

DER-VET Task Force

ESIC Working Group 1: Grid Services and Analysis

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October 6, 2022



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- Advise or try to influence others on their business decisions (except to the extent that they are already public);
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- To allocate customers/suppliers/territories;
- To suppress a technology;
- To the use, promotion or endorsement of particular vendors, contractors, consultants or products.

Webcast and Recording Notification

- 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

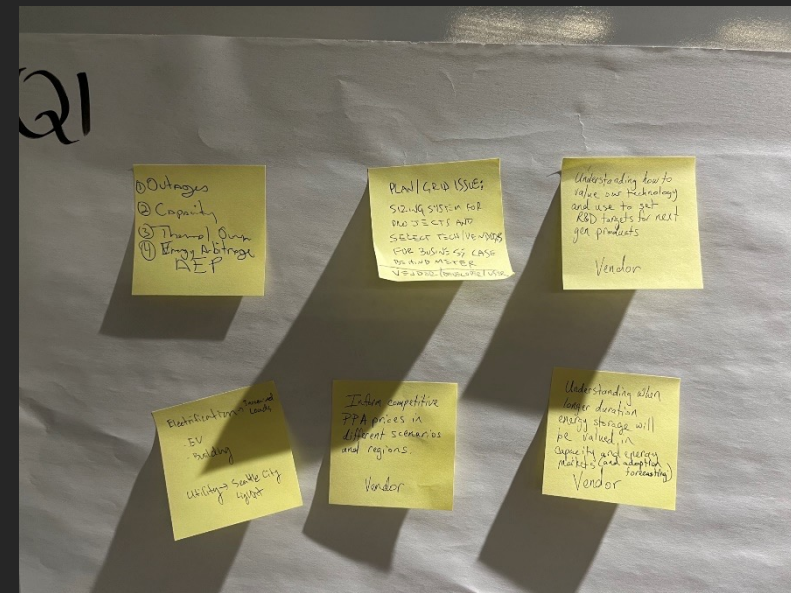
- ESIC In Person Meeting Recap
- Software Update
- Demo on Troubleshooting a DER-VET GUI Run Error



ESIC In Person Meeting Recap

ESIC In Person Meeting Recap

- Held on 9/29 at UT Austin Campus
- 50+ participants with 15 people in the Valuation Breakout session



Topic areas of discussion:

- Impacts of the Inflation Reduction Act (IRA) on ES future adoption trend and its inclusion in DER-VET Model development
- Impact of Infrastructure Law and EV fleet electrification on future ES market penetration
- Future DER-VET development items – Exporting results in a report format, publish comparison of DER-VET results (planning phase) to real world operation results for the same project to understand project economics differences
- Need for a tool development for project PPA price estimation from vendor standpoint
- Streamlined process of ES LCOE determination
- ES installation challenges – Siting, Interconnection Queue backlogs



Software Update

DER-VET Software Update I

- *Latest Available Version: v1.2.2 (updated July 11th, 2022)*
- Known Bugs and Features worked on in September through today:
 - Optimization errors with multiple batteries
 - DR service should be compatible with other services
 - Reliability Sizing with PV is buggy
 - If the outages with the most critical load are exclusively during solar hours, the algorithm that checks for feasibility in all outages fails.
 - Applies to short reliability targets where storage is being optimally sized with PV and/or generators
 - External Incentives in the GUI should apply to the Start Year, if called for
 - Add validation tests on pre-defined use cases
 - Revenue from RA, DR, & other services should grow each year after the optimization year
 - Disallow negative DA energy prices when sizing any technology in the GUI (DER-VET CLI will provide a strong warning but will run)
 - Cost vs. Benefit by Value Stream GUI plot fails to render Stacked Benefits in some cases

DER-VET Software Update II

- *Latest Available Version: v1.2.2 (updated July 11th, 2022)*
- **New Bugs** and Features to be addressed in the next update:
 - Aux load is not getting included in the Net Load results
 - Cases with 1-minute frequency will fail if run from the GUI
 - Results files incorrectly show percent values as fractions of 1
 - Selecting a non User-Defined Analysis Horizon Mode will fail in the GUI
 - Update the Storagevet README file with install instructions seen in the DER-VET README
- *We expect to release an update in the coming weeks this month (~~September~~ October)!*



Demo on Troubleshooting a GUI Error

A grayscale photograph of four people, two men and two women, standing in a row. They are all wearing white lab coats with the EPRI logo on the left chest. The woman on the far right is also wearing a white hard hat. They are all smiling and looking towards the camera. The background is a plain, light-colored wall.

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