Section 40101(d) Formula Grant Program of the Bipartisan Infrastructure Law Preventing Outages and Enhancing the Resilience of the Electric Grid

DATA Act 2.0

Protect - Codify - Implement - Engage

The DATA Act, the nation's first open data law, established the foundation for data interoperability and transparency in financial reporting by establishing and mandating data standards. From that Act came XBRL, a reliable, secure, and open data interoperability standard. This was followed by the DOE Orange Button data interoperability initiative to enable a multi-industry segment digital ecosystem, artificial intelligence (AI), smart contracts and blockchain for building the nation's energy infrastructure as a public benefit.

On May 24, 2022 Senators Mark Warner and Mike Crapo introduced S.4295 - the <u>Financial Data Transparency Act</u> to require all federal agencies implement open data, including the requirement to "harmonize and reduce the private sector's regulatory compliance burden, while enhancing transparency and accountability, <u>and for other purposes</u>".

Although limited to federal agencies it establishes the foundation for a reliable and trusted digital ecosystem for all stakeholders, public and private. DOE compliance with S.4295 will establish a modern digital ecosystem with improved grid administration capabilities and cyber protection. A key "other purpose" is to accelerate the construction of clean energy facilities while improving access to finance, insurance and surety for all stakeholders.

A reliable and secure digital ecosystem with multiple stakeholders is required for "Preventing Outages and Enhancing the Resilience of the Electric Grid".

Recommendation #1 – Effective Cyber Protection

Data interoperability and asset monitoring introduces potential cyber vulnerabilities that need to be addressed in tandem with each individual business case. Every business case should identify cyber vulnerabilities and include a response plan to promote secure and reliable data exchange.

- 1a Utility Scale Covering utility scale generation, transmission and grid resiliency
- 1b Commercial Providing businesses with polices and procures that enable risk management and insurance.
- 1c Residential Providing homeowners with clear and simple guidelines to protect their energy systems.

Recommendation #2 – Codify

Expand the XBRL taxonomy to incorporate Orange Button utilized data sets recorded and validated on blockchain

- 2a Project profiles for procurement and permitting.
- 2b Company profiles for efficient data exchange.
- 2c Finance, Insurance and Surety Profiles
- 2d Energy Monthly Operating Reports
- 2e Construction Progress Reports and Payments

Recommendation #3 – **Implement**

Engage with digital ecosystems to reduce the transactional (soft) cost of building infrastructure projects while improving administration, underwriting, AI and risk management for all stakeholders.

- 3a Expand SBA XBRL functionality
- 3b Implement smart contracts and blockchain that enhance governance and integrate with finance, insurance and surety.
- 3c Accept digital surety bonds with online bond validation by surety industry platform and/or company URL on T-List
- 3d Provide digital standardized periodic (weekly / monthly) project information to all project stakeholders.

Recommendation #4 – Engage with Next Generation Innovation

Engage with the Orange Button collaboration on the "Any City" <u>Model Digital Ecosystem for Community Resiliency</u> for insights towards compliance with the Financial Data Transparency Act.

Explore the potential role of cryptocurrency and blockchain "to tackle climate change as it relates to grid management and reliability, standards, and sources of energy supply" towards compliance with Executive Order Section 5.b.vii.

More Information