



Primary Frequency Response Sr. Task Force (PFRSTF) Update

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- Primary Frequency Response (PFR) is an essential reliability product, needed to ensure system reliability and stability in both real-time operations and also during system restoration events
 - First stage of system frequency control (before regulation)
 - Provided automatically by unit governors or equivalent speed control systems
 - Response is in seconds and not controlled by any centralized system
 - Critical for controlling frequency in system restoration event

- MRC approved PFRSTF formation on May 25, 2017
- Stakeholder discussions since July 2017
- FERC Order 842 issued on 2/15/18

- Requires all new units with ISAs to install, maintain and operate equipment capable of providing primary frequency response as a condition of interconnection
 - PFR requirements to be added to Interconnection Service Agreement
 - No compensation required
 - No “headroom” requirement
- Did not specifically address *existing* resource fleet
 - Some stakeholders believe that this order exempted existing units from any PFR requirements

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- **Shifted focus to existing resources**
- **Four proposals currently being offered**
 - PJM Option A, PJM Option B, IMM, AEP
 - Calpine proposal under development

	PJM “A”	IMM	AEP	PJM “B”
Requirement (existing resources)	>20 MW	> 10 MW	“Best effort”	>20 MW in Restoration plans
Exemption	Nuclear; limited exemptions	Nuclear	Nuclear; limited exemptions	Nuclear, limited exemptions
Performance verification	Yes	Yes	Yes	Yes
Compensation	One time capital recovery	Already included in capacity/energy markets	Cost of service recovery filed with FERC	One time capital recovery
Polling (% Support)	15%	12%	59%	38%

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- **Reasons for low support**
 - Belief requirements on existing units are counter to Order 842
 - Reliability need not demonstrated
- **PJM files for clarification/rehearing of Order 842 on March 16, 2018**
 - Asking for clarification on requirements for existing units

- Stakeholders reluctant to vote on proposals given uncertainty surrounding Order 842
- PFRSTF continues to have monthly check-in meetings and continuing to work on proposals
- Vote will occur upon clarification from FERC on Order 842
 - FERC aware of priority of rehearing/clarification request