



## Problem Statement / Issue Charge

### ***Problem Statement:***

Frequently mitigated units (FMU) and associated units (AU) are generating units in the PJM energy market that are allowed to apply an adder to their cost-based offers based on the frequency with which they are offer capped.

FMUs were first provided additional compensation (an adder to their cost-based offers) as a form of capacity pricing in 2006 to help ensure that units that run primarily in a cost capped mode and are marginal can cover their avoidable or going forward costs. The definition of FMUs provides for a set of graduated adders associated with increasing levels of offer capping. Units capped for 60 percent or more of their run hours and less than 70 percent are entitled to an adder of either 10 percent of their cost-based offer or \$20 per MWh. Units capped 70 percent or more of their run hours and less than 80 percent are entitled to an adder of either 15 percent of their cost-based offer (not to exceed \$40) or \$30 per MWh. Units capped 80 percent or more of their run hours are entitled to an adder of \$40 per MWh or the unit-specific, going-forward costs of the affected unit as a cost-based offer. These categories are designated Tier 1, Tier 2 and Tier 3.

An AU, or associated unit, is a unit that is physically, electrically and economically identical to an FMU, but does not qualify for the same FMU adder. The AU designation was implemented to ensure that the associated unit is not dispatched in place of the FMU, resulting in no effective adder for the FMU.

The implementation of the RPM capacity market construct in PJM in 2007 provided another source of~~addressed any~~ revenue to adequacy issue with frequently mitigated units.~~The implementation of scarcity pricing for all resources in 2012 added another form of revenue. The reasons that FMU and AU adders were implemented no longer exist.~~

Therefore, it is appropriate to review the magnitude of the FMU and AU adders, their interaction with these and other changes to the PJM markets and whether provision for FMU and AU adders continues to be appropriate in the PJM market design.

~~Because FMU and AU adders no longer serve the purpose for which they were created and interfere with the efficient operation of PJM markets, it is appropriate to examine their continued inclusion in the PJM market design.~~

### ***Issue Source:***

FMU and AU adders were added to the market rules in 2006 in order to address revenue inadequacy. Since that time, PJM has undertaken major redesign of its market rules

addressing revenue adequacy, including implementation of the RPM capacity market construct in 2007, and significant changes to the scarcity pricing rules in 2012. The reasons that FMU and AU adders were implemented no longer exist. ~~FMU and AU adders no longer serve the purpose for which they were created and interfere with the efficient operation of PJM markets.~~

Therefore, it is appropriate to review the magnitude of the FMU and AU adders, their interaction with these and other changes to the PJM markets and whether provision for FMU and AU adders continues to be appropriate in the PJM market design.

### **Stakeholder Group Assignment:**

~~The issue will be presented at the March 106, 2013 MIC.~~ The MMU recommends that the MIC resolve the issue without assignment to another group. If accepted, the issue will be taken up at the first MIC meeting in the fourth quarter of 2013. The MMU will provide educational material prior to that meeting.

### **Key Work Activities:**

1. Review the rules governing FMU and AU adders.
2. Review the history of FMU and AU adders.
3. Determine if FMU and AU adders are still ~~are~~ needed.
  - a. If no, then remove them.
  - a.b. If yes, explore targeted alternatives for units with identified issues.
- 3.4. Develop Tariff and Manual changes ifas necessary.

### **Expected Deliverables**

Revised Tariff and Manual language.

### **Expected Overall Duration of Work**

The MMU expects that this work effort can be completed within six months.