

# Previous MESA Workshop Presentations.

## Workshop Schedule:

### [2023: Workshop 1 – MESA-DER: Meeting the DNP3 Interoperability Requirement](#)

Originally aired: Tuesday, April 25, 2023 | 11-12 am PT Presenter: Frances Cleveland

This workshop introduces the capabilities of the MESA-DER Profile to meet the DNP3 Interoperability Requirements of IEEE 1547 functions as well as providing energy storage systems (ESS) and market-based functions. Since these MESA-DER functions are now being implemented in many of the larger DER installations, MESA recognized the need to develop testing technologies and programs and has partnered with UL Solutions (link to MESA press release) to provide MESA-DER Testing and Certification services. (Link to MESA Website page and testing) At the same time, recognizing the need for further standardization, MESA is now incorporating the MESA-DER Profile into IEEE P1815.2, which will soon be balloted and is expected to be published later this year.

### [2023: Workshop 2 – The MESA-DER Profile: IEEE 1815 \(DNP3\) Key Elements and Comparison](#)

Originally aired: Wednesday, May 31, 2023 | 10-11 am PT Presenters: Mark Osborn (MESA), Ron Farquharson (DNP Users Group)

MESA Standards Alliance Workshop 2 provides a brief overview of the key grid interconnection standards IEEE 1547 and 2800. Three device communications methods are compared. (MESA-DER(DNP3), IEEE 2030.5 & SunSpec Modbus) -- as required in IEEE 1547 and 1547.1. Essential elements of the IEEE 1815 (DNP3) communication protocol are presented and how they relate to the MESA-DER/IEEE 1815.2 standard device profile. Practical communication application approaches are described for field deployments when integrating utility substations and Distributed Energy Resources on distribution feeders. The current process for MESA-DER Testing and Certification of plant controllers & gateway devices is presented as is the DNP-UG Conformance Certification Program, Conformance Test Review process.

### [2023: Workshop 3 – Cybersecurity for MESA DER \(IEEE 1815.2\)](#)

Originally aired: Tuesday, June 13, 2023 | 1-2 pm PT Presenters: Frances Cleveland and Andrew West

Everyone talks about the need for cybersecurity of “critical infrastructure”. In the past, that meant security for utility control centers, transmission substations, and large generating plants. However, as the large numbers of DER facilities are now becoming critical to the reliability of the grid, cybersecurity must reach between the utility and the DER sites across public networks, including the Internet and, more generally, the “Cloud”. This cybersecurity must be “end-to-end” with specific cross-organizational requirements associated with the large numbers of DER sites with different ownership, different capabilities, and more vulnerable communication channels. IEEE 1547.3-2023, “Guide for Cybersecurity of Distributed Energy Resources Interconnected with Electric Power Systems”, was developed to address these DER cybersecurity requirements. This MESA workshop will present IEEE 1547.3 with a special emphasis on DNP3 security for MESA- DER installations.

### [2023: Workshop 4 – Deeper Dive into MESA-DER Functions](#)

Originally aired: Tuesday, June 20, 2023 | 1-2 pm PT Presenters: Frances Cleveland

MESA Standards Alliance Workshop 4 takes a deeper dive into the MESA-DER functions, including the key IEEE 1547-2018 functions, Energy Storage System (ESS) functions, and scheduling that can be used by Power Control Systems (PCS) and microgrid systems to manage the different generation, storage, and controllable loads within their facilities. For instance, many utilities are requiring DER facilities to limit generation export (and potentially load import) to minimize the risks of possible thermal or voltage violations.