



NORTHEAST POWER COORDINATING COUNCIL, INC.  
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## NPCC DER/VER Forum Offshore Wind WebEx Meeting

June 24, 2021 8:30 am – 12:00 pm EDT

**Dial-In: 415-655-0003 (USA) / 416-915-6530 (Canada)**

**Guest Code: 1618908968**

**Password: ccBhi7xk\*86 (22244795 from phone)**

[WebEx Link](#)

### AGENDA

**June 24, 2021 8:30 a.m. – 12:00 p.m. (all times in EDT)**

	Name	Organization	Comments
1	Aaron Hornick	NPCC	
2	Abhinav Rawat	National Grid	
3	Aditya Menon	Hydro One	
4	Aleksandra Gofman	Con Edison	
5	Allen Schriver	FPL	
6	Andreas Klaube	NPCC	
7	Andrew Kimball	Mass.Gov	
8	Anie Philip	PSEG	
9	Anjali	Orsted	
10	Anthony Roisman	Vermont.Gov	
11	Armando Terrones	National Grid	
12	Ash Chappell	Reliability First	
13	Barry Bruun	Eversource	
14	Becca	Energy RI.Gov	
15	Bela Elekes	National Grid	
16	Ben O'Rourke	NYISO	
17	Benjamin Loebick	UI	
18	Beth Rettig	Reliability First	
19	Bhargavi Devarajan	National Grid	
20	Brian Robinson	Utility Services	
21	Brook Knodel	Orsted	
22	Burke David	ORU	
23	Carl Benker		
24	Caron Mich	CT.Gov	
25	Casey Hayes	National Grid	
26	Casey Kirkpatrick	National Grid	
27	Catherine Ethier	Oeb.CA	
28	Catherine Nakor-Tetteh	NPCC	

29	Chris Kearns	Energy RI.Gov	
30	Chris Overberg	Con Edison	
31	Christina Duong	NYISO	
32	Christopher McKinnon	Eversource	
33	Connie Lowe	Dominion Energy	
34	Dermot Smyth	Con Edison	
35	Damase Hebert	NPCC	
36	Damian Sciano	Con Edison	
37	Dan Roethemeyer	Vistra Corp	
38	Daren Verner	NBPower	
39	Dave Krueger	SERC	
40	David Conroy	RLC-Eng	
41	Dean Sorensen	National Grid	
42	Diana Exner	IESO	
43	Diane Burman	DPS.NY.Gov	
44	Dick Brooks	Reliable Energy Analytics	
45	Domino, Mark F.	National Grid	
46	Donald E. Nelson	Mass.Gov	
47	Duan, Jiang	National Grid	
48	Dylan Dreisch	PSEG	
49	Ed Dotterer	National Grid	
50	Eddy Lim	FERC	
51	Edward Roedel	UI	
52	Enakpodia Agbedia	FERC	
53	Endrit Fiku	National Grid	
54	Eric Annes	CT.Gov	
55	Eric Remolona	ORU	
56	Eric Thumma	Avangrid	
57	Eric Wilkinson	Orsted	
58	France Marquez	PSEG	
59	Francesco Elmi	NPCC	
60	Frank Ettori	Velco	
61	Frank Ronci	NYPA	
62	George Dong	NPCC	
63	George Wegh	Eversource	
64	Gerard Dunbar	NPCC	
65	Gid Ansah	National Grid	
66	Glenroy Smith	Entergy	
67	Godoy, Cristhian	Con Edison	
68	Hantz Presume	Velco	
69	Hao Fu	PSEG	
70	Harris Eisenhardt	NYISO	
71	Helen Wang	Con Edison	
72	Herb Schrayshuen	Power Advisors LLC	
73	Holiday, Matthew	National Grid	
74	Humayun Kabir	DPS.NY.Gov	
75	Igor Portnoy	NYISO	
76	Jack Martin	National Grid	
77	James	IESO	

78	James Grant	NYISO	
79	James Oddy	FERC	
80	Jason Pause	DPS.NY.Gov	
81	Jessica Hala	NPCC	
82	Joel Charlebois	AESI-Inc	
83	John Dzialo	National Grid	
84	John Hastings	National Grid	
85	John Ng	PSEG	
86	John Norden	ISO-NE	
87	John Pearson	ISO-NE	
88	Joshua Sussen-Soechting	Con Edison	
89	Julie King	Avangrid	
90	Keith Burrell	NYISO	
91	Keith Lee	Hydro One	
92	Keith Swan	National Grid	
93	Kelly Kozdras	Con Edison	
94	Ken Stell	Vistra Corp	
95	Kevin DePugh	NYISO	
96	Khant Latt	NPCC	
97	Klearko Goro	PSEG	
98	Kristin McKeown	NPCC	
99	Kurtis Chong	IESO	
100	Larisa Tomovici	IESO	
101	Laura Popa	NYISO	
102	Leka Gjonaj	DPS.NY.Gov	
103	Leo Jensen	Orsted	
104	Lia Howard	Orsted	
105	Lincoln	Con Edison	
106	Lodie White	FERC	
107	Lou Cecere	Velco	
108	Lubaba Islam	Con Edison	
109	Maija		
110	Mariya Zagalskaya	National Grid	
111	Mark Vautou	NBEUB	
112	Matthew Holiday	National Grid	
113	Matthew Koenig	Con Edison	
114	Michael Foley	Con Edison	
115	Michael Gildea	FERC	
116	Michael Heyer	PSEG	
117	Michael Lombardi	NPCC	
118	Michael Mullin	Con Edison	
119	Mike Jones	National Grid	
120	Mina Ellis	NPCC	
121	Muhammad Ibraheem	PSEG	
122	Mujahid M. Mian	NPCC	
123	Neeraj Lal	NPCC	
124	Nick B	National Grid	
125	Nick Parrotta	PLM	
126	Nicolaj Mensberg	Orsted	

127	Nicole Segal	FERC	
128	Nitish Sharma	National Grid	
129	Norman Mah	Con Edison CEB	
130	Patricia Eke	FERC	
131	Patrick Palompo	NPCC	
132	Paul MacDonald	NBEUB	
133	Paul Simoneaux	SERC	
134	Payam Farahbakhsh	Hydro One	
135	Per-Anders Lof	National Grid	
136	Peter Van Huynh	NSPower	
137	Phil Fedora	NPCC	
138	Quang Nguyen	PSEG	
139	Quintin	Eversource	
140	Quoc Le	NPCC	
141	Rafael Sahiholamal	NPCC	
142	Ralph Rufrano	NPCC	
143	Randall.Davis	Maine.Gov	
144	Randy Crissman	NYP&A	
145	Ray Mason	Reliability First	
146	Remolona	ORU	
147	Rhonda Dunfee	FERC	
148	Rigoberto Milla	Next Era Energy	
149	Rima Crepeau	National Grid	
150	Rizki Del Olmo	PSEG	
151	Rob Vance	NBPower	
152	Robert Eisenhuth	PSEG	
153	Roberto Reyes	SERC	
154	Roger Zaklukiewicz		
155	Rudi Vega	ISO-NE	
156	Ruida Shu	NPCC	
157	Ryan	National Grid	
158	Salvatore Spagnolo	NYP&A	
159	Sasan Jalali	FERC	
160	Scott Nied	NPCC	
161	Sean Bodkin	Dominion	
162	Sean Lagan	IESO	
163	Shayan Rizvi	NPCC	
164	Sheila Keane	Mass.Gov	
165	Shivaz Chopra	NYP&A	
166	Slawek Szymanowski	ISO-NE	
167	Song Zhang	ISO-NE	
168	Sophie Janeway	CT.Gov	
170	Stephanie Schmidt	FERC	
171	Subhadarshi Sarkar	National Grid	
172	Swagata Sharma	NYISO	
173	Tab Gangopadhyay	CER-REC.gc.ca	
174	Terron Hill	National Grid	
175	Terrones, Armando	National Grid	
176	Thinh Pham	PSEG	

177	Thomas Hu	National Grid	
178	Thomas Lott	National Grid	
179	Tina Franceschini	ORU	
180	Tom M	PSEG	
181	Tony Napikoski	UI	
182	Umair Hanif	PSEG	
183	Vijay Puran	DPS.NY.Gov	
184	Wai Pong Wong	National Grid	
185	Wanda	NAES	
186	Wang, Xiankai	NSPower	
187	Wasequl Haque	National Grid	
188	Wayne Sipperly	Generator Forum	
189	Xiaochuan Luo	ISO-NE	
190	Yost, Peter	Con Edison	
191	Yujie Lu	National Grid	
192	Yves Albert	NBPower	
193	zhengq@coned.com	Con Edison	
194	Zhu, Chuanjiang (Chelsea)	National Grid	
195	Zoraini Rodriguez	PSEG	

**1.0 Welcome – Phil Fedora, NPCC**

**(8:30 am - 8:35 am)**

- 1.1 Antitrust Compliance Guidelines
- 1.2 Public Notice, and Meeting Protocols

Mr. Fedora welcomed attendees to the offshore wind forum introduced the NPCC Staff who will be facilitating the forum and reminded the participants that the offshore wind forum is being recorded and will be posted on the NPCC website.

Mr. Shu reviewed the NPCC Antitrust Compliance Guidelines and advised the attendees that the Offshore Wind Forum was open to the public and will be recorded.

**2.0 NPCC DER/VER Outreach Efforts – Gerry Dunbar**

**(8:35 am – 8:45 am)**

Mr. Dunbar welcomed the attendees to the Offshore Wind Forum and thanked those who will be presenting. He noted that NPCC as the regional entity in Northeast North America is uniquely positioned to provide its stakeholders with an opportunity to interact, to share best practices and to promote learning from industry experience.

Mr. Dunbar reviewed the DER forum conducted in February of this year which was focused on system protection issues related to DER and the recent forum in May which highlighted FERC Order 2222 on DER aggregation and its implementation in New York and New England.

Mr. Dunbar explained that NPCC anticipates conducting a third DER forum on October 14 of this year and that agenda will be announced.

Finally, he highlighted the development of Version 3 of a DER/VER Guidance document which is available to all stakeholders and posted on the NPCC website. The guidance document was initiated by the NPCC Board of Directors to provide regional guidance and information for voluntary use by NPCC Members and stakeholders. Version 3 of the document will address a variety of updated issues including:

- The impact of FERC Order 2222.
- Any technical policy guidance from NERC, FERC, or the Canadian regulatory authorities.
- There will be a new section addressing Offshore Wind along with further development of the information surrounding Protection System Impacts.

NPCC will be posting the revised and updated DER/VER Guidance document later this year for stakeholder comment.

Mr. Dunbar introduced the first speakers.

### **3.0 Ørsted – Offshore Wind Considerations (8:45 am – 10:15 am)**

Operations, Design, and Interconnection

**Leo Enrico Jensen, Nicolaj Mensberg, and Brook Knodel**

Mr. Knodel provided background on Ørsted’s global offshore wind projects. Mr. Knodel highlighted Ørsted’s current and future activity off the coast of eastern North America.

Mr. Jensen described current wind turbine technology including an overview of different wind turbine manufacturers.

Mr. Jensen’s remarks included a description of the main components of a wind turbine, the wind turbine power curve, and the power duration curve. Mr. Jensen also provided insights on energy markets and short-term forecasting of wind power.

Mr. Mensberg highlighted offshore operations and maintenance of a wind turbine.

Mr. Mensberg provided an overview of 1) the onshore substation 2) the offshore substation 3) the array and export cables 4) offshore logistics 5) wind turbines and 6) on shore facilities and harbor. Mr. Mensberg also described the O&M strategy for cables and offshore substations.

Mr. Knodel concluded the Ørsted presentation with remarks about current interconnection challenges and the future of offshore wind interconnection.

### **15 Minute Break (10:15 am – 10:30 am)**

### **4.0 National Grid (10:30 am – 11:00 am)**

National Grid’s Perspectives on the Future of Offshore Wind

**Terron Hill**

Mr. Hill provided background on National Grids experience with offshore wind including activity in the United Kingdom. Mr. Hill summarized the aggressive decarbonization goals in Massachusetts, New York and Rhode Island and noted that the focus on decarbonization will impact the electricity sector.

Mr. Hill stressed the importance of refocusing how we plan and operate the transmission system and noted that coordination among state and federal agencies will be critical.

Mr. Hill also provided insights on advanced technology that can better optimize the power grid.

### **5.0 Avangrid (11:00 am – 11:20 am)**

Vineyard Wind Project

**Eric Thumma**

Mr. Thumma provided background Vineyard Wind’s ownership structure and its commercial lease area for offshore wind development off the coast of Massachusetts.

Mr. Thumma highlighted Vineyard Wind 1 including its capacity, lease area, point of interconnection, anticipated commercial operation date, and purchase power agreements.

**6.0 Eversource (11:20 am – 11:50 pm)**

**Revolution Wind, South Fork Wind, and Sunrise Wind**

Basics of Offshore Wind Projects, Siting, and Routing

**Maija Benjamins and Lia Howard**

Ms. Benjamins and Ms. Howard provided a presentation on the Eversource/Orsted joint offshore venture.

The joint venture is a 50/50 partnership to develop at least 4000 MWs of offshore wind in the Northeast.

Ms. Benjamin of Eversource highlighted the three offshore projects and provided an overview of key project components and construction.

Ms. Howard of Orsted described the siting process including environmental survey works, landfall construction methods, considerations, and export cable methods.

**7.0 Closing – Ruida Shu (11:50 pm – 12:00 pm)**

Mr. Shu thanked all the attendees and the presenters for their timely and informative talks.

Mr. Shu reminded the forum that NPCC has several current efforts focused on DER and VER, including the development of a Directory Review Prioritization Whitepaper, the development of a Decarbonization Strategy Whitepaper, the revisions to the DER/VER Guidance document and an upcoming October DER forum.

Mr. Shu encouraged forum attendees to reach out to NPCC staff with suggestions for future DER/VER forums or with any questions.

Mr. Shu adjourned the wind forum meeting.

## **Northeast Power Coordinating Council, Inc. (NPCC)**

### **Antitrust Compliance Guidelines**

It is NPCC's policy and practice to obey the antitrust laws and to avoid all conduct that unreasonably restrains competition. The antitrust laws make it important that meeting participants avoid discussion of topics that could result in charges of anti-competitive behavior, including: restraint of trade and conspiracies to monopolize, unfair or deceptive business acts or practices, price discrimination, division of markets, allocation of production, imposition of boycotts, exclusive dealing arrangements, and any other activity that unreasonably restrains competition.

It is the responsibility of every NPCC participant and employee who may in any way affect NPCC's compliance with the antitrust laws to carry out this commitment.

Participants in NPCC activities (including those participating in its committees, task forces and subgroups) should refrain from discussing the following throughout any meeting or during any breaks (including NPCC meetings, conference calls and informal discussions):

- Industry-related topics considered sensitive or market intelligence in nature that are outside of their committee's scope or assignment, or the published agenda for the meeting;
- Their company's prices for products or services, or prices charged by their competitors;
- Costs, discounts, terms of sale, profit margins or anything else that might affect prices;
- The resale prices their customers should charge for products they sell them;
- Allocating markets, customers, territories, or products with their competitors;
- Limiting production;
- Whether or not to deal with any company; and
- Any competitively sensitive information concerning their company or a competitor.

Any decisions or actions by NPCC as a result of such meetings will only be taken in the interest of promoting and maintaining the reliability and adequacy of the bulk power system.

Any NPCC meeting participant or employee who is uncertain about the legal ramifications of a particular course of conduct or who has doubts or concerns about whether NPCC's antitrust compliance policy is implicated in any situation should call NPCC's General Counsel and Corporate Secretary, Kristin McKeown Esq. at her mobile phone number 646-581-0148.



## **Distributed Energy Resources Forum Disclaimer Statement**

### 1. General

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## **Public Announcement**

RSC and DER/VER Forum Meetings, WebEx, and Conference calls:

Participants are reminded that this meeting, WebEx, and conference call are public. The access number was posted on the NPCC website and widely distributed. Speakers on the call should keep in mind that the listening audience may include members of the press and representatives of various governmental authorities, in addition to the expected participation by industry stakeholders.