##### April 8, 2019

**TO:** All Interested Parties

**FROM:** Elizabeth Mallett, NAESB Deputy Director

**RE: Blockchain Standards Development Efforts Update**

On April 3 and April 15, the WGQ Business Practice Subcommittee (BPS), Electronic Delivery Mechanisms Subcommittee (EDM), and the Contracts Subcommittee will hold conference calls to continue work in response to Standards Request R18007. As a background, the NAESB Advisory Council recommended that NAESB consider the development of standards to support the integration of blockchain technology into energy transactions, including how blockchain can improve resilience and supply chain integrity and how blockchain technology may support customer-to-customer transactions. That following July, Standards Request R18007 was submitted to the NAESB Office from Big Data Energy Services, Adjoint Inc., Pariveda, American Electric Power Service, Tennessee Valley Authority, and JKM Energy & Environmental Consulting. The requestors asked that NAESB develop a standard digital representation of natural gas trade events consistent with NAESB WGQ Standard No. 6.3.1 – NAESB Base Contract for Sale and Purchase of Natural Gas, in order to capitalize on smart contract and distributed ledger technologies. In response to the standards request, the Triage Subcommittee and WGQ Executive Committee jointly assigned the request to the WGQ BPS, WGQ EDM, and the Contracts Subcommittee to be addressed in the regular course of business. During the first meeting in October, a primer on the application of blockchain technology was provided by a participant from the Oil and Gas Blockchain Forum, and the entities that submitted the standards request provided a presentation and overview of the request.

Since that first meeting, the joint subcommittees have met several times and developed a scope of work document which identifies several steps to address the request. Outside of the NAESB standards development process, a proof of concept effort has been put together and hosted by industry volunteers. During the April conference calls, the subcommittees will continue to identify the necessary data elements from the NAESB Base Contract, WGQ invoices, and related datasets that may be utilized within a smart contract.

During the March Executive Committee meetings, the Wholesale Electric Quadrant (WEQ) and Retail Markets Quadrant (RMQ) discussed the two blockchain items that were added to the 2019 annual plans and approved by the Board of Directors in December. First, a joint item to be addressed by the WEQ and RMQ asks for the consideration of blockchain standards in support of the manual Renewable Energy Certificate (RECs) accounting processes. This item was a major focus during the RMQ Executive Committee meeting discussion, as the participants considered the potential for expanding the standards for blockchain beyond the RECs accounting process. The second blockchain annual plan item was assigned to the WEQ and proposes to review and potentially develop blockchain standards to support the streamlining of the power accounting close cycle. During the WEQ Executive Committee meeting, the discussion focused on monitoring the developments within the Wholesale Gas Quadrant (WGQ) before determining a timeline to kick off its effort.