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October 18, 2023

NAESB UPDATE CONFERENCE CALL

PRESENTATION BY RYAN HLEDIK FROM THE BRATTLE GROUP: Mr. Hledik, Principal of The Brattle Group, provided an overview of virtual power plants (VPPs). He explained that a VPP is a portfolio of distributed energy resources (DERs) that are actively controlled to provide benefits to the power system, consumers, and the environment. A recent study from The Brattle Group found VPPs could reliably serve the resource adequacy need and compete economically with gas peakers and batteries. Mr. Hledik also reviewed the benefits of VPPs that were not included in the study, such as flexible scaling, faster grid connection, and increased renewables deployment. He stated that, with technological innovations, DERs are widely available, affordable, and can communicate with each other and system operators, which is where NAESB may come in. Mr. Hledik covered three actions that utilities and regulators can take. First, conduct a jurisdiction-specific VPP market potential study and then establish VPP procurement targets. Second, establish a VPP pilot to test innovative utility financial incentive mechanisms. Third, review and update existing policies to comprehensively account for VPP value. Ms. Mallett noted the recent DERs cybersecurity standards efforts beginning within NAESB and asked whether Mr. Hledik identified any areas in the virtual power plant space where standards development is needed or would be particularly helpful. He stated that there is a need for standardization of protocols with how DERs communicate with aggregators and utilities. Mr. Hledik added that a federal focus to broadly facilitate the scalability of VPPs, preventing the need to learn each state's tariffs would be cost effective. Mr. Booe asked how many VPPs are operating in the market today. Mr. Hledik stated that there are a lot of DER aggregators, along with software and hardware developers that specialize in the area. Mr. Booe and Ms. Mallett thanked Mr. Hledik for his presentation.

WEQ COORDINATION ACTIVITIES WITH NERC: Ms. Trum, NAESB Director of the Wholesale Electric Quadrant (WEQ), provided the presentation on recent NAESB and NERC coordination efforts. She stated that, during the 2024 WEQ annual planning process, it was noted that a couple items either directly correlate with the NERC reliability standards or are in areas where there may be an overlap of commercial and reliability considerations. Ms. Trum noted that the NAESB WEQ Cybersecurity Subcommittee is currently tracking five NERC projects under development and a couple of the WEQ subcommittees are also tracking Phase II of the NERC Cold Weather Project, as the completed standards may present opportunities for coordination. Ms. Mallett thanked Ms. Trum for the update and her work in keeping the two organizations coordinated.

COORDINATE INTERCHANGE SCHEDULING SUBCOMMITTEE ACTIVITIES: Mr. Buus, Co-Chair of the WEQ Coordinate Interchange Scheduling Subcommittee (CISS), provided an overview of recent subcommittee activities. He stated that, the WEQ CISS was tasked with a review of the NAESB e-Tag Functional Specification to identify and make any necessary revisions based on changes to applicable NAESB WEQ Business Practice Standards and NERC Reliability Standards, as well as cybersecurity best practices. After several meetings, the WEQ CISS participants approved a no action recommendation, as no substantive changes were made to the e-Tag Specification. However, the participants also agreed to submit a minor correction to correct inconsistent terminology, typos, and capitalization errors throughout the specification. The no action recommendation will be presented during the October WEQ Executive Committee meeting. Additionally, a second, related recommendation from the WEQ CISS will be reviewed during the WEQ Executive Committee meeting. That recommendation proposes modifications to the WEQ-004 Coordinate Interchange Business Practice Standards as a result of the discussion and review of the e-Tag Specification. The recommendation provides additional clarification in WEQ-004 when modifications to an e-Tag result in changes to the ramp duration, and to provide clarity regarding default ramp durations for the Eastern and Western Interconnections. Ms. Mallett thanked Mr. Buus for his leadership and providing the updated on the WEQ CISS.

WEQ AND RMQ DISTRIBUTED ENERGY RESOURCES CYBERSECURITY UPDATE: Mr. Brooks provided an overview of recent cybersecurity activities for distributed energy resources (DERs). He stated that the WEQ and the RMQ were assigned to review cybersecurity protections, such as Public Key Infrastructure or PKI,



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that may be necessary to secure electronic communications for DERs and to develop business practice standards, as needed. On October 5th, the WEQ and RMQ Business Practices Subcommittee and the WEQ Cybersecurity Subcommittee held a joint meeting to kick off the effort. A consensus was reached among the participants that, while there are best practices around DER operations and interoperability, there is a gap in guidance for cybersecurity and standards in this area could help further support uniform integration of DERs at the wholesale and distribution levels. During their October 23rd meeting, the subcommittees will meet again to continue discussions on the prevention and mitigation of specific attacks, like denial of service, as well as party authentication and access control, including the applicability of the NAESB PKI framework, which the wholesale electric industry already uses to control access to tools like OASIS and the NAESB EIR. To help foster this discussion, the subcommittee is likely going to review some of the industry white papers from NERC and NASEO and NARUC. Also, the subcommittees will hear a presentation about the initial report NIST released in July on the cybersecurity framework profile for the EV environment.

PUBLICATION UPDATE: Ms. Mallett, Director of the Wholesale Gas and Retail Market Quadrants, provided the publication update. On July 31, 2023, NAESB published the WEQ Standards and filed an informational report with the Federal Energy Regulatory Commission that same day. On September 29, 2023, NAESB released Version 4.0 of the WGQ Business Practice Standards and filed the same day. Looking ahead, NAESB anticipates releasing the Version 4 publication of the retail standards on December 13, 2023.

REGULATORY AND BOARD ACTIVITIES UPDATE: Mr. Booe provided the Regulatory and Board Activities update. The next NAESB Board of Directors meeting will be virtual and is scheduled for December 13th from 9:00 to 1:00 PM Central. During the call, the 2024 budget and the 2024 quadrant annual plans will be approved. One of the guest speakers will be Kevin Book with Clearview who will provide remarks on the National Petroleum Council's greenhouse gas study. On December 6th, both the Board Revenue Committee and the Board Strategy Committee will hold meetings. The Board Revenue Committee will review the NAESB financial and membership reports, and hear an update on communication activities, among other standing agenda items. The Board Strategy Committee will review the 2024 quadrant annual plans to ensure they align with the NAESB Strategic Plan. In October, the Executive Committees will hold hybrid meetings in Glen Allen, VA at the Eastern Gas Transmission and Storage, Inc offices. Mr. Booe noted that the meetings will now last a half day and occur over two days, with the WEQ meeting on October 25th and the WGQ and RMQ meetings on October 26th.

NEXT CONFERENCE CALL: The next NAESB Update Call is scheduled for December 13, 2023 from 1:00 PM - 2:00 PM Central. The agenda and any work papers will be posted on the NAESB Update Call page of the NAESB website, accessible at the following link: http://www.naesb.org/monthly_update.asp. We hope you can join us. If there are particular topics you would like to see covered or if you would like to receive additional information, please contact the NAESB Office by phone at (713) 356-0060 or email at naesb@naesb.org.



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Dylan Alexander	El Paso Electric Company	
Rana Basu	Trellis Energy	
Rebecca Berdahl	Bonneville Power Administration	
Jonathan Booe	North American Energy Standards Board	
Dick Brooks	Reliable Energy Analytics	
Zachary Buus	Bonneville Power Administration	
Donald Coffin	Green Button Alliance	
Michelle Coon	OATI	
Valerie Crockett	Tennessee Valley Authority	
Jay Dibble	Calpine	
John Fitzgerald	Tennessee Valley Authority	
David Francis	ВР	
Pam Genung	Virginia State Corporation	
Anna Hartung	ONEOK, Inc.	
Ryan Hledik	The Brattle Group	
Tom Kraft	ONEOK, Inc.	
Tracy Kupsh	WEC	
Greg Kusel	Cheniere Energy	
Renée Lani	American Public Gas Association	
Elizabeth Mallett	North American Energy Standards Board	
Stephen McCord	TC Energy Corporation	
Amy Mills	ONEOK, Inc.	
Chris Norton	American Municipal Power Partners	
Paul Prodoehl	Williams	
Jeremy Roberts	Green Button Alliance	
Cory Samm	Hoosier Energy	
Doug Smith	ISO New England	
Karl Stanley	NiSource	



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Name	Organization	
Carolyn Stone	Cascade Natural Gas Corporation	
Andy Tritch	Hartigen	
Caroline Trum	North American Energy Standards Board	
Sandy Walker	Tennessee Valley Authority	
Barbie Zankpah	PJM Interconnection	