

Distributed Energy Resource Data Integration Project

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DER data “as a service” (to DUs)

- Feasibility analysis
 - Build and maintain interface for use by DUs, DER owners & aggregators that enables exchange of standardized messages about DER
- Motivators
 - Reliability
 - Both VELCO and DUs need
 - Greater visibility of DER
 - Tools for coordinating across T&D boundary
 - Scale economies
 - Centralize data management work flows under one roof
 - Separate data access and software application layers
 - Interoperability
 - DU integration with third parties increasingly unwieldy
 - Standards and protocols are mature but intensive to implement

Project status

- Internal discovery and fact-finding ongoing
 - Planning to engage DUs soon
- Two concepts for DUs to consider
 - DER Registry
 - Slow data only (location, name plate, et.)
 - DER Telemetry Access
 - Operational time scales
- Many unanswered questions about DU systems
 - Communication networks
 - Data management practices
 - Enterprise architecture
- Goal is to consolidate findings into report outlining
 - Options for software build project
 - Including high level technical requirements
 - Accounting for range of DU appetite for service

PNNL collaboration

- Will leverage/supplement ongoing work
 - Designing CIM based data collection system
 - Integrating T&D network models
 - Standardizing representations of DER
 - Specifying telecommunication requirements
- High level end goal
 - Successful demonstration of network model exchange across the T&D interface
 - Build app(s) on top of standardized data access layer
 - Resulting in more informed operational and planning decisions
 - First use case: Underfrequency load shedding decision support