



# Offshore Wind Deployment in Canada and Germany



Expert Delegation Trip to Germany and Knowledge Exchange for Stakeholders from Canada

June 26-29, 2023

Organized by:



In cooperation with:





June 26-29, 2023



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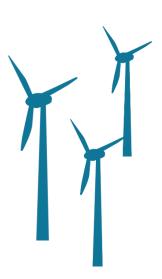
### **WELCOME**

#### **DEAR DELEGATES,**

Welcome to the expert delegation trip on offshore wind deployment in Canada and Germany!

With roughly 8 GW of offshore wind capacity in operation and deployment targets of 40 GW of offshore wind power capacity by 2035 and 70 GW by 2045, German policy makers and energy players have a successful history of developing, installing, operating, and maintaining offshore wind projects. Canada, on the other hand, has significant potential for offshore wind energy development, which can be tapped into to serve not only domestic demand but also foreign markets through the production and export of renewable hydrogen. Still in the early stages of creating a market for offshore wind, the country is in a favorable position to benefit from the experiences and lessons-learned from offshore wind development in Germany and Europe.

With the goal to better understand and navigate a constantly evolving landscape of offshore wind farm needs, the German Federal Ministry for Economic Affairs and Climate Action is pleased to welcome you to this knowledge exchange. This delegation trip is part of a broader scale effort to strengthen the energy cooperation between Germany and Canada, encourage the exchange of ideas, and promote policy and technology expertise.



During the four days, you can expect:

- **Presentations** on the regulatory, technical, and economic issues facing the offshore wind market in Germany.
- ▶ Meetings with offshore wind energy experts and executives from Germany
- Site visit to large-scale offshore flagship projects along Germany's wind-rich northern coast.
- Peer-to-peer knowledge exchange and networking opportunities with stakeholders from policymaking and industry seeking to advance the offshore wind deployment.
- **Discussions** aiming to turn learnings into actionable items.

To ensure that you get the most from taking part, we have prepared this small information booklet containing important information that you will find useful before, during and after the delegation trip.

We wish you an enriching experience during your four days here in Germany!

Yours faithfully,

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Berthold Breid CEO RENAC

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### YOUR CONTACTS

#### For questions during the delegation trip, please reach out to us:



**Ms. Cecilia Strandberg**Project Director

Renewables Academy (RENAC) AG

Schönhauser Allee 10-11 10119 Berlin Germany

E-Mail: <a href="mailto:energycooperation@renac.de">energycooperation@renac.de</a>

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### **DELEGATION TRIP PROGRAM**

#### Monday, June 26, 2023

Introduction & meeting with government agencies & stakeholders / Berlin

Time CEST/ UTC +2	Тор	Venue/ Speaker
09:00 am	Meeting point at hotel reception & walk to venue *	Meeting point for walk to meeting venue:  Hotel Motel One Berlin-Hauptbahnhof (hotel reception) Invalidenstraße 54 10557 Berlin
		Hotel – BMWK 1 km, 15 min (by foot)
09:30 am Registration and welcome		Meeting venue:  German Federal Ministry for Economic Affairs and Climate Action (BMWK)  Scharnhorststraße 34-37  10115 Berlin  Entrance: Tor 2  Room: G 3.021 (Saal 4)  www.bmwk.de

#### **Welcome and introduction**

		Ms. Cecilia Strandberg Project Director Renewables Academy AG www.renac.de
10:00 am	<ul> <li>Welcome and introduction</li> <li>Welcome &amp; introduction of the week's program</li> <li>Introduction round participants</li> </ul>	Mr. Jens Honnen Consultant Adelphi www.adelphi.de
		Ms. Ursula Holland Counsellor Global Issues, Economic and Environment Canadian Embassy www.international.gc.ca







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10:15 am	<ul> <li>Welcome and introduction to the international energy policy agenda by the Federal Ministry for Economic Affairs and Climate Action (BMWK)</li> <li>Welcome and introduction to the international energy policy agenda</li> <li>Energy partnership with Canada (goals)</li> <li>Snapshot - German Energy transition (drivers, milestones, what has worked, what did not)</li> <li>Role of offshore wind for the German energy transition</li> </ul>	Dr. Dominik Schnichels Director General External Economic Policy German Federal Ministry for Economic Affairs and Climate Action (BMWK) www.bmwk.de	
10:30 am	<ul> <li>The German energy transition and the role of offshore wind (1)</li> <li>Background, targets and status of the German energy transition (Energiewende)</li> <li>Phasing out nuclear and coal, phasing in renewables and efficiency</li> <li>Evolving role of offshore wind in the new government's strategy for 70 GW until 2045</li> </ul>	Ms. Elisabeth Taher Policy Officer, Division "General issues of bilateral climate and energy cooperation; cooperation with Nor America, East Asia, Oceania and Turkey"  Mr. Hanno Salecker Policy Officer, Division "Offshore Wind Energy"  German Federal Ministry for Economic Affairs and Climate Action (BMWK) www.bmwk.de	
11:15 am	Q&A and open discussion on bilateral cooperation opportunities	All participants	
11:30 am	Coffee / tea break *		
11:45 am	Offshore wind power sector in Germany (2)  From political target setting to implementation: Challenges for the further wind offshore sector development to reach 70 GW until 2045:  □ regulatory framework  □ industry scale-up  Cooperation with industry associations to develop the offshore wind energy sector  Status quo & policy developments on offshore wind & green hydrogen  Outlook  Q&A	Mr. Andreas Mummert  Head of Politics  Foundation Offshore Wind Energy (SOW)  https://www.offshore-stiftung.de/en	
12:30 am	Offshore wind in Canada - Input presentation by CAN participant (3)  CAN power system infrastructure  Role of offshore wind in CAN  Development & outlook  Q&A	Mr. Jonathan Brady Deputy Director - Offshore Renewables, Renewable and Electrical Energy Division Natural Resources Canada (NRCan) https://natural-resources.canada.ca	





CANADIAN GERMAN CHAMBER OF INDUSTRY AND COMMERCE INC. LA CHAMBRE CANADIENNE ALLEMANDE DE L'INDUSTRIE ET DU COMMERCE INC. DEUTSCH-KANADISCHE INDUSTRIE - UND HANDELSKAMMER





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01:00 pm	Q&A and open discussion	All participants
01:15 pm	Walk to restaurant *	BMWK – restaurant 850 m, 15 min (by foot)
01:30 pm	Lunch break at restaurant <b>Reinhard Bär</b> *	Restaurant "Reinhard Bär" Am Hamburger Bhf 4, 10557 Berlin
02:30 pm	Walk to meeting venue *	Restaurant – 50Hertz 300 m, 5 min (by foot)
02:45 pm	Welcome and registration	Meeting venue:  50Hertz Heidestraße 2 10557 Berlin www.50hertz.com
		Transmission system operator (TSO) - responsible for eastern Germany, including offshore wind connection in the German Baltic Sea waters
	Meeting with TSO and site visit of reserve control center (4)  Role and responsibilities of the transmission grid operator to connect offshore wind to grid	Dr. Dirk Biermann Managing Director, 50Hertz  Dr. Henrich Quick Head of Offshore, 50Hertz  50Hertz
03:00 pm	<ul> <li>(historical &amp; outlook)</li> <li>Investment in infrastructure: Grid extension planning – how much grid will be needed?</li> <li>Cross national offshore wind projects and grid connection</li> <li>Outlook</li> <li>Q&amp;A, open discussion</li> </ul>	www.50hertz.com  Dr. Georgios Papaefthymiou  Principal Consultant at the Power System Development and Operations Department  Elia Grid International GmbH  https://eliagrid-int.com/
05:00 pm	Site Visit: Visit of the reserve control center of 50Hertz	
05:30 pm	Walk to hotel*	Restaurant – 50Hertz 500 m, 10 min (by foot)
05:45 pm	Leisure time (time to change clothes for city tour)	







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06:00 pm	Guided Berlin city tour on foot (approx. 2,5 hrs) *	Meeting point: Hotel Motel One Berlin Hauptbahnhof (hotel reception) Invalidenstraße 54 10557 Berlin	
		<b>Guide:</b> Lillian Kapraun	
08:30 pm	Optional: loint Dinner at restaurant Das Lemke (\$)	Restaurant "Das Lemke" S-Bahnhogen 143 Dircksenstraße 10178 Berlin	

End of day 1







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#### **Tuesday, June 27, 2023**

Transfer to Hamburg and meeting with stakeholders / Hamburg

Transfer to Hamburg and meeting with stakeholders / Hamburg				
Time CEST/ UTC +2	Тор	Venue/ Speaker		
05:45 am	Check-out hotel in Berlin and walk to Berlin Central Station *	Meeting point for walk to central train station:  Hotel Motel One Berlin-Hauptbahnhof (hotel reception) Invalidenstraße 54 10557 Berlin Hotel – Central train station		
06:38 am	Train transfer from Berlin to Hamburg with breakfast lunch boxes on the train *	500 m, 10 min (by foot)  Berlin HBF – Hamburg train station ~2 h (by train)		
08:30 am	Arrival in Hamburg and transfer to hotel via taxi *	Hamburg train station – hotel 4 km, 20 min (by taxi)		
09:00 am	Arrival hotel and drop-off luggage (note: check-in to be done later during the day, luggage will be stored safely in the meantime)	e Hotel Hafen Hamburg		
10:00 am	<ul> <li>Welcome to day 2</li> <li>Recap of day 1</li> <li>Introduction to day 2</li> </ul>	Ms. Cecilia Strandberg Project Director Renewables Academy AG www.renac.de		
10:30 am	Offshore wind energy in Germany – planning and licensing (5)  Identification of suitable areas for 70 GW offshore wind until 2045  Licensing requirements & licensing procedure for offshore wind farms & grid connections  Q&A	Dr. Nico Nolte  Head of Management of the Sea Department  Federal Maritime and Hydrographic Agency (BSH)  www.bsh.de/EN/		
11:30 am	Grid connection systems for offshore wind in Germany (6)  TenneT offshore at a glance Development of offshore wind energy in Europe and in Germany Planning and sizing of offshore grid connection systems for offshore wind farms in Germany (North Sea) – in the past, today & in the future Technology, standardization, challenges, investment costs, grid fees and time schedule Innovations towards an offshore grid in the next decades	Mr. Timo Kahl Lead Offshore Development Germany Mr. Wolfram Breuer Head of 900 MW DC TenneT TSO GmbH www.tennet.eu/ Transmission system operator (TSO) responsible for the Netherlands and a large part of Germany including the offshore wind connection in the German and Dutch North Sea waters		

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12:30 pm	Q&A and open discussion	All participants	
01:00 pm	Lunch break at hotel venue *		
02:00 pm	<ul> <li>Compatibility between Offshore wind farm (OFW) expansion and nature conservation (7)</li> <li>Utilization of marine areas (in Germany, the Baltic Sea, or North Sea)</li> <li>Challenges associated with OFW development to reach 70 GW until 2045</li> <li>Current regulatory landscape for co-existence and multifunctional use</li> <li>Prospects for future developments</li> <li>Q&amp;A</li> </ul>	Ms. Karina Würtz Managing Director Foundation Offshore Wind Energy (SOW) https://www.offshore-stiftung.de/en	
02:45 pm	<ul> <li>Offshore wind farm operation in the North Sea (8)</li> <li>Offshore wind farm operation in the North Sea (Deutsche Bucht, Gemini, Nordsee One)</li> <li>Facts and figures</li> <li>Innovative technologies and concepts for offshore wind farm operation</li> <li>Challenges and lessons learned for offshore wind farm operation and cost development in Germany</li> <li>Outlook</li> <li>Q&amp;A</li> </ul>	Mr. David Timm Global Head of Public Affairs  Mr. Sebastian Thiele O&M Director, Europe & Managing Director Deutsche Bucht Operations  Mr. Florian Würtz Managing Director Operations, Northland Power Europe Northland Power Inc. www.northlandpower.com	
03:30 pm	Coffee/ Tea break at hotel venue *		
03:45 pm	<ul> <li>Skilled workforce in the offshore wind sector (9)</li> <li>Job profiles in the offshore wind sector</li> <li>Topics and target groups of training programs</li> <li>Political measures to meet the workforce demand in Germany</li> <li>Outlook</li> <li>Q&amp;A</li> </ul>	Mr. Carl Rasmus Richardsen Chief Executive Officer  Deutsche Windtechnik www.deutsche-windtechnik.com	
04:30 pm	Q&A and open discussion	All participants	
05:00 pm	5:00 pm End of sessions, free time (time for check-in hotel)		









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	Networking dinner reception at the hotel Hafen Hamburg *	Hotel Hafen Hamburg
06:30 pm	Meeting with key stakeholders of the German offshore wind energy sector	Seewartenstraße 9 20459 Hamburg
	Organized by RENAC in cooperation with the Foundation Offshore Wind Energy (SOW)	Venue: Ellipse, 7th floor

End of day 2







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#### Wednesday, June 28, 2023

#### Transfer to Cuxhaven and meeting with stakeholders / Cuxhaven

Тор	Venue/ Speaker	
	Meeting point for transfer to central train station:	
Check-out hotel Hamburg and transfer to Hamburg Central Station *	Hotel Hafen Hamburg Seewartenstraße 9 20459 Hamburg	
	Hotel - Hamburg train station 4 km, 20 min (by taxi)	
Train transfer from Hamburg to Cuxhaven via Hamburg Harburg *	Hamburg – Cuxhaven ~2 h (by train)	
Arrival in Cuxhaven and transfer/walk to hotel in Cuxhaven *	Train station – hotel 1 km, 15 min (by foot, taxi)	
Check-in hotel	Hotel Stadt Cuxhaven Alter Deichweg 11 27472 Cuxhaven	
Meeting point at hotel reception for walk to venue *	Hotel - venue 750 m, 10 min (by foot)	
Networking Lunch at Cuxhaven's Economic Development Agency (AfW) *	Cuxhaven's Economic Development Agency (AfW) Kapitän-Alexander-Straße 1 27472 Cuxhaven	
	Central Station *  Train transfer from Hamburg to Cuxhaven via Hamburg Harburg *  Arrival in Cuxhaven and transfer/walk to hotel in Cuxhaven *  Check-in hotel  Meeting point at hotel reception for walk to venue *  Networking Lunch at Cuxhaven's Economic	

### Development Agency (AfW) (10)

02:00 pm

- Introduction to Cuxhaven's Economic Development Agency (AfW)
- Role of offshore wind for Cuxhaven
- Introduction to the German Offshore Industry-Centre Cuxhaven
- Q&A

#### Mr. Marc Itgen

**Managing Director** 

Cuxhaven's Economic Development Agency (AfW) <a href="https://www.afw-cuxhaven.de/en/">www.afw-cuxhaven.de/en/</a>



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# Visit of the German Offshore Industry-Centre Cuxhaven and meeting with local industry/ local government authorities

The port (DOIZ) presents its offshore and heavy-duty terminals right on the Elbe coastline. Industrial and commercial sites near the port, a high level of maritime expertise and comprehensive measures in the area of professional qualification ensure an optimal basic structure for port and offshore industry activities at the Cuxhaven location.

Image film DOIZ:

www.youtube.com/watch?v=wNEL5OPmCRo

- Guided visit of the German Offshore Industry-Centre Cuxhaven by bus and boat
- Factory tour at Siemens Gamesa
- Meeting with local industry/ local government authorities

Guided visit of the German Offshore Industry-Centre Cuxhaven by:

Cuxhaven's Economic Development Agency (AfW) <a href="https://www.afw-cuxhaven.de/en/">www.afw-cuxhaven.de/en/</a>

German Offshore Industry-Centre Cuxhaven (DOIZ) <a href="https://en.offshore-basis.de/">https://en.offshore-basis.de/</a>

07:00 pm

02:00 pm

#### **Optional:**

Joint Dinner at restaurant **Seeterrassen** (\$)

#### Restaurant "Seeterrassen"

Am Seedeich 38 27472 Cuxhaven

End of day 3







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#### Thursday, June 29, 2023

Site visit, meeting with stakeholders and transfer to Hamburg / Heligoland

Time CEST/ UTC +2	Тор	Venue/ Speaker	
	1	Meeting point for walk to port in Cuxhaven:	
09:30 am	Check-out hotel in Cuxhaven, drop-off luggage and walk to port of Cuxhaven	Hotel Stadt Cuxhaven Alter Deichweg 11 27472 Cuxhaven	
		Hotel – Port of Cuxhaven 1 km, 15 min (by foot)	
11:15 am	Transfer to Heligoland (small island in the North Sea, close to major offshore wind parks) via boat with option to have a snack on board * (*)	Cuxhaven – Heligoland ~ 90 min	
	Round flight over offshore wind park		
12:45 pm	<ul> <li>Round flight over one of the three big wind parks close to Heligoland</li> </ul>		
03:30 pm	Visit of RWE production site and offshore wind park control center in Heligoland (11)	Mr. Lars Topp Petersen Trident Offshore, Offshore Operations Continental Europe	
σοισο μ	<ul> <li>Visit of offshore wind park control center in Heligoland</li> </ul>	RWE Offshore Wind GmbH www.rwe.com	
05:00 pm	Transfer from Helgoland to Hamburg via boat * (*)		
	During transfer:		
	Feedback by CAN participants on lessons learnt from the expert delegation trip meetings and site visits (3 groups, 3 inputs)		
	Wrap up delegation trip:	All participants	
	<ul> <li>Concluding remarks</li> <li>Next steps and potential future collaborations</li> <li>Feedback round, evaluation and closing of expert delegation trip</li> </ul>		
08:30 pm	Arrival in Hamburg, walk to hotel and check-in		
09:00 pm	Optional: Joint dinner and final get-together at restaurant Blockbräu (\$)	<b>Restaurant "Blockbräu"</b> Bei den St. Pauli-Landungsbrücken 3 20359 Hamburg	

End of day 4 and expert delegation trip









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#### Foot note:

- \* Arranged and costs covered by hosts
- (\*) Transfer options and site visit will depend on weather conditions. In case of unfavorable weather, the program organizer reserves the right to plan an alternative to the site visit proposed in the program on short notice.
- (\$) Costs to be borne by participant

#### Please note:

The program organizer may change the content and schedule of the agenda according to availability of the proposed organizations, their speakers and site visits on short notice.





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### **CANADIAN DELEGATION**

#	Title	First Name	Last name	Position	Institution
1	Ms.	Lisen	Bassett	Policy and Communications Lead	Marine Renewables Canada
2	Mr.	Jonathan	Brady	Deputy Director	Natural Resources Canada
3	Ms.	Brenda	Chisholm-Beaton	Co-chair of the Strait Mayor	Canso Offshore Wind Task Force Town of Port Hawkesbury
4	Mr.	John	Cowan	Deputy Minister	Government of Newfoundland and Labrador
5	Ms.	Jennifer	MacNeil	Green Energy Engagement Coordinator	Cape Breton Partnership
6	Mr.	Rob	McGrath	Director, Industrial Benefits	Canada Newfoundland and Labrador Offshore Petroleum Board
7	Ms.	Dena	Murphy	Director, Operations/Health, Safety & Environment / Lead, Offshore Renewable Energy	Canada-Nova Scotia Offshore Petroleum Board
8	Ms.	Ashley	Noseworthy	CEO	EDGEWISE (and Chair of Econext Board)
9	Mr.	Sven	Scholtysik	Research Director	Net Zero Atlantic
10	Mr.	Scott	Tessier	CEO	Canada Newfoundland and Labrador Offshore Petroleum Board
11	Ms.	Alexandra	Thomson	Program Manager	Indigenous Clean Energy
12	Ms.	Susan	Wilkins	Executive Director of Renewable Energy with IET	Government of Newfoundland and Labrador
13	Mr.	Jim	Wooder	Renewable Energy Liaison	Unama'ki Institute of Natural Resources (UINR)





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### **GERMAN SPEAKER PROFILES**

#### By order in the program:

# **Dr. Dominik Schnichels**Director General External Economic Policy German Federal Ministry for Economic Affairs and Climate Action (BMWK)



Dominik was until recently (January 2022) the Director of DG TAXUD/A – Customs in the European Commission. His Directorate was inter alia responsible for the enforcement of IPRs by national customs authorities. He is a German lawyer by training who started his career in an international law firm before joining the Commission in 1995, where he served in five DGs (TRADE, COMP, SANTE, OLAF and TAXUD).

Previous positions include: (1) director for internal investigations and investigations into fraud relating to direct expenditure (OLAF), (2) head of unit responsible for pharmaceutical policy (health technology assessment) and head of unit for tobacco control and organ/blood/tissue donation (SANTE), (3) head of unit/deputy head of unit responsible for the enforcement of competition law in the health sector and in the energy sector.

Dominik regularly publishes articles on European law, is the co-editor of a law journal and Professor for European law in Bonn.

#### **Elisabeth Taher**

Policy Officer, Division "General issues of bilateral climate and energy cooperation; cooperation with North America, East Asia, Oceania and Turkey"

German Federal Ministry for Economic Affairs and Climate Action (BMWK)



At the BMWK in the department "Climate and Energy Cooperation with Industrialized Countries, Hydrogen Initiatives" as a policy advisor and responsible for the implementation and further development of the import instrument "H2Global" as well as for the bilateral energy and climate partnership with Canada.

Previously 3 years as policy advisor in the BMUV in the Department of Environment and Economy among other things collaboration on the decarbonization of the economy, such as the sustainable hydrogen ramp-up. Market analyses in the field of green tech, promotion of green start-ups.

Has experience in the economy especially in the fields of climate, energy and mobility. Studied economics and political science with an international focus. Married with one child.

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# **Dipl.-Ing. Hanno Salecker**Policy Officer, Division "Offshore Wind Energy" German Federal Ministry for Economic Affairs and Climate Action (BMWK)



Hanno Salecker has more than 10 years' experience in the wind energy sector, especially in offshore wind energy. He works as a technical consultant for the German Maritime and Hydrographic Agency (BSH) and is responsible for site development planning of offshore wind energy. At the moment, he is working as consultant in the Ministry of Economics and Climate Action in the division for offshore wind energy.

Before that, he was working as scientific advisor in the division for renewable energies in the Federal Environment Agency and gained practical insights while working as project leader for a manufacturer of offshore wind turbines.

He holds a diploma in Energy and Environmental Engineering.

### German Federal Ministry for Economic Affairs and Climate Action (BMWK)

Responsibilities within the field of energy and climate policy are being pooled in the BMWK. This is enabling an "energy policy from one source" and offers the advantage of covering the energy market in its entirety.

The BMWK is responsible for all issues relating to the Energiewende. Its goal is a secure, environmentally friendly and affordable energy supply.

Thanks to appropriate framework conditions, the BMWK will ensure that the Energiewende becomes a driver for investment and modernization that contribute to innovation, economic growth and employment.

Federal Ministry for Economic Affairs and Climate Action

www.bmwk.de









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**Mr. Andreas Mummert** *Head of Politics*German Offshore Wind Foundation (SOW)



Andreas Mummert is Head of Politics at the German Offshore Wind Foundation since August 2021. He is responsible for the political activities both in the German capital and on federal state level. Andreas also coordinates the Foundation's project on Green Hydrogen and Offshore Wind Energy.

Prior to this, he worked for three years in the field of regulatory affairs for the Association of German Wind Farm Operators, thus developing an in-depth expertise on offshore wind in Germany and Europe.

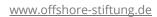
Andreas studied politics in Constance, Bremen, and Chennai. He has 10 years of experience in the field of political and public affairs working for Germany's former President of the Bundestag, Prof. Rita Suessmuth, as well as in the private sector.

He is married and a mountaineering enthusiast.

#### **Stiftung Offshore Windenergie**

The German Offshore Wind Energy Foundation was founded in 2005 on the initiative of the industry and under the moderation of the German Federal Ministry for the Environment, Nature Conservation, Nuclear Safety and Consumer Protection (BMUV).

The foundation's overall purpose is to consolidate the role of offshore wind energy in the energy mix of the future in Germany and Europe and to promote its expansion in the interests of environmental and climate protection. It has established itself as a non-partisan, supraregional and independent communication platform for the entire offshore wind energy sector. The foundation's board of trustees includes key federal and state ministries for offshore wind as well as operators, manufacturers, transmission system operators, suppliers, banks and insurance companies.













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**Dr. Dirk Biermann** *Managing Director*50Hertz Transmission GmbH



Dirk Biermann, born in 1969, is a member of the management board of 50Hertz Transmission GmbH and holds the position Chief Officer Markets and System Operations since April 2012.

Before he was appointed, he headed the Energy Management department in the company with responsibility for the energy business like market design, congestion management, ancillary services and renewables.

After his PhD studies at RWTH Aachen, Dirk Biermann started his carrier at former VEAG in 1999. In 2002 he changed to Vattenfall Europe AG where he was appointed as a manager with the responsibility for grid strategy in 2004.

Dirk Biermann is member of the boards of ENTSO-E, VDE FNN and BDEW Berlin/Brandenburg. He is member of the supervisory boards of EEX in Leipzig and TSCNET in Munich and member of the boards of Coreso and EGI in Brussels.

**Dr. Heinrich Quick** *Head of Offshore, 50Hertz*50Hertz



Henrich Quick is Head of Offshore at 50Hertz, one of the four German TSO. He is responsible for grid connection projects for offshore wind parks, offshore based interconnectors as well as O&M and asset management of 50Hertz's offshore assets.

Among the list of Henrich's projects you find Kriegers Flak Combined Grid Solution, the first hybrid offshore wind interconnector, as well as Ostwind 1, a mini meshed offshore AC grid. Prior to his current role, Henrich was the asset manager and asset owner for all 50Hertz transmission grid assets.

Before he joined 50Hertz, Henrich had worked on large scale infrastructure investments for Pöyry Management Consulting (nowadays Afry Management Consulting) and Alpiq, the Swiss power trader. Henrich had started his career at Booz Allen Hamilton (nowadays Strategy&) as consultant in the energy & utilities practice.

Henrich holds a Ph.D. and a diploma in physics, both from TU Dortmund.







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#### **50Hertz Transmission GmbH**

50Hertz operates the electricity transmission system in the north and east of Germany, which it expands as needed for the energy transition.

Our extra high voltage grid has an electrical circuit length of more than 10,000 kilometres, or the distance between Berlin and Rio de Janeiro. The 50Hertz control area covers the Länder of Brandenburg, Mecklenburg-Western Pomerania, Saxony, Saxony-Anhalt, and Thuringia, as well as the city states of Berlin and Hamburg. Within these regions, 50Hertz and its around 1,400 employees ensure that 18 million people are supplied with electricity around the clock.

50Hertz is a forerunner in the field of secure integration of renewable energy. In our grid area, we want to integrate 100 percent renewable energies securely into the grid and system by 2032 - calculated over the year. The shareholders of 50Hertz are the Belgian holding Elia Group (80 percent), which is listed on the stock exchange, and the KfW bank group with 20 percent.

As a European TSO, 50Hertz is a member of the European Network of Transmission System Operators for Electricity (ENTSO-E).

www.50hertz.com











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**Dr. Georgios Papaefthymiou** *Principal Consultant*Elia Grid International



Dr. Georgios Papaefthymiou works as Principal Consultant at the Power System Development and Operations Department of Elia Grid International. He has more than 20 years of professional experience in the power sector. Georgios' work mainly focuses on preparing optimal pathways for the evolution of power systems towards decarbonisation, dealing with topics interfacing system planning, system operations and market design. Georgios has been working on a series of grid planning projects on the interconnection of offshore wind farms with Elia Group, and internationally on the assessment of business cases of (offshore) interconnection projects in terms of financial feasibility, CBA, CBCA, and market/regulatory design. Georgios has been leading a series of studies for the European Commission on the development of offshore grids in the Northern European Seas, investigating the detailed design, the benefits and the regulatory implications from the adoption of meshed offshore grids. He has worked and managed a wide variety of projects in topics in different countries around the world, allowing him to gain a deep understanding on the different global power system operation and market paradigms. Dr. Georgios Papaefthymiou holds an MSc on Power Engineering from the University of Patras, Greece with focus on High Voltage equipment technology, and a PhD in Electrical Engineering from Delft University of Technology, in integration of variable renewables in power systems. He is the author and co-author of more than 70 scientific publications on the wider topic of integration of variable renewable generation in power systems.

#### Elia Grid International (EGI) GmbH

Elia Grid International (EGI) is an international consulting company, which offers consultancy services in market development, asset management, power system operations, and security, system and market operations, as well as owner's engineering and investment advisory support both to international clients in the power grid sector and to the Elia Group. It is a full subsidiary of the Elia Group, organized around two transmission system operators (TSOs): Elia in Belgium and 50Hertz – one of four German transmission system operators which operates the control area in the north and east of Germany. EGI benefits from its position as a subsidiary of two European TSOs and can offer proven expertise and hands-on experience based on the best practices of its parent companies. The company also plays a catalyzing role in the Elia Group by providing valuable international insights and innovative solutions to Elia and 50 Hertz.



https://eliagrid-int.com



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**Dr. Nico Nolte**Head of Management of the Sea Department
Federal Maritime and Hydrographic Agency (BSH)



Dr. Nico Nolte studied law and, after postgraduate studies at the University of London and a traineeship in Osnabrück and Brussels, started his professional involvement in energy policy at an association of the regional energy industry in Hanover. At the end of 2000, he joined the Federal Waterways and Shipping Administration in Berlin and BSH in Hamburg in the summer of 2002. There he worked in the fields of offshore wind energy and maritime spatial planning and in summer 2013 he took over the corresponding division Management of the Sea. He headed the work on drawing up the first maritime spatial planning plans for the German EEZ in the North Sea and Baltic Sea (2009) and the INTERREG project "BaltSeaPlan" (2009 to 2012). There, 14 partners from seven countries worked together on maritime spatial planning in the Baltic Sea. Due to the increased importance of offshore energy, the BSH was given additional tasks. As a result, Dr. Nolte has been appointed head of the newly created Department for the Management of the Sea in 2017. For Dr. Nolte, the versatility in combination with planning tasks is an exciting field of activity; especially the approval of offshore structures, which he greatly appreciates and particularly the interdisciplinary work on legal, marine biological and technical issues. Dr. Nico Nolte is also a lecturer at the University of Hamburg for "National Public Law of the Sea".

#### Federal Maritime and Hydrographic Agency (BSH)

The BSH is a higher federal authority within the portfolio of the Federal Ministry for Digital and Transport (BMDV). It is the public institution for maritime tasks. The Management of the Sea Department's overriding goal is to implement the climate policy guidelines of the German government, to contribute to energy system transformation and the coordinated expansion of offshore wind energy and the necessary grid connection in the German EEZ in a way that is compatible with nature and space. On the basis of the spatial development plans and the technical planning specifications, the use and protection of the oceans must be balanced under the condition of sustainable development. Tasks include: Preparation of the site development plan; Development of the spatial development plan with definition of priority and reserved areas for various use/functions; Preliminary investigation of areas and checking the suitability of these areas for offshore wind energy; Management of planning approval and approval procedures for offshore wind farms, converters, power cables and pipelines; Approval of research activities, environmental audits & plausibility check of technical documents; Construction and operation approval & supervision of construction and operation



BUNDESAMT FÜR SEESCHIFFFAHRT UND HYDROGRAPHIE

https://www.bsh.de/EN

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**Timo Kahl** *Lead Offshore Development Germany*TenneT TSO GmbH



Timo Kahl has more than 8 years of working experience in the energy transmission sector while working for different Transmission System Operators in Germany, always with a focus on long-term grid and project planning as well as integrating new technologies into the energy system, both from an offshore and onshore perspective. His academical background with a Master of Science in Industrial Engineering (Electrical Engineering, Economics, Legal) provides him a broad knowledge base for technical, economic and regulatory topics. As Lead for the Offshore Development Germany team within the unit Large Projects Offshore, he is responsible for the long-term offshore project planning of TenneT TSO GmbH ensuring a stable project pipeline of offshore grid connection systems in alignment with national and international stakeholders, improving the framework conditions for project execution with authorities and ministries on federal and state level as well as coordinating the spatial pre-project planning in the nearshore and onshore area.

Wolfram Breuer Head of 900 MW DC TenneT TSO GmbH



Wolfram Breuer has more than 20 years of working experience in the energy and energy transmission sector. He started his carrier with developing power plants and building waste treatment plants. During the last 12 years he was responsible for building offshore grid connection systems for windfarms in the German North Sea. Throughout his career he worked in areas with high levels of novelty, uncertainty and with new and evolving conditions. Wolfram has an academic background in engineering and in environmental protection focusing on process engineering.

As Head of the TenneT´s 900 MW DC department Wolfram is currently responsible for the 900 MW program within in Germany. The program consists of four offshore grid connection systems for windfarms with transmission power between 900 and 980 MW and rated hight voltage direct current. These offshore grid connection systems are currently being built in various yards worldwide and are due for commissioning between 2023 and 2027.







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#### **TenneT TSO GmbH**

TenneT is a leading European grid operator. We are committed to providing a secure and reliable supply of electricity 24 hours a day, 365 days a year, while helping to drive the energy transition in our pursuit of a brighter energy future – more sustainable, reliable and affordable than ever before. In our role as the first cross-border Transmission System Operator (TSO) we design, build, maintain and operate 24,500 kilometres of high-voltage electricity grid in the Netherlands and large parts of Germany, and facilitate the European energy market through our 16 interconnectors to neighbouring countries. We are one of the largest investors in national and international onshore and offshore electricity grids, with a turnover of EUR 6.4 billion and a total asset value of EUR 32 billion. Every day our 6,600 employees take ownership, show courage and make and maintain connections to ensure that the supply and demand of electricity is balanced for over 42 million people. Lighting the way ahead together.



www.tennet.eu









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**Ms. Karina Würtz** *Managing Director*Foundation



Karina is a senior management executive and offshore wind enthusiast with a passion for connecting people and driving innovation. Being in the renewables industry since 2007 and in Offshore Wind since 2010, she can rely upon a widespread and well-established network in business, authorities and R&D. Before joining the Offshore Wind Energy Foundation in Summer 2021 as a Managing Director, she gathered indepth experience (from 2017 – 2021) in offshore wind operations as General Manager of NordSee Ost, an Offshore Windfarm located some miles off the coast of Heligoland. From 2010 – 2016, she led various senior management positions in RWE Innogy's offshore Wind construction division, being responsible for an international and miltidisciplinary team focused on risk & insurance management, project controls and project planning & scheduling. Her academic background is in economics & finance as well as in political science.

#### **Stiftung Offshore Windenergie**

The German Offshore Wind Energy Foundation was founded in 2005 on the initiative of the industry and under the moderation of the German Federal Ministry for the Environment, Nature Conservation, Nuclear Safety and Consumer Protection (BMUV). The foundation's overall purpose is to consolidate the role of offshore wind energy in the energy mix of the future in Germany and Europe and to promote its expansion in the interests of environmental and climate protection. It has established itself as a non-partisan, supra-regional and independent communication platform for the entire offshore wind energy sector. The foundation's board of trustees includes key federal and state ministries for offshore wind as well as operators, manufacturers, transmission system operators, suppliers, banks and insurance companies.



www.offshore-stiftung.de









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**David Timm**Global Head of Public Affairs
Northland Power Inc.



David is Northland's Global Head of Public Affairs. Based in Toronto, he leads a diverse team, spread across Northland's active markets, that is working to build strong relationships with decision makers and key influencers within government, regulators and agencies and advocate for effective policy, legislative and regulatory frameworks that ensure the continued growth of Northland's interests around the globe.

With more than 25 years of experience in the sector, David has a demonstrated history of designing and executing successful advocacy campaigns to help grow the businesses that he supports. He currently serves on the Board of the World Forum Offshore and Marine Renewables Canada and he is a former Director of Offshore Wind California and Board Chair of the Canadian Wind Energy Association.

**Sebastian Thiele** *O&M Director, Europe & Managing Director Deutsche Bucht Operations*Northland Power Inc.



Sebastian joined the Northland Power team in August 2018 as Senior O&M Manager Nordsee One and Deutsche Bucht, providing O&M services to Northland's German offshore wind farms.

Before that Sebastian worked as Team Lead O&M Development Offshore Wind at E.ON Climate & Renewables on various European tender projects, such as Dutch, Danish and French tender, e.g. Hollandse Kust, Kriegers Flak, Dunkirk. In parallel he headed the O&M Package Arkona, a Baltic Sea project in operations since end of 2018. Prior to this he worked for Vattenfall in various roles (Finance, Risk Management and Controlling) and has been part of the offshore wind business since 2009 engaged with offshore wind farms alpha ventus (German offshore test field), DanTysk and Sandbank.

Sebastian holds a Diploma from Berlin School of Economics and Law as well as a Master of Science for Renewable Energy Systems from the Hamburg University of Applied Sciences.







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#### **Northland Power Inc.**

Founded in 1987, Northland Power is a Canadian global power producer dedicated to accelerating the clean energy transition by producing electricity from renewable resources. Northland owns and manages a diversified generation mix including offshore and onshore renewables, and efficient natural gas, as well as supplying energy through a regulated utility. Headquartered in Toronto, Canada, with global offices in eight countries, Northland owns or has an economic interest in 3.0 GW (net 2.6 GW) of operating capacity and has a significant project pipeline encompassing over 19 GW of potential capacity.

The European market has been instrumental in establishing Northland's position as global leaders in offshore wind and is home to some of our largest operational facilities including Gemini (600 MW, Netherlands), Nordsee One (332 MW, Germany), and Deutsche Bucht (252 MW, Germany). Northland's European headquarters and our Offshore Wind Center of Excellence are both based in Hamburg, supporting our global offshore development and construction pipeline.

www.northlandpower.com/en











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#### **Carl Rasmus Richardsen**

Managing Director

Deutsche Windtechnik Offshore und Consulting GmbH



Carl Rasmus Richardsen was born in 1980. After his apprenticeship as a mechanical craftsman, Carl was employed at AN Bonus as a service technician for 5 years and has worked for the commissioning, installation and fault-clearing of various Bonus types. Between 2005 and 2007 he became state certified Mechanical Engineer. From 2007 to 2012, Carl was Managing Director of Windstrom Service SH GmbH. In this company he was responsible for Sales, Service and Site Management. In 2012 he began working as Aftersales Manager at Deutsche Windtechnik Service GmbH & Co. KG. Since 2013, he is the Managing Director and Head of Sales at Deutsche Windtechnik Offshore und Consulting GmbH. As part of this role, Mr Richardsen is responsible for the development of the entire offshore activities at Deutsche Windtechnik. He was also responsible for setting up the offshore units in The Netherlands, Taiwan and UK. In 2023 Deutsche Windtechnik employs more than 350 people in the offshore and more than 1,850 people in the onshore wind energy sector. The company has locations in Europe, North America and East Asia.

#### **Deutsche Windtechnik AG**

Deutsche Windtechnik AG is one of the largest specialists for the maintenance of wind turbines on land and at sea globally. The company offers a single-source full technical maintenance package for wind turbines in Europe, the USA and Taiwan. More than 2,000 employees provide service for over 8,200 wind turbines worldwide under permanent maintenance contracts.

The company's multi-brand system engineering focuses on Vestas, Siemens, Nordex, Senvion, Fuhrländer, Gamesa, Enercon and GE turbines. The daughter Deutsche Windtechnik Offshore und Consulting GmbH provides whatever is needed to operate offshore wind farms profitably: Service that is tailored to the customer's requirements, ranging from individual services to full-service packages that include maintenance for the turbines, large components, logistics, intelligent wind farm management and strategic consulting.



www.deutsche-windtechnik.com









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**Marc Itgen Managing Director** Cuxhaven's Economic Development Agency (AfW)



Marc Itgen is the director of the Business Development Agency of the City of Cuxhaven and main contact person for the Offshore Base and Offshore-Industry-Center Cuxhaven.

Marc Itgen has 25 years' experience in the maritime business incl. offshore wind with 10 years. Marc is with the city of Cuxhaven since February 2019 and he worked with Vattenfall Europe Offshore Wind and RWE Offshore Logistics Company before. He worked in the offshore wind business as Head of Logistics, Marine Manager, Sen. Marine Lead, Head of Marine Coordination Center, Project Manager UXO and Lead Engineer Road Map Logistics. His technical background he received at DNV former Germanischer Lloyd as approval engineer.

Marc Itgen experience in the offshore wind sector based on projects like Nordsee Ost (GER), Gwynt y Môr (UK), DanTysk (GER), Sandband (GER), Horns Rev 3 (DK). In planning, he was also involved in projects like Kriegers Flak (DK), Norfolk Vanguard (UK), Hollandse Kust (NL) and Dunkerque (FR). He graduated in Maritime Economics and Port Management. He holds a Diploma in Industrial Engineering.

#### **Cuxhaven's Economic Development Agency (AfW)**

The Cuxhaven Agency for Economic Development is the regional point of contact for businesses and start-ups for all matters concerning funding programs and business and economic development.

Its areas of expertise cover traditional sectors of industry such as the port & logistics, fisheries and the food industry but also innovative fields such as the pharmaceutical and biotechnology sectors.

In the new energy sector, AfW has successfully overseen the German Offshore Industry Centre in Cuxhaven as it has positioned itself as one of the pioneering locations of its kind in Europe.

https://www.afw-cuxhaven.de/en











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# **Lars Topp Petersen** *Trident Offshore, Offshore Operations Continental Europe*RWE Offshore Wind GmbH



Lars Topp Petersen is Production Manager at trident Offshore which includes 3 wind farms NSO, Amrumbank and Kaskasi. Lars Topp Petersen is electrician and machinist and started his renewable energy career as a wind turbine technician back in 2008, first onshore and later offshore. In 2015 he joined Amrumbank and took the role as Maintenance Coordinator. Later he was promoted to Production Manager.

Lars Topp Petersen is Danish citizen and lives in Leipzig Germany, married with two daughters.

#### **Cuxhaven's Economic Development Agency (AfW)**

RWE is leading the way to a green energy world. With an extensive investment and growth strategy, the company will expand its powerful, green generation capacity to 50 gigawatts internationally by 2030. RWE is investing €50 billion gross for this purpose in this decade. The portfolio is based on offshore and onshore wind, solar, hydrogen, batteries, biomass and gas.

RWE Supply & Trading provides tailored energy solutions for large customers. RWE has locations in the attractive markets of Europe, North America and the Asia-Pacific region. The company is responsibly phasing out nuclear energy and coal. Government-mandated phaseout roadmaps have been defined for both of these energy sources. RWE employs around 19,000 people worldwide and has a clear target: to get to net zero by 2040. On its way there, the company has set itself ambitious targets for all activities that cause greenhouse gas emissions. The Science Based Targets initiative has confirmed that these emission reduction targets are in line with the Paris Agreement. Very much in the spirit of the company's purpose: Our energy for a sustainable life.



www.rwe.com









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This delegation trip is organized by the Renewables Academy (RENAC) AG in cooperation with its partners adelphi, the German Canadian Chamber of Industry and Commerce (AHK) as part of the Canada-Germany Energy Partnership.

#### About the Renewables Academy (RENAC) AG

The Renewables Academy AG (RENAC) is a leading international provider of training, educational programs and capacity building services in the field of renewable energy and energy efficiency.

Since its foundation in 2008, RENAC has trained over 30,000 professionals from more than 160 countries in the use and implementation of different renewable energy technologies covering technical aspects, policy, regulatory framework, project development, and financial aspects. As part of its service portfolio, RENAC also offers support to major private and public organizations, international agencies, universities and governments in setting up and developing own in-house training portfolios, drawing on its extensive experience in training material development and training delivery.



Since 2016, RENAC is part of a consortium supporting the German Federal Ministry for Economic Affairs and Climate Action (BMWK) in its endeavor to strengthen its bilateral energy cooperation initiatives with Canada, the United States, Australia, and New Zealand. Within this consortium, RENAC organizes high-level expert exchanges between Germany and the partner countries.

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### YOUR PARTICIPATION

The aim of this delegation trip is to provide a space for exchange and discussion, and everyone present brings a wealth of experience to the table. In order for everyone to benefit the most from taking part we encourage you to actively participate in the activities and discussions.

During the four days of the delegation trip, we ask you to please consider the following in order to make the exchange as interactive and fruitful as possible for all of you:

- **Contribute to the discussion.** We want you to be involved, so please do not hesitate to ask your questions or contribute to the discussion.
- **Be on time.** Please be on time at the meeting points at the times indicated in the agenda and let your hosts know immediately in case of any urgency matters arising throughout the four days.
- Participate in all sessions. We all count on your participation in every session throughout the four days of the delegation trip.
- Agree to disagree (if necessary) and be respectful of others. Please consider the discussions as exchanges between experts for the purpose of learning. During the sessions, participants are free to express their opinions and concerns. Differences in approaches and strategies are more than welcome. Everyone should contribute to a calm, non-judgemental and sharing environment.

We look forward to a fruitful four-day exchange with you!







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### IMPORTANT CONTACT NUMBERS

#### During your stay here in Germany, please find below important contact numbers:

Emergency Number	112
Canadian Embassy Germany	Leipziger Platz 17, 10117 Berlin Phone: +49 30 203120 Website: https://kanadaindeutschland.ca/en_EN/home
Hotel Berlin Motel One am Hauptbahnhof (Berlin)	Invalidenstraße 54, 10557 Berlin Phone: +49 30 364 10 05-0 Website: <u>www.motel-one.com</u>
Hotel Hafen Hamburg (Hamburg)	Seewartenstraße 9, 20459 Hamburg Phone: +49 40 311130 Website: www.hotel-hafen-hamburg.de/en/
Hotel Stadt Cuxhaven (Cuxhaven)	Alter Deichweg 11, 27472 Cuxhaven Phone: +49 47215820 Website: www.hotel-stadt-cuxhaven.de/english/







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#### **CONTACT**

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