

Technical Mission Offshore Wind Power

May 19 – 23, 2019 | Hamburg & Bremerhaven

Germany



PROGRAM (Version 02/21/19)¹

¹ Program subject to changes

May 18, 2019 | Saturday



	Individual departure from Brazil (booked individually or via AHK) with destination Hamburg, Germany
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May 19 | Sunday

	Individual arrival in Hamburg
	Check-In at Hotel  <p>“Motel One Hamburg am Michel”</p> <p>Location: Ludwig-Erhard-Straße 26, 20495 Hamburg Tel: +49 40 35718900 Website: https://www.motel-one.com/en/hotels/hamburg/hotel-hamburg-am-michel/</p>
19:00h - 20:00h	Get-Together, Welcome and Kick-Off Briefing
20:00h - 21:30h	Dinner (optional, not included) „Kajüte” Location: An der Alster 10a, Hamburg www.kajuete.de

May 20 | Monday



08:30h	Meeting at the Lobby of the hotel Motel One (Note: Passport or identity card is required for BSH). Walk to the Federal Maritime and Hydrographic Agency (BSH).
09:00h - 09:30h	The Federal Maritime and Hydrographic Agency (BSH)  <p><i>Agency that decides on the approval (technical, environmental, etc.) of offshore wind farm development projects in the German North Sea and the Baltic Sea. It carries out the application procedure for wind farms in the German Exclusive Economic Zone (EEZ). Since 2017, the BSH is responsible for the area development plan according the wind energy on-sea-law (WindSeeG).</i></p> <p>Location: Bernhard-Nocht-Straße 78, 20359 Hamburg</p>
09:30h - 11:30h	BSH Presentation and Q&A: Area Development Plan <p><i>The Area Development Plan includes wind energy at sea and power lines in the North Sea and Baltic Sea for the period from 2026 to at least 2030. The Plan considers how much power (megawatt) from wind turbines at sea is expected to be deployed and put into operation each calendar year.</i></p>

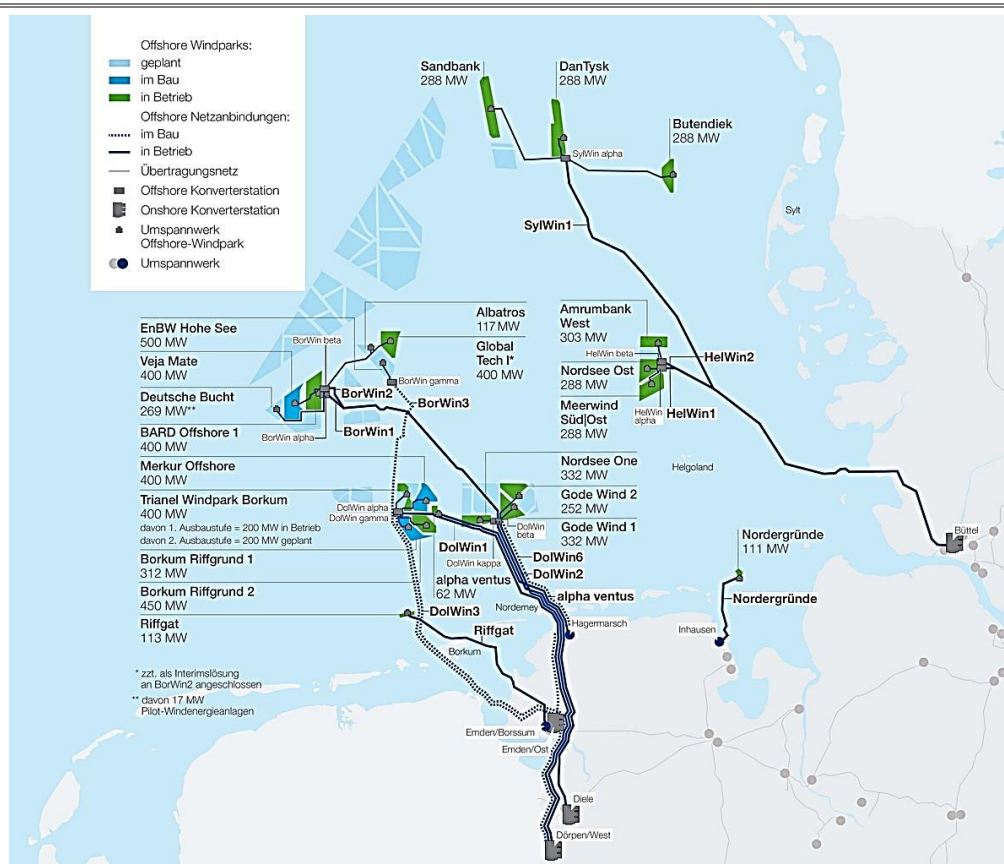
	<p>Introduction to the BSH standards, presentation and Q&A:</p> <ul style="list-style-type: none"> • Standard investigation of the impacts of offshore wind turbines on the marine environment (StUK 4) • Standard ground investigations for offshore wind energy • Standard design
12:00h -13:00h	Lunch at BSH Canteen
13:00h - 13:30h	Walk to Wind Farm Operator Trianel
13:00h - 15:00h	<p>Trianel GmbH</p>  <p><i>The offshore wind farm Trianel Windpark Borkum I (TWB I) is the first construction phase of the Trianel Windpark Borkum and went online in 2015. The one billion Euro project is held by the Trianel Windpark Borkum GmbH & Co. KG – a cooperation of 33 municipal and regional utilities, and the Trianel GmbH. The second part of the plant (TWB II) is just under construction and is held by a joint-venture of Trianel GmbH and EWE AG.</i></p> <ul style="list-style-type: none"> • Presentation and Q&A • Regulatory issues from the developer's perspective • Operation & maintenance <p>Location: Trianel GmbH, Zirkusweg 2, 20359 Hamburg</p>
15:00h - 16:00h	<p>BioConsult SH GmbH & Co. KG - Dr. Georg Nehls (Director)</p>  <p><i>BioConsult SH, founded in 1998, performs ecological research on the effects of offshore wind farms since more than ten years and were involved in the development of the so-called "big bubble curtain", used to mitigate underwater noise emissions during pile driving. Current projects include several German offshore wind farms in the North and Baltic Sea, associated converter stations, as well as environmental impact studies and research projects in Germany, Denmark, France, and the UK.</i></p> <ul style="list-style-type: none"> • Presentation and Discussion on Environmental Licensing of offshore wind farms in Germany <p>Location: Trianel GmbH, Zirkusweg 2, 20359 Hamburg</p>
16:30h	Transfer to Bremerhaven
19:00h	<p>Check-in at Hotel "Nordseehotel Bremerhaven"</p> <p>Location: Theodor-Heuss-Platz 14-18, 27568 Bremerhaven Tel: +49 471 90083600, Website: https://snw-hotels.de/nordsee-hotel-bremerhaven/</p>
20:00h	Dinner (optional, not included)

May 21 | Tuesday


09:00h - 09:30h	Meeting at the Lobby and transfer to the embarking point
09:30h - 10:00h	Embarking "Trip to Offshore Wind Farm(s)" Passport and adequate warm clothing required.
10:00h - 15:00h	Boat Trip to Offshore Wind Farm(s) in the German Bight (tbc)  <p>Please inform us about potential medical implication. If using drugs (e.g. against seasickness), please inform us well in advance for further safety instructions. In case of restricted seats, the seats will be allocated in the order of signing up for the entire Technical Mission. The boat trip is subject to confirmation and weather restrictions. Unserviceability substantiates no refund. Location: German Bight (North Sea)</p>
15:00h - 15:15h	Transfer to Windforce
15:15h - 18:00h	WINFORCE 2019, 21 & 22 May in Bremerhaven <p><i>The WINDFORCE is the central meeting point for the national and international offshore wind industry. With more than 3500 participants in its history, it is Germany's key event for offshore wind.</i></p>  <p>Visit of the accessory area and optional visit of conference sessions (inscription fee not included). Please inform us well in advance if you intend to visit the conference or apply for a speaker slot / poster presentation. Also, a good opportunity to arrange individual meetings. Location: WINDFORCE Conference 2019, Bremerhaven</p>
18:00h	Walk to Hotel
20:00h	Dinner at "Fischereihafen" (optional, not included)

May 22 | Wednesday

09:00h	<p>Meeting at the Lobby Location: Bremerhaven</p> <p><i>Alternatively to the program of this day, you may participate on the Windforce Conference (inscription fee not included) or take advantage of the event to arrange individual business meetings. Please inform us well in advance.</i></p>
9:00h - 12:00h	<p>Site Visits (Minibus Tour)</p>  <p>A prototype of Senvion (formerly REpower Systems SE) is operated close to Bremerhaven since 2008. The REpower 5M is an offshore turbine with a capacity of 5 megawatts and was installed on a jacket foundation. This turbine and foundation type were later used for 6 turbines in the alpha ventus offshore test field.</p> <p>Several offshore prototypes of ADWEN (formerly AREVA Wind GmbH) are installed in an industrial area north of Bremerhaven:</p> <p>One M5000 prototype is installed on a hybrid tower, another on a tripod offshore foundation. The roughly 30-meter-high three-legged steel construction was later utilized in the alpha ventus offshore test field.</p>
12:00h	Transfer to Grid Operator TenneT
12:30h - 14:00h	<p>TenneT Lunch & Roundtable - Tim Meyerjürgens, Senior Manager Large Projects Offshore</p> <ul style="list-style-type: none"> Presentation and discussion on grid integration of offshore windfarms from the operator's perspective, AC/DC trends.  <p>TenneT is a transmission system operator (TSO) in the Netherlands and in a large part of Germany. Its subsidiary TenneT TSO GmbH (formerly named Transpower and a part of E.ON) is one of the four TSOs in Germany and has been legally obliged since December 2006 to connect all offshore wind farms in the German North Sea. TenneT has been building grid connections for offshore wind farms in the North Sea since 2006. Amongst others, the world's first direct current connection for an offshore wind farm. In addition to the nine grid connections already completed, TenneT will implement 7 further network connections up to 2025 in Germany. TenneT will then provide a total of over 10 GW of transmission capacity for around 12.5 million households.</p> <p>TenneT has to integrate the huge amount of offshore wind energy into its onshore grid. As of 2006, it operates 3,286 km of lines and cables at 150 kV and above, connecting at 51 high-voltage substations. Peak demand for 2006 was 14,846 MW. TenneT plans SuedLink, an onshore DC link between Hamburg and south Germany (near Frankfurt). TenneT also plans onshore AC upgrades in North Germany, connecting new wind power to recently built DC links.</p>




Source: <https://www.tennet.eu/de/unser-netz/offshore-projekte-deutschland/ueber-offshore-projekte-deutschland/onshore>
AC upgrades in North Germany, connecting new wind power to recently built DC links.

14:00h - 14:30h	Minibus transfer to Servion (formerly REpower) production facilities
14:30h - 16:00h	<p>Visit of Offshore Nacelle Manufacturing Facility Servion (Formerly REpower)</p>  <p>Turbines with a rated output of more than 6 megawatts are in serial production here. They reach their designated locations out at sea through direct access from the port. Note: In the case of competitive concerns, access may be denied to individual participants. Location: Servion, Bremerhaven Source: Servion</p>
19:00h	Dinner (optional, not included)

May 23 | Thursday

07:00h	Meeting at the Lobby Location: Bremerhaven
07:00h - 11:00h	Transfer from Bremerhaven to Hamburg, Check-in hotel, and transfer to the event
From 11:00h	Special Offshore Industry Event Exclusively for the Delegation  <p>The Hamburg Renewable Energy Cluster (EEHH) will welcome the Brazilian delegation in the historic piers „St. Pauli Landungsbrücken“.</p> <p>Location: Kuppelraum – Hafenclub, Bei den St. Pauli Landungsbrücken 3, 20359 Hamburg</p>
11:00h - 11:45h	Welcome Session Renewable Energy Hamburg Cluster <ul style="list-style-type: none"> • Address of welcome by Michael Pollmann – Council of the State of the Free and Hanseatic City of Hamburg - Department of Environment and Energy • Dr. Jan Curschmann – Honorary Consul for Brazil, Taylor Wessing • The Renewable Energy Hamburg Cluster – introduced by Jan Rispens (CEO)  <p>The Renewable Energy Hamburg Cluster, founded in 2011 with involvement of the Free and Hanseatic City of Hamburg, intends to strengthen and promote cooperation in the sector. With a current membership of over 190 companies and institutions, it works to pool the wide-ranging skills among companies, research facilities and institutions. With many active members in the area of offshore wind energy, offshore wind is one of its topic priorities since its founding.</p> <p>TaylorWessing <i>Dr. Jan Curschmann is the Brazilian Honorary Consul. He manages the Taylor Wessing Brazil Group and advises on transactions involving Brazil and represents Brazilian companies in Germany and other European countries.</i></p>
11:45h - 12:30h	Introduction of the Brazilian Delegation  <p>The participants of “Missão Técnica Eólica Offshore” are decision-makers and experts of Brazilian organizations, which are focusing on the emerging Brazilian offshore wind energy market.</p> <p>The Trip is organized by the Câmara de Comércio e Indústria Brasil-Alemanha do Rio de Janeiro (AHK-RJ) in cooperation with Johannes Dimas - Energy & Project Management.</p>
12:30h - 13:00h	Break: Coffee and finger food

13:00h - 14:30h	<p>Roundtable: Financing and Insurance – Green Giraffe & Marsh</p> <p>There are showstoppers for the financial sector that cannot be omitted – neither by the developer, nor by the regulatory bodies. Insurances risk investigation and management is also heavily impacting the financing of an offshore project. Insurances are involved over the whole life time of a wind farm. E.g. during construction there is always a Marine Warranty Surveyor (MWS) on site.</p> <ul style="list-style-type: none"> • Requirements from insurance perspective, presentation and Q&A • Financing offshore – avoiding show stoppers <div>  <p>Green Giraffe is an advisory boutique focused on renewable energy, specialized in non-recourse debt structuring, project equity advisory, M&A advisory, project contracting support, market intelligence and modelling. Green Giraffe has a track record on more than 70 offshore projects worldwide.</p> </div> <div>  <p>MARSH is an industrial insurance broker and risk adviser. Marsh has experience with more than 30 offshore wind farms in the UK, Scandinavia, Benelux and Germany. The Hamburg-based offshore team has already provided five German offshore wind farms with an extensive coverage.</p> </div>
14:30h - 15:15h	<p>Offshore Wind at E.ON – Holger Matthiesen, Managing Director of E.ON C&R</p> <div>  <p>E.ON Climate & Renewables (EC&R) is responsible for E.ON's industrial-scale renewable energy activities. The technology portfolio covers onshore and offshore wind, as well as utility-scale photovoltaic (PV) solar power and energy storage. E.ON Climate & Renewables develop, build and operate large renewable energy assets primarily in Europe and North America, totaling to an energy generation capacity of 7 GW. The offshore office in Hamburg develops, constructs and operates offshore projects in Central Europe.</p> </div>
15:15h - 16:30h	<p>Quality Assurance Offshore – View from an Independent Inspection Body – Phillip Stutenbrock, 8.2 Group</p> <p>From manufacturing surveillance to periodic inspection campaigns offshore</p> <div>  <p>8.2 The Experts in Renewable Energy</p> <p>8.2 Group, established in 1995, counts today more than 40,000 technical inspections, 20 GW technical due diligence projects worldwide, and 32 independent locations.</p> </div>
16:30h - 17:30h	<p>Meet with the Offshore Wind Industry – Casual Exchange</p> <p>Well-known Members of the Renewable Energy Hamburg Cluster are amongst others: 8.2, EDF, ENGIE, Fraunhofer IWES, Marsh, MHI Vestas Offshore Wind, Nordex, Orsted (formerly DONG), PwC, Ramboll IMS, Senvion SE, Siemens Gamesa, Taylor Wessing, German Wind Energy Association (BWE), TÜV NORD EnSys, Uniper Energy Sales, Vattenfall.</p>

17:45h - 20:00h	Hamburg Harbor Walking Tour (optional)  Sites: Michel, Speicherstadt, Elbphilharmonie, Landungsbrücken, trip to Finkenwerder and back with public harbor ferry. Start location: Bei den St. Pauli Landungsbrücken 3, 20359 Hamburg
21:00h	Closing Dinner (optional, not included) End of Official Program

The “Missão Técnica Eólica Offshore” is supported by:



Established in 2002, ABEEólica, the Brazilian Wind Energy Association, is a non-profit institution that brings together and represents the wind energy in this country. Members come from all links in the wind energy chain.

Since it was created, ABEEólica has effectively contributed to the development and recognition of wind energy as a competitive, clean, renewable, low-impact source of energy, and a strategic element of this country's energy matrix.

www.abeeolica.org.br/en/



ENRICH encourages and facilitates cooperation in research, technology and entrepreneurship by supporting and empowering innovation actors throughout the innovation value chain.

Promoted by the European Commission through Horizon 2020, the ENRICH network currently offers services to connect European research, technology and business organizations with three global frontrunner innovation markets: Brazil, China and the USA. The ENRICH center in Brazil is a main hub and contact point for European and Brazilian innovation actors interested in bilateral cooperation.

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