

Monitoring Analytics, LLC 2621 Van Buren Avenue, Suite 160 Valley Forge Corporate Center

Eagleville, PA 19403 Phone: 610-271-8050 Fax: 610-271-8057

DATE: April 28, 2011

TO: All PJM RPM Auction Participants

SUBJECT: Clarification on ACR Data and Pending EPA Regulations

The MMU has received questions related to the MMU's Market Notice of March 30, 2011 regarding Avoidable Cost Rate (ACR) data and the pending U.S. Environmental Protection Agency (EPA) maximum achievable control technology (MACT) emissions standards. The following are frequently asked questions and answers.

Question 1: If a participant determines that the costs to meet the proposed MACT rules will be prohibitive, do they need to submit a request for deactivation so that they would not have to offer a unit into the 2014/2015 Base Residual Auction (BRA)?

Answer 1:

- The MMU expects participants to offer units based on their calculated costs of compliance and based on their own economic decisions. If the units do not clear, participants have the option to retire the units.
- The MMU expects that there will be a corporate decision about participation in this BRA based on the known facts about the EPA notice of proposed rulemaking (NOPR) and that the corporate decision is documented.
- In order to qualify for an exception to PJM's must offer requirement, the resource must provide to the MMU a documented plan of retirement and show that it has notified PJM of the deactivation in accordance with the PJM Open Access Transmission Tariff (OATT). OATT Attachment M-Appendix § II.C.4.A.

Question 2: What happens if we find out later that MACT is delayed or the final rules are significantly different than proposed?

Answer 2:

- If a project at a unit is reviewed and accepted for the 2014/2015 BRA and included in the capacity market sell offer and the unit is marginal in the BRA, the capacity market seller is subject to the provisions of Section 6.8 (a) of Attachment DD of the PJM OATT if that project is not in commercial operation prior to the end of the 2014/2015 delivery year.
- If, after the BRA, MACT requirements change such that no project investment is
 necessary to provide capacity through the 2014/2015 delivery year, or the unit is
 granted an extension past the end of the 2014/2015 delivery year, the capacity
 market seller may be required to make such investment during the subsequent
 delivery year or make the same level of investment in other units operated by the

- same capacity market seller in the same Locational Deliverability Area (LDA) by the end of the 2014/2015 delivery year or else may be subject to the penalty referred to as a "rebate payment." OATT Attachment DD § 6.8(a).
- Similarly, if, after the BRA, the capacity seller decides that it is optimal to retire the unit prior to the end of the delivery year rather than proceed with a project investment which has been reviewed and submitted in the capacity sell offer, and the unit was marginal, the capacity market seller is subject to the provisions of Section 6.8 (a) of Attachment DD of the PJM OATT.

Question 3: If a capacity market seller elects the Mandatory CapEx option, would they still have to meet the following bullets listed in the MMU Market Notice:

- A showing why specific project investment(s) are required at an affected plant by the March 16th NOPR;
- A showing that such project, if cleared, will be in place in the 2014/2015 Delivery Year;
- A statement indicating whether the owner plans to file for a one-year extension as
 permitted by the March 16th NOPR, and, if so, an assessment of factors that may
 influence whether an extension would be granted;
- Support for the specific level of costs of investment; and
- Evidence of a corporate approval of and commitment to proceed with the investment, assuming that the resource clears in the 2014/2015 BRA.

Answer 3:

• Yes, capacity market sellers in the 2014/2015 BRA electing the Mandatory CapEx option would have to meet these requirements.

Question 4: Should units that will not make investments to meet the proposed emissions standards submit a Capacity Modification (cap mod) in the PJM eRPM system to reduce the installed capacity of the resource to 0 MW prior to the auction, and then follow the normal deactivation process?

Answer 4:

• Capacity market sellers that decide not to retrofit an existing unit are, unless a waiver has been granted, subject to a must offer requirement. Such capacity market sellers may decide to offer the unit in the 2014/2015 BRA. Such capacity market sellers may decide to retire the unit rather than offer the capacity in the 2014/2015 BRA. In that case, the capacity market seller must follow the tariff requirements for an exception to the must offer requirement. OATT Attachment M-Appendix § II.C.4.

• In order to qualify for an exception to PJM's must offer requirement, the resource must provide to the MMU a documented plan of retirement and show that it has notified PJM of the deactivation in accordance with the PJM Open Access Transmission Tariff (OATT). OATT Attachment M-Appendix § II.C.4.A. A cap mod to zero does not meet this requirement.

Question 5: Do capacity market sellers have the option to offer a unit without project investment under the expectation that the unit will retire when the MACT requirements become effective?

Answer 5:

• Capacity market sellers may offer in the BRA with the expectation that no capital investment will be required to provide capacity in the 2014/2015 delivery year either due to changes in MACT requirements or the provision of an extension. Capacity market sellers may offer in the BRA with the expectation that capacity market prices will lead to profitable operations for part of the delivery year, with the intent to retire the unit once MACT requirements prohibit operations. In either case, capacity sellers are subject to penalties for the failure to meet their RPM resource commitments for any period in the delivery year. Capacity market sellers that anticipate a failure to meet their RPM resource commitments for any portion of the 2014/2105 delivery year due to the MACT requirements should notify PJM and the MMU in writing.

Question 6: What constitutes evidence of a corporate approval of and commitment to proceed with the investment?

Answer 6:

• The following statement if signed and submitted by a financial officer or executive responsible for generation or markets would suffice:

Based on the best information available at the time of our final offer into the Base Residual Auction (BRA) for the 2014/2015 delivery year, the submitted project investments for [name of unit or units] are necessary in order to provide capacity through the 2014/2015 delivery year, and the calculated avoidable cost rates and avoidable project investment recovery rates for [name of unit or units] represents our best estimate of the cost to provide capacity in the 2014/2015 delivery year. Therefore if the projects are offered and cleared in the BRA for the 2014/2015 delivery

year, our organization is committed to completing the projects prior to the end of the 2014/2015 delivery year. It is our understanding that if the [name of unit or units] clears and the projects bid are not in place by the end of the 2014/2015 delivery year, our organization may be subject to the provisions of Section 6.8(a) of Attachment DD of the PJM OATT, in addition to any associated capacity deficiency penalties or replacement capacity purchases.

Other statements fully consistent with this statement may be acceptable.

Question 7: What constitutes a documented plan to retire a unit?

Answer 7:

- The participant must provide notice to PJM under OATT § 113.1. In addition, the MMU requests a documented plan for addressing contingencies including any circumstances that would result in a reversal of the decision to retire and an estimate of the level of revenues required to remain in service. The MMU may request additional information based on its review of the initial submittal and the circumstances specific to the resource.
- This analysis of the requested deactivation under Section II.C.4.A of OATT Attachment M–Appendix is separate from the market power analysis performed by the MMU of the decision to deactivate, under Section IV.1 of OATT Attachment M–Appendix.
- If a decision is made to make the date of retirement earlier than the date first specified, then an additional market power analysis will be necessary to evaluate the accelerated time frame, under Section IV.1 of OATT Attachment M-Appendix.

Question 8: What form should the notification to PJM and the MMU referenced in the response to question 5 take?

Answer 8:

• Capacity market sellers that anticipate a failure to meet their RPM resource commitments for any portion of the 2014/2105 delivery year due to the MACT requirements should provide notice to PJM and the MMU in a statement signed by a financial officer or executive responsible for generation or markets prior to January 1, 2014 so that it may be considered prior to updating the planning period parameters for the third incremental auction for the 2014/2015 delivery year.

Question 9: If avoidable cost data including avoidable project investment recovery that is considered necessary for MACT compliance is submitted and approved for a unit and some or all of the unit's capacity is offered at a price below the unit specific offer cap, what are the implications of this sell offer being marginal?

Answer 9:

- If the sell offer is higher than the avoidable cost rate (ACR), excluding the avoidable project investment recovery (APIR) component, less projected PJM market revenues, or, equivalently, if the sell offer is higher than the offer cap that would have resulted if no project investment had been submitted, the sell offer includes project investment recovery and thus, if the sell offer is marginal, a failure to complete the project prior to the end of the delivery year will subject the capacity seller to the provisions of Section 6.8(a) of Attachment DD of the PJM OATT, in addition to any associated capacity deficiency penalties or replacement capacity purchases.
- The tariff language does not directly address the consequences for a capacity market seller that owns, in whole or in part, a capacity resource for which there is an offer of a segment of capacity that includes no APIR component, and an offer of a segment of capacity from the same unit that does include an APIR component, when the segment including APIR is marginal. Such offers from units with multiple owners could come from one or more sellers. The MMU believes that all offers for capacity from a unit, regardless of whether there is a single owner or multiple owners, any portion of which sets price on the basis of APIR, should be subject to the remedies specified in section 6.8(a) of Attachment DD if the project is not completed per the defined deadlines.

Question 10:

10A: What capacity revenue is at risk if there are multiple offer segments for a single unit one offer segment sets the clearing price, and then the MACT project that was included in that bid was deferred or not completed?

10B: What capacity revenue is at risk if there are multiple owners of a unit and the offer of one owner, of a group of multiple owners, sets the clearing price, and then the MACT project that was included in that bid was deferred or not completed?

Answer 10:

• 10A: The tariff language in OATT Attachment DD § 6.8(a) does not explicitly contemplate segmented offers from a single owner. Nevertheless, the MMU and PJM

have considered this issue and determined that the only reasonable interpretation of the language and application of the provision is that an owner of any portion of cleared capacity in a unit that sets price on the basis of APIR included with any offer from that same unit is at risk of a "rebate payment" under section 6.8(a) if the APIR is not made in the applicable Delivery Year. Exposure to a possible rebate payment may occur even for a portion of capacity of a unit not offered at the maximum, including full APIR.

• 10B: The tariff language in OATT Attachment DD § 6.8(a) does not explicitly contemplate multiple owners. Nevertheless, the MMU and PJM have considered this issue and determined that the only reasonable interpretation of the language and application of the provision is that an owner of any portion of cleared capacity in a unit that sets price on the basis of APIR included with any offer from that same unit is at risk of a "rebate payment" under section 6.8(a) if the APIR is not made in the applicable Delivery Year. This approach does not require coordinating a common offer or otherwise conflict with the antitrust laws. Owners of existing capacity may offer it at any level up to the offer cap without regard to or knowledge of the level of offers from other capacity owners. Exposure to a possible rebate payment may occur even for a portion of capacity of a unit not offered at the maximum, including full APIR.