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February 22, 2023

NAESB UPDATE CONFERENCE CALL

PRESENTATION BY RICH BROWN LAWRENCE BERKELEY NATIONAL LABORATORIES: Mr. Brown presented an update on the Grid Connected Devices and Energy Services Interface efforts within the Department of Energy's (DoE) Grid Modernization Laboratories Consortium (GMLC). He stated that the GMLC is a strategic partnership between DoE and thirteen national laboratories. Of the numerous technical areas, Mr. Brown works within the development of standards and test procedures for Devices and Integrated Systems Testing. He stated that, in order to provide value to the grid, DERs must be orchestrated at a scale of thousands or millions of units. In the industry today, custom engineering and proprietary solutions are needed to integrate DERs with utility grids, a lack of standardization creates an administrative burden, and silos by technology and region have resulted. As a solution, GMLC has developed the Energy Services Interface (ESI) concept to represent DERs to the grid in a standard way with service-oriented coordination architecture. The ESI concept includes a plug and play configuration with auto-discovery and self-identification of DER Capabilities. The GMLC project objectives are to defined common terms and framework to represent grid services, develop universal ESI specification to simplify DER integration and support DER business models, and to accelerate industry agreement on ESI standardization approaches to improve grid-edge interoperability. Currently, LBNL and several other National Laboratories are working with NAESB to develop standardized definitions for Common Grid Services. Mr. Booe thanked Mr. Brown and asked whether there was any coordination between this effort and the NAESB OpenFMB Model Business Practices effort. Mr. Brown stated that the Oak Ridge National Laboratory has worked with NAESB Open FMB standards in the areas of microgrids, but OpenFMB is for in front of the meter integration into SCADA systems and ESI focuses more behind the meter. Mr. Booe thanked Mr. Brown 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. While NAESB focuses on business practices, NERC focuses on the reliability aspects of the wholesale gas quadrant, making coordination between the two organizations essential. Topics of discussion in NERC and NAESB calls include FERC Order Nos. 841 and 2222, modeling standards, gas and electric harmonization efforts, and coordination on NERC white papers and reference documents to ensure continuity. The WEQ Standards Review Subcommittee will meet in early March to continue to monitor NERC and NAESB standards. In other news, FERC recently approved the NERC Extreme Cold-Weather Preparedness Reliability Standards, EOP-011-3 and EOP-012-1. Mr. Wood asked for any update on the NERC modeling standards. Ms. Trum stated that FERC Staff has indicated that the Commission knows that the standards are still pending. Ms. Mallett thanked Ms. Trum for her update.

WEQ OASIS SUBCOMMITTEE UPDATE: Mr. Wood, Co-Chair of the WEQ OASIS Subcommittee, provided the update on recent subcommittee activities. The subcommittee recently voted out a no action recommendation in response to FERC Order No. 881. The order was issued last December and directs transmission providers to use ambient-adjusted ratings as the basis for evaluating near-term transmission service to increase the accuracy of near-term line ratings. The subcommittee noted the standards development efforts for FERC Order No. 881 fall under the purview of the WEQ Business Practices Subcommittee (WEQ BPS) and communicated that information to the chairs of the WEQ BPS. If any of the WEQ BPS work on the item results in impacts on the WEQ OASIS Business Practice Standards, there may be joint meetings held between the two subcommittees. Looking ahead, there is one remaining item for the subcommittee to address on the 2023 WEQ Annual Plan - to review the WEQ OASIS Standards given the operational experience that has been gained since the adoption of Version 003.3. Mr. Wood stated that this item will be discussed during the April WEQ OASIS meeting. Ms. Mallett thanked JT and the other WEQ OASIS Co-chairs for leading the OASIS standards development efforts.



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WEQ DISTRIBUTED ENERGY RESOURCES AND GRID SERVICES ACTIVITIES: Mr. Phillips, Co-Chair of the WEQ BPS, provided the update. The subcommittee recently voted out a recommendation that increases the interoperability of DERs in response to a standards request that was jointly submitted by the Department of Energy, Lawrence Berkeley National Laboratory, and Pacific Northwest National Laboratory. As discussed in Mr. Brown's presentation, the recommendation proposes the creation of common technology-neutral, standardized categories of grid services to benefit both wholesale market interactions as well as advance the integration and interoperability flexible, grid-edge resources such as energy storage and distributed energy resources. Upon the conclusion of the 30-day formal comment period, the WEQ BPS will hold a meeting in mid-March to review any comments received. In late-March to early-April, the Retail Markets Quadrant (RMQ) will leverage the work completed within the WEQ to begin drafting the related RMQ Model Business Practices that are also included as part of the request.

WEQ/WGQ/RMQ CYBERSECURITY UPDATE: Mr. Spangler, Chair of the WGQ Electronic Delivery Mechanisms (EDM) Subcommittee, provided an overview of recent cybersecurity efforts within NAESB. He stated that, in response to an informal recommendation made by Sandia National Laboratories to NAESB, each quadrant has moved its cybersecurity standards into a new Cybersecurity book. This effort will, in case of a security vulnerability in the standards, allow for a quicker response time by the filing of the single book of standards. Additionally, in response to the three annual plan items in each quadrant asking whether multi-factor authentication should be integrated into the standards, the WGQ BPS developed a recommendation modifying four standards, the RMQ and WEQ drafted no action recommendations in response to their respective items. Mr. Spangler explained that the RMQ Model Business Practices do not address the human interface side and the WEQ Business Practice Standards have already incorporated multi-factor authentication.

WGQ CONTRACTS RENEWABLE NATURAL GAS AND CERTIFIED GAS ADDENDA: Mr. Sappenfield, Chair of the WGQ Contracts Subcommittee, delivered the update on the renewable natural gas and certified gas efforts. He stated that in early February, the WGQ Executive Committee held a single-topic meeting to approve the recommendations containing the Renewable Natural Gas and Certified Gas Addendums. On February 21, the WGQ Contracts Subcommittee, WGQ BPS, and the WGQ Electronic Delivery Mechanisms (EDM) Subcommittees held a kick off meeting to begin drafting the technical implementation needed to utilize both addendums on electronic systems, such as distributed ledger technologies. The next WGQ Contracts Subcommittee meetings will take place on March 9, 2023 and March 23, 2023.

REGULATORY AND BOARD ACTIVITIES UPDATE: Mr. Booe provided the Regulatory and Board activities update. On April 13, 2023, NAESB will hold a virtual Board of Directors meeting. In preparation for that meeting, the Board Revenue Committee will hold a call to discuss membership reports, vacancies, communication efforts, and publication schedules. Also, during the Board Revenue meeting, committee members will continue to discuss the NAESB non-member fee structure and incentives for non-members to become members. Also, before the next Board meeting, the Board Strategy Committee will discuss the NAESB Strategic Plan from 2023-2025 along with other standing items. In March, the Executive Committees will hold hybrid meetings in Dallas, Texas at the Oncor Offices. Mr. Booe thanked Debbie McKeever from Oncor for allowing NAESB to hold its meetings in the Oncor facilities. Mr. Booe stated that the NAESB Gas Electric Harmonization Forum has met seven times. During its first meeting, Chairman Glick, Jim Robb of NERC, and Greg White of NARUC provided their insights on the industries. To date, 232 organizations have participated in the forum through 429 individuals. On average, each meeting has about 180-200 participants. Mr. Booe stated that the responses from a number of comment periods resulted in the currently posted survey, which captures 112 of the recommendation and proposals made during the meetings through discussion and the chat function. The next meeting will take place on March 3, 2023. It is not necessary to submit a survey in order to participate in the next meeting; however, the responses provided will be utilized to guide discussions in future meetings and shape the direction of the final report.

NEXT CONFERENCE CALL: The next NAESB Update Conference Call is scheduled for April 26, 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



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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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	NAESB Update Conference Call, Participant List	
February 22, 2023 1:00 PM Central		
Name	Organization	
Matthew Agen	American Gas Association	
Dylan Alexander	EP Electric	
Karl Almquist	Tallgrass	
Todd M Bohan	Sprague Energy	
Rich Brown	Lawrence Berkeley National Laboratories	
Christopher Burden	Enbridge (U.S.) Inc.	
Donald Coffin	Green Button Alliance	
Chuck Cook	Chevron	
Michelle Coon	OATI	
David Crabtree	TECO Energy	
Paolo D'Alessandro	The Tampa Electric Company	
Christie Degard	Trading Counsel Solutions	
Jay Dibble	Calpine	
John Fitzgerald	Tennessee Valley Authority	
Karen Frank	Midcontinent Independent System Operator	
Ronnie Hensley	Southern Star Central Gas Pipeline	
Debbie Kupczyk	National Fuel	
Tom Kraft	ONEOK	
Elizabeth Mallett	North American Energy Standards Board	
Leif Mattson	WBI Energy	
Steven McCord	TC Energy	
Deborah McKeever	Oncor Electric	
Joshua Phillips	Southwest Power Pool	
Ken Quimby	Southwest Power Pool	
Lisa Russo	National Fuel Gas Supply Corporation	
Keith Sappenfield	Corpus Christi Liquefaction	
Austin Sarabia	Williams	
Sarah Shaffer	Equitrans Midstream	



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Name	Organization	
Leigh Spangler	Latitude Technologies	
Greg Staton	Spire Energy	
Michael Steigerwald	Bonneville Power Administration	
Caroline Trum	North American Energy Standards Board	
Maria Villegas	TECO Energy	
Jason Williams	Southern Company	
Dave Wollman	National Institute of Standards and Technology	
JT Wood	Southern Company	