s ISO certified.

OFFSHORE WIND CONSULTANTS
Offshore Wind Consultants Heads Down Under

International engineering consultancy Offshore Wind Consultants (OWC) is setting up an office in Australia. The International Energy Agency’s recently launched “Offshore Wind Outlook 2019” has identified more than 7,000TWh per year of offshore wind technical potential, roughly 2,000GW of capacity, in waters below 60 metres offshore Australia. The potential adds up to 16,000TWh per year when considering deeper waters.

Currently, the most advanced Australian offshore wind project is the 2GW Star of the South, which is being developed by Australian headquartered Offshore Energy and Copenhagen Infrastructure Partners. “With experience from supporting offshore wind developers and investors all over the world, our strategy is to leverage our global expertise via a local presence with deep understanding of local risks,” said Will Cleverly, managing director of OWC. “Although a lot of work can be done remotely, we need feet on the ground locally to provide the best possible support to local developers, which is why we are establishing ourselves in Australia.”

OWC’s main office in Australia will be located in Perth, Western Australia, with a satellite office in Melbourne, Victoria. Master mariner Simon Healy will head up OWC’s operation in Australia. “OWC has 35 GW of offshore wind experience from involvement in more than 60 projects worldwide;” Healy said. “But the company recognises that each project and market bring unique challenges. For example, offshore wind in Australia will bring specific project risks such as industrial relations, environmental compliance and weather downtime, amongst others. All of these have the potential to increase project costs significantly if not managed carefully at an early stage of the project. This is where OWC comes in.”

OWC will also be able to draw upon the marine and offshore competence of sister company AqualisBraemar’s network of specialists in Australasia and the Asia Pacific region.

OCEAN POWER TECHNOLOGIES
OPT Names New VP of Global Sales

Ocean Power Technologies (OPT) said that Jeffrey R. Wiener has joined the company as vice president of global sales. Prior to joining OPT, Jeff was senior vice president of sales for EOS Energy Storage, where he helped to develop and commercialize Eos’s proprietary zinc hybrid battery storage solution. Jeff is also a 36-year veteran of General Electric, where he worked in the Aircraft Engine, Industrial and Power divisions. He began his GE career as a field engineer and subsequently held positions as manager of GE’s Military Development Test Facility, manager of the Gas Turbine Combustion Lab, global sales director for GE Hydro, global sales director for GE Wind Services, and ultimately leading a global sales team for GE Energy Storage, focusing on grid-scale utility and commercial installations. “We are very excited to welcome Jeff to the OPT team,” said George H. Kirby, OPT president and CEO. “Jeff brings a world of experience and a deep understanding of our target markets. His leadership will be a tremendous asset as we continue our growth as a supplier of cutting-edge commercial autonomous ocean power devices.”
Prysmian Group’s innovation hub Corporate Hangar launches its first start-up

Alesea will provide smart virtual assistance in managing power cable drums. Fanciulli, EVP: “We are focusing on digital to expand our range of new services”.

Prysmian Group, world leader in the energy and telecom cable systems industry, in collaboration with its innovation hub Corporate Hangar, is poised to launch Alesea, an IoT solution that provides virtual assistance for cable drum management.

Alesea is the first start-up to enter the runway phase at Corporate Hangar, the innovation hub co-founded by Prysmian Group in 2017 to support and develop high value projects of strong interest. The solution comprises a smart device installed on the cable drum, a cloud infrastructure where the data is stored and processed, and an intuitive Web platform.

Alesea is equipped with a GPS locator, environmental and movement sensors and multi-network mobile communications providing worldwide coverage. The system offers near real-time access to information regarding cable drum location, potential cases of theft and tampering, drum use and the amount of cable available.

Innovation is integral to Prysmian's approach, allowing the Group to anticipate the market's needs and meet customers' requirements with increasingly innovative solutions. Corporate Hangar is where Prysmian identifies, develops and implements promising ideas without interfering with the Group's successful business model. Prysmian and Corporate Hangar have formed a team fully dedicated to developing cutting-edge solutions and constantly improving the services offered to clients. The Corporate Hangar team has extensive experience and is able to assist customers not only with the project launch phase, but also with data analysis, insight and support for the entire decision-making and business plan development process.

Alesea is the result of the unique partnership between Prysmian and Corporate Hangar. The data, which is automatically stored in the cloud, can be retrieved at any time and viewed on desktops and customisable mobile platforms.

Alesea is thus able to provide full inventory management service, while also contributing to reducing the total cost of cable management, through better asset use and greater operating efficiency. In addition, the device is installed during the cable manufacturing phase, so that no intervention is required in the field, while also lessening the impact on the environment through optimised logistics and keeping cable waste and scrap to a minimum.

“Alesea transforms cable drums from mere packaging into smart assets,” commented Francesco Fanciulli, Executive Vice President Energy Business at Prysmian Group. “This tool will enable us to support our partners by helping them improve their performance in terms of operational efficiency and sustainability. This digital solution for the cable industry further confirms that the Group is at the forefront in terms of innovation. We have an ambitious development roadmap and we aim to reach global scale as early as 2020.”

After a thorough research and development process carried out in recent months together with Prysmian’s Digital Innovation Lab, over 1,000 Alesea devices have been tested in seven countries and the solution is now ready for large-scale distribution. Alesea is a dynamic solution that will continue to evolve through collaboration with clients and industry partners, with the aim of meeting emerging market demand and keeping pace with the newest applications.

About Prysmian Group

Prysmian Group is world leader in the energy and telecom cable systems industry. With almost 140 years of experience, sales of over €11 billion, about 29,000 employees in over 50 countries and 112 plants, the Group is strongly positioned in high-tech markets and offers the widest possible range of products, services, technologies and know-how. It operates in the businesses of underground and submarine cables and systems for power transmission and distribution, of special cables for applications in many different industries and of medium and low voltage cables for the construction and infrastructure sectors. For the telecommunications industry, the Group manufactures cables and accessories for voice, video and data transmission, offering a comprehensive range of optical fibres, optical and copper cables and connectivity systems. Prysmian is a public company, listed on the Italian Stock Exchange in the FTSE MIB index.
Prysmian Group, world leader in the energy and telecom cable systems industry, has been awarded a global contract to supply wind turbine tower and nacelle cables and assemblies by Siemens Gamesa Renewable Energy, world leader in the wind power industry. This award reaffirms Siemens Gamesa and Prysmian Group’s long and solid history of partnership in the wind industry and is an important step in increasing current and future growth opportunities.

The supply includes products and services from Prysmian Group’s wind portfolio of low voltage cables and assemblies for nacelle platforms, low voltage cables for towers and fully terminated medium voltage assemblies for towers, well renowned to be specifically designed and optimised to work with high torsion, mechanical and chemical resistance as well as wide temperature fluctuations.

The award also reconfirms Prysmian’s approach as a 360 ° partner in the renewable power industry, able to supply from turbine tower and nacelle cables, to inter-array and export cables, installation, project management and up to monitoring systems.

In 2019 the Group has been awarded with several projects like Provence Grand Large, Vineyard Wind, DolWin 5 and Hollandse Kust Zuid III and IV. Fully supported by R&D centres located in each region, Prysmian Group works in close cooperation with customers to design and develop products that exceed requirements and expectations while maintaining the highest level of quality and service.

Thanks to a globally widespread production footprint, Prysmian Group is well positioned to support the supply and delivery of products to Siemens Gamesa Renewable Energy, namely from manufacturing units located in Europe, Asia and North America.

About Prysmian Group
Prysmian Group is world leader in the energy and telecom cable systems industry. With almost 140 years of experience, sales exceeding €11 billion (pro-forma as of 31.12.2017), about 30,000 employees in over 50 countries and 112 plants, the Group is strongly positioned in high-tech markets and offers the widest possible range of products, services, technologies and know-how. It operates in the businesses of underground and submarine cables and systems for power transmission and distribution, of medium and low voltage cables for the construction and infrastructure sectors. For the telecommunications industry, the Group manufactures cables and accessories for voice, video and data transmission, offering a comprehensive range of optical fibres, optical and copper cables and connectivity systems. Prysmian is a public company, listed on the Italian Stock Exchange in the FTSE Mib index.
QUINTILLION
Quintillion and ATLAS Space Operations Expand Strategic Data Infrastructure in the Arctic

Partnership brings unprecedented availability, capacity, bandwidth and low latency to LEO satellites on multiple existing and planned fiber routes to major global internet exchanges. Quintillion Networks and ATLAS Space Operations announced plans for North America’s highest latitude ground station, to be located 250 miles inside of the Arctic Circle in Utqiagvik, Alaska. Upon its completion in the first quarter of 2020, the new Quintillion-ATLAS 3.7 meter ground station will be put to use immediately by U.S. Government and commercial customers. By utilizing Quintillion’s existing fiber optic infrastructure, ATLAS adds this valuable and geographically diverse site to its growing global FREEDOM network to provide greater data access from space. Businesses and consumers worldwide use billions of internet-connected devices everyday and rely on vast infrastructure that makes modern telecommunications possible. Thousand-mile long undersea fiber cables, powerful data centers, and increasingly dense satellite constellations all work in tandem to move data traffic around the world at the speed of light. Due to Quintillion and ATLAS’ efforts, for the first time, the United States will have a competitive solution for accessing data created in and transmitted through space. The polar nature of ATLAS’ Alaskan ground station, connected through Quintillion’s fiber network, fills an important network gap that is not served by sites in lower latitudes. Because many satellites pass over the Arctic during their orbit, and because the sheer number of satellites is skyrocketing with declining launch costs, polar ground stations give owners the mission-critical ability to communicate with their satellites more frequently, preserving the value of the data collected in space. “The Arctic has traditionally been a digital bottleneck, or ‘black hole,’ negatively impacting residential, commercial and government clients living and working in the region and slowing economic, information and commerce activity around the world,” said George Tronsrue, interim CEO of Quintillion. “Our developing Arctic infrastructure, located in one of the highest latitude regions of the world, coupled with a resurging international push to launch thousands of new satellites over the next decade, strongly positions us to be the leading infrastructure provider to U.S. and North American partners/clients and to global satellite ground station operators. Additionally, we can offer a unique and cost-effective solution to the international space community in the months and years ahead. We expect our project with ATLAS will be the first of many, as we believe the forecasted data explosion in space will make what we have experienced here on Earth over last two decades seem miniscule by comparison.” In addition, U.S. Government customers whose guidelines require partners be U.S. based will be delighted by this polar access, and the remoteness of the location minimizes the risk of interference with other signals. “Access to high speed connectivity in the Arctic has been a challenge until now,” said Sean McDaniel, CEO and co-founder of ATLAS. “Our partnership with Quintillion enables ATLAS to overcome this challenge while providing a significant capability to our customers on U.S. soil. It is significant because this project is entirely privately funded, which gives our U.S. Government and commercial customers a more affordable option for secure, resilient high speed connectivity to polar orbiting satellite missions. We look forward to expanding our network across the Quintillion subsea cable system, whenever we are able to leverage their Arctic presence and capabilities.”

About Quintillion
Quintillion is a private global communications corporation located in Anchorage, AK. Quintillion built and operates a submarine and terrestrial high-speed fiber optic cable system serving residential, commercial and federal government clients and that spans the Alaskan Arctic and connects to the lower-48 using existing networks. The three-phase Quintillion subsea cable system will ultimately connect Asia to the North American Pacific Northwest, and to Western Europe via the Northwest Passage through the Alaskan and Canadian Arctic. For more information on Quintillion, visit www.qxpressnet.com.

RENEWABLEUK
Subsea Power Cables Market to Hit £1.1B by 2023

Subsea power cables market will grow by 57% from £717 million this year to over £1.13 billion by 2023, according to a new report by RenewableUK. According to RenewableUK’s Project Intelligence team which compiled the report, global offshore wind capacity will skyrocket from 20.5 gigawatts (GW) today to over 55GW in 2024, largely driven by new projects in the UK, Germany, Taiwan and the USA. The global market for subsea power cables is divided between array cables which run between the turbines of an offshore wind farm connecting them to the offshore substation, and export cables which take the power from the offshore substations and connect to the main power grid onshore. The report shows that the global drive for offshore wind is creating huge new opportunities for manufacturers of array and export cables with over 9,600km and 6,750km needed respectively between 2020 and 2024. Less than 25% of the cables required have been contracted to date, which means there is a huge opportunity for manufacturers, suppliers and other companies involved in producing and installing offshore wind power cables. RenewableUK’s CEO, Hugh McNeal, said: “Our future energy system will be dominated by renewables with offshore wind playing a leading role, so these subsea cables are vital pieces of big kit when it comes to delivering the low carbon transition, as well as creating global opportunities for manufacturing and investment. “As this report shows, the unparalleled growth of offshore wind is creating huge economic opportunities for our supply chain. The UK has world-leading subsea cables sector and thanks to our unrivalled experience in offshore wind, we’re already winning contracts and exporting across the globe, securing highly skilled jobs in Britain.”
RETELIT SPA
Italy’s Retelit progresses with spin-off plan

Italian telecommunications infrastructure provider Retelit announced that its board of directors has approved a proposal to transfer the Asia-Africa-Europe-1 (AAE-1) subsea cable business unit from Retelit SpA to Retelit Digital Services (RDS) as part of a plan to separate its activities into two separate companies. The transfer will be accompanied by a capital hike for RDS and both measures will be subject to approval at an extraordinary meeting of Retelit Digital Services shareholders scheduled for 25 October. Earlier this year the board approved a plan to spin off Retelit’s activities into two separate companies, one to manage its fibre infrastructure and the other to provide services, following an in-depth evaluation. The aim is to conclude the process “within the current year”, resulting in the establishment of two separate legal entities fully owned by Retelit SpA.

REV OCEAN
REV Ocean Picks Up Kystdesign ROV

REV Ocean has acquired the Supporter 6000 ROV from Kystdesign in Aksdal, Norway. The ROV will be one of the most important tools used to achieve the core scientific goals of the REV Ocean research vessel. REV Ocean, will be equipped for conducting missions that cover the entire marine ecosystem. The vessel will be used by scientists and innovators worldwide to develop ocean solutions and conduct research on issues such as plastic pollution, CO2 impacts on the ocean and unsustainable fishing practices. The deep-diving Supporter ROV allows close-up observation, experimentation and behavioral study of ecosystems living at depths that are typically inaccessible. The ROV will be fitted with cameras, sonars, manipulator arms, suction samplers and a wide range of scientific sensors. It will be launched through the ship’s moon pool, enabling dives in harsh weather and in ice infested waters. It will also be operated from a control room where ROV-pilots, mission specialists and scientists can interact during the dives.

The ROV is designed to fulfill REV Ocean’s essential science needs including deep sea geophysical surveys, exploring hydrothermal systems, conducting complex sampling programs, and filming rarely observed deep-sea ecosystems. The ROV can accommodate up to 24 hydraulic tooling functions, up to 16 scientific sensors and 10 camera connectors. All hydraulic functions are proportionally controlled, and all electrical power supplies are ground fault monitored. The ROV control system offers a variety of auto-functions like AutoPOS and AutoTRACK capabilities.
REV Ocean has signed a partnership agreement with the Norwegian University of Science and Technology (NTNU) and Ocean Data Foundation (ODF). With this agreement, NTNU scientists and engineering students will be able to use the REV Ocean vessel as a research platform and apply their marine science expertise to REV Ocean and the Ocean Data Platform (ODP).

“This partnership brings together some of our most innovative and exciting opportunities for ocean research. Our research vessel, in combination with NTNU’s expertise, autonomous vehicle capabilities and the ODP’s visualization creates a seamless and winning match that will help achieve our primary goal of ‘one healthy ocean’,” said REV Ocean CEO, Nina Jensen.

The REV Ocean vessel will have advanced science laboratories, autonomous and remotely-controlled underwater vehicles, a state-of-the-art submarine, drones and sonar systems for ocean mapping and monitoring. NTNU, with its expertise in marine robotics and cross-disciplinary ocean research, will be able to use the REV Ocean vessel and the equipment onboard for education, research, and innovation for solutions in the ocean environment.

NTNU Rector, Anne Borg, stated: “The collaboration with REV Ocean and the Ocean Data Foundation is well-aligned with NTNU’s vision of providing knowledge for a better world. There is still a huge lack of understanding about the processes that are going on in the ocean and the coastal areas, including the Arctic. We are in a hurry to understand, and the time to act is now. Our mission is to contribute to knowledge-based management and sustainability in the value creation from the oceans. We trust in knowledge and competence, and a corresponding holistic view when addressing global challenges related to the oceans such as climate, environment, lack of food, energy and minerals as well as logistics and transportation.”

Efficient handling of ocean data is a key component for tackling the environmental problems of the ocean. The Ocean Data Platform will be the cornerstone for piloting the cooperativity of the vessel even in the event of fire or flooding of one of the engine rooms. The battery power notation has been developed to cover the vessel, which has dedicated lithium batteries to ensure its dynamic positioning even in the worst-case scenarios. In case one of the engine rooms is no longer available, the hybrid propulsion plant and its automation allows the batteries to take over the feeding of one thruster for a minimum of 15 minutes, so it can continue to work safely.

Paolo Moretti, EVP Marine Strategic Development at RINA, said: “We worked closely with Prysmian and Vard to create the Battery Powered notation, which together with the Green Plus notation, will certify the sustainability ambitions of the owner. We have specifically analysed this innovative arrangement to ensure the vessel is meeting the same level of safety as the DP3 notation.”

The contract for the ship classification, which was awarded to RINA last year, includes certification of all materials throughout the supply chain; from steel plate, through welds and all on board cable laying equipment.

Prysmian Group’s new cable laying vessel, Leonardo Da Vinci, is set to get new battery power class notation developed by RINA.

The vessel will be added to the group’s cable laying fleet in the second quarter of 2021. The new vessel is being built by Vard, a Fincantieri company, at one of its shipyards in Norway, with the hull being fabricated at Vard Tulcea in Romania. RINA has carried out a full appraisal of the construction drawings and plans and is carrying out statutory and class certification of the vessel. The vessel is designed to meet Special Purpose Ship standards, in order to be capable to carry up to 120 personnel and the requirements for the new RINA DP 3 notation (2017 edition) and the IMO 1580 guidelines for Dynamic positioning, in order to guarantee the cooperativity of the vessel even in the event of fire or flooding of one of the engine rooms. The battery power notation has been developed to cover the vessel, which has dedicated lithium batteries to ensure its dynamic positioning even in the worst-case scenarios. In case one of the engine rooms is no longer available, the hybrid propulsion plant and its automation allows the batteries to take over the feeding of one thruster for a minimum of 15 minutes, so it can continue to work safely.

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The contract for the ship classification, which was awarded to RINA last year, includes certification of all materials throughout the supply chain; from steel plate, through welds and all on board cable laying equipment. Moretti concluded: “This is an exciting project for RINA, which is well placed to meet the needs of such an advanced vessel. Prysmian and Vard have gone to extraordinary lengths to add cutting-edge features that sets the ship apart and the new notations reflect how this industry is progressing. To meet the needs of the project, alongside dedicated project management, we have around 20 people working on the project, plus personnel on site in Romania and Norway.”
**ROVOP**

**ROVOP Set to Expand Middle East Team**

ROVOP is set to add new personnel to its Middle East base due to a rise in demand for its services. The company is looking for experienced ROV personnel to work from its Middle East Operational Centre in Dubai, delivering services including drilling support, inspection repair and maintenance and construction across subsea operations. The new hires will have access to the company’s ROVOP Academy career development programme. The Programme is tailored to client requirements to ensure maximum efficiency is achieved in all offshore operations.

David Lamont, CEO at ROVOP, said: “We are in a strong position in the Middle East. After a successful first year in the region, we are ready to expand and build upon our services offering by adding to our team. “The Middle East is an important market for us. We have been providing our clients with ROV services in the UAE, Saudi Arabia, Bahrain, Kuwait and Oman, amongst others, and we look forward to continuing to strengthen our presence in the Middle East by bolstering our personnel.”

**RusseSmith**

**RusseSmith Adds Saab Seaeye’s Cougar XT ROV to Its Fleet**

RusseSmith, a Nigeria-based oilfield services provider, has added Saab Seaeye’s Cougar XT electric underwater robotic vehicle to its ROV fleet. “The Cougar is an ideal choice,” said RusseSmith CEO, Kayode Adeleke. “It is a powerful, highly maneuverable and capable ROV and we believe it will add a lot of value to our subsea operations.” RusseSmith sees the Cougar meeting most of its current and projected subsea undertakings which include inspection, repairs, maintenance, light construction work and drill support. “Its small footprint makes it easy to mobilize and operate from smaller vessels, bringing significant savings in terms of time and cost. This will be of great benefit to our customers,” added Effiong Okwong, RusseSmith’s director for Solutions & Market Development. A key feature of the 2000m rated Cougar XT is its power and maneuverability whilst handling a wide range of heavy tooling and sensors, that comes from its six powerful thrusters, each interfaced to a fast-acting control system that gives a great level of control and response.
DJIBOUTI TELECOM

Djibouti is strategically located at the crossroads of three continents offering the perfect natural gateway to major markets.

Operational since 1999, Djibouti Telecom is the international carrier with the strongest connectivity in the East African region.

$150m
$150m investment in major submarine cable systems, with more than 4 TB of available Bandwidth

90
Network with Direct Connections to over 90 countries

2
1 Tier 3 (and upcoming Tier 4) Data Center

100
Work with 100+ Global Partners around the world

SERVICES

VOICES SERVICES & ROAMING

IP / DATA & CAPACITY SERVICES

DATA CENTER HOSTING

TELEPORT FACILITY

OUR NETWORK

BANDWIDTH AND NETWORK AVAILABILITY:
Djibouti telecom have more than 4 Terabit of design Capacity.

SUBMARINE CABLE SYSTEMS:
7 Operational submarine cable systems and 2 on-project cable systems.
SAILDRONE
Saildrone USV Crosses Atlantic Ocean East-To-West

After setting the record for the fastest unmanned Atlantic crossing, Saildrone USV SD 1021 has completed the return journey, not only beating its own record time but also becoming the first autonomous vehicle to transit in both directions across the Atlantic Ocean.

In August 2019, a Saildrone unmanned surface vehicle (USV) known as SD 1021 arrived in the United Kingdom from Newport, RI, setting a record for the fastest unmanned Atlantic crossing. Now that same vehicle has completed the return trip to Newport, becoming the first autonomous vehicle to complete a westbound passage, as well as the first unmanned technology to transit in both directions across the Atlantic. SD 1021’s arrival to Lymington, UK, on the Solent coincided with Cowes Week, a nearly 200-year-old annual regatta that attracts some 1,000 sailboats from around the world. The vehicle remained in the UK for the duration of the regatta for regular maintenance and was re-deployed for the return trip on August 15, 2019.

There are two typical transatlantic passages: from west to east, vessels take the northern route from New York to the English Channel, benefitting from prevailing westerlies and favorable current; east to west, vessels take the southern route, from Spain to Bermuda or the Caribbean. Though the southern route is nearly 1,000 nautical miles (1,850 kilometers) longer, crewed vessels enjoy a smoother ride sailing with the trade winds and favorable current.

Saildrone USVs are designed to perform in the harshest ocean conditions on the planet, including those that crewed ships often avoid. On its return trip, SD 1021 took the direct northern route, sailing predominantly upwind and against the current, completing the 3,402-nautical mile (6,301.59-kilometer) passage in 68 days. The vehicles are powered exclusively by the wind for propulsion and use solar energy to run onboard computers and navigational instruments. They are equipped with a suite of science-grade sensors to collect oceanographic and meteorological data above and below the sea surface including wind speed and direction, air and sea surface temperature, atmospheric pressure, photosynthetically available radiation, wave height and period, dissolved oxygen, salinity, and acidity levels. In addition to the standard Saildrone sensor suite, SD 1021 is also equipped with an Acoustic Doppler Current Profiler (ADCP) to measure current strength and direction.

To date, SD 1021 has sailed a total of 14,969 nautical miles (27,722 kilometers) since its first deployment in the Arctic in 2018. The saildrone was subsequently deployed from Newport on January 31, 2019, on a 30-day mission to measure wintertime air-sea heat and carbon exchange in the Gulf Stream. SD 1021's carbon composite wing was damaged in a Gulf Stream storm with winds gusting to 58 knots (107 km/h) and waves over 12 meters (40 feet) high. The vehicle’s backup systems allowed it to navigate to Bermuda where it was retrofitted with a new wing and deployed for the Solent.

“The endurance, reliability and scientific measurement capabilities of the Saildrone platform continue to grow from strength to strength,” said Richard Jenkins, Saildrone founder and CEO. “During 2019, our saildrones have circumnavigated Antarctica, spent 700 days in the Arctic sampling the retreating ice edge, completed our first survey of the North Sea, and now crossed the hostile North Atlantic in both directions. There is no part of the [unfrozen] ocean that we cannot now measure.”

Saildrone’s fleet of USVs is actively engaged in fisheries, bathymetry, and climate science missions around the globe, with an additional 50 vehicles expected to deploy in 2020.

SEABED GEOSOLUTIONS
Seabed Geosolutions Sells Entire OBC Recording Equipment

Seabed Geosolutions has signed a contract to sell its entire shallow water ocean bottom cable (OBC) recording equipment for around USD 10 million.

This equipment was used on a recently completed project for Abu Dhabi National Oil Company in the United Arab Emirates. Stephan Midenet, CEO of Seabed Geosolutions said: “The sale of our last cable-based system completes the transformation of Seabed Geosolutions into a pure ocean bottom node (OBN) company. We are now largely focused around our Manta suite of technologies, comprised of both a proprietary node and deployment systems, and which has been designed to deliver leading efficiencies in all water depths.”

Seabed Geosolutions will continue to leverage its unrivaled shallow water expertise through innovative technology approaches and cost-effective business models, with a strong focus on the Middle East, the company concluded.
Seaborn Networks, a leading developer-owner-operator of transoceanic subsea fiber optic cable systems (Seaborn), and Anova Financial Networks, an international carrier and market data provider (Anova), announced the formation of a strategic alliance to provide the first ultra-low latency (ULL) fiber connection between the financial centers of São Paulo, Brazil and Chicago, USA.

Seaborn and Anova will offer multiple ULL tiers for potential customers via Seaborn’s fully operational, direct POP to POP 72Tbps submarine cable system (Seabras-1) between São Paulo, Brazil and NY/NJ USA, and Anova’s ultra-low latency microwave network connection between the Chicago Mercantile Exchange to all five sites in the New Jersey Equity Triangle, including BATS, NASDAQ, the New York Stock Exchange and Cboe Global Markets, Inc.

This partnership will enable ULL trading routes specifically for the financial vertical between the trading exchanges of Chicago CME and B3 Exchange in São Paulo. The two networks will interconnect in Carteret, New Jersey, enabling a single market leading latency connection for those interested in either bandwidth or market data.

Customers will have the ability to contract either through Seaborn or Anova to receive the full benefit of this combined São Paulo, Brazil to Chicago, USA ultra-low latency route.

This strategic alliance offers a number of benefits to customers, including:

- Consolidated capacity contracts and billing with industry-leading SLAs
- The newest network architecture with 100Gbps coherent technology on an end-to-end solution from New Jersey to São Paulo
- Proprietary market leading ultra-low latency solutions for financial institutions
- A direct relationship with the operators who built and operate the submarine cable and microwave routes for their respective systems, providing higher quality of service and improved information access
- A route to and from South America that avoids the hurricane-prone areas of Florida, the Caribbean and Bermuda, with 100% of the Brazilian terrestrial network buried and protected with latency-matched diverse terrestrial routes in Brazil, ensuring maximum performance, security and reliability
- Reduced delivery times of all on-net and off-net services allowing Seaborn to provide the industry’s fastest turn up of services for our customers
- Anova’s hardware-accelerated FPGA platform delivers normalized CME or B3 data with sub-microsecond overhead
- Seaborn’s Independently owned and operated 24x7 primary NOC and backup NOC

“We are very pleased to be able to partner with Anova to offer this blazing fast Chicago-NY/NJ-São Paulo ULL path,” said Larry Schwartz, Seaborn’s Chairman & CEO. “This is a unique opportunity for the global financial industry to achieve the lowest latencies among the leading exchanges in North and South America.”

“Our collaboration with Seaborn is a continuation of our mission to optimize the transport between the financial liquidity centers,” said Michael Persico, CEO and Founder of Anova Financial Networks. “In addition to providing traditional bandwidth, this new network further showcases Anova’s ability to globally deliver the fastest price and trade updates for the most vital instruments at the CME – something that is critical to market participants around the world and across a myriad of strategies.”

About Seaborn Networks
Seaborn Networks is a leading developer-owner-operator of transoceanic submarine fiber optic cable systems, including Seabras-1 between São Paulo and New York. Seabras-1 is the only direct POP to POP system between São Paulo and NY/NJ, offering the lowest latency route between B3 and the trading exchanges in New Jersey. For more information, please visit www.seabornnetworks.com and follow Seaborn on LinkedIn.

About Anova Financial Networks
Anova Financial Networks is the only global carrier that offers wireless and fiber connectivity, as well as market data distribution across all asset classes. Anova’s innovative proprietary technologies and client-centric approach enable the company to deliver secure and reliable solutions for banks, trading firms and exchanges worldwide. For more information about Anova Financial Networks, visit www.anovanetworks.com and follow Anova on LinkedIn and Twitter @AnovaNetworks.
Seaborn delivers high quality/low latency IP solutions to top quality transit services, content providers and major peering exchanges in Brazil and the U.S.

Seaborn, a leading developer-owner-operator of transoceanic submarine fiber optic cable systems (Seaborn), announced today that its IP network, Autonomous System Number: 13786, is fully operational. The network builds upon the delivery and service success of Seabras-1, the only direct connection and leading service delivery network between the commercial centers of Brazil and the US.

Seaborn’s newly launched IP network provides high quality, low latency connections for internet service providers (ISPs), telecom operators and global content providers, combining that with Seaborn’s industry-leading short installation timelines and dedication to service. With locations in São Paulo, Rio de Janeiro, New Jersey and New York, Seaborn is now able to provide high capacity connections to top quality transit services, content providers and the major peering exchanges in these regions.

“Our IP network is ideal for ISPs in Brazil looking for quality connections to top content with high levels of adjacency for their customers, and content providers looking to get closer to their end users via Tier 1 mobile and broadband operators in Brazil,” said Larry Schwartz, Seaborn’s Chairman & CEO.

“Seaborn’s IP network is a solutions-based approach, designed to enable success and growth without throttling and congestion traditionally associated with services in that region.”

“This unique combination of high quality network services and tailored customer-centric approach sets Seaborn apart from its competitors in terms of overall quality of service, and is a real differentiator in the market,” according to Andy Bax, Seaborn’s COO.

Seaborn’s network offers additional benefits to customers, including:

• Consolidated capacity contracts and billing with industry-leading SLAs
• The newest network architecture with 100Gbps coherent technology on an end-to-end solution from New Jersey to São Paulo
• Proprietary ultra-low latency solutions for the financial services vertical
• A direct relationship with the operator that built and now operates the submarine cable system, providing higher quality of service and improved information access
• A route to and from South America that avoids the hurricane-prone areas of Florida, the Caribbean and Bermuda, with 100% of the Brazilian terrestrial network buried and protected with latency-matched diverse terrestrial routes in Brazil, ensuring maximum performance, security and reliability
• Reduced delivery times for all on-net and off-net services, enabling Seaborn to provide the industry’s fastest turn up of services for our customers
• Seaborn’s independently owned and operated 24x7 primary network operations center (NOC) and back-up NOC.

About Seaborn Networks
Seaborn Networks is a leading developer-owner-operator of transoceanic submarine fiber optic cable systems, including Seabras-1 between São Paulo and New York. Seabras-1 is the only direct POP to POP system between Sao Paulo and New York/New Jersey, offering the lowest latency route between B3 and the trading exchanges in New Jersey. For more information, please visit www.seabornnetworks.com and follow Seaborn on LinkedIn.

SEAROC GROUP
SeaPlanner Joins Yunlin Construction Phase

SeaPlanner, SeaRoc Group’s marine management system, has been selected to support the construction of the Yunlin offshore wind farm in Taiwan.

SeaRoc said that the agreement is part of its strategic partnership with Mercuries Data System (MDS), which is contracted to deliver communications and marine coordination software and hardware for the 640MW project.

SeaPlanner will be used by the construction project team to coordinate all personnel and marine logistics for the wind farm located approximately 8km off the coast of Yunlin County.

“SeaPlanner is currently employed on a significant percentage of the world’s offshore wind turbines and we are pleased to extend our coverage and support MDS on this milestone project,” said Steve Pears Managing Director of SeaPlanner.

According to SeaRoc, SeaPlanner provides an integrated solution for managing safety and efficiency on the project, including inductions, personnel certification management, vessel and personnel tracking, all viewable from an interactive map of the project site.

Yunlin will consist of 80 Siemens Gamesa turbines of the 8MW class. The 640MW offshore wind project reached financial close at the end of May and is scheduled for completion by December 2021.
SHELL
Shell acquires EOLFI

Shell has signed an agreement to buy 100% of EOLFI, a French renewable energy developer specialising in floating wind projects. Upon the deal’s completion, EOLFI will be a wholly owned subsidiary of Shell and will be fully integrated. The acquisition is subject to regulatory and ministerial approvals and is expected to complete in Dec 2019.

Dorine Bosman, VP, Offshore Wind at Shell said: “EOLFI has been a pioneer of floating wind development. We believe the union of EOLFI’s expertise and portfolio with Shell’s resources and ability to scale-up will help make electricity a significant business for Shell.”

Alain Delsupexhe, Founder of EOLFI, said: “EOLFI joins the Shell group at the time when the market of floating wind is taking off globally. Since our creation in 2004, EOLFI has been a pioneer in renewable power. EOLFI’s heritage in floating wind combined with Shell’s offshore expertise and global footprint will enable us to expand offshore, but also onshore with our wind and solar photovoltaic projects as part of the Shell New Energies division. Joining forces with Shell will enable us to continue our mission of producing renewable and competitive electricity.”

EOLFI employs over 65 individuals across offices in Paris, Lorient, Marseilles and Montpellier. Since 2012, EOLFI has specialised in floating offshore wind power. EOLFI and partners are developing a pilot floating wind project in France, off the coast of Brittany. Pending approvals, this project will see the installation of three wind turbines on semi-submersible floats in water depth where fixed turbine foundations are not suitable. The development of floating wind technology could open up access to more locations for offshore wind, including zones with strong stable winds that are further from shore.

Shell has interest in a number of offshore wind farms, including the Egmond aan Zee and Borssele 3&4 off the Dutch coast as well as the Mayflower project which was recently announced as winner of Commonwealth of Massachusetts’ second offshore wind solicitation.

SCOTTISH OFFSHORE WIND ENERGY COUNCIL
Scottish Offshore Wind Energy Council Sets 8GW by 2030 Goal

The Scottish Offshore Wind Energy Council (SOWEC) has officially launched, calling for the goal of having at least 8GW of offshore wind in Scottish waters by 2030. The council, launched on 29 October, said it aims to lead and support the industry, boost the local content of projects and increase jobs in line with the UK Offshore Wind Sector Deal signed in March.

It is co-chaired by Scottish Energy Minister Paul Wheelhouse and Brian McFarlane, Head of Projects, Offshore Development at SSE Renewables, and will work with the DeepWind and Forth & Tay Offshore offshore wind clusters.


The council is committed to developing a plan for offshore wind’s contribution to achieving Scotland’s climate change ambition of net-zero greenhouse gas emissions by 2045.

It said it is dedicated to creating a competitive sector that can deliver both domestically and globally, with a focus on project development, deeper water capability and innovative technology solutions, as well as working to increase local content in line with the ambitions set out in the Sector Deal, developing a sustainable supply chain in Scotland.

SOWEC also seeks to boost the number of offshore wind jobs in Scotland to more than 6,000, which is an increase of 75% on 2019 figures.

“The Council’s goals are aligned around the need to capture Scotland’s offshore renewable energy resource in a way which delivers maximum economic and environmental advantage,” said McFarlane.

“Offshore wind will play a key role in our efforts to tackle the climate emergency and achieve Scotland’s ambitious net-zero emissions target, and the members of the Council are committed to ensuring that Scotland makes the most of this most innovative of technologies as we seek to further decarbonise our energy system.”
Stellium Datacenters, which operates one of the largest purpose-built data centre campuses in the United Kingdom and a fibre-optic ring in Newcastle upon Tyne, has announced the completion of a £30 million investment by Tiger Infrastructure Partners and Eram Capital Advisors. The capital raise builds on the already significant investment in Stellium’s data centre campus in the Cobalt Business Park and the metro area fibre network in Newcastle. The capital will be used to fund growth and accelerate fit-out of the facilities.

The campus is comprised of three state-of-the-art data centre facilities that have the power, scale and flexibility to provide enterprise-level cloud services, dedicated and co-location services, as well as powered shell facilities that enable customers to configure the data centre to meet their own requirements.

The campus is constructed to BREEAM Excellent and Outstanding Standards and has an industry-leading power usage effectiveness ratio of 1.2 with its own dedicated significant power supply. Since its launch in 2017, Stellium has signed contracts with a number of prominent customers who are currently fully operational in its campus, with more expected over the course of the next 12 months.

The recent investment follows the decision by Aqua Comms, a leading developer and operator of subsea fibre-optic cable networks and its partners to select Stellium as a vital hub for data transmitted between the United States, United Kingdom and Europe on the North Atlantic Loop, its newest transatlantic subsea fibre network. Stellium is the principal cable landing station for the new North Sea Connect cable that will soon link the United Kingdom with Denmark. The North Sea Connect cable will be part of the North Atlantic Loop, a resilient system of international subsea fibre cables that includes the newest transatlantic cable, America Europe Connect-2, that is currently being built by Aqua Comms, connecting New Jersey with Denmark. The subsea fibre ring, the North Atlantic Loop, extends also to the existing transatlantic cable America Europe Connect-1 from New York to Ireland and the soon-to-be complete CeltixConnect-2 from Dublin to Blackpool.

Noel Meaney, Chief Executive Officer of Stellium, said: “This investment further bolsters the position of Stellium Datacenters as one of the most modern, powerful facilities in Europe. With this investment, we believe we are well positioned to serve hyperscale and wholesale companies looking to harness the speed and resiliency of the newest subsea network linking the United States, United Kingdom and Europe, as well as local customers who require data centre services within the United Kingdom. We look forward to partnering with experienced data centre investors such as Tiger Infrastructure Partners and Eram Capital Advisors in our growth ambitions.”

Stellium also expects to support economic growth and serve public and academic institutions in the Northeast of England. Newcastle City Council leader Nick Forbes said: “Newcastle is a global city at the heart of modern Britain and is now one of the most exciting hubs in Europe for a new generation of digital and technology companies to base themselves and grow. Stellium’s world class data centre campus is a key component to growing the sector further and at pace.

“The investment announced today, along with the confidence shown by Aqua Comms in choosing Stellium as its primary UK landing station to link the US with Europe, is further evidence of the city’s burgeoning reputation for supporting partnerships to develop the skills which will create thousands of jobs for future generations.”

Alessandro Boninsegna, Managing Director of Tiger Infrastructure Partners, added: “Stellium’s management has a proven track record in building critical infrastructure for the digital economy, comprised of large purpose-built data centres, redundant power supply and connectivity through future-proof terrestrial fibre and subsea cable networks.

“Stellium has an existing asset base with all these elements and access to the newest fibre networks in the Northeast of England which makes it an exciting new data hub away from the London area. We and our partners at Eram Capital look forward to providing the business with our experience and resources for investment in further growth.”
STRAIGHTPOINT
Straightpoint Launches Subsea Link

Straightpoint, a Crosby Group company, has launched the Subsea Link, a standard product for applications up to 2,000m beneath the water’s surface. The product can be rigged with Crosby’s remotely operated underwater vehicle (ROV) shackles and the company’s Trawlex shackle range, amongst others. The IP68 / NEMA 6P-rated Subsea Link also boasts components from SubConn, a specialist manufacturer of pluggable electrical connectors.

SP staged the launch of the product at the Offshore Energy Exhibition and Conference (OEEC) in Amsterdam, where attendees noted its potential in subsea and submersible projects where accurate load monitoring is required. David Ayling, global business development director for load monitoring solutions, said: “There will be existing distributors and end users of SP equipment that will encircle the product but we anticipate interest from specialist equipment and service providers who might not have already considered the benefits of such a solution, based on the technological advancement that we have been able to pioneer in the offshore and subsea sectors.” He added: “Until now, oceanography and navigation project decision makers, or aquaculture professionals, might have had to engage in lengthy dialogue with a load monitoring specialist to acquire an engineered solution that might arrive on site many weeks down the road. With the Subsea Link, they can effectively source an ROV load shackle as they would any other standard product in our portfolio.”

SP worked closely with the local Portsmouth University, where a testing laboratory supports diving and underwater engineering courses. Ayling said: “The benefits were twofold in that we were able to utilize the world-class, underwater testing facilities, which principally replicated the extreme water pressures at depth; and students could engage with a real-life product that will add safety and efficiency to the operations that they may one day be responsible for.”

SUPERGEN OFFSHORE RENEWABLE ENERGY
Supergen ORE Hub Launches Offshore Renewables Research Tool

The Supergen Offshore Renewable Energy (ORE) Hub has launched a web-based tool that brings together UK offshore renewable energy research. Research Landscape comprises a series of research themes, challenges and opportunities faced by the offshore renewables community, which were gathered through a series of consultation events with over 180 partners. The interactive tool showcases current research across all three ORE technology sectors, including the hub’s own core research, as well as that supported through its Flexible Fund. According to the hub, it also encourages UK academics to submit relevant research projects and papers for inclusion.

“We are delighted to be launching the Supergen ORE Hub’s Research Landscape tool, which will guide and strengthen the focus of academic effort in Offshore Renewable Energy,” Prof. Deborah Greaves, Director of the Supergen ORE Hub. “The platform will promote offshore wind, wave and tidal research to raise awareness and maximise its impact by enhancing collaborations between academia, industry and government.”

The Supergen ORE Hub was established in July last year with GBP 5 million from the Engineering and Physical Sciences Research Council (EPSRC) and was awarded a further GBP 4 million this June. This July, the hub awarded UK universities with nearly GBP 1 million to support research projects on offshore renewable energy in the first round of its Flexible Fund.
SURE GROUP
Sure to boost Guernsey network capacity to 300Gbps with subsea upgrade

Sure Group has announced a multimillion-pound investment plan to futureproof Guernsey’s telecoms infrastructure and equip it for a digital future over the next five years.

Sure is upgrading subsea cables that link to Guernsey and is investing in a range of new broadband technologies to stay ahead of customer demands as consumers and businesses increasingly use digital services.

The first phase of this investment plan is upgrading the subsea cables that link Guernsey to the rest of the world and provide the majority of the island’s communications needs including broadband, voice and data services. Sure’s subsea infrastructure consists of multiple cables that connect the island to the other Channel Islands, the UK and Europe.

Upgrades to the subsea cables will increase capacity of Sure’s network to 300Gbps, an increase of almost 300%, to meet the island’s future bandwidth needs for the next five years. This new network make it much easier to upgrade at increments of 100G; an increase of more than ten times over the technology deployed today.

“The importance of our subsea infrastructure really can’t be overstated. Guernsey has been winning business on the world stage as a direct result of our network resilience and of course it keeps all of us connected in our daily lives. It is the unseen foundation that enables and securing connectivity for businesses, in our homes and when mobile,” said Ian Kelly, CEO of Sure.

“We’re carrying out this upgrade work, which is a significant multimillion-pound investment, to reinforce the quality of the infrastructure and ensure that our network continues to be the most resilient in the Channel Islands. The digital future and this investment are aligned with the States of Guernsey’s ambitious telecoms strategy as we work together to secure the island’s continued prosperity and success.”

Sure’s plans also include a commitment to increasing broadband speeds through extending its fibre-rich approach and new innovations including trials for fibre directly to the home and 5G services, both of which will commence in the coming months. Sure will be making more announcements in the coming months about its five-year investment plan.

SWIRE PACIFIC OFFSHORE
SPO to Shut Down Swire Seabed in Norway

Swire Pacific Offshore (SPO) said it will be closing its Norwegian wholly owned subsidiary, Swire Seabed, and its three associated companies, namely Swire Seabed Subsea, Swire Seabed Shipping and Swire Seabed Sea.

This change will take effect from the end of February 2020.

SPO’s managing director, Peter Langslow, said: “It is an extremely difficult decision to close Swire Seabed’s operations in Bergen but the ongoing state of the market makes this restructuring of our subsea operations necessary.

“Over the years, the Swire Seabed team has had a number of significant achievements and I would like to recognise the hard work and professionalism of our colleagues, both seafarers and shore-based employees.”

Prior to the announcement, Swire Seabed has consulted staff representatives and also communicated with the employees in the Swire Seabed companies.

SPO said it will also render support to employees of Swire Seabed and assist them in their career transitions.

The IMR and light construction vessels, which are currently managed by Swire Seabed, will be operated and marketed as part of SPO’s core fleet from the Singapore head office. The Norwegian vessels will be re-flagged to Singapore.

SPO’s OSV services and its offshore wind-farm installation business, Swire Blue Ocean, will not be affected by these changes.
TELIA CARRIER
Telia Carrier Opens Terabit Scale PoP at NJFX

NJFX, the only Cable Landing Station (CLS) colocation campus in the U.S. offering Tier 3, carrier-neutral data center capabilities, announced that Telia Carrier has deployed a new network Point-of-Presence (PoP) delivering multi-terabit capacity at its CLS campus. The new network infrastructure provides resilient network options for customers wanting diverse connectivity throughout North America. In addition, Telia Carrier’s extensive network in Europe enables seamless reach and unique diversity to connect from the cable landing point to extended destinations across Europe.

Telia Carrier’s new PoP in the NJFX facility provides high capacity, flexibility, and access to multiple reliable, diverse routes. By leveraging the Havfrue/AEC2 subsea cable system located at NJFX, Telia Carrier customers can now reach Denmark directly and transit the Nordics, Baltics, and can access four unique fiber routes going into Russia. Organizations located at NJFX can now access the Seabras cable system with direct routes into South America, ideal for LATAM customers looking for network diversity, terrestrial extensions, and IP connectivity.

Organizations located at NJFX can now connect directly into Telia Carrier’s network and access a seamless network solution with terrestrial backhaul routes that reach key points of presence across the East Coast and beyond.* Financial organizations located at NJFX can leverage Telia Carrier’s connectivity linking subsea cables to financial data centers throughout New Jersey and New York. This offers the ability to extend capacity from the NJFX CLS campus and access unique routes bypassing Manhattan and Northern New Jersey, along with connecting to new subsea cables coming online for increased network transparency and resiliency.

“We designed our architecture at NJFX to support high capacity and huge demand ahead for expanded network reach and resiliency,” said Staffan Göjeryd, CEO, Telia Carrier. “At the NJFX CLS, we offer maximum flexibility and extensions into the rest of the Telia Carrier global network and tying it into the recently announced expansion of the East Coast corridor where we added two new routes between New Jersey and Northern Virginia.”

Top-ranked global backbone
For more than two decades Telia Carrier’s global fibre backbone has grown organically, without acquisitions. It was the first network to successfully transmit 1 Tb/s in super channels on its U.S. network and recently announced the first real-time transmission of 600Gb/s wavelengths in a live production network. According to Dyn Research’s global backbone rankings, Telia Carrier’s global IP backbone, AS1299, is currently ranked number one. The company enables worldwide connectivity by connecting more than 300 Points of Presence (PoPs) across Europe, North America, Asia, and the Middle East.

About NJFX
NJFX owns and operates a 64,800 square foot purpose-built Tier 3 Cable Landing Station (CLS) Colocation facility and 58-acre campus in Wall, NJ. This unique campus is the only carrier-neutral CLS colocation campus in the U.S supported by several route-independent carriers that offer direct access to multiple independent subsea cable systems interconnecting North America, Europe, South America and the Caribbean. The facility offers direct access to TGN1, TGN2, and Seabras. The building is the subsea cable landing of HAVFRUE/AEC2 this year as well as Wall-LI in the future. High and low-density colocation solutions are available with 24/7 support. For more information, please visit www.njfx.net.

About Telia Carrier
Telia Carrier owns and operates one of the world’s most extensive fiber backbones. Our mission is to provide exceptional network infrastructure and services – empowering individuals, businesses and societies to execute their most critical activities. By working close to our customers, we make big ideas happen at the speed of fiber. Discover more at teliacarrier.com.
TELXIOUS and Telxius Ecosystems are Booming – Increasing Global Connectivity Options with First-Ever Dual Cable Landing Station Terrestrial Connection

Windstream connects Wall NJ to Virginia Beach Supporting over 500 Terabits per second of transmission Capacity

NJFX, the only Cable Landing Station (CLS) colocation campus in the U.S offering Tier 3, carrier-neutral data center capabilities, and Telxius, the communications infrastructure company of the Telefónica Group, announce significant development at their Cable Landing Station (CLS) campuses. As a driver of collaboration among carriers, subsea cable operators, enterprises and cloud providers within its CLS ecosystem, NJFX marks the spot of the first-ever CLS to CLS terrestrial interconnection, which connects NJFX CLS in Wall, NJ to Telxius facilities at the CLS in Virginia Beach, VA. The NJFX ecosystem boom is driven in part by its strategic location 64 feet above sea level and Category 5 hurricane resistant CLS campus with access to three subsea cables today, increasing to a total of four subsea cables in 2020 that will exceed capacity of 500 Terabits per second of transmission capacity. The Telxius communications campus at Virginia Beach provides direct access to the top 2 capacity subsea cables in the world, MAREA and BRUSA.

“Windstream’s state-of-the-art domestic network consists of approximately 150,000 fiber route miles and connects Tier 1, 2 and 3 cities across the nation. Secure and robust, the core network’s high-performance, point-to-point 1G to 100G optical transport ensures direct connectivity, transparency and control to support customer diversity requirements. In addition, Windstream also provides access to cloud resources at the edge, including from the most popular carrier hotels and data centers to unique locations not available with other carriers. Windstream provides high-speed connectivity directly into NJFX CLS and Telxius CLS campus, enabling access to multiple subsea cable systems. Customers can now extend their reach through Telxius’s network into South America and Europe. NJFX’s CLS campus offers access to four subsea cable systems to Europe and South America and seven independent US fiber based backhaul providers. Customers can access points of presence in 15 countries across Central and South America, Mexico and the Caribbean. The Telxius CLS campus in Virginia Beach, includes the Telxius facilities at the MAREA and BRUSA CLS. MAREA’s 200 Tbps transmission capacity plus BRUSA’s 138 Tbps equal that of the top 10 hub cities in the world combined, ranked by international capacity.[1] They are uniquely suited to deliver massive capacity and the lowest possible latencies. In addition to offering direct access to those two subsea cable systems to Europe and South America, the Telxius CLS campus features connections with several independent US fiber based backhaul providers. Access to other advanced subsea cables will be completed soon. Additionally, the Telxius Communications Campus in Virginia Beach connects directly to main data center campuses in Ashburn, Richmond and Phoenix.”

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TELXIUS
Telxius Opens Purpose-Built Infrastructure in EMEA: Derio Communications Hub

Leverages the Full Potential of Subsea Cable MAREA Unlocking Opportunities for Global Organizations

Telxius, the communications infrastructure company of the Telefonica Group, has announced the launch of its purpose-built, interconnection-rich, Derio communications hub. Strategically located in the north of Spain, it is only a few kilometers away from subsea cable MAREA’s landing point. The Derio hub has been developed to respond to the growing demand of latest generation communication services with the lowest latency and highest capacity ever deployed between America and Europe: that of subsea cable MAREA. Its open architecture has been designed to ensure that every carrier, hyperscaler, cloud and content provider is able to benefit from its offerings.

With 2,000 sqm and up to 4 MW of power, the Derio facility is carrier neutral and features Tier III specifications, representing the newest innovative design in subsea cable infrastructure. The facility offers the unique combination of being an expanded cable landing station (CLS) with advanced cable transmission capabilities as well as a fully-fledged international PoP. Joining these strengths in this purpose-built, ready-to-operate infrastructure effectively means a “one-stop shop” for a wide range of cable services as close to the ultrahigh-capacity transatlantic MAREA subsea cable as one can possibly be.

As a specialist in communications infrastructure, Telxius has created this site with the following attributes:

- Purpose-built colocation and capacity facility
- Carrier neutral and featuring Tier III specifications
- 200 Tb/s transmission capacity offered by MAREA
- Joined by 138 Tb/s subsea cable, BRUSA, in Virginia Beach (US)
- State-of-the-art environmentally friendly standards
- Certified as a 100% renewable energy building with free cooling
- Modular design set to evolve with customers’ needs and provide a cost-effective path for growth

“As Interconnection has become pervasive, we are now ready to enable new business opportunities for customers drawing on the superior latency and capacity features in MAREA, our flagship transatlantic cable,” explains Rafael Arranz, COO Telxius, Cable Business. “We have done this by adding rich interconnection capabilities through a purpose-built, next-generation, highly specialized communications hub in a strategic location very close to MAREA in the north of Spain. We welcome any terrestrial fiber, connectivity, digital media, cloud and/or content provider to enjoy the best IP, capacity and colocation services by joining this new communications hub.”

With rich interconnection as a main feature by design, this brand-new infrastructure maps Spain as a strategic communications port linking the Americas, Europe and beyond and connecting securely and dynamically to important international hubs such as Marseille, Paris, London and Frankfurt. Through Marseille, a major subsea cable hotspot in the Mediterranean and a gate to other relevant markets such as MENA and APAC, the Derio communications hub opens up a door into Europe that effectively extends the benefits and massive available capacity of the MAREA system.
EU-funded PROMOTioN project delivers recommendations to overcome regulatory and financial barriers to realizing a North Sea Transmission Grid

Countries around the North Sea need to implement a harmonized regulatory and economic framework to fully exploit the potential of a meshed offshore grid in the North Sea. This is a key conclusion of the EU-funded research project PROMOTioN (Progress on Offshore Meshed HVDC Transmission Networks).

Tim Meyerjürgens, COO at TenneT, stresses: “The development of a cross-border HVDC grid is one of the most promising opportunities for a sustainable energy future in Europe. TenneT is cooperating closely with other TSOs to develop the idea of a meshed and efficient offshore grid in the North Sea, which requires the creation of a common regulatory framework. PROMOTioN’s research shows the way to make this happen.” Similarly, Ditlev Engel, CEO of DNV GL Energy, states: “The development of a reliable transnational European offshore transmission grid is a key enabler for a successful, cost-effective and timely energy transition. This project delivered a great framework with regulatory and financial guidelines for national governments to speed up collaboration on the joint development of energy infrastructure such as offshore transmission grids. And that is really needed to accommodate the rise of renewables and meet our goals in the Paris Agreement.”

PROMOTioN’s latest report, “D7.9 Regulatory and Financing Principles for a Meshed HVDC Offshore Grid”, summarizes the key findings on the design of a legal, regulatory and financing framework for cross-border HVDC offshore connections and provides recommendations for policy makers and other stakeholders to take appropriate measures to enable the first hybrid assets to be built.

**Short-term recommendations**

In the short-term, it is recommended to

- improve the governance and the regulation of the internal market for (offshore) electricity by including in the Electricity Regulation a definition and substantive provisions on the regulation of a hybrid asset; assets which combine both interconnection and wind farm export functionalities
- provide innovation funding for novel ideas and technologies (e.g. novel energy storage techniques), and fund anticipatory investment which is cost-effective in delivering a meshed offshore grid (e.g. island hubs)
- support early communication between developers, authorities and other key stakeholders about new wind farm projects to enable early identification of meshed offshore grid development needs. Opportunities for wider stakeholder involvement in the decision making process should also be identified
- formalize of the Cross-Border Cost Allocation (CBCA) as a binding contract between the involved parties with a clear specification of non-compliance penalties. CBCA coordination is one of the most important pillars in the economic framework and should be promoted for complementary projects.

**Long-term regulatory stability**

To provide long-term regulatory stability, PROMOTioN recommends Member-States, third countries and the EU to consider the adoption a North Sea treaty, containing the aims and principles of the offshore grid. This treaty would provide a stable governance and decision-making structure, a common interpretation of maritime law, and processes for long-term wind farm and grid planning (geographical and temporal, in a similar way as the Ten-Year Network Development Plan process). Moreover, it would allow for formal operational regulatory governance, fixing the terms of cooperation between National Regulatory Authorities and their decision-making process regarding cross-border links.

**Financing the infrastructure**

The long-term legal and regulatory stability is especially important for financing the offshore grid. Investors rely on stable and predictable conditions which includes an assignment of clear roles and responsibilities among the relevant actors. Moreover, equity provision for the required offshore grid investment volumes needs to be facilitated. This can be realized in several ways that are presented in the report. Additionally, it is essential that transmission owners’ income is not based on congestion rents but is regulated with a long-term predictable revenue stream which creates certainty to investors and thus, attracts investments in offshore grid assets.

The published report summarizes the crucial elements for defining a regulatory framework and identifies the conditions necessary to support the financing of a meshed offshore grid. The report can be downloaded here. More detailed information can also be found in other reports on the Legal Framework, Economic Framework and Financial Framework. All public PROMOTioN reports are available at: https://www.promotion-offshore.net/results/deliverables/. During the WindEurope Offshore 2019 conference and exhibition in Copenhagen from 26 – 28 November 2019, project experts invite to a side event and will elaborate on details regarding the policy recommendations as well as give an outlook on the deployment plan for meshed offshore grids until 2050.

**About PROMOTioN**

The recommendations were developed as part of work package 7 of the ‘Progress on Offshore Meshed HVDC Transmission Networks’ (PROMOTioN) project. The PROMOTioN project aims to tackle technical, regulatory, financial and legal challenges to the implementation of offshore meshed HVDC transmission networks. The consortium consists of 33 partners ranging from all major European HVDC equipment manufacturers, TSOs and academia to industry associations, research groups, test labs and consultants. This project has received funding from the European Union’s Horizon 2020 research and innovation programme under grant agreement No 691714.
TOPAZ ENERGY AND MARINE
Topaz Installer successfully “beached”

Topaz Energy and Marine is pleased to share that the CLV Topaz Installer has successfully completed its beaching trial in Belgium. This significant milestone will allow the Topaz Installer to join the short list of ships involved in cable laying projects in shallow water areas.

TRANSMARK SUBSEA
Transmark Subsea Represents DeepSea Power & Light in Nordics

Bergen-based Transmark Subsea has become the new representative for DeepSea Power & Light in the Nordics.

DeepSea’s underwater lighting, cameras, batteries and PRV’s aligns well with Transmark Subsea’s expansion strategy in the region, the company said. The combined forces of both companies’ teams offers clients either standard product or custom-designed subsea solutions at both component and systems level.

“We at DeepSea Power & Light are looking forward to serving our customers and expanding our regional capabilities in partnership with Transmark Subsea,” said Aaron Steiner, DeepSea Power & Light’s General Manager. “Our deep experience in underwater imaging systems and robust, high value products fit well with Transmark Subsea’s ability to provide end-to-end solutions and technical support.”

“Transmark Subsea is proud to become the Nordic representative for this reputable product line,” said Transmark Subsea’s managing director Leif Hugo Arntsen. “DeepSea Power & Light’s superior product range aligns very well with our cable and connector offerings within the ROV and oceanographic field of operation.”

VODACOM BUSINESS
Vodacom Business creates new point of presence in Miami

Vodacom Business is extending its pan-African network to Miami in the United States through the new undersea South Atlantic Cable System (SACS).

The cable is the first undersea cable to directly link the African continent’s southern hemisphere with South America.

“This new trans-Atlantic route offers a significantly cost effective and faster way for African-based American multi-national corporations to connect back to the United States, reducing latency by up to 40%,” Vodacom said.

Guy Clarke, managing director for Vodacom Business International said that the group is undertaking the investment to shorten the distance between the American and African continents.

“The reduction in latency which this route provides will allow various business applications and services to function optimally across continents. Vodacom Business has signed its first client – a global oil and gas multinational corporation – to use the service.”

Vodacom’s Miami point-of-presence (POP) also connects directly back to its European network. This triangulated network topology will bring the United States, Europe and Africa closer together.

The trans-Atlantic expansion follows the recent addition of 19 countries to Vodacom Business’ Africa market footprint, which increased the company’s overall coverage to 47 countries across Africa.
WEBTOOL
Webtool Emergency Disconnection Tool for JDR Cables IWOCS

Subsea cutting tools specialist, Webtool, has supplied JDR Cable Systems, the leading supplier of subsea umbilicals and power cables to the offshore energy industry, with a resettable emergency disconnection tool for its fleet of rental IWOCS well intervention and workover systems.

JDR’s IWOCS rentals offer oil and gas operators the ability to increase production from subsea wells by providing a temporary connection for intervention, completions and plug and abandonment applications. A variety of configurations are available for specific project requirements including single wire deployment and self-supporting IWOCS.

The Webtool cutter is designed to allow the IWOCS package to be released without damaging the subsea assets in the event of an emergency. An integral part of the IWOCS, the tool can be used to cut hydraulic and electrical flying leads as well as mixed material bundles typically found in umbilical, hoses and cables such as multiple fluid transfer lines, steel tension member, fibre rope, reinforced hoses and electrical conductors. It is also one of the few tools able to cut tension wire together with cables and hoses.

The sacrificial mixed material bundle is securely positioned in the mouth of the Webtool emergency cutter. Once activated the bundle is cut in a single operation within a few seconds. The tool can be reset by either returning it to the vessel or reset subsea by ROV for a speedier return to well intervention operations. Designed for deployment for extended periods subsea, the Webtool emergency cutter can be function tested in situ, ensuring the tool is ready for use in the event of an emergency.

“The Webtool IWOCS emergency cutter offers our clients a highly effective way of managing emergency disconnections with minimum disruption to their intervention, completions and plug and abandonment applications,” says Johnston Dietz, technical manager IWOCS, JDR Cable Systems.

The Webtool emergency cutter range is part of the Webtool range of high performance cutting tools, designed and manufactured exclusively by Allspeeds Ltd in the UK.

For more information on the Webtool emergency disconnection tool visit www.allspeeds.co.uk.

For more information on JDR Cables Systems IWOCS contact Johnston Dietz (Johnston.dietz@jdrcables.com) for a complete list of service offerings.

WORLEY
Worley Enters Offshore Wind O&M Market with 3sun Buy

Australian engineering company Worley has entered the offshore wind operations and maintenance market through the acquisition of the UK-based 3sun Group Ltd. Worley acquired 100% of shares in the offshore wind energy installation, inspection and maintenance business for an enterprise value of GBP 20 million.

With access to 3sun’s pool of offshore technicians, Worley’s offering is now extended to cover the full offshore wind value chain with exposure to a wider customer base in the UK and Europe, the company said. The acquisition is expected to accelerate Worley’s offshore wind strategy, extend 3sun’s capabilities to larger projects and longer-term O&M contracts, and enable expansion in North America and Asia Pacific through the combination of the 3sun’s capability with Worley’s global presence.

Worley’s data analytics and management capability is also expected to provide additional benefits to 3sun customers, the company said. The areas for further growth include Engineering, Procurement, Construction & Installation (EPCI) for new wind farms, and long-term, post-warranty, O&M agreements, according to Worley.

“We are excited by the opportunities that are presented by the 3sun acquisition,” Worley CEO Andrew Wood said. “We are pleased to enter into the UK and European offshore wind energy markets via one of the leading providers of O&M services. We believe that the combination of Worley’s international platform and 3sun’s expertise will provide a catalyst for us to grow a global O&M business in the offshore wind market. This acquisition demonstrates Worley’s commitment to the renewables sector in the energy transition.”
Dear reader of www.SubCableNews.com,

I hope you enjoyed reading the Issue No. 209 of SubCable-News, the Newsletter for the whole industry involved in the submarine cable market.

I always try to be up to date with all the information available. Any contribution is welcome and should be forwarded to the editor.

Best regards

Your Eckhard Bruckschen

OUTLOOK

EDITION NO. 210 “...will be ready mid of December 2019.”

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