

Dynamic Line Ratings Update

Shaun Murphy, PhD

Sr. Business Solution Engineer, Applied Innovation

Market Implementation Committee

February 10, 2021



Identified Stakeholder Discussion Topics

PJM is currently planning a Special Education Session in the Operating Committee on Dynamic Line Ratings – date to be announced soon.

Topic	Audience
PJM EMS DLR Functionality & eDART Tool Updates	Operations
Handling the loss of ICCP communications	Operations
Impacts to n-1 contingency definitions	Operations
Notification timeline of a new DLR deployment	Operations & Planning
Impacts to Transmission Planning	Planning
Modeling hourly DLRs in the Market Efficiency process	Planning
Impacts to CETO / CETL	Planning
Impacts to markets: Real-time, Day Ahead, FTR	Markets
Updates to PJM Manuals	All
Analysis performed by PJM	All

CIGRE Publications:

- A Non-Contact Sensing Approach for the Measurement of Overhead Conductor Parameters and Dynamic Line Ratings (2017)¹
- Simulating the Economic Impact of a Dynamic Line Rating Project in a Regional Transmission Operator (RTO) Environment (2018)²

PJM Stakeholder Presentations:

- Emerging Technologies Forum (ETF)
 - DLR Primer (8/27/2020)³
 - Review of PJM's DLR impacts (11/13/2020)⁴ ←
 - Modeling DLR in Market Efficiency (1/11/2021)⁵
- Transmission Expansion Advisory Committee (TEAC)
 - Modeling DLR in Market Efficiency (12/23/2020)⁶

1) <https://watttransmission.files.wordpress.com/2017/11/genscape-cigre-gotf-whitepaper-2017.pdf>

2) <https://www.linevisioninc.com/wp-content/uploads/2020/11/CIGRE-GOTF-2018-NGN-PJM-AEP-LineVision-Final.pdf>

3) <https://pjm.com/-/media/committees-groups/forums/emerging-tech/2020/20200827/20200827-item-05-dynamic-line-ratings.ashx>

4) <https://pjm.com/-/media/committees-groups/forums/emerging-tech/2020/20201113/20201113-item-03c-dlr-impacts.ashx>

5) <https://pjm.com/-/media/committees-groups/forums/emerging-tech/2021/20210111/20210111-item-03-dlr-market-efficiency.ashx>

6) <https://pjm.com/-/media/committees-groups/committees/teac/2020/20201223-special/20201223-item-04-emergent-technologies-modeling-overview.ashx>

- Operating Committee Special Education Session on Dynamic Line Ratings – date to be announced soon.
- Please send requests for additional discussion topics to:
DynamicLineRatingsTm@pjm.com

SME/Presenter:
Shaun Murphy, PhD

Shaun.Murphy@pjm.com

Dynamic Line Ratings

DynamicLineRatingsTm@pjm.com



Member Hotline

(610) 666 – 8980

(866) 400 – 8980

custsvc@pjm.com