

Scalable Grid Technology

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Fast Responding Loads PGRR [To be filed]

We are proposing a new category of large loads: Fast Responding Loads (FRL).

An interconnecting Load with an expected peak demand of at least 75 MW that, as a condition of its interconnection, agrees to ensure reliability by either curtailing its consumption (load drop) or operating with on-site backup generation (self-supply) with an automatic response to specified contingencies. A Load designated as an FRL shall be contractually allocated additional transmission capacity in accordance with Planning Guide Section 9.3.5. based upon its speed of response and the amount of incremental physical capacity remaining on its interconnected transmission line that, if not for the FRL's contingency response capability, would have been unused due to a a restricted line rating.

In exchange for their ability to increase reliability of the grid, an FRL would be allocated additional firm transmission capacity based on how fast it can respond to a defined set of contingencies:

- If capable of a sub-second response (e.g., with Splight in place), up to the full physical capacity of the grid
- If capable of a <10 minute response, up to the short-term emergency line rating</p>

The FRL concept is complementary to, or could even be combined with, PGRR126, Related to NPRR1284, Guaranteed Reliability Loads.

Large Load Site - Load Only



Large Load Site - Load Only (Backup and Control Systems)



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Large Load Site - Load Only (Backup and Control Systems)



Monitor all

It is deployed as an add-on feature to the technological stack of the data center

- Uring the interconnection process, the test and the regulatory process described below are simulated and modeled so the developer can demonstrate that this new project has the potential to unlock its own transmission capacity by itself and act as a reliable source to turn the data center project into a grid asset and an additional layer of reliability.
- The transmission owner runs a set of test and simulations to validate that curtailment can be avoided with Splight technology
- ✓ Upon implementation of Splight DCM, a new higher transmission capability is set allowing for more load capacity to be interconnected
- ✓ This solution can also be utilized to add load to an existing site

A data center site with Splight DCM can access the full requested capacity during the Interconnection step by pairing the Splight technology and the capabilities embedded into the data center site.