

DER-VET Task Force

ESIC Working Group 1: Grid Services and Analysis

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May 6, 2021



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- The webcast is being recorded along with all Q&A. Your participation provides consent to that recording.
- As a result, please make sure your phone is on mute throughout the webcast unless speaking. Do not place your phone on hold.

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Agenda

- ESIC General Session review
- Use Case Database Planning



ESIC General Session Review



Poll

Needs Identified

- Stacked Services Valuation
 - Degradation
- EOL Cost Estimates –
 - Potentially include in public executive summary of EPRI energy storage cost study
 - +/-30% cost estimates for various storage tech (thermal, psh, li-ion, etc.)
- **Modeling battery services as the regulatory environment changes**
 - Storage resources are limited in MISO, but Miso's ESR tariff will expand opportunities
 - Could implement two individual models with different start dates, similar to ITC or deferral cases.
- Only pilots now, but how in the future do we streamline (CYME, DRIVE, DER-VET, etc.) to look at stacked benefits restricted by thermal limits.
 - Reduce labor requirements (8760 data requirements can be difficult to acquire)
- **BTM uses cases for ES + Solar**
 - VPP aggregations as well
 - Use case/Tech database for VPPs
- **Valuation benchmarks for IFOM storage in various configurations across regional markets**
 - regulatory perspective for evaluating project valuations
 - Use case database



Use Case Database Planning

Use Case Database

- Strong support, good indication of need
- No volunteers to start...
- Volunteering involves:
 - End product: Saved DER-VET case with associated description
 - Have an approach to solve a need using DER-VET
 - (optional) Engage with the Task Force to refine need/approach
 - Present the setup and results in a task force meeting
- Volunteers needed by 1 week from today
- Interested volunteers should email mevans@epri.com

Recent ES Analysis Projects

Upcoming Analysis Needs

- Modeling battery services as the regulatory environment changes
- BTM uses cases for ES + Solar
 - VPP
- Valuation benchmarks for IFOM storage in various configurations across regional markets
 - European Markets
 - Ancillary services
- storage as transmission asset for optimization of transmission network for evacuation of RE
 - Storage vs transmission for RE integration
 - Optimize storage and net generation profile for 5-7GW of renewable energy under 3-5GW transmission limit
 - Transmission utilization maximization
 - How does this change over time as storage costs fall and need changes?

A blue-tinted photograph of four people (three men and one woman) standing together, looking at documents. They are wearing EPRI-branded lab coats or shirts. The woman is wearing a hard hat. The background is a solid blue color.

Together...Shaping the Future of Electricity