




FERC Order 841: Electric Storage Participation in Markets

Manual 40: Training and Certification Requirements

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1. Can sell* energy, Capacity, and A/S (incl. Black Start etc.)
the resource is technically capable of providing
2. Dispatched and sets price as seller and buyer
3. Bid parameters that account for ESR characteristics
4. Min market threshold is 100 kW  = already in compliance
5. Stored MWh are billed at LMP as wholesale

* "Eligible to provide..."

| Action Required | Deadline | Who May Be Affected |
|--------------------------------------|---------------------|-----------------------------------|
| Review proposed changes to Manual 40 | 12/3/2019 (Go-live) | Energy Storage Resource Operators |
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- Manual 40 Section 3.2.4 Small Generation Plant Dispatcher
 - Updated to Small Generation Resource Dispatcher
 - Add lower MW threshold for training requirements to accommodate Energy Storage Resources
- Manual 40 Section 3.2.6 Energy Storage Device Operators
 - Updated Energy Storage Device to Energy Storage Resource (ESR)
 - Updated Manual to not assume ESRs only are participating in ancillary markets
 - Updated training requirements

| Committee | | May | Jun | Jul | Aug | Sep | Oct |
|---------------------|-------|--------|--------|--------|--------|--------|--------|
| Manual 15 | MIC | ● 5/10 | ○ 6/12 | ★ 7/10 | | | |
| | MRC | | | | ● 7/25 | ★ 8/22 | |
| | MC | | | | ● 8/22 | ★ 9/26 | |
| | Board | | | | | | ★ |
| Manual 18 & 11 | MIC | | ○ 6/12 | ★ 7/10 | | | |
| | MRC | | | | ○ 7/25 | ★ 8/22 | |
| Manual 27, 28 & 29 | MSS | | | ○ 6/20 | | | |
| | MIC | | | ○ 7/10 | ★ 8/7 | | |
| | MRC | | | | | ○ 8/22 | ★ 9/26 |
| Manual 36, 40 & 14D | SOS | | ○ 6/6 | | | ★ 9/5 | |
| | OC | | ○ 6/11 | | | ★ 9/10 | |
| | MRC | | | | | | ○ 9/26 |
| Manual 36 | DTS | | ○ 6/18 | | | | |

- Information
- First Read
- ★ Endorsement

- Questions: esr@pjm.com
- [Issue Tracking: Electric Storage Participation - FERC Order 841](#)