151 FERC ¶ 61,025
UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: Norman C. Bay, Chairman;
Philip D. Moeller, Cheryl A. LaFleur,
Tony Clark, and Colette D. Honorable.

Electronic Filing Protocols for Commission Forms Docket No. AD15-11-000

ORDER INSTITUTING PROCEEDING TO DEVELOP ELECTRONIC FILING PROTOCOLS FOR COMMISSION FORMS

(Issued April 16, 2015)

1. This order provides notice that the Commission intends to replace its current electronic filing format for many of the forms submitted by the industry, as the current software, Visual FoxPro, is no longer supported by the developer Microsoft Corporation. The Commission believes the best electronic format for submission of these forms is the Extensible Mark-Up Language (XML) file format, which the industry is currently using for submission of other files and reports to the Commission, including electronic tariff filings. The Commission is also announcing a staff led technical conference that will include the North American Energy Standards Board (NAESB) and interested members of the industry to discuss this proposal and how to best coordinate in effectuating the needed transition to a new electronic submission format for certain forms.

I. Background

2. Under the Commission's regulations, certain entities are required to report information to the Commission by filing one or more forms.[1] When the Commission began to require those forms to be submitted electronically, the Commission provided filers with a Commission-distributed Microsoft software application called "Visual FoxPro."[2] Each company is required to gather its relevant financial and other data and

[1] *E.g.*, 18 C.F.R. § 141.1 (2014) (requiring certain entities to annually file FERC Form No. 1, Annual report of Major electric utilities, licensees and others).

[2] In the first three years of electronic filing (1994-1996) the Commission used a DOS-based software program. In 1997, the Commission changed to a Windows-based approach using Visual FoxPro.

enter that data into the Commission-distributed version of Visual FoxPro, which the company maintains on its own computer system.

3. Microsoft has ceased development on, and no longer supports, the Visual FoxPro software. While the Commission and the industry should be able to continue to use Visual FoxPro during the transition, the Visual FoxPro system must be replaced to ensure compatibility with later versions of Windows Operating System and address other concerns that arise from use of unsupported software. To date, the Commission has eliminated the use of Visual FoxPro only for the Electric Quarterly Report (EQR or FERC-920) filings. However, the following forms still need to be transitioned from Visual FoxPro to a new format: Forms 1, 1-F, 2, 2-A, 3-Q electric, 3-Q gas, 6, 6-Q, FERC-60, and FERC-714.

4. In requiring electronic tariff (eTariff) filings, the Commission, through a collaboration with industry facilitated by NAESB, adopted the XML format for data submission, rather than providing Visual FoxPro software.[3] That process produced industries-wide consensus, which the Commission adopted, to require filers submitting tariffs to create an XML file using their own software and to upload to the Commission's website a single file or compressed file package that contains all relevant information, including the data and all of the identifying tags. Once the data is received, the Commission's computers parse (divide) the filed package, using the predefined XML tags, into its component parts and automatically store those "pieces" of data in the Commission's eLibrary and other database systems as needed.[4] The tagged information can be extracted and separately searched in numerous software applications, or added to websites, forms, RSS feeds, and other resources, for publication or data analysis.

II. Discussion

5. The Commission believes that the current industry standard for submission of electronic data, such as that captured in its forms, is XML format. XML data format has significant advantages over other approaches: it is non-proprietary, and would establish a single standard for nearly all Commission forms while also providing consistency with the current eTariff and EQR systems. XML format facilitates the sharing of data across different information systems, particularly via the Internet, by structuring the data using tags to identify particular data elements. As with eTariff filings, XML format permits the

[3] *See generally Electronic Tariff Filings*, 124 FERC ¶ 61,270 (2008).

[4] For example, as applied to eTariff, each filed tariff change includes tags for information the Commission has deemed relevant, such as the utility name, the tariff record being changed, the section title for that tariff record, the proposed effective date, and the tariff text.

inclusion of identified proprietary formats.[5] Additionally, using XML format makes future upgrades to hardware or software systems easier to implement because XML format does not require complicated data conversions, through which incompatible data is often lost. Furthermore, XML format permits all types of "reading machines" (e.g., handheld computers, voice machines, news feeds) to interpret the data as desired.

6. Rather than filers having to input their data into a proprietary database application, XML format would permit filers to develop, or obtain from third party vendors, a system for collecting form information that is best suited to their own internal systems. This approach would enable filers to maintain their own information and data in the formats they prefer and then repackage that material for submission to the Commission at the appropriate time. Using XML format similarly would reduce costs for the Commission to process the information. Adopting XML format also would eliminate the need for the Commission to provide software to filers. This allows for the independent design and implementation of future filing needs rather than dependence on a vendor's continued development and support of their proprietary software.

7. XML format appears to be the most efficient format for electronic filing since most filers of the Commission forms considered here already have been using XML format to make electronic tariff filings since 2010. Software vendors adept in XML format are already familiar with this approach and can design software that best meets the different needs of clients.

8. Other potential means of communicating electronic data, such as comma separated value (CSV) file uploads or web-based forms either alone, on in combination, are less flexible and efficient than XML file uploads, and would be more expensive and time consuming to develop. CSV uploads are difficult to error check, would require conversion that has the potential to create data errors, and will not easily accommodate the large and complex footnotes that accompany financial data. Trying to combine all or some of these approaches increases the complexity of software development and likely will cause filers to incur data conversion costs because the Commission cannot design an approach that accommodates all the various methods companies may use to store financial data.[6] Developing a combination approach also would be prohibitively

[5] eTariff, for example, accepts RTF and PDF formats for tariff text, as well as all the proprietary formats permitted by the Commission's electronic filing rules.

[6] The Commission currently allows multiple filing options for the EQR forms. However, seeking to combine the multiple approaches has led to many technical software development challenges and difficulties for both the Commission and the industry – these problems persist today. Moreover, the forms data discussed in this Notice is more complicated than the standard EQR data submission.

expensive to implement for the number of forms included in this project. For the above reasons, the Commission believes that transitioning to a system that accepts only XML formatted submissions, similar to the eTariff process, is the preferable solution.

9. In developing the XML format for eTariff filings, the Commission engaged NAESB, which provided a well-established standards development process that helped facilitate stakeholder engagement. Working with the NAESB consensus standards development process to facilitate discussions between Commission staff and industry proved invaluable during the development of eTariff. Commission staff and industry were able to discuss and collaborate in resolving a host of filing and technical issues.[7]

10. The Commission, therefore, believes using this process may be beneficial for developing an electronic method of transmitting form information, and directs Commission staff to lead a technical conference that will include NAESB and interested members of the public and industry, to discuss the transition to a new submission format for certain forms and NAESB's assistance in the process of developing standards for the submission of these forms to the Commission in a new format. Details concerning that technical conference will be included in a contemporaneous notice. Comments on the technical conference may be submitted after the conference.

By the Commission.

(S E A L)

Kimberly D. Bose,
Secretary.

[7] During this process, NAESB committees held a total of 16 meetings in various cities over 24 days. Total attendance in all the meetings was 991 participants either in person or by electronic conferencing, with an average attendance of 62 people for each meeting. *Electronic Tariff Filings*, Order No. 714, 73 FR 57515 (Oct.3, 2008), FERC Stats and Regs. [Regulations Preambles] ¶ 31,276, at P 5 (Sept. 19, 2008).