

Primary Frequency Response Sr. Task Force (PFRSTF) Operating Committee Update

Glen Boyle Manager, System Operator Training March 6, 2018

www.pjm.com PJM©2018



- Last meeting February 28, 2018
- Detailed discussion on solution design components

2

- Exception Process
- Implementation Plan
- Compensation
- Performance Measurement
- Next meeting March 21, 2018



- Order issued 2/15/18
- Will require all new generation with LGIA or SGIA to install, maintain and operate to provide frequency response
- Requirements for max 5%, max +/- 36 mHz deadband
- No headroom requirement or compensation requirements

PFRST will focus attention and proposals to existing resources



- Tentative schedule
 - FERC order may delay schedule
 - Stakeholders finalizing solution proposals
 - Voting following March meeting
 - MRC
 - May First read
 - June Voting



- Individual resource capability requirement to provide PFR
 - Droop not to exceed 5%
 - Deadband not to exceed +/- 36 mHz
 - Consistent with Eastern Interconnection
- Plant level Digital Control Systems (outerloop controls)
 - Utilize locally sensed frequency as input in control systems
 - Digital control systems set up to allow unit to provide PFR
- Governor equivalent Mode of Operation
 - Utilize locally sensed frequency as input in control systems
 - Governor equivalent mode of operation must allow unit to provide PFR

5



- No "Headroom" or "Footroom" requirement
- Applies to all small and large, new and existing (> 10 MW) resources
- Exceptions
 - Nuclear generation
 - Documented exception process similar to PLS
 - One package proposal exempts units < 20 MW
- Measured individual unit performance during selected frequency events



- 2 Possible options
 - Cost of Service structure
 - Similar to Reactive Service (OATT Schedule 2)
 - Resource owner files with FERC for cost recovery
 - Capital investment already included in CONE
 - VOM is included in CP offer.