##### June 4, 2019

**TO:** All Interested Parties

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

**RE: Distributed Ledger Technology Update**

At the request of Debbie McKeever, the RMQ Executive Committee acting chair, and Roy True and Joshua Phillips, the WEQ Executive Committee chair and co-chair, two task forces – the RMQ Executive Committee Distributed Ledger Technology Task Force and the WEQ Executive Committee Distributed Ledger Technology Task Force – have been formed. The purpose of these task forces is to address 2019 RMQ Annual Plan Item 7.a and 2019 WEQ Annual Plan Item 7.b.i, which includes a review of the Renewable Energy Certificate (REC) process for financial and/or sustainability accounting/reporting and a determination as to whether distributed ledger technology related standards or protocols are needed. If a determination is made by the task forces that the current REC processes would benefit from standardization, the standards development activities will be assigned jointly to RMQ and WEQ subcommittees as appropriate. To initiate the efforts, Debbie McKeever will serve as chair of the RMQ Executive Committee Distributed Ledger Technology Task Force, and Roy True and Joshua Phillips will serve as chair and co-chair of the WEQ Executive Committee Distributed Ledger Technology Task Force. A kick-off meeting has been scheduled for Friday, June 7 from 1:00 PM to 3:30 PM Central. The agenda for the meeting includes a review of the current REC process, an overview of distributed ledger technology and its applications, and initial discussion on the annual plan items. A follow-up meeting is scheduled to take place on Monday, June 24 from 10:00 AM to 12:00 PM Central. Participation in these meetings is open to all interested parties.

On June 19, the WGQ Business Practice Subcommittee (BPS), WGQ Electronic Delivery Mechanisms Subcommittee (EDM), and the WGQ Contracts Subcommittee will hold a joint conference call to continue work in response to Standards Request R18007. That request 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 (NAESB Base Contract), in order to capitalize on smart contract and distributed ledger technologies. During the June conference call, the subcommittees will review a business flow diagram that illustrates the interactions between the business parties and a blockchain. Additionally, the June agenda will include a review of natural gas invoices submitted by the participants to determine the necessary data elements that may be utilized within a smart contract. Outside of the NAESB standards development process, a proof of concept effort has also been put together and is hosted by industry volunteers.

Since the October kick off meeting – which focused on a primer on the application of blockchain technology, a presentation from the requestors of R18007, and general education on the topic – the joint subcommittees held six conference calls. To date, the subcommittees have developed a scope of work document and reviewed the elements of the NAESB Base Contract and its Addendums – including the Mexican Addendum, the Canadian Addendum, and the Government Acquisition Provisions Addendum.

As a background, in February of 2018, 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. Outside of the WGQ, the 2019 WEQ and RMQ Annual Plans were drafted with a joint item to investigate RECs, as discussed above. Additionally, the 2019 WEQ Annual Plan has an item to review power trade events to streamline the power accounting close cycle to determine if WEQ Business Practice Standards should be developed utilizing distributed ledger technology.