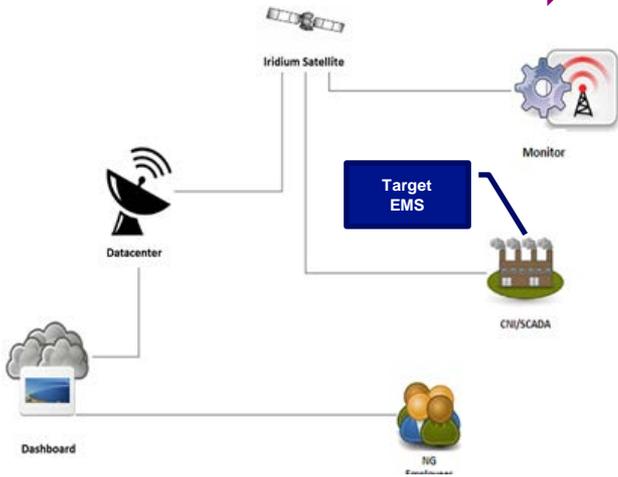
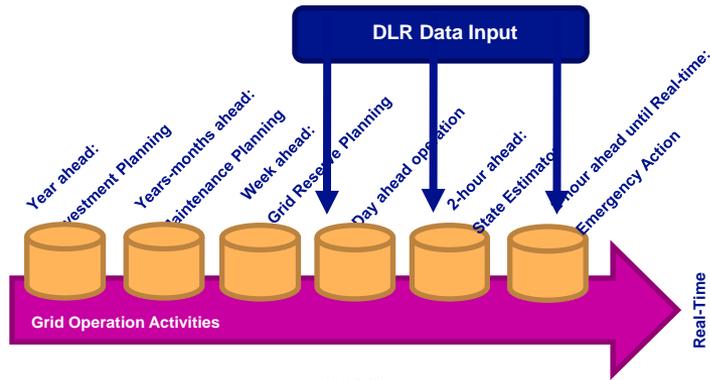


National Grid's Dynamic Line Rating (DLR) Deployments



Communication Structure

- Day-ahead DLR-forecasted line rating exceeds the AAR-forecasted ampere rating for 80% to 85% of the time.
- Mean increase of 13% in the line's current capacity above what was forecasted using Ambient Adjusted Rating methods.

Line mounted technology

Voltage Level: 115kV
In-service date: July, 2019



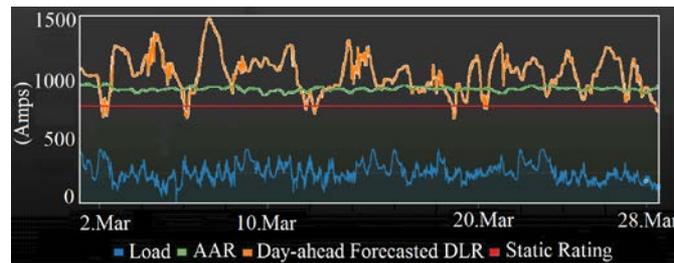
Data portal for Data monitoring

Tower mounted technology

Voltage Level: 115kV
In-service date: July, 2019



Data portal for Data monitoring



Challenges and Benefits

Challenges:

- Cyber Security
- Ability of the ISOs to accept and utilize DLR data in their administration of electricity markets and reliable grid operations
- DLR forecast data calibration may take a few weeks after the installation as the vendors utilize neural network for their forecast models
- Need for adequate coverage of line segments with sensors to yield the right answer

Benefits:

- In average, 13% line capacity increase compared to the AAR methods.
- Economic benefits and potential congestion relief
- Renewable integration



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