**via posting**

**TO:** Interested Industry Parties

**FROM:** Caroline Trum, Director, Wholesale Electric Quadrant

**RE:** Draft Minutes from December 5, 2023 Joint WEQ Business Practices Subcommittee (BPS), RMQ BPS, and WEQ Cybersecurity Subcommittee (CSS) Meeting

**DATE:** December 7, 2023

**WHOLESALE ELECTRIC QUADRANT**

**RETAIL MARKETS QUADRANT**

**Business Practices Subcommittees and Cybersecurity Subcommittee**

**Conference Call**

**December 5, 2023 – 2:30 PM to 4:30 PM Central**

**DRAFT MINUTES**

1. **Welcome**

Mr. Phillips welcomed the participants to the meeting. Ms. Trum provided the antitrust and meeting policies reminder. The participants introduced themselves. Mr. Phillips reviewed the agenda. Mr. Brooks moved, seconded by Mr. Galloway, to adopt the agenda as final. The motion passed a simple majority vote without opposition.

The participants reviewed the draft minutes from the November 15, 2023 meeting. One modification was made to correct a typographical error. Mr. Brooks moved, seconded by Mr. Galloway, to adopt the revised minutes as final. The motion passed a simple majority vote without opposition. The final minutes for the November 15, 2023 meeting can be viewed at the following link: <https://www.naesb.org/pdf4/weq_bps_css_rmqbps111523fm.docx>

1. **Continue to Discuss** **2023 WEQ Annual Plan Item 3.d 2023 RMQ Annual Plan Item 4.a – Review cybersecurity protections, such as Public Key Infrastructure (PKI), that may be necessary to secure electronic communications for distributed energy resources (DERs), and develop business practices as needed**

Mr. Phillips stated that during the previous meeting, the participants had reviewed and revised the [DER Communications Path Diagram](https://naesb.org/pdf4/weq_bps_css_rmqbps120523w1.pptx), agreeing to [initially focus](https://naesb.org/pdf4/weq_bps_css_rmqbps120523w2.docx) on the consideration of access and authorization controls for Paths C, D, and E. He indicated that the participants had discussed creating use cases around these communication pathways and suggested that it may be helpful to begin by reviewing the [NIST Cybersecurity Framework Spreadsheet](https://naesb.org/pdf4/weq_bps_css_rmqbps111523w3.xlsx). Ms. Lee stated that NIST is in the process of making major revisions to the framework, noting that a draft was released in August for comments. She explained that the draft NIST Cybersecurity Framework 2.0 makes significant changes and suggested that the participants may want to wait until this document is available in early 2024.

Mr. Galloway asked if there is documentation available regarding any existing communication and cybersecurity protocols that may be applicable to securing DER related communication pathways. Ms. Trum stated that the [NIST Framework-Roadmap for Smart Grid Interoperability Standards Release 4.0](https://naesb.org/pdf4/weq_bps_css_rmqbps111523w4.pdf) (NIST Smart Grid Framework) contains references to existing standards and that there is a U.S. DoE initiative, in conjunction with several national laboratories, to compile and document available guidance and standards development in this area. She noted that there was interest from the U.S. DoE project liaison in the NAESB effort. Ms. Lee suggested that it may be beneficial to have U.S. DoE participation in a future meeting. Mr. Watson stated that Duke Energy, in conjunction with several car manufacturers, is conducting an electric vehicle charging pilot program that uses an OpenADR based platform to communicate with the devices and ensure device security. Mr. Brooks suggested that it could be helpful if subcommittee participants provided use case examples that are based on existing projects, especially from a DER aggregator perspective.

Mr. Brooks asked what party would be responsible for establishing rules or requirements related to communication protocols and cybersecurity for DER aggregators. Mr. Galloway responded that from an ISO/RTO perspective, the DER aggregator is required to register as a market participant and would be subject to ISO’s/RTO’s market rules and procedures. He noted that the market rules likely do not stipulate how a market participant communicates with field assets. Mr. Pence agreed, stating that communications between a DER aggregator and field resources is likely happening at the distribution system level. Ms. Lee stated that at the distribution level, a DER aggregator could be subject to several different requirements as state policies and regulations vary. Mr. Brooks noted that this could mean that a DER aggregator is responsible for managing several different communication and security protocols, depending on which type of market participant with which its interacting.

Mr. Brooks stated that one of the key questions is determining which market participant interactions would benefit from the development of standards. Mr. Galloway suggested that it may be helpful to consider the system layer that the communication is taking place as well as the market function of the communication. He noted that the structure of the business interaction will influence the threat model to be used and the type of security protections that will be beneficial.

The participants reviewed the Legacy Communication Pathways Scenario and the High-DER Communication Pathway Scenario diagrams included in the NIST Smart Grid Framework. Mr. Phillips noted that one area of focus for NAESB standards could be the commercial communication transactions between third-party service providers and customers and third-party service providers and energy service interfaces. He suggested that a starting point may be to identify the broad protections that would be applicable, such as ensuring the communications by the third-party service provider are secured with a TLS protocol and PKI digital certificate, and then determining if there is a need to move to a deeper level of specificity.

1. **Other Business**

Mr. Phillips stated that subcommittee leadership is working with NAESB staff on the meeting schedule for next year. He indicated that all three subcommittees have multiple annual plan assignments for 2024, several of which related to DERs. Ms. Trum stated that as discussed in the most recent Executive Committee meetings, the U.S. DoE has approached NAESB regarding the potential development of a model contract for the acquisition of distribution services.

1. **Adjourn**

The meeting adjourned at 4:21 Central.

1. **Attendance**

| **First Name** | **Last Name** | **Organization** |
| --- | --- | --- |
| Tanner | Brier | BPA |
| Dick | Brooks | Reliable Energy Analytics |
| Michelle | Coon | OATI |
| Keith | Dalia | Bonneville Power Administration |
| David | Darnell | Systrends |
| Kate | Davis | Bonneville Power Administration  |
| Zeenath | Fernandes | PJM |
| John | Galloway | ISO-New England |
| Annabelle | Lee | Nevermore Security |
| Elizabeth | Mallett | North American Energy Standards Board |
| Cynthia | Oder | Salt River Project |
| Todd | Pence | Southwest Power Pool |
| Joshua | Phillips | Southwest Power Pool |
| Keith | Sappenfield | Corpus Christi Liquefaction  |
| Karen | Stampfli | TVA |
| Scott | Stewart | Bonneville Power Administration |
| Caroline | Trum | North American Energy Standards Board |
| Sam  | Watson | North Carolina Utilities Commission |
| Thomas | Zermeno | SSL.com |