



Recommendation for IE/RE consideration:

RUNNING AVR, PFR TESTS IN MQT

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Background

- During commissioning, plants must show acceptable performance of Automatic Voltage Regulation (AVR) and Primary Frequency Response (PFR)
- Useful to check AVR/PFR model performance before a facility comes online
 - Currently, some plants appear to undergo extensive tuning during commissioning
 - Tuning sometimes not coordinated with MQT performance; plants tune to pass the tests but later discover they are failing the MQT

Recommendation to IEs

- Suggest IEs check their model AVR/PFR performance while checking MQT, specifically before entering QSA
 - Simulate the AVR/PFR tests on the PSS/e model
 - AVR/PFR test procedure is here: [IRR AVR testing expectations 12302020](#)
 - Run a similar test in simulation, stepping voltage or frequency as directed
 - Incorporate a non-zero impedance between plant model and the infinite bus testing source, for example, to establish an SCR of ~5, as calculated per the procedure in the [DWG Procedure Manual](#) Section 3.1.5.8 (MQT SCR Test Method).
- Optional
 - If performed, ERCOT will provide helpful feedback
 - Does not affect acceptance into QSA