

Technical Mission Offshore Wind Power

May 19 – 23, 2019 | Hamburg & Bremerhaven

Germany



PROGRAM (Version 02.05.2019)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
	<p>Check-In at Hotel</p>  <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	<p>Get-Together, Welcome and Kick-Off Briefing</p> <p>Meeting point: Motel One Hamburg am Michel, Ludwig-Erhard-Straße 26, 20495 Hamburg</p>
20:00h - 21:30h	<p>Dinner (optional, not included)</p> <p>„Kajüte“</p> <p>Location: An der Alster 10a, Hamburg www.kajuete.de</p>


May 20 | Monday

08:00h - 09:00h	Meeting at the lobby of the hotel Motel One. Check-out hotel. Walk to the Federal Maritime and Hydrographic Agency (BSH). Note: Passport or identity card is required.
09:00h - 11:30h	<p>The Federal Maritime and Hydrographic Agency (BSH)</p>  <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 to the wind energy on-sea-law (WindSeeG).</i></p> <p>BSH Presentation and Q&A: Area Development Plan</p> <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</i></p>

	<p><i>operation each calendar year.</i></p> <p>Introduction to the BSH standards 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 <p>Location: Bernhard-Nocht-Straße 78, 20359 Hamburg</p>
11:45h - 12:30h	<p>Lunch at BSH Canteen</p> <p>Location: Bernhard-Nocht-Straße 78, 20359 Hamburg</p>
12:30h - 13:00h	<p>Walk to wind farm operator Trianel GmbH</p> <p>Location: Trianel GmbH, Zirkusweg 2, 20359 Hamburg</p>
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> <p>Presentation and Discussion on Environmental Licensing of offshore wind farms in Germany</p> <p>Location: Trianel GmbH, Zirkusweg 2, 20359 Hamburg</p>

16:30h - 19:30h	<p>Hamburg Harbor Walking Tour and Dinner (optional, not included)</p>  <p>Sites: Michel, Speicherstadt, Elbphilharmonie, Landungsbrücken, Hamburg Harbor, trip to Finkenwerder and back with public harbor ferry, Dinner.</p>
19:45h - 22:00h	Transfer from Hamburg to Bremerhaven
22:00h	<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>

May 21 | Tuesday

08:00h - 08:30h	<p>Meeting in the lobby of hotel "Nordseehotel Bremerhaven" and transfer</p> <p>Location: Theodor-Heuss-Platz 14-18, 27568 Bremerhaven</p>
<p>May 21</p> <p>13:00h - 23:00h</p>	<p>Optional Parallel Event (2 Days):</p> <p>WINFORCE 2019, 21 & 22 May in Bremerhaven</p> <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. Federal Minister of Economics Peter Altmaier is taking over the patronage of the WINDFORCE Conference this year.</i></p>
<p>May 22</p> <p>09:00h - 18:00h</p>	 <p>Optional visit of conference sessions (inscription fee not included). Participants are requested to consult the AHK before (!) registering for special offer.</p> <p>Also, a good opportunity to arrange individual meetings.</p> <p>Location: ATLANTIC Hotel Sail City, Am Strom 1, 27568 Bremerhaven</p> <p>Website: https://www.wab.net/termine/windforce-conference/program/</p>
08:30h - 10:00h	<p>Tractebel DOC Offshore GmbH</p>  <p>The Tractebel DOC Offshore GmbH (DOC) provides independent competence for the realization of Offshore Wind Farm Projects with project experience for all phases of Offshore Wind Farm Projects. The experts will, amongst others, share its experience with regard to the foundations of offshore wind energy converters.</p> <p>Location: t.i.m.e.Port III, Barkhausenstr. 4, 27568 Bremerhaven</p> <p>For navigation system: "Barkhausenstrasse 2"</p>

<p>10:30h - 12:00h</p>	<p>IWES Fraunhofer Institute for Wind Energy Systems</p>  <p>The institute offers turbine manufacturers, suppliers, wind farm operators and power authorities industry relevant research services and target-oriented collaboration concerning the complete spectrum of technical wind energy utilization issues. Location: Am Seedeich 45, 27572 Bremerhaven</p>
<p>12:00h - 12:45h</p>	<p>Small brunch at IWES and transfer to Inn2POWER- B2B Matchmaking Event</p>
<p>13:00h - 15:00h</p>	<p>Inn2POWER - B2B Matchmaking Event (Requires your subscription!)</p> <p><i>The B2B Matchmaking Event (face to face meetings), jointly organised by the Inn2POWER project partners and the Enterprise Europe Network during the WINDFORCE 2019, brings together european companies of the offshore wind industry.</i></p>  <p>There is no registration fee for the B2B Matchmaking Event and this matchmaking can be attended independently of a participation at the WINDFORCE Conference. Your meetings will be arranged in advance by means of the website below, once you have registered and completed your profile.</p> <p>Note: You have to register by yourself on the event website, open until 21.05.2019: https://inn2power-b2b-bremerhaven-2019.b2match.io/</p> <p>Location: ATLANTIC Hotel Sail City, Am Strom 1, 27568 Bremerhaven</p>
<p>15:20h - 16:00h</p>	<p>Transfer from WINDFORCE Conference to Deutsche WindGuard GmbH</p>
<p>16:00h - 17:30h</p>	<p>Deutsche WindGuard GmbH</p>  <p><i>WindGuard is committed to providing extensive scientific, technical, and operational services which are unbiased and manufacturer-independent.</i></p> <p>Deutsche WindGuard Consulting is an accredited testing lab for prototype testing on wind turbines as well as for wind measurements, energy yield assessment and LiDAR calibrations. Energy yield assessments for offshore sites have been performed for an overall installed capacity of more than 100 GW. Venue is WindGuard's acoustically optimized large-scale wind tunnel</p> <p>Location: Überseering 7, 27580 Bremerhaven</p>
<p>17:30h - 18:00h</p>	<p>Transfer to Hotel Hotel "Nordseehotel Bremerhaven" Location: Theodor-Heuss-Platz 14-18, 27568 Bremerhaven</p>

<p>19:30h - 22:30h</p>	<p>Optional Event (Do not miss the separate registration): Excursion by Boat with WINDFORCE Dinner</p>  <p>The WINDFORCE offers the participants of the Delegation to take part on the boat trip to a wind farm in the North Sea combined with the traditional WINDFORCE Dinner during the boat excursion. Boat trips are subject to weather restrictions. (photo Dimas)</p> <p>Note: The event is held by the WINDFORCE Conference, participation is optional and the fee is not included. However, inscription on the WINDFORCE Conference itself is not required for participants of the Mission. To take advantage of this offer, you need to separately subscribe in advance. Therefore, please contact the AHK-RJ well in advance. Start Location: To be determined (Bremerhaven)</p>
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May 22 | Wednesday

<p>08:00h - 18:00h</p>	<p>Optional Parallel Event (2 Days): WINFORCE 2019, 21 & 22 May in Bremerhaven</p> <p>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. Location: Bremerhaven</p>
<p>08:00h - 09:00h</p>	<p>Meeting at the lobby, check-out, and transfer Start location: Hotel "Nordseehotel Bremerhaven"</p>
<p>09:00h - 12:00h</p>	<p>Visit of Manufacturing Facility</p>  <p>Bremerhaven offers a variety of offshore related production facilities. Note: In the case of competitive concerns, access may be denied to individual participants. Location: Bremerhaven Photo: Senvion</p>
<p>12:00h - 12:30h</p>	<p>Transfer to meeting with Transmission System Operator TenneT in Bremerhaven</p>

TenneT Lunch & Roundtable

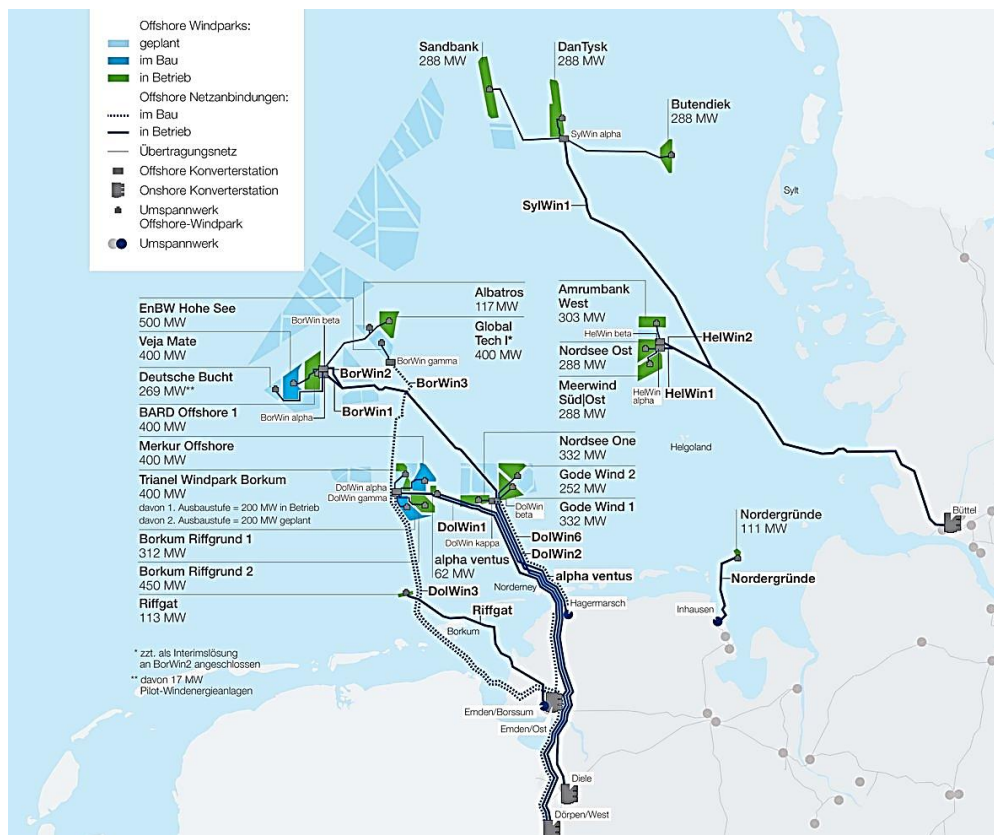
Tim Meyerjürgens, Senior Manager Large Projects Offshore: Presentation and discussion on grid integration of offshore windfarms from the operator's perspective, AC/DC trends.



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.

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.

12:30h
-
14:00h





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.
 Location: Bremerhaven

<p>14:00h - 17:00h</p>	<p>Site Visits (Minibus Tour)</p>  <p>Several offshore prototypes of ADWEN (formerly Multibrid and AREVA Wind GmbH) are installed in an industrial area north of Bremerhaven: One M5000 prototype is installed on a hybrid tower (photo Dimas), 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. A prototype of Senvion (formerly REpower Systems SE) is operated close to Bremerhaven since 2008. The offshore turbine with a capacity of 5 megawatts was installed on a jacket foundation. These turbine and foundation types were later used in the alpha ventus offshore test field. Location: Bremerhaven</p>
<p>17:00h - 19:30h</p>	<p>Transfer to Hamburg and check-in Hotel Motel One Hamburg-Alster Location: Steindamm 102, 20099 Hamburg</p>
<p>20:15h</p>	<p>Dinner (optional, not included) Location: Hamburg</p>

May 23 | Thursday

<p>07:30h</p>	<p>Meeting at the Lobby Hotel Motel One Hamburg-Alster Location: Steindamm 102, 20099 Hamburg</p>
<p>07:40h - 08:30h</p>	<p>Walk to ENBW Offshore Wind</p>
<p>08:30h - 10:00h</p>	<p>ENBW Energie Baden- Württemberg Offshore Wind</p>  <p>ENBW became one of the pioneers of offshore wind energy through the wind farm EnBW Baltic 1 – the first commercial offshore wind farm in Germany in the Baltic Sea (photo Dimas), followed by EnBW Baltic 2. Together accounting for 330 megawatts of installed capacity in the Baltic Sea. ENBW is now switching course to the North Sea: The joint construction of EnBW Hohe See and EnBW Albatros will provide an additional 610 megawatts installed. And the construction of its third North Sea wind farm - EnBW He Dreiht - is due to start in 2023. Location: Fischertwiete 1, Main Entry Building B, 4. OG, 20095 Hamburg</p>
<p>10:00h - 11:00h</p>	<p>Transfer to St. Pauli Landungsbrücken</p>

<p>From 11:00h</p>	<p>Special Offshore Industry Event Exclusively for the Delegation</p>  <p>The Hamburg Renewable Energy Cluster (EEHH) will welcome the Brazilian delegation in the historic piers „St. Pauli Landungsbrücken“ (photo Dimas). The event is exclusively organized for the Brazilian delegation to meet with the German offshore wind energy industry, represented by the Hamburg Renewable Energy Cluster.</p> <p>Location: Kuppelraum – Hafenclub, Bei den St. Pauli Landungsbrücken 3, 20359 Hamburg</p>
<p>11:00h - 11:45h</p>	<p>Welcome Session Renewable Energy Hamburg Cluster</p> <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><i>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.</i></p>  <p><i>Michael Pollmann, councillor of the Free and Hanseatic City of Hamburg, Department of Environment and Energy, will give the welcome greeting to the Brazilian delegation.</i></p>  <p><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>
<p>11:45h - 12:30h</p>	<p>Introduction of the Brazilian Delegation</p>  <p><i>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.</i></p> <p><i>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.</i></p>
<p>12:30h - 13:30h</p>	<p>Break: Coffee and Finger Food</p>

<p>13:30h - 14:45h</p>	<p>Roundtable: Financing and Insurance - Ralf Skowronnek and Udo Schneider</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, Ralf Skowronnek (International Risk Advisor, Authorized Insurance Expert) • Financing offshore – avoiding show stoppers, Udo Schneider (GreenGiraffe) • Q&A  <p>Green Giraffe The renewable energy financial advisors</p> <p><i>GreenGiraffe (GGEB) GmbH 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.</i></p>
<p>14:45h - 15:30h</p>	<p>Offshore Wind at E.ON – Holger Matthiesen, Managing Director of E.ON C&R</p>  <p><i>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.</i></p>
<p>15:30h - 16:30h</p>	<p>Quality Assurance Offshore – Herr Dr. Knappe, 8.2 Group</p> <p>View from an Independent Inspection Body. From manufacturing surveillance to periodic inspection campaigns offshore</p>  <p>8.2 The Experts in Renewable Energy</p> <p><i>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.</i></p>
<p>16:30h - 17:30h</p>	<p>Meet with the Offshore Wind Industry – Casual Exchange</p> <p><i>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.</i></p>
<p>17:30h</p>	<p>End of Special Offshore Industry Event</p>
<p>17:45h - 18:30h</p>	<p>Final Closing Session of the Technical Mission Offshore Wind Power</p> <p>Closing session for the participants of the Mission. Location: Kuppelraum – Hafencub, Bei den St. Pauli Landungsbrücken 3, 20359 Hamburg</p>
<p>18:30h - 19:00h</p>	<p>End of Official Program</p> <p>Transfer to Hotel Motel One Hamburg-Alster Location: Steindamm 102, 20099 Hamburg</p>

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.

www.brazil.enrichcentres.eu