Update: FERC/DOE Advanced Applications for Transmission Activity

Barbara Servatius, Lindsey Manufacturing Company  Sept. 24, 2019
DOE / FERC DLR Timeline

- August 2013: DOE Issues Report on the Benefits of DLR
- April 2017: DOE and FERC Sponsor Dynamic Line Rating Conference at Idaho National Lab
- March 2019: FERC Issues NOI PL19-3-000 on Transmission Incentives, with numerous questions focused on DLR and line ratings
- June 2019: FERC holds Reliability Technical Conference
- June 2019: DOE issues a report on DLR to Congress*
- August 2019: FERC issues Staff Report on DLR
- September 2019: FERC holds a Technical Conference on DLR and AAR methods of line ratings
- November 2019: FERC to hold Technical Conference on Grid-Enhancing Technologies including “advanced line rating management technologies”
Consumer Advocacy Groups

Trade Organizations
- Raising prices
- Congestion
- Renewal Curtailment
- Support lower cost T-applications
- Transparency
- Limited Types of Incentives

Vendor Coalitions
- Clean Energy support
- Too much build
- Capacity Markets Issues
- Right of Way
- Refusal for new wind/solar

Markets Issues
- Too much build

Renewal Curtailment
- Support lower cost T-applications

Transparency
- Limited Types of Incentives
FERC Opens Inquiry on Improvements to Electric Transmission Incentives Policy

Purpose: to encourage the development of the infrastructure needed to ensure grid reliability and reduce congestion to reduce the cost of power for consumers.
DOE Submits report to Congress

*Required by Energy and Water, Legislative Branch, and Military Construction and Veterans Affairs Appropriations Act, 2019 (P.L. 115-244)
2019 Reliability Technical Conference

Managing Transmission Line Ratings
June 27, 2019
Washington, DC
FERC Reliability Technical Conference Agenda

- Status of ERO and Reliability
- Impact of Cloud based services and virtualization on BES Operations, Planning and Security.
- Reliability issues associated with Reliability Coordinator seams
- Managing changes in communications technologies on the new grid
FERC Technical Conference

Managing Transmission Line Ratings
September 10-11, 2019
Washington, DC
PURPOSE:

- “... to discuss issues related to transmission line ratings, with a focus on dynamic and ambient-adjusted line ratings.

- In particular this conference will explore what transmission line rating and related practices might constitute best practices, and what, if any, Commission action in these areas might be appropriate.”
Transmission Capacity Forecasting

- **Load**: 53 MVA
- **Real-time DLR**: 244 MVA
- **2-hour Capacity Forecast**: 193 MVA
- **24-hour Capacity Forecast**: 184 MVA
- Date: 2017-08-04, Time: 20:00:00

The graph illustrates the ratings/load over time with various markers indicating different forecasts and ratings.
Q&A Summary:
Are AAR used and are they useful? Yes and Yes

Does DLR and Transmission Capacity Forecasting provide more insight into operations than AAR? Yes

Can EMS systems accept DLR and TCF? Yes for Real-time. Some work needed for forecasting.

Are there economic benefits to DLR/TCF? Yes

Are there differences and transparency in ratings developed for reliability or economic transactions? This question resulted in the opening of Pandora’s box. In particular, the merchant organizations were very vocal saying system operations needed to provide transparency.
NEWS RELEASE
September 5, 2019

FERC announces conference to understand how technologies are used.

**Purpose:** what the Commission can do regarding those challenges, including incentivizing or requiring the adoption of grid-enhancing technologies by utilities and RTOs/ISOs.
FERC Technical Conference

How technologies are used in planning and operations

• Power Flow Control
• Topology Control
• Line Ratings

November 5-6, 2019
Washington, DC
https://www.ferc.gov/EventCalendar/EventsList.aspx