



# BAL-003 Performance Update

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Operating Committee

November 6, 2020



# BAL-003-1.1 Frequency Response & Frequency Bias Setting Requirement 1

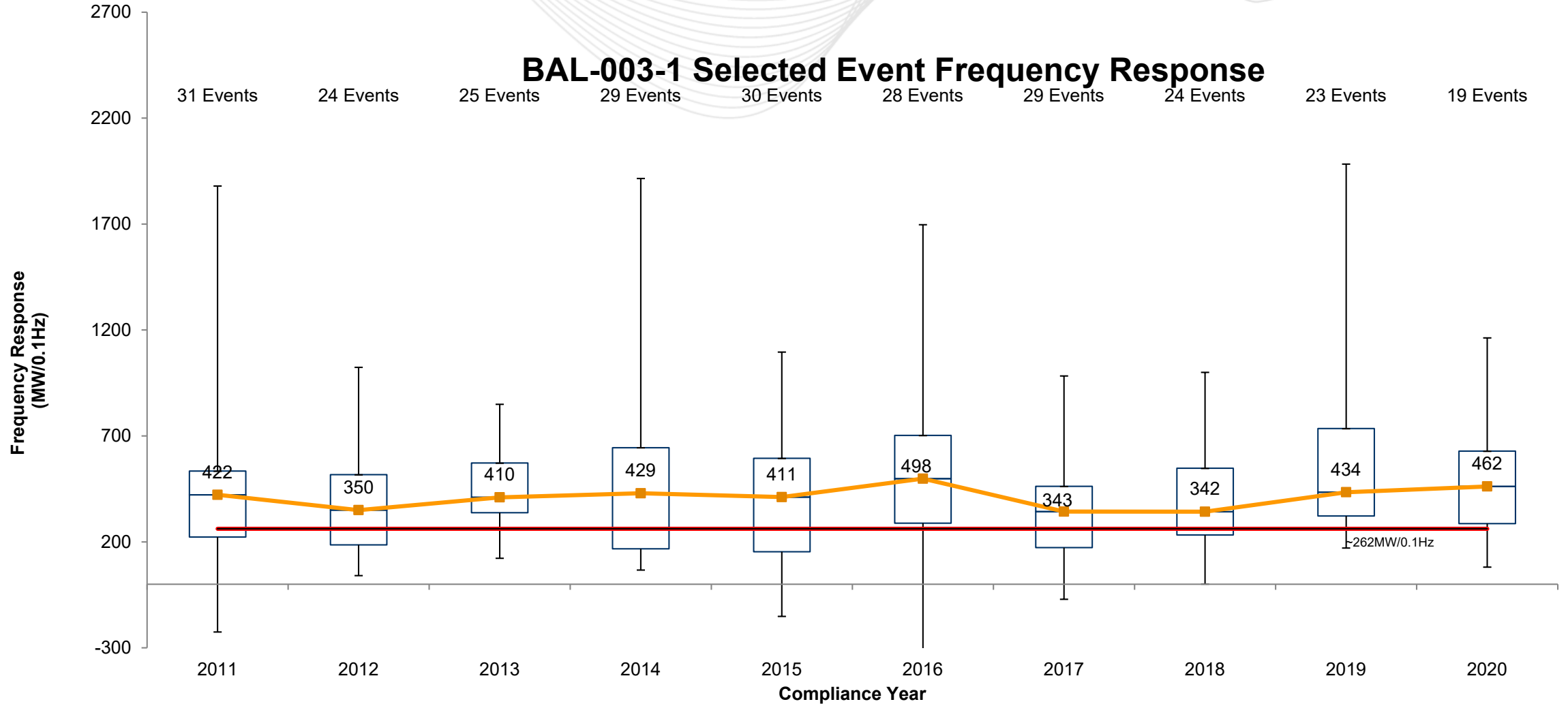
- **Requirement 1:** Each Balancing Authority shall achieve an annual Frequency Response Measure (FRM) that is equal to or more negative than its Frequency Response Obligation (FRO)...

Interconnection Frequency Response Obligation X Balancing Authority Pro-rata Share

$$FRO_{BA} = IFRO \times \frac{\text{Annual Gen}_{BA} + \text{Annual Load}_{BA}}{\text{Annual Gen}_{Int} + \text{Annual Load}_{Int}}$$

**PJM FRO for 2020 operating year = (-1015 MW/0.1 Hz) x (25.72%) = -261.1 MW/0.1Hz**  
**2020 Operating Year : December 2019 – November 2020**

**Field trial data prior to Operating Year 2017**



- Phase I – completed and BAL-003-2 subject to enforcement on December 1, 2020
- Implementation Updates:
  - Interconnection Frequency Response
  - Eastern Interconnection Resource Contingency Protection Criteria
  - Frequency of nadir point limitations
  - Clarifying language related to Frequency Response Reserve Sharing Groups (FRSG)
  - Procedure for ERO Support of Frequency Response and Frequency Bias Setting Standard

- Phase II (currently under development)
  - Review alternate methodologies in determining Frequency Response and make allocation as equitable as possible
  - Review if additional reliability entities should be added
  - Review the measurement methodology of Frequency Response
  - Review Phase I changes and address changes (if needed)

Standard Drafting Team working on Whitepaper for Industry Review with possible survey questions to support future Standard revisions. Timeline is TBD.



## Meeting Announcement

### 2019 GO Survey Results

December 2, 2020 | 1:00 – 2:00 p.m. Eastern

Click here for: [Meeting Registration](#)

The NERC Resources Subcommittee (RS) will be hosting a webinar to go over the 2019 GO Survey results. Below are a list of topics that will be discussed during the webinar:

- Review the 2019 GO Survey Results
- Provide some examples of recent generators enhancements to obtain primary frequency response
- Update from NERC BAL-003 Standard Draft Team.

Please click the “**Meeting Registration**” link above to register and receive dial-in information. The meeting agenda is attached.

For more information or assistance, please contact [Levetra Pitts](#) (via email).

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**RELIABILITY | RESILIENCE | SECURITY**

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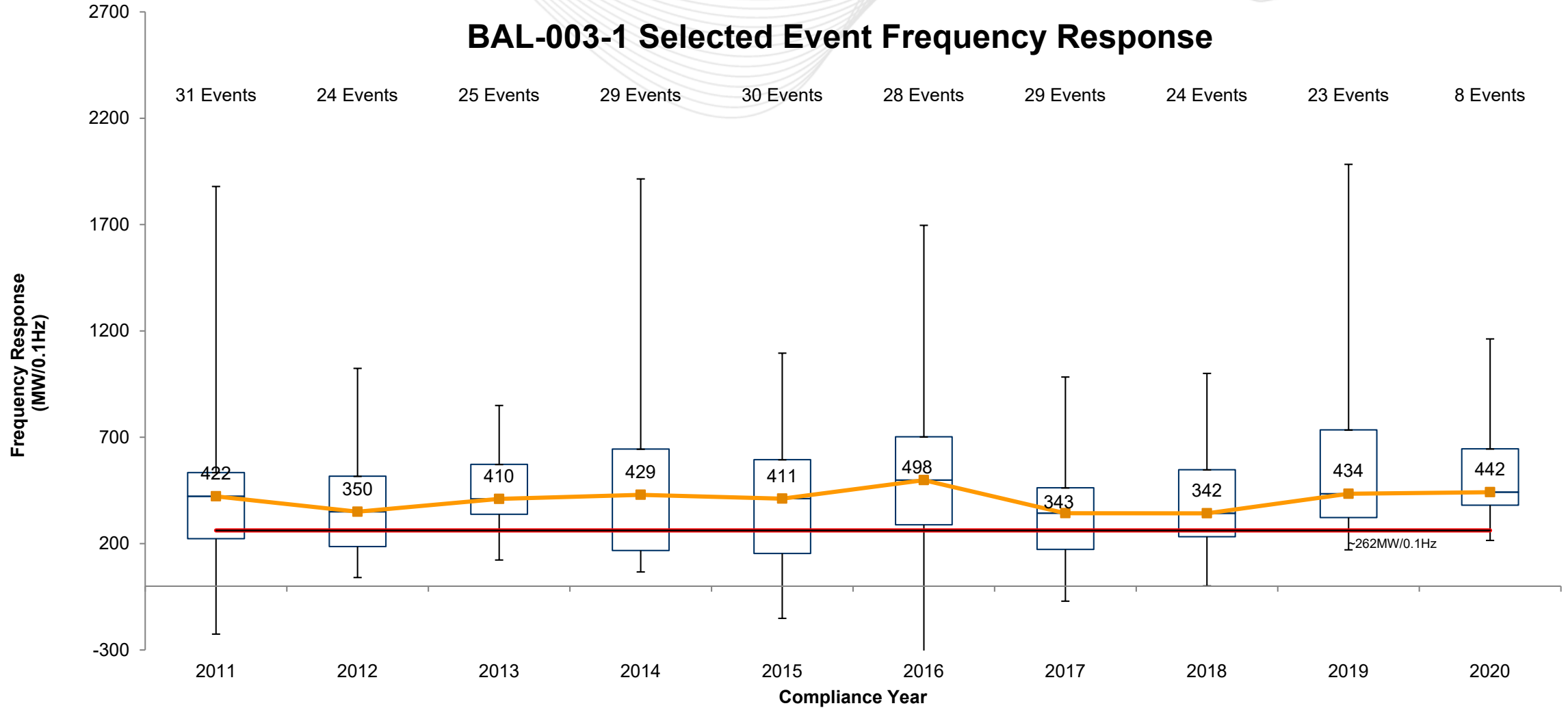
[custsvc@pjm.com](mailto:custsvc@pjm.com)

# Appendix





# Historic PJM BAL-003-1 Performance from July 2020 OC Update



- **Project 2017-01 Link:**

<https://www.nerc.com/pa/Stand/Pages/Project201701ModificationstoBAL00311.aspx>

- **BAL-003 Implementation Plan Link:**

[https://www.nerc.com/pa/Stand/Project201701ModificationstoBAL00311/Project\\_2017\\_01\\_Implementation%20Plan%20BAL\\_003\\_2\\_October\\_2019\\_clean.pdf](https://www.nerc.com/pa/Stand/Project201701ModificationstoBAL00311/Project_2017_01_Implementation%20Plan%20BAL_003_2_October_2019_clean.pdf)

- **Resources Loss Protection Criteria Link:**

[https://www.nerc.com/pa/Stand/Project201701ModificationstoBAL00311/Project\\_2017\\_01\\_RLPC\\_Clean\\_October\\_2019\\_Ika.pdf](https://www.nerc.com/pa/Stand/Project201701ModificationstoBAL00311/Project_2017_01_RLPC_Clean_October_2019_Ika.pdf)

- **Procedure for ERO Support of Frequency Response and Frequency Bias Setting Standard:**

[https://www.nerc.com/pa/Stand/Project201701ModificationstoBAL00311/2019%20ERO%20Procedure%20document\\_October\\_2019\\_clean\\_from\\_last\\_posted\\_Project\\_2017\\_01\\_Ika.pdf](https://www.nerc.com/pa/Stand/Project201701ModificationstoBAL00311/2019%20ERO%20Procedure%20document_October_2019_clean_from_last_posted_Project_2017_01_Ika.pdf)