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September 1, 2016

The Honorable Kimberly D. Bose, Secretary  
Federal Energy Regulatory Commission  
888 First Street, N.E. Room 1A  
Washington, D.C. 20426

*Re: PJM Interconnection, L.L.C., Docket No. ER16-2533-000  
Parameter Limited Schedule Exception Procedures*

Dear Secretary Bose:

Pursuant to section 205 of the Federal Power Act (“FPA”),<sup>1</sup> and section 35.13 of the Federal Energy Regulatory Commission’s (“Commission”) regulations,<sup>2</sup> PJM Interconnection, L.L.C. (“PJM”) submits proposed revisions to the Amended and Restated Operating Agreement of PJM Interconnection L.L.C. (“Operating Agreement”), Schedule 1, section 6.6 and the parallel provisions of the PJM Open Access Transmission Tariff (“Tariff”), Attachment K-Appendix,<sup>3</sup> and Tariff, Attachment M-Appendix, section II.B. PJM and its stakeholders developed these proposed revisions to (i) allow a Market Seller<sup>4</sup> to request certain types of exceptions to the parameter limited schedule (“PLS”) values that otherwise would apply to a generating unit for an operational constraint that the Market Seller only becomes aware of after the specified deadline for requesting such types of PLS exceptions for a Delivery Year, (ii) clarify the rules regarding

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<sup>1</sup> 16 U.S.C. § 824d.

<sup>2</sup> 18 C.F.R. § 35.13 (2016).

<sup>3</sup> Tariff, Attachment K-Appendix and Operating Agreement, Schedule 1 are identical. For convenience, where PJM refers herein to proposed revisions to the Operating Agreement, Schedule 1, those references also are intended to encompass the identical proposed revisions to the corresponding provisions of Tariff, Attachment K-Appendix.

<sup>4</sup> Capitalized terms used and not otherwise defined herein have the meaning set forth in the Tariff or Operating Agreement.

PLS values and PLS exceptions for jointly owned generating units, and (iii) make other clarifying changes.

PJM requests that the Commission issue an order accepting these proposed revisions, which the PJM Members Committee approved by acclamation, by October 31, 2016, 60 days from the date of this submission, with an effective date of October 31, 2016.

## **I. BACKGROUND**

A Market Seller submitting Offer Data for a generating unit is subject in some instances to pre-determined limits on non-price offer parameters,<sup>5</sup> as specified by unit-specific PLS values that are established by PJM in consultation with the Market Monitoring Unit (“MMU”). The unit-specific PLS values apply to cost-based offers and market-based offers during emergency conditions and when the Market Seller fails the three pivotal supplier test for marker power.<sup>6</sup> Under such circumstances, PJM requires the Market Seller to operate the generating unit in conformance with the unit’s PLS values.

Notwithstanding the foregoing, PJM realizes that operational issues may arise that will require a Market Seller to operate its generating unit in a manner inconsistent with previously established unit-specific PLS values. To that end, PJM allows Market Sellers to request PLS exceptions for 30 days or less (temporary exception), at least 31 days but no more than one year (period exception), or for more than one year (persistent exception).

### ***A. Current Procedures for Period or Persistent PLS Exception Requests***

A Market Seller must submit a period or persistent PLS exception request to PJM and the MMU by February 28 prior to the Delivery Year<sup>7</sup> during which the exception would commence.

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<sup>5</sup> See Operating Agreement, Schedule 1, section 6.6(b) for a list of applicable operating parameters.

<sup>6</sup> See *id.*, section 6.6(a).

<sup>7</sup> A Delivery Year extends from June 1 through May 31.

The exception request must include (1) historical operating data and supporting technical information about the physical operational limits of the generating unit, and (2) the expected duration of the exception.<sup>8</sup> By April 1, the MMU will notify the Market Seller and PJM of its determination of whether the exception request raises market power concerns; and, if so, how those concerns should be addressed.<sup>9</sup> If the Market Seller agrees with the MMU's determination, the Market Seller then submits PLS values to PJM and the MMU consistent with that determination. If the Market Seller does not agree with the MMU's determination, the Market Seller may submit its own PLS values (*i.e.*, values differing from the MMU's determination) to PJM and the MMU by April 8. By April 15, PJM will evaluate the exception request and submitted PLS values, and will notify the Market Seller and the MMU of whether the exception request is approved or denied.<sup>10</sup> Importantly, if a Market Seller only becomes aware of the need for a period or persistent exception after the February 28 deadline, the only way for the Market Seller to receive such an exception within the applicable Delivery Year would be for it to file a waiver request with the Commission.

Moreover, once a period or persistent exception has been approved for the applicable Delivery Year, the Market Seller must give PJM and the MMU written notice of any material change in facts relied upon by PJM and the MMU in their evaluation of a period or persistent PLS exception request that occurs within the applicable Delivery Year. The MMU then will give PJM and the Market Seller written notice of any change to its determination of whether the exception request raises market power concerns, based on the material change in facts, by no later than 15 days after receipt of the Market Seller's written notice. As applicable, PJM will

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<sup>8</sup> See Operating Agreement, Schedule 1, section 6.6(h)(ii).

<sup>9</sup> See Tariff, Attachment M-Appendix, section II.b.

<sup>10</sup> See Operating Agreement, Schedule 1, section 6.6(h)(ii).

notify the Market Seller and MMU of any change to its approval or denial of the exception request, based on the material change in facts, by no later than 20 days after receipt of the Market Seller's written notice. If PJM determines that the PLS exception no longer complies with the Tariff, Operating Agreement or PJM Manuals, the default PLS values specified in the Parameter Limited Schedule Matrix<sup>11</sup> will apply.<sup>12</sup>

***B. Current Procedures for Temporary Exception Requests***

A Market Seller must submit any temporary PLS exception request at least one business day before commencement of the exception. The exception request must specify the start and end dates for the exception, lasting 30 days or less. Within three days after the start of the temporary exception, the Market Seller must provide documentation to PJM and the MMU explaining the reasons for the exception. PJM and the MMU may request additional information, and the Market Seller must respond within three days. A Market Seller's failure to timely respond to a PJM or MMU request for additional information will result in termination of the temporary exception the following day.<sup>13</sup>

If, prior to the scheduled termination date for a temporary exception, the Market Seller learns that the exception will continue for more than 30 days, the Market Seller must submit to PJM and the MMU a request to modify the temporary exception into a period or persistent exception. The modification request must include detailed documentation explaining the reason for modification. Also, as with a normal period or persistent exception request, the modification request must include (1) historical operating data and supporting technical information about the physical operational limits of the generating unit, and (2) the expected duration of the exception.

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<sup>11</sup> See *id.*, section 6.6(c) for the Parameter Limited Schedule Matrix.

<sup>12</sup> See *id.*, section 6.6(h)(ii).

<sup>13</sup> See *id.*, section 6.6(h)(i).

The MMU will provide its determination of whether the modification request raises market power concerns by no later than 15 days from the date of the request. PJM will provide its determination of whether the modification request complies with the Tariff and PJM Manuals by no later than 20 days from the date of the request. The temporary exception will continue in effect during the evaluation period for the modification request.<sup>14</sup>

## II. DESCRIPTION OF PROPOSED REVISIONS

### A. *Substantive Changes to Operating Agreement and Tariff*

#### 1. *Operating Agreement, Schedule 1, section 6.6(h) – Temporary Exceptions*

PJM proposes to add language to Operating Agreement, Schedule 1, section 6.6(h)(i) to specify that a temporary PLS exception may be requested only once for the same operational constraint “since an operational constraint that may occur more than once should be the subject of a period exception request rather than multiple temporary exception requests.”<sup>15</sup> This proposed language will prevent a Market Seller from submitting a series of temporary PLS exception requests, when instead the Market Seller should have submitted a period exception request.

PJM also proposes to add language to section 6.6(h)(i) to allow a Market Seller to use the temporary exception procedures and then seek to modify the temporary exception into a period or persistent exception if the Market Seller “is unaware of the need for a period exception prior to the February 28 deadline for submitting such requests.”<sup>16</sup> As previously discussed, a Market Seller can only request a period or persistent PLS exception if it submits a request by February 28 prior to the Delivery Year during which the exception would commence. Accordingly, under

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<sup>14</sup> *See id.*

<sup>15</sup> *See* proposed Operating Agreement, Schedule 1, section 6.6(h)(i).

<sup>16</sup> *See id.*

PJM's current rules, if the Market Seller becomes aware of the need for a period or persistent exception after the February 28 deadline, its only recourse is to request a Commission waiver of the deadline. After the deadline, the Market Seller *may not* use the aforementioned process for modifying a temporary exception into a period or persistent exception to request a period or persistent exception if it knows at the time it is making the request that it needs a period or persistent exception because this process only applies when a Market Seller initially believes it needs a temporary exception, and then discovers that it needs to modify it into a period or persistent exception. Therefore, PJM's proposed revisions will give a Market Seller the ability to request a period or persistent exception from PJM and the MMU after the February 28 deadline if it does not become aware of the need for such exception until after the deadline.

PJM's proposed revisions will afford Market Sellers additional flexibility in submitting period and persistent exceptions under circumstances in which they could not have possibly met the February 28 deadline but such exceptions are nonetheless necessary, and will relieve Market Sellers and the Commission of any administrative burdens associated with waiver requests of the deadline that would otherwise be needed.

The proposed additions to Operating Agreement, Schedule 1, section 6.6(h)(i) described above are as follows:

(h)

...

(i)

...

*Temporary Exceptions*

...

A temporary exception may only be requested one-time for the same physical or actual constraint since an operational constraint

that may occur more than once should be the subject of a period exception request rather than multiple temporary exception requests.

In addition, if a Market Seller is unaware of the need for a period exception prior to the February 28 deadline for submitting such requests, the Market Seller may utilize the temporary exception process and seek to modify that exception pursuant to the process described below.

....

*Modification of Temporary Exceptions.* If prior to the scheduled termination date, the Market Seller determines that the temporary exception must persist for more than 30 days and, the Market Seller wants to extend the period for which the exception applies, or if a Market Seller is unaware of the need for a period or persistent<sup>17</sup> exception prior to the February 28 deadline for submitting such requests and the Market Seller has submitted a temporary exception request, it must submit to the Market Monitoring Unit and the Office of the Interconnection a written request to modify the temporary exception to become a period exception or a persistent exception, and provide detailed documentation explaining the reasons for the requested modification of the temporary exception.

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2. *Operating Agreement, Schedule 1, section 6.6(j)- Revisions Related to Ownership Status*

Next, PJM proposes to add a new Operating Agreement, Schedule 1, section 6.6(j) to specify that unit-specific parameters, adjustments to unit-specific parameters, or exceptions to PLS values shall apply to a generating unit regardless of joint ownership, multiple Market Sellers, or a change of owner, operator, or Market Seller. Currently, the language of Operating Agreement, Schedule 1, section 6.6 could be interpreted to suggest that PLS values are malleable or subject to change depending on the identity or characteristics of the Market Seller, which is

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<sup>17</sup> This text varies slightly from the text reviewed and approved by PJM stakeholders which, because of a typographical error, excluded the words “or persistent.” Under the provisions of this paragraph, a temporary PLS exception may be modified into a period exception *or* a persistent exception.

not the case. A generating unit's PLS values are based on its physical operational limitations, which do not vary by owner, operator, or Market Seller. These revisions are just and reasonable because they clarify that Market Sellers should not be able to represent different physical operating parameters of a given generating unit simply because of different ownership or Market Seller status, and instead must represent the actual physical operational limitations of the unit.

(j) Notwithstanding anything contrary herein, the unit-specific parameters, adjusted unit-specific parameters or exception to parameter limited schedule values determined by the Office of the Interconnection for a generating unit shall be applicable to that generating unit regardless whether there is a change in the owner, operator or Market Seller of the unit because the parameter limited schedule values for the unit are determined based on the physical limitations of the unit, which should not change merely based on a change in owners, operator or Market Seller. Because parameter limited schedule values attach to the generating unit and are not owned by a Market Seller of the unit, when there are multiple owners or Market Sellers for a generating unit, all owners and Market Sellers shall be bound by the unit-specific parameters, adjusted unit-specific parameters or exception to parameter limited schedule values determined by the Office of the Interconnection for the unit.<sup>18</sup>

3. *Operating Agreement, Schedule 1 and Tariff, Attachment M-Appendix-Additional Time for Review*

Finally, within the context of PJM and MMU review times, PJM proposes to insert the qualifier "business" in front of "day" in numerous places in Operating Agreement, Schedule 1 and Tariff, Attachment M-Appendix. This proposed revision will provide PJM and the MMU with more review time in some instances as needed, particularly if a Market Seller submits a PLS exception request on a Friday.

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<sup>18</sup> Proposed Operating Agreement, Schedule 1, section 6.6(j).

**B. Clarifying Changes to Operating Agreement and Tariff**

*1. Operating Agreement, Schedule 1, section 6.6(e) - Applicability of PLS Values Determined on Generating Unit Basis*

PJM proposes to revise Operating Agreement, Schedule 1, section 6.6(e) to clarify that default Parameter Limited Schedule Matrix values only apply to Generation Capacity Resources for which no megawatts of the applicable generating unit are committed as a Capacity Performance Resource, and that unit-specific PLS values, as determined by PJM, will apply to the full capacity of affected generating units if any megawatts thereof are committed as a Capacity Performance Resource. Specifically, PJM proposes the following revisions to Operating Agreement, Schedule 1, section 6.6(e):

(e)

...

The default values set forth in the table in subsection (c) <sup>19</sup> above shall apply for the referenced technology types unless a generating unit ~~generation resource~~ is operating pursuant to an exception from the default values under subsection (h) due to physical operational limitations that prevent the unit resource from meeting the minimum parameters, or any megawatts of the unit are committed as a Capacity Performance Resource in which case the unit-specific or adjusted unit-specific values for the generating unit determined by the Office of the Interconnection shall apply to all megawatts of the generating unit offered into the PJM energy markets.

....

The rationale for these revisions is that PLS values for a unit are based on its physical operational limitations, which do not vary based on whether some megawatts of the unit are committed as Capacity Performance Resources and some megawatts are not. These revisions are just and reasonable because Market Sellers should not be able to represent different physical

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<sup>19</sup> PJM is also proposing revisions to Operating Agreement, Schedule 1, section 6.6(e) to reflect that the Parameter Limited Schedule Matrix should not apply to generating unit if any portion of such unit's output is committed as a Capacity Performance Resource.

operating parameters of a given generating unit simply because only some megawatts of the unit were committed as Capacity Performance Resources.

2. *Operating Agreement, Schedule 1, section 6.6(h) – Applicability of Default and Unit-Specific PLS Values to Different Resource Types*

As further clarification, and in support of the above changes to Operating Agreement, Schedule 1, section 6.6(e), PJM proposes to revise Operating Agreement, Schedule 1, section 6.6(h) to specify the parameter values that will be used by Market Sellers depending on whether their generating unit is a “regular” Generation Capacity Resource,<sup>20</sup> Base Capacity Resource, or Capacity Performance Resource, and whether the Market Seller of the generating unit has requested an adjusted unit-specific value that has been approved by PJM. These revisions will help to avoid any possibility of confusion given the existence of multiple resource types and variations on which PLS values will apply and when. The revisions provide:

(h)

...

The Market Seller shall provide written notification to the Market Monitoring Unit and the Office of the Interconnection of a material change to the facts relied upon by the Market Monitoring Unit and/or the Office of the Interconnection in their evaluations of the Market Seller’s request for a period or persistent exception. The Market Monitoring Unit shall provide written notification to the Office of the Interconnection and the Market Seller of any change to its determination regarding the exception request, based on the material change in facts, by no later than 15 days after receipt of such notice. The Office of the Interconnection shall notify the Market Seller in writing, with a copy to the Market Monitoring Unit, of any change to its determination regarding the exception request, based on the material change in facts, by no later than 20 days after receipt of the Market Seller’s notice. If the Office of the Interconnection determines that the exception no longer complies with the Tariff or Manuals, the following parameter values shall apply to all megawatts of the generating unit offered into the PJM energy markets:

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<sup>20</sup> For purposes of this filing, a “regular” Generation Capacity Resource describes a Generation Capacity Resource for the 2016/2017 and 2017/2018 Delivery Years for which no megawatts of capacity cleared as a Capacity Performance Resource in a Capacity Performance Transition Incremental Auction.

(1) for generating units for which no megawatts of the unit are committed as Capacity Performance Resource the default values specified in the Parameter Limited Schedule Matrix shall apply for the 2016/2017 through 2017/2018 Delivery Years,

(2) for generating units for which any megawatts of the unit are committed as a Base Capacity Resource and no megawatts are committed as a Capacity Performance Resource, and for which no adjusted unit-specific values have been approved by PJM, the Base Capacity Resource unit-specific values determined by PJM shall apply for the 2018/2019 and 2019/2020 Delivery Years,

(3) for generating units for which any megawatts of the unit are committed as a Capacity Performance Resource, but for which no adjusted unit-specific values have been approved by PJM, the Capacity Performance Resource unit-specific values determined by PJM shall apply for the 2016/2017 Delivery Year and subsequent Delivery Years,

(4) for generating units for which any megawatts of the unit are committed as a Base Capacity Resource and no megawatts are committed as a Capacity Performance Resource, and for which adjusted unit-specific values have been approved by PJM, the Base Capacity Resource adjusted unit-specific values determined by PJM shall apply for the 2018/2019 and 2019/2020 Delivery Years, and

(5) for generating units for which any megawatts of the unit are committed as a Capacity Performance Resource and for which adjusted unit-specific values have been approved by PJM, the Capacity Performance Resource adjusted unit-specific values shall apply for the 2016/2017 Delivery Year and subsequent Delivery Years.

The proposed revisions are just and reasonable because the unit-specific PLS values should not apply to generating units for which no megawatts are committed as a Base Capacity Resource or a Capacity Performance Resource because when Market Sellers cleared megawatts of capacity from those generating units in PJM's Reliability Pricing Model ("RPM") Auctions for the 2016/2017 and 2017/2018 Delivery Years, in May 2013 and May 2014 respectively, the applicable rules were that the default values from the Parameter Limited Schedule Matrix would

apply. PJM believes that imposing different PLS values to such units, after they cleared an RPM Auction with Sell Offers that were based on those default values, would be unfair.<sup>21</sup>

Moreover, the proposed revisions are just and reasonable because they clarify that if any of a generating unit's megawatts are committed as Base Capacity Resources or Capacity Performance Resources, and no adjusted unit-specific values have been approved by PJM, the Base Capacity Resource or Capacity Performance Resource unit-specific values determined by PJM, respectively, will apply as applicable.

Finally, the proposed revisions are just and reasonable because they clarify that if any of a generating unit's megawatts are committed as Base Capacity Resources or Capacity Performance Resources but adjusted unit-specific values have been approved by PJM, the adjusted unit-specific values will apply to the generating unit.

3. *Operating Agreement, Schedule 1, section 6.6(k) – Revisions Clarifying that PLS Rules Do Not Apply to Energy Resources*

Operating Agreement, Schedule 1, section 6.6(a), indicates the PLS provisions apply only to “Market Sellers submitting Offer Data for Generation Capacity Resources.” However, it may not be sufficiently clear that the entirety of Operating Agreement, Schedule 1, section 6.6 applies only to Generation Capacity Resources. Therefore, PJM proposes to add a new section 6.6(k) to clarify that section 6.6 applies only to Generation Capacity Resources and not to Energy Resources. These revisions will help alleviate any confusion regarding the applicability of the rules regarding PLS values.

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<sup>21</sup> Note that “regular” Generation Capacity Resources will no longer participate in RPM after the 2017/2018 Delivery Year. For the 2018/2019 and 2019/2020 Delivery Years, only Base Capacity Resources and Capacity Performance Resources will participate in RPM, and beginning in the 2020/2021 Delivery Year, only Capacity Performance Resources will participate in RPM.

4. *Operating Agreement, Schedule 1 and Tariff, Attachment M-Appendix – Generation Unit and Generation Resource Clarification*

Finally, the enclosed revisions include replacing “generation resource” (and variations thereof) with “generating unit” (and variations thereof) in numerous places in Operating Agreement, Schedule 1 and Tariff, Attachments K-Appendix and M-Appendix. These revisions are necessary because references to “generation resource” and “generating unit” are not necessarily synonymous in PJM’s markets. For example, Market Sellers may offer only a portion of the megawatts of a generating unit or may only clear some of the megawatts of a generating unit in the markets. The portion offered and/or cleared is called the “generation resource” or “resource” in the PJM Interchange Energy Market, or the Generation Capacity Resource in the RPM capacity market.

For example, a 300 megawatt generating unit may have three different owners, and each owner may offer its own individual 100 megawatt portion of that generating unit into PJM’s markets. Each of those 100 megawatt portions would be considered a different 100 megawatt generation resource or Generation Capacity Resource. Consequently, revising the references from “generation resource” to “generating unit” in the sections of PJM’s Tariff and Operating Agreement that specifically relate to PLS values is necessary for the same reasons discussed with regard to proposed Operating Agreement, Schedule 1, section 6.6(j). Namely, PLS values for a generating unit are based on its physical operational limitations of the entire unit, which do not vary by owner, operator, or Market Seller. These proposed revisions are just and reasonable because Market Sellers should not be able to represent different physical operating parameters of a given generating unit simply because of different ownership status, and instead should represent the actual physical operational limitations of the unit.

### **III. STAKEHOLDER PROCESS**

On June 30, 2016, the PJM Markets and Reliability Committee endorsed the enclosed revisions by acclamation with no objections or abstentions. On July 28, 2016, the PJM Members Committee approved the enclosed revisions by acclamation with no objections or abstentions.

### **IV. EFFECTIVE DATE**

PJM requests that the Commission issue an order accepting these proposed revisions for filing by October 31, 2016, 60 days from the date of this submission, with an effective date of October 31, 2016.

### **V. DOCUMENTS ENCLOSED**

With this transmittal letter, PJM submits the following attachments:

- 1) Attachment A – redlined version of the proposed revised sections of the PJM electronic tariff; and
- 2) Attachment B – clean version of the proposed revised sections of the PJM electronic tariff.

### **VI. CORRESPONDENCE AND COMMUNICATIONS**

Correspondence and communications regarding this filing should be sent to the following individuals:

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### **VII. SERVICE**

PJM has served a copy of this filing on all PJM members and on all state utility regulatory commissions in the PJM region by posting this filing electronically. In accordance

with the Commission's regulations,<sup>22</sup> PJM will post a copy of this filing to the FERC filings section of its internet site, at the following link: <http://www.pjm.com/documents/ferc-manuals/ferc-filings.aspx> with a specific link to the newly-filed document, and will send an e-mail on the same date as this filing to all PJM members and all state utility regulatory commissions in the PJM region<sup>23</sup> alerting them this filing has been made by PJM and is available by following such link. If the document is not immediately available by using the referenced link, the document will be available through the referenced link within twenty-four hours of the filing. A copy of this filing will be available on the Commission's eLibrary website at the following link: <http://www.ferc.gov/docs-filing/elibrary.asp> in accordance with the Commission's regulations and Order No. 714.

Respectfully submitted,



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September 1, 2016

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<sup>22</sup> See 18 C.F.R §§ 35.2(e) and 385.2010(f)(3).

<sup>23</sup> PJM already maintains, updates, and regularly uses e-mail lists for all PJM Members and affected state commissions.

# Attachment A

## Revisions to the PJM Open Access Transmission Tariff and PJM Operating Agreement

(Marked / Redline Format)

Section(s) of the  
PJM Open Access Transmission Tariff  
(Marked / Redline Format)

## 6.6 Minimum Generator Operating Parameters – Parameter Limited Schedules.

(a) Market Sellers submitting Offer Data for Generation Capacity Resources shall submit and be subject to pre-determined limits on cost-based offers, which are always parameter limited. Market Sellers submitting Offer Data for Generation Capacity Resources shall submit and be subject to pre-determined limits on market-based offers conforming to parameter limitations (“parameter limited schedules”) under the following circumstances:

(i) The Market Seller fails the three pivotal supplier test. When this subsection applies, the parameter limited schedule shall be the less limiting, i.e. more flexible, of the defined parameter limited schedules or the submitted offer parameters.

(ii) For the 2014/2015 through 2017/2018 Delivery Years, the Office of the Interconnection: (i) declares a Maximum Generation Emergency; (ii) issues a Maximum Generation Emergency Alert; or (iii) schedules units based on the anticipation of a Maximum Generation Emergency or a Maximum Generation Emergency Alert for all, or any part, of an Operating Day.

(iii) For Capacity Performance Resources, the Office of the Interconnection: (i) declares a Maximum Generation Emergency; (ii) issues a Maximum Generation Emergency Alert, Hot Weather Alert, Cold Weather Alert; or (iii) schedules units based on the anticipation of a Maximum Generation Emergency, Maximum Generation Emergency Alert, Hot Weather Alert or Cold Weather Alert for all, or any part, of an Operating Day.

(iv) For Base Capacity Resources, the Office of the Interconnection: (i) declares a Maximum Generation Emergency during hot weather operations; (ii) issues a Maximum Generation Emergency Alert or Hot Weather Alert during hot weather operations; or (iii) schedules units based on the anticipation of a Hot Weather Alert, or a Maximum Generation Emergency or Maximum Generation Emergency Alert during hot weather operations, for all, or any part, of an Operating Day.

(b) For the 2014/2015 through 2017/2018 Delivery Years *for Generation Capacity Resources other than Capacity Performance Resources, and the 2016/2017 through 2019/2020 Delivery Years for Generation Capacity Resources identified and committed in an FRR Capacity Plan*, parameter limited schedules shall be defined for the following parameters:

- (i) Turn Down Ratio;
- (ii) Minimum Down Time;
- (iii) Minimum Run Time;
- (iv) Maximum Daily Starts;
- (v) Maximum Weekly Starts.

For the 2018/2019 and 2019/2020 Delivery Years for Base Capacity Resources during Hot Weather Alerts, Emergency Actions during hot weather operations, and when the ~~resource~~unit is offer capped to maintain system reliability as a result of limits on transmission capability per Section 6.4 hereof, and for the 2016/2017 Delivery Year and subsequent Delivery Years for Capacity Performance Resources during Hot Weather Alerts, Cold Weather Alerts, Emergency Actions, and when the ~~resource~~unit is offer capped to maintain system reliability as a result of limits on transmission capability per Section 6.4 hereof, the Office of the Interconnection shall determine the unit-specific achievable operating parameters for each individual ~~resource~~unit on the basis of its operating design characteristics and other constraints, recognizing that remedial and ongoing investment and maintenance may be required to perform on the basis of those characteristics, for the following parameters:

- (i) Turn Down Ratio;
- (ii) Minimum Down Time;
- (iii) Minimum Run Time;
- (iv) Maximum Daily Starts;
- (v) Maximum Weekly Starts;
- (vi) Maximum Run Time;
- (vii) Start-up Time; and
- (viii) Notification Time.

These unit-specific values shall apply for the ~~generation resource~~generating unit unless it is operating pursuant to an exception from those values under subsection (h) hereof due to operational limitations that prevent the ~~resource~~unit from meeting the minimum parameters. Throughout the analysis process, the Office of the Interconnection shall consult with the Market Monitoring Unit, and consider any input received from the Market Monitoring Unit, in its determination of a ~~resource~~unit's unit-specific parameter limited schedule values.

In order to make its determination of the unit-specific parameter limited schedule values for a ~~Generation Capacity Resource~~unit, the Office of the Interconnection may request that the Capacity Market Seller provide to it and the Market Monitoring Unit certain data and documentation as further detailed in the PJM Manuals. Once the Office of the Interconnection has made a determination of the unit-specific parameter limited schedule values for a ~~Generation Capacity Resource~~unit, those values will remain applicable to the ~~resource~~unit until such time as the Office of the Interconnection determines that a change is needed based on changed operational capabilities of the ~~resource~~unit.

A Capacity Market Seller that does not believe its ~~Generation Capacity Resource~~generating unit can meet the unit-specific values determined by the Office of the Interconnection due to actual

operating constraints, and who desires to establish adjusted unit-specific parameters for those ~~resource~~units may request adjusted unit-specific parameter limitations. Any such request must be submitted to the Office of the Interconnection by no later than the February 28 immediately preceding the first Delivery Year for which the adjusted unit-specific parameters are requested to commence. Capacity Market Sellers shall supply, for each ~~Generation—Capacity Resource~~generating unit, technical information about the operational limits to support the requested parameters, as further detailed in the PJM Manuals. The Office of the Interconnection shall consult with the Market Monitoring Unit, and consider any input received from the Market Monitoring Unit, in its determination of a ~~resource~~unit's request for adjusted unit-specific parameter limited schedule values. After it has completed its evaluation of the request, the Office of the Interconnection shall notify the Capacity Market Seller in writing, with a copy to the Market Monitoring Unit, whether the request is approved or denied, by no later than April 15. The effective date of the request, if approved by the Office of the Interconnection, shall be no earlier than June 1.

The operational limitations referenced in this section 6.6 shall be (a) physical operational limitations based on the operating design characteristics of the ~~resource~~unit, or (b) other actual physical constraints, including those based on contractual limits, that are not based on the characteristics of the ~~resource~~unit. *In order for a contractual or other actual constraint to be deemed a physical constraint that can be reflected in its unit-specific parameter limits for a Generation Capacity Resource, the Capacity Market Seller must demonstrate that contractual or other actual constraint is not simply an economic decision but a physical restriction that could not be rectified among any commercial alternatives actually available to it.*

(c) For the 2014/2015 through 2017/2018 Delivery Years, the following table specifies default parameter limited schedule values, by technology type, for ~~generation resource~~generating units, ~~no portion of which is not~~ committed as a Capacity Performance Resources:

**Parameter Limited Schedule Matrix**

<b>Parameter</b>	<b>Minimum Down Time (Hrs)</b>	<b>Minimum Run Time (Hrs)</b>	<b>Maximum Daily Starts</b>	<b>Maximum Weekly Starts</b>	<b>Turn Down Ratio = Economic Maximum MW / Economic Minimum MW</b>
Small Frame CT and Aero CT Units - Up to 29 MW ICAP	2.0 or Less	2.0 or Less	2 or More	14 or More	1.0 or More
Medium Frame CT and Aero CT Units - 30 MW to 65 MW ICAP	2.0 or Less	3.0 or Less	2 or More	14 or More	1.0 or More
Medium-Large Frame CT Units - 65 MW to 135 MW ICAP	3.0 or Less	5.0 or Less	2 or More	14 or More	1.0 or More
Large Frame CT Units - 135 MW to 180 MW ICAP	4.0 or Less	5.0 or Less	2 or More	14 or More	1.0 or More
Combined Cycle Units	4.0 or Less	6.0 or Less	2 or More	11 or More	1.5 or More
Petroleum and Natural Gas Steam Units - Pre-1985	7.0 or Less	8.0 or Less	1 or More	7 or More	3.0 or More
Petroleum and Natural Gas Steam Units - Post-1985	3.5 or Less	5.5 or Less	2 or More	11 or More	2.0 or More
Sub-Critical Coal Units	9.0 or Less	15.0 or Less	1 or More	5 or More	2.0 or More
Super-Critical Coal Units	84.0	24.0 or Less	1 or More	2 or More	1.5 or More

(d) For the 2014/2015 through 2017/2018 Delivery Years, upon receipt of proposed revised parameter limited schedule values from the Market Monitoring Unit, prepared in accordance with the procedures for periodic review included in section II.B.1 of Attachment M -

Appendix, the Office of the Interconnection shall file to revise the Parameter Limited Schedule Matrix in section 6.6(c) above accordingly. In the event that the Office of the Interconnection disagrees with the values proposed for revising the matrix, the Office of the Interconnection shall file the values that it determines are appropriate.

(e) For the 2014/2015 through 2017/2018 Delivery Years, the Market Monitoring Unit shall calculate and provide to Market Sellers ~~for their generation resources unit-specific~~ default values in accordance with section II.B of Attachment M - Appendix. The default values set forth in the table in subsection (c) above shall apply for the referenced technology types unless a ~~generation resource~~generating unit is operating pursuant to an exception from the default values under subsection (h) due to physical operational limitations that prevent the ~~resource~~unit from meeting the minimum parameters, or any megawatts of the unit are committed as a Capacity Performance Resource in which case the unit-specific or adjusted unit-specific values for the generating unit determined by the Office of the Interconnection shall apply to all megawatts of the generating unit offered into the PJM energy markets. For ~~generation resources~~generating units having the ability to operate on multiple fuels, Market Sellers may submit a parameter limited schedule associated with each fuel type.

(f) For the 2016/2017 Delivery Year and subsequent Delivery Years, the following additional parameter limits shall apply for Capacity Performance Resources, other than Capacity Storage Resources, submitted in the Day-ahead Energy Market or rebidding period that occurs after the clearing of the Day-ahead Energy Market for the following Operating Day, and for the Real-time Energy Market for the same Operating Day, unless the Capacity Market Seller has requested for its Capacity Performance Resource, and the Office of the Interconnection has granted, an adjusted unit-specific start-up and/or notification time due to actual operating constraints pursuant to the process described in subsection (b) above:

- (i) The combined start-up and notification times shall not exceed 24 hours, except when a Hot Weather Alert or Cold Weather Alert has been issued;
- (ii) When a Hot Weather Alert or Cold Weather Alert has been issued, combined start-up and notification times shall not exceed 14 hours;
- (iii) When a Hot Weather Alert or Cold Weather Alert has been issued, notification time shall not exceed one hour; and,
- (iv) When a Hot Weather Alert or Cold Weather Alert has been issued, parameters shall be based on the actual operational limitations of the Capacity Performance Resource for both its market-based schedules and cost-based schedules.

Capacity Storage Resources that clear in a Reliability Pricing Model Auction shall, unless the Capacity Market Seller has requested for its Capacity Storage Resource, and the Office of the Interconnection has granted, an adjusted unit-specific start-up and notification time, and/or minimum down time, due to actual operating constraints pursuant to the process described in subsection (b) above:

- (i) Have combined start-up and notification times that shall not exceed one hour; and,
- (ii) Have a minimum down time that shall not exceed one hour.

(g) For the 2018/2019 and 2019/2020 Delivery Years, the following additional parameter limits for Base Capacity Resources submitted in the Day-ahead Energy Market or rebidding period that occurs after the clearing of the Day-ahead Energy Market for the following Operating Day, and for the Real-time Energy Market for the same Operating Day, unless the Capacity Market Seller has requested for its Base Capacity Resource, and the Office of the Interconnection has granted, an adjusted unit-specific start-up and/or notification time due to actual operating constraints pursuant to the process described in subsection (b) above:

- (i) Combined start-up and notification times shall not exceed 48 hours;
- (ii) When a Hot Weather Alert has been issued, notification time shall not exceed one hour; and,
- (iii) When a Hot Weather Alert has been issued, parameters shall be based on the actual operational limitations of the Base Capacity Resource for both its market-based schedules and cost-based schedules.

(h) If a generating unit is or will become unable to achieve the default or unit-specific values determined by the Office of the Interconnection due to actual operating constraints affecting the unit, the Capacity Market Seller of that unit may submit a written request for an exception to the application of those values. Exceptions to the parameter limited schedule default or unit-specific values shall be categorized as either a one-time temporary exception, lasting 30 days or less; a period exception, lasting at least 31 days and no more than one year; or a persistent exception, lasting for at least one year.

(i) *Temporary Exceptions.* A temporary exception shall be deemed accepted without prior review by the Market Monitoring Unit or the Office of the Interconnection upon submission by the Market Seller of the generation resource generating unit of written notification to the Market Monitoring Unit and the Office of the Interconnection, at least one business day prior to the commencement of the exception, and shall automatically commence and terminate on the dates specified in such notification, which must be for a period of time lasting 30 days or less, unless the termination date is extended pending a request for a period exception or shortened due to a change in the physical conditions of the unit such that the temporary exception is no longer required. Such Market Seller shall provide to the Market Monitoring Unit and the Office of the Interconnection within three days following the commencement of the temporary exception its documentation explaining in detail the reasons for the temporary exception, and shall also respond to additional requests for information from the Market Monitoring Unit and the Office of the Interconnection within

three business days after such request. Failure to provide a timely response to such request for additional information shall cause the temporary exception to terminate the following day. The Market Seller shall notify the Office of the Interconnection and the Market Monitoring Unit in writing of an early termination of a temporary exception due to changed physical conditions by no later than one business day prior to the early termination date. A temporary exception may only be requested one-time for the same physical or actual constraint since an operational constraint that may occur more than once should be the subject of a period exception request rather than multiple temporary exception requests.

In addition, if a Market Seller is unaware of the need for a period exception prior to the February 28 deadline for submitting such requests, the Market Seller may utilize the temporary exception process and seek to modify that exception pursuant to the process described below.

*Modification of Temporary Exceptions.* If, prior to the scheduled termination date, the Market Seller determines that the temporary exception must persist for more than 30 days and, the Market Seller wants to extend the period for which the exception applies, or if a Market Seller is unaware of the need for a period or persistent exception prior to the February 28 deadline for submitting such requests and the Market Seller has submitted a temporary exception request, it must submit to the Market Monitoring Unit and the Office of the Interconnection a written request to modify the temporary exception to become a period exception or a persistent exception, and provide detailed documentation explaining the reasons for the requested modification of the temporary exception. Market Sellers shall supply for each generation resource/generating unit the required historical unit operating data in support of the period or persistent exception request, and if the exception requested is based on new physical operating limits for the resource/unit for which some or all historical operating data is unavailable, the Market Seller may also submit technical information about the physical operational limits of the resource/unit to support the requested parameters. Such Market Seller shall respond to additional requests for information from the Market Monitoring Unit and the Office of the Interconnection within three business days after such request. Such request shall be reviewed by the Market Monitoring Unit and must be evaluated by the Office of the Interconnection using the same standard utilized to evaluate period exception and persistent exception requests. Per Section II.B of Attachment M-Appendix, the Market Monitoring Unit shall evaluate the modification request and provide its determination of whether the request raises market power concerns, and, if so, any modifications that would alleviate those concerns, to the Market Seller, with a copy to Office of the Interconnection, by no later than 15 business days from the date of the modification request. The Office of the Interconnection shall provide its determination whether the request complies with the Tariff and Manuals by no later than 20 business days from the date of the modification request. A temporary exception shall be extended and

shall not terminate until the date on which the Office of the Interconnection issues its determination of the modification request.

(ii) *Period Exceptions and Persistent Exceptions.* Market Sellers must submit period exception and persistent exception requests to the Market Monitoring Unit and the Office of the Interconnection by no later than the February 28 immediately preceding the twelve month period from June 1 to May 31 during which the exception is requested to commence. Market Sellers shall supply for each ~~generation resource~~generating unit the required historical unit operating data in support of the period exception or persistent exception request, and if the exception requested is based on new physical operational limits for the ~~resource~~unit for which some or all historical operating data is unavailable, the ~~generation resource~~generating unit may also submit technical information about the physical operational limits for exceptions of the ~~resource~~unit to support the requested parameters. The Market Monitoring Unit shall evaluate such request in accordance with the process set forth in Section II.B of Attachment M - Appendix. A Market Seller (i) must submit a parameter limited schedule value consistent with an agreement with the Market Monitoring Unit under such process or (ii) if it has not agreed with the Market Monitoring Unit on the parameter limited schedule value, may submit its own value to the Office of the Interconnection and to the Market Monitoring Unit, by no later than April 8. Each exception request must indicate the expected duration of the requested exception including the termination date thereof. The proposed parameter limited schedule value submitted by the Market Seller is subject to approval of the Office of the Interconnection pursuant to the requirements of the Tariff and the PJM Manuals. The Office of the Interconnection may engage the services of a consultant with technical expertise to evaluate the exception request. After it has completed its evaluation of the exception request, the Office of the Interconnection shall notify the Market Seller in writing, with a copy to the Market Monitoring Unit, whether the exception request is approved or denied, by no later than April 15. The effective date of the exception, if approved by the Office of the Interconnection, shall be no earlier than June 1 of the applicable Delivery Year. The Office of the Interconnection's determination for an exception shall continue for the period requested and, if requested, for such longer period as the Office of the Interconnection may determine is supported by the data.

The Market Seller shall provide written notification to the Market Monitoring Unit and the Office of the Interconnection of a material change to the facts relied upon by the Market Monitoring Unit and/or the Office of the Interconnection in their evaluations of the Market Seller's request for a period or persistent exception. The Market Monitoring Unit shall provide written notification to the Office of the Interconnection and the Market Seller of any change to its determination regarding the exception request, based on the material change in facts, by no later than 15 business days after receipt of such notice. The Office of the Interconnection shall notify the Market Seller in writing, with a copy to the

Market Monitoring Unit, of any change to its determination regarding the exception request, based on the material change in facts, by no later than 20 business days after receipt of the Market Seller's notice. If the Office of the Interconnection determines that the exception no longer complies with the Tariff or Manuals, the following parameter values shall apply to all megawatts of the generating unit offered into the PJM energy markets:

(1) for generating units for which no megawatts of the unit are committed as Capacity Performance Resources the default values specified in the Parameter Limited Schedule Matrix shall apply for the 2016/2017 through 2017/2018 Delivery years,

(2) for generating units for which any megawatts of the unit are committed as a Base Capacity Resource and no megawatts are committed as a Capacity Performance Resource, and for which no adjusted unit-specific values have been approved by PJM, the Base Capacity Resource unit-specific values determined by PJM shall apply for the 2018/2019 and 2019/2020 Delivery Years,

(3) for generating units for which any megawatts of the unit are committed as a Capacity Performance Resource, but for which no adjusted unit-specific values have been approved by PJM, the Capacity Performance Resource unit-specific values determined by PJM shall apply for the 2016/2017 Delivery Year and subsequent Delivery Years,

(4) for generating units for which any megawatts of the unit are committed as a Base Capacity Resource and no megawatts are committed as a Capacity Performance Resource, and for which adjusted unit-specific values have been approved by PJM, the Base Capacity Resource adjusted unit-specific values shall apply for the 2018/2019 and 2019/2020 Delivery Years, and

(5) for generating units for which any megawatts of the unit are committed as a Capacity Performance Resource and for which adjusted unit-specific values have been approved by PJM, the Capacity Performance Resource adjusted unit-specific values shall apply for the 2016/2017 Delivery Year and subsequent Delivery Years.

(i) Notwithstanding the foregoing, the provisions of this Section 6.6 shall only pertain to the Offer Data a Market Seller must submit to the Office of the Interconnection for its offers into the Day-ahead Energy Market, rebidding period that occurs after the clearing of the Day-ahead Energy Market and Real-time Energy Market, and do not affect or change in any way a Generation Owner's obligation under NERC Reliability Standards to notify the Office of the Interconnection of its actual or expected actual physical operating conditions during the Operating Day.

(j) Notwithstanding anything contrary herein, the unit-specific parameters, adjusted unit-specific parameters or exception to parameter limited schedule values determined by the Office of the Interconnection for a generating unit shall be applicable to that generating unit regardless whether there is a change in the owner, operator or Market Seller of the unit because the parameter limited schedule values for the unit are determined based on the physical limitations of the unit, which should not change merely based on a change in owners, operator or Market

Seller. Because parameter limited schedule values attach to the generating unit and are not owned by a Market Seller of the unit, when there are multiple owners or Market Sellers for a generating unit, all owners and Market Sellers shall be bound by the unit-specific parameters, adjusted unit-specific parameters or exception to parameter limited schedule values determined by the Office of the Interconnection for the unit.

(k) The provisions of this section 6.6 only apply to Generation Capacity Resources, and not to Energy Resources.

## ATTACHMENT M – APPENDIX

### I. CONFIDENTIALITY OF DATA AND INFORMATION

#### A. Party Access:

1. No Member shall have a right hereunder to receive or review any documents, data or other information of another Member, including documents, data or other information provided to the Market Monitoring Unit, to the extent such documents, data or information have been designated as confidential pursuant to the procedures adopted by the Market Monitoring Unit or to the extent that they have been designated as confidential by such other Member; provided, however, a Member may receive and review any composite documents, data and other information that may be developed based on such confidential documents, data or information if the composite does not disclose any individual Member's confidential data or information.

2. Except as may be provided in this Appendix, the Plan, the PJM Operating Agreement or in the PJM Tariff, the Market Monitoring Unit shall not disclose to PJM Members or to third parties, any documents, data, or other information of a Member or entity applying for Membership, to the extent such documents, data, or other information has been designated confidential pursuant to the procedures adopted by the Market Monitoring Unit or by such Member or entity applying for membership; provided that nothing contained herein shall prohibit the Market Monitoring Unit from providing any such confidential information to its agents, representatives, or contractors to the extent that such person or entity is bound by an obligation to maintain such confidentiality.

The Market Monitoring Unit, its designated agents, representatives, and contractors shall maintain as confidential the electronic tag (“e-Tag”) data of an e-Tag Author or Balancing Authority (defined as those terms are used in FERC Order No. 771) to the same extent as Member data under this Section I. Nothing contained herein shall prohibit the Market Monitoring Unit from sharing with the market monitor of another Regional Transmission Organization (“RTO”), Independent System Operator (“ISO”), upon their request, the e-Tags of an e-Tag Author or Balancing Authority for intra-PJM Region transactions and interchange transactions scheduled to flow into, out of or through the PJM Region, to the extent such market monitor has requested such information as part of its investigation of possible market violations or market design flaws, and to the extent that such market monitor is bound by a tariff provision requiring that the e-Tag data be maintained as confidential, or in the absence of a tariff requirement governing confidentiality, a written agreement with the Market Monitoring Unit consistent with FERC Order No. 771, and any clarifying orders and implementing regulations.

The Market Monitoring Unit shall collect and use confidential information only in connection with its authority under this Appendix, the Plan, the PJM Operating Agreement or in the PJM Tariff and the retention of such information shall be in accordance with the Office of the Interconnection's data retention policies.

3. Nothing contained herein shall prevent the Market Monitoring Unit from releasing a Member's confidential data or information to a third party provided that the Member has

delivered to the Market Monitoring Unit specific, written authorization for such release setting forth the data or information to be released, to whom such release is authorized, and the period of time for which such release shall be authorized. The Market Monitoring Unit shall limit the release of a Member's confidential data or information to that specific authorization received from the Member. Nothing herein shall prohibit a Member from withdrawing such authorization upon written notice to the Market Monitoring Unit, who shall cease such release as soon as practicable after receipt of such withdrawal notice.

4. Reciprocal provisions to this Section I hereof, delineating the confidentiality requirements of the Office of the Interconnection and PJM members, are set forth in Section 18.17 of the PJM Operating Agreement.

**B. Required Disclosure:**

1. Notwithstanding anything in the foregoing section to the contrary, and subject to the provisions of Section I.C below, if the Market Monitoring Unit is required by applicable law, order, or in the course of administrative or judicial proceedings, to disclose to third parties, information that is otherwise required to be maintained in confidence pursuant to the PJM Tariff, PJM Operating Agreement, Attachment M or this Appendix, the Market Monitoring Unit may make disclosure of such information; provided, however, that as soon as the Market Monitoring Unit learns of the disclosure requirement and prior to making disclosure, the Market Monitoring Unit shall notify the affected Member or Members of the requirement and the terms thereof and the affected Member or Members may direct, at their sole discretion and cost, any challenge to or defense against the disclosure requirement. The Market Monitoring Unit shall cooperate with such affected Members to the maximum extent practicable to minimize the disclosure of the information consistent with applicable law. The Market Monitoring Unit shall cooperate with the affected Members to obtain proprietary or confidential treatment of such information by the person to whom such information is disclosed prior to any such disclosure.

2. Nothing in this Section I shall prohibit or otherwise limit the Market Monitoring Unit's use of information covered herein if such information was: (i) previously known to the Market Monitoring Unit without an obligation of confidentiality; (ii) independently developed by or for the Office of the Interconnection and/or the PJM Market Monitor using non-confidential information; (iii) acquired by the Office of the Interconnection and/or the PJM Market Monitor from a third party which is not, to the Office of the Market Monitoring Unit's knowledge, under an obligation of confidence with respect to such information; (iv) which is or becomes publicly available other than through a manner inconsistent with this Section I.

3. The Market Monitoring Unit shall impose on any contractors retained to provide technical support or otherwise to assist with the implementation of the Plan or this Appendix a contractual duty of confidentiality consistent with the Plan or this Appendix. A Member shall not be obligated to provide confidential or proprietary information to any contractor that does not assume such a duty of confidentiality, and the Market Monitoring Unit shall not provide any such information to any such contractor without the express written permission of the Member providing the information.

**C. Disclosure to FERC and CFTC:**

1. Notwithstanding anything in this Section I to the contrary, if the FERC, the Commodity Futures Trading Commission (“CFTC”) or the staff of those commissions, during the course of an investigation or otherwise, requests information from the Market Monitoring Unit that is otherwise required to be maintained in confidence pursuant to the PJM Tariff, the PJM Operating Agreement, the Plan or this Appendix, the Market Monitoring Unit shall provide the requested information to the FERC, CFTC or their staff, within the time provided for in the request for information. In providing the information to the FERC or its staff, the Market Monitoring Unit may request, consistent with 18 C.F.R. §§ 1b.20 and 388.112, or to the CFTC or its staff, the Market Monitoring Unit may request, consistent with 17 C.F.R. §§ 11.3 and 145.9, that the information be treated as confidential and non-public by the respective commission and its staff and that the information be withheld from public disclosure. The Market Monitoring Unit shall promptly notify any affected Member(s) if the Market Monitoring Unit receives from the FERC, CFTC or their staff, written notice that the commission has decided to release publicly or has asked for comment on whether such commission should release publicly, confidential information previously provided to a commission Market Monitoring Unit.

2. The foregoing Section I.C.1 shall not apply to requests for production of information under Subpart D of the FERC’s Rules of Practice and Procedure (18 CFR Part 385) in proceedings before FERC and its administrative law judges. In all such proceedings, the Office of the Interconnection and/or the Market Monitoring Unit shall follow the procedures in Section I.B.

**D. Disclosure to Authorized Commissions:**

1. Notwithstanding anything in this Section I to the contrary, the Market Monitoring Unit shall disclose confidential information, otherwise required to be maintained in confidence pursuant to the PJM Tariff, the PJM Operating Agreement, the Plan or this Appendix, to an Authorized Commission under the following conditions:

(i) The Authorized Commission has provided the FERC with a properly executed Certification in the form attached to the PJM Operating Agreement as Schedule 10A. Upon receipt of the Authorized Commission’s Certification, the FERC shall provide public notice of the Authorized Commission’s filing pursuant to 18 C.F.R. § 385.2009. If any interested party disputes the accuracy and adequacy of the representations contained in the Authorized Commission’s Certification, that party may file a protest with the FERC within 14 days of the date of such notice, pursuant to 18 C.F.R. § 385.211. The Authorized Commission may file a response to any such protest within seven days. Each party shall bear its own costs in connection with such a protest proceeding. If there are material changes in law that affect the accuracy and adequacy of the representations in the Certification filed with the FERC, the Authorized Commission shall, within thirty (30) days, submit an amended Certification identifying such changes. Any such amended Certification shall be subject to the same procedures for comment and review by the FERC as set forth above in this paragraph.

(ii) Neither the Office of the Interconnection nor the Market Monitoring Unit may disclose data to an Authorized Commission during the FERC's consideration of the Certification and any filed protests. If the FERC does not act upon an Authorized Commission's Certification within 90 days of the date of filing, the Certification shall be deemed approved and the Authorized Commission shall be permitted to receive confidential information pursuant to this Section I. In the event that an interested party protests the Authorized Commission's Certification and the FERC approves the Certification, that party may not challenge any Information Request made by the Authorized Commission on the grounds that the Authorized Commission is unable to protect the confidentiality of the information requested, in the absence of a showing of changed circumstances.

(iii) Any confidential information provided to an Authorized Commission pursuant to this Section I shall not be further disclosed by the recipient Authorized Commission except by order of the FERC.

(iv) The Market Monitoring Unit shall be expressly entitled to rely upon such Authorized Commission Certifications in providing confidential information to the Authorized Commission, and shall in no event be liable, or subject to damages or claims of any kind or nature hereunder, due to the ineffectiveness or inaccuracy of such Authorized Commission Certifications.

(v) The Authorized Commission may provide confidential information obtained from the Market Monitoring Unit to such of its employees, attorneys and contractors as needed to examine or handle that information in the course and scope of their work on behalf of the Authorized Commission, provided that (a) the Authorized Commission has internal procedures in place, pursuant to the Certification, to ensure that each person receiving such information agrees to protect the confidentiality of such information (such employees, attorneys or contractors to be defined hereinafter as "Authorized Persons"); (b) the Authorized Commission provides, pursuant to the Certification, a list of such Authorized Persons to the Office of the Interconnection and the Market Monitoring Unit and updates such list, as necessary, every ninety (90) days; and (c) any third-party contractors provided access to confidential information sign a nondisclosure agreement in the form attached to the PJM Operating Agreement as Schedule 10 before being provided access to any such confidential information.

2. The Market Monitoring Unit may, in the course of discussions with an Authorized Person, orally disclose information otherwise required to be maintained in confidence, without the need for a prior Information Request. Such oral disclosures shall provide enough information to enable the Authorized Person or the Authorized Commission with which that Authorized Person is associated to determine whether additional Information Requests are appropriate. The Market Monitoring Unit will not make any written or electronic disclosures of confidential information to the Authorized Person pursuant to this Section I.D.2. In any such discussions, the Market Monitoring Unit shall ensure that the individual or individuals receiving such confidential information are Authorized Persons as defined herein, orally designate confidential information that is disclosed, and refrain from identifying any specific Affected Member whose information is disclosed. The Market Monitoring Unit shall also be authorized to assist Authorized Persons in interpreting confidential information that is disclosed. The Market

Monitoring Unit shall provide any Affected Member with oral notice of any oral disclosure immediately, but not later than one (1) business day after the oral disclosure. Such oral notice to the Affected Member shall include the substance of the oral disclosure, but shall not reveal any confidential information of any other Member and must be received by the Affected Member before the name of the Affected Member is released to the Authorized Person; provided however, disclosure of the identity of the Affected Party must be made to the Authorized Commission with which the Authorized Person is associated within two (2) business days of the initial oral disclosure.

3. As regards Information Requests:

(i) Information Requests to the Office of the Interconnection and/or Market Monitoring Unit by an Authorized Commission shall be in writing, which shall include electronic communications, addressed to the Market Monitoring Unit, and shall: (a) describe the information sought in sufficient detail to allow a response to the Information Request; (b) provide a general description of the purpose of the Information Request; (c) state the time period for which confidential information is requested; and (d) re-affirm that only Authorized Persons shall have access to the confidential information requested. The Market Monitoring Unit shall provide an Affected Member with written notice, which shall include electronic communication, of an Information Request by an Authorized Commission as soon as possible, but not later than two (2) business days after the receipt of the Information Request.

(ii) Subject to the provisions of Section I.D.3(iii) below, the Market Monitoring Unit shall supply confidential information to the Authorized Commission in response to any Information Request within five (5) business days of the receipt of the Information Request, to the extent that the requested confidential information can be made available within such period; provided however, that in no event shall confidential information be released prior to the end of the fourth (4th) business day without the express consent of the Affected Member. To the extent that the Market Monitoring Unit cannot reasonably prepare and deliver the requested confidential information within such five (5) day period, it shall, within such period, provide the Authorized Commission with a written schedule for the provision of such remaining confidential information. Upon providing confidential information to the Authorized Commission, the Market Monitoring Unit shall either provide a copy of the confidential information to the Affected Member(s), or provide a listing of the confidential information disclosed; provided, however, that the Market Monitoring Unit shall not reveal any Member's confidential information to any other Member.

(iii) Notwithstanding Section I.D.3(ii), above, should the Office of the Interconnection, the Market Monitoring Unit or an Affected Member object to an Information Request or any portion thereof, any of them may, within four (4) business days following the Market Monitoring Unit's receipt of the Information Request, request, in writing, a conference with the Authorized Commission to resolve differences concerning the scope or timing of the Information Request; provided, however, nothing herein shall require the Authorized Commission to participate in any conference. Any party to the conference may seek assistance from FERC staff in resolution of the dispute or terminate the conference process at any time. Should such conference be refused or terminated by any participant or should such conference

not resolve the dispute, then the Office of the Interconnection, Market Monitoring Unit, or the Affected Member may file a complaint with the FERC pursuant to Rule 206 objecting to the Information Request within ten (10) business days following receipt of written notice from any conference participant terminating such conference. Any complaints filed at the FERC objecting to a particular Information Request shall be designated by the party as a “fast track” complaint and each party shall bear its own costs in connection with such FERC proceeding. The grounds for such a complaint shall be limited to the following: (a) the Authorized Commission is no longer able to preserve the confidentiality of the requested information due to changed circumstances relating to the Authorized Commission’s ability to protect confidential information arising since the filing of or rejection of a protest directed to the Authorized Commission’s Certification; (b) complying with the Information Request would be unduly burdensome to the complainant, and the complainant has made a good faith effort to negotiate limitations in the scope of the requested information; or (c) other exceptional circumstances exist such that complying with the Information Request would result in harm to the complainant. There shall be a presumption that “exceptional circumstances,” as used in the prior sentence, does not include circumstances in which an Authorized Commission has requested wholesale market data (or Market Monitoring Unit workpapers that support or explain conclusions or analyses) generated in the ordinary course and scope of the operations of the Market Monitoring Unit. There shall be a presumption that circumstances in which an Authorized Commission has requested personnel files, internal emails and internal company memos, analyses and related work product constitute “exceptional circumstances” as used in the prior sentence. If no complaint challenging the Information Request is filed within the ten (10) day period defined above, the Office of the Interconnection and/or Market Monitoring Unit shall utilize its best efforts to respond to the Information Request promptly. If a complaint is filed, and the Commission does not act on that complaint within ninety (90) days, the complaint shall be deemed denied and the Market Monitoring Unit shall use its best efforts to respond to the Information Request promptly.

(iv) Any Authorized Commission may initiate appropriate legal action at the FERC within ten (10) business days following receipt of information designated as “Confidential,” challenging such designation. Any complaints filed at FERC objecting to the designation of information as “Confidential” shall be designated by the party as a “fast track” complaint and each party shall bear its own costs in connection with such FERC proceeding. The party filing such a complaint shall be required to prove that the material disclosed does not merit “Confidential” status because it is publicly available from other sources or contains no trade secret or other sensitive commercial information (with “publicly available” not being deemed to include unauthorized disclosures of otherwise confidential data).

4. In the event of any breach of confidentiality of information disclosed pursuant to an Information Request by an Authorized Commission or Authorized Person:

(i) The Authorized Commission or Authorized Person shall promptly notify the Market Monitoring Unit, who shall, in turn, promptly notify any Affected Member of any inadvertent or intentional release, or possible release, of confidential information provided pursuant to this Section I.

(ii) The Office Market Monitoring Unit shall terminate the right of such Authorized Commission to receive confidential information under this Section I upon written notice to such Authorized Commission unless: (i) there was no harm or damage suffered by the Affected Member; or (ii) similar good cause is shown. Any appeal of the Market Monitoring Unit's actions under this Section I shall be to Commission. An Authorized Commission shall be entitled to reestablish its certification as set forth in Section I.D.1 by submitting a filing with the Commission showing that it has taken appropriate corrective action. If the Commission does not act upon an Authorized Commission's recertification filing with sixty (60) days of the date of the filing, the recertification shall be deemed approved and the Authorized Commission shall be permitted to receive confidential information pursuant to this section.

(iii) The Office of the Interconnection, the Market Monitoring Unit, and/or the Affected Member shall have the right to seek and obtain at least the following types of relief: (a) an order from the FERC requiring any breach to cease and preventing any future breaches; (b) temporary, preliminary, and/or permanent injunctive relief with respect to any breach; and (c) the immediate return of all confidential information to the Market Monitoring Unit.

(iv) No Authorized Person or Authorized Commission shall have responsibility or liability whatsoever under this section for any and all liabilities, losses, damages, demands, fines, monetary judgments, penalties, costs and expenses caused by, resulting from, or arising out of or in connection with the release of confidential information to persons not authorized to receive it, provided that such Authorized Person is an agent, servant, employee or member of an Authorized Commission at the time of such unauthorized release. Nothing in this Section I.D.4(iv) is intended to limit the liability of any person who is not an agent, servant, employee or member of an Authorized Commission at the time of such unauthorized release for any and all economic losses, damages, demands, fines, monetary judgments, penalties, costs and expenses caused by, resulting from, or arising out of or in connection with such unauthorized release.

(v) Any dispute or conflict requesting the relief in Section I.D.4(ii) or I.D.4(iii)(a) above, shall be submitted to the FERC for hearing and resolution. Any dispute or conflict requesting the relief in Section I.D.4(iii)(c) above may be submitted to FERC or any court of competent jurisdiction for hearing and resolution.

#### **E. Market Monitoring:**

1. Subject to the requirements of Section E.2, the Market Monitoring Unit may release confidential information of Public Service Electric & Gas Company ("PSE&G"), Consolidated Edison Company of New York ("ConEd"), and their affiliates, and the confidential information of any Member regarding generation and/or transmission facilities located within the PSE&G Zone to the New York Independent System Operator, Inc. ("New York ISO"), the market monitoring unit of New York ISO and the New York ISO Market Advisor to the limited extent that the Office of the Interconnection or the Market Monitoring Unit determines necessary to carry out the responsibilities of PJM, New York ISO or the market monitoring units of the Office of the Interconnection and the New York ISO under FERC Opinion No. 476 (see Consolidated Edison Company v. Public Service Electric and Gas Company, et al., 108 FERC ¶ 61,120, at P 215 (2004)) to conduct joint investigations to ensure that gaming, abuse of market power, or

similar activities do not take place with regard to power transfers under the contracts that are the subject of FERC Opinion No. 476.

2. The Market Monitoring Unit may release a Member's confidential information pursuant to Section I.E.1 to the New York ISO, the market monitoring unit of the New York ISO and the New York ISO Market Advisor only if the New York ISO, the market monitoring unit of the New York ISO and the New York ISO Market Advisor are subject to obligations limiting the disclosure of such information that are equivalent to or greater than the limitations on disclosure specified in this Section I.E. Information received from the New York ISO, the market monitoring unit of the New York ISO, or the New York ISO Market Advisor under Section I.E.1 that is designated as confidential shall be protected from disclosure in accordance with this Section I.E.

## **II. DEVELOPMENT OF INPUTS FOR PROSPECTIVE MITIGATION**

### **A. Offer Price Caps:**

1. The Market Monitor or his designee shall advise the Office of the Interconnection whether it believes that the cost references, methods and rules included in the Cost Development Guidelines are accurate and appropriate, as specified in the PJM Manuals.

2. The Market Monitoring Unit shall review upon request of a Market Seller, and may review upon its own initiative at any time, the incremental costs (defined in Section 6.4.2 of Schedule 1 of the Operating Agreement) included in the Offer Price Cap of a generating unit in order to ensure that the Market Seller has correctly applied the Cost Development Guidelines and that the level of the Offer Price Cap is otherwise acceptable.

3. On or before the 21st day of each month, the Market Monitoring Unit shall calculate in accordance with the applicable criteria whether each generating unit with an offer cap calculated under Section 6.4.2 of Schedule 1 of the Operating Agreement is eligible to include an adder based on Frequently Mitigated Unit or Associated Unit status, and shall issue a written notice of the applicable adder, with a copy to the Office of the Interconnection, to the Market Seller for each unit that meets the criteria for Frequently Mitigated Unit or Associated Unit status.

4. Notwithstanding the number of jointly pivotal suppliers in any hour, if the Market Monitoring Unit determines that a reasonable level of competition will not exist based on an evaluation of all facts and circumstances, it may propose to the Commission the removal of offer-capping suspensions otherwise authorized by Section 6.4 of Schedule 1 of the Operating Agreement. Such proposals shall take effect upon Commission acceptance of the Market Monitoring Unit's filing.

### **B. Minimum Generator Operating Parameters:**

1. For the 2014/2015 through 2017/2018 Delivery Years, the Market Monitoring Unit shall provide to the Office of the Interconnection a table of default unit class specific parameter limits to be known as the "Parameter Limited Schedule Matrix" to be included in Section 6.6(c) of

Schedule 1 of the Operating Agreement. The Parameter Limited Schedule Matrix shall include default values on a unit-type basis as specified in Section 6.6(c). The Market Monitoring Unit shall review the Parameter Limited Schedule Matrix annually, and, in the event it determines that revision is appropriate, shall provide a revised matrix to the Office of the Interconnection by no later than December 31 prior to the annual enrollment period.

2. The Market Monitoring Unit shall notify Market Sellers of generation ~~units-resources~~ and the Office of the Interconnection no later than April 1 of its determination of market power concerns raised regarding each request for a period exception or persistent exception to a value specified in the Parameter Limited Schedule Matrix or the parameters defined in Section 6.6 of Schedule 1 of the Operating Agreement and the PJM Manuals, provided that the Market Monitoring Unit receives such request by no later than February 28.

If, prior to the scheduled termination date, a Market Seller submits a request to modify a temporary exception, the Market Monitoring Unit shall review such request using the same standard utilized to evaluate period exception and persistent exception requests, and shall provide its determination of whether the request raises market power concerns, and, if so, any modifications that would alleviate those concerns, to the Market Seller, with a copy to Office of the Interconnection, by no later than 15 business days from the date of the modification request.

3. When a Market Seller notifies the Market Monitoring Unit of a material change to the facts relied upon by the Market Monitoring Unit and/or the Office of the Interconnection to support a parameter limited schedule period or persistent exception, the Market Monitoring Unit shall make a determination, and provide written notification to the Office of the Interconnection and the Market Seller, of any change to its determination regarding the exemption request, based on the material change in facts, by no later than 15 business days after receipt of such notice.

4. The Market Monitoring Unit shall notify the Office of the Interconnection of any risk premium to which it and a Market Seller owning or operating nuclear generation resource agree or its determination if agreement is not obtained. If a Market Seller submits a risk premium for its nuclear generation resource that is inconsistent with its agreement or inconsistent with the Market Monitoring Unit's determination regarding such risk premium, the Market Monitoring Unit may exercise its powers to inform Commission staff of its concerns pursuant to Attachment M.

**C. RPM Must-Offer Requirement:**

1. The Market Monitoring Unit shall maintain, post on its website and provide to the Office of the Interconnection prior to each RPM Auction (updated, as necessary, on at least a quarterly basis), a list of Existing Generation Capacity Resources located in the PJM Region that are subject to the RPM must-offer requirement set forth in Section 6.6 of Attachment DD.

2. The Market Monitoring Unit shall evaluate requests submitted by Capacity Market Sellers for a determination that a Generation Capacity Resource, or any portion thereof, be removed from Capacity Resource status or exempted from status as a Generation Capacity Resource subject to Section II.C.1 above and inform both the Capacity Market Seller and the

Office of the Interconnection of such determination in writing by no later ninety (90) days prior to the commencement of the offer period for the applicable RPM Auction. A Generation Capacity Resource located in the PJM Region shall not be removed from Capacity Resource status to the extent the resource is committed to service of PJM loads as a result of an RPM Auction, FRR Capacity Plan, Locational UCAP transaction and/or by designation as a replacement resource under this Attachment DD.

3. The Market Monitoring Unit shall evaluate the data and documentation provided to it by a potential Capacity Market Seller to establish the EFORD to be included in a Sell Offer applicable to each resource pursuant to Section 6.6(b) of Attachment DD. If a Capacity Market Seller timely submits a request for an alternative maximum level of EFORD that may be used in a Sell Offer for RPM Auctions held prior to the date on which the final EFORDs used for a Delivery Year are posted, the Market Monitoring Unit shall attempt to reach agreement with the Capacity Market Seller on the alternate maximum level of the EFORD by no later than ninety (90) days prior to the commencement of the offer period for the Base Residual Auction for the applicable Delivery Year. By no later than ninety (90) days prior to the commencement of the offer period for the Base Residual Auction for the applicable Delivery Year, the Market Monitoring Unit shall notify the Office of the Interconnection in writing, notifying the Capacity Market Seller by copy of the same, of any alternative maximum EFORD to which it and the Capacity Market Seller agree or its determination of the alternative maximum EFORD if agreement is not obtained.

4. The Market Monitoring Unit shall consider the documentation provided to it by a potential Capacity Market Seller pursuant to Section 6.6 of Attachment DD, and determine whether a resource owned or controlled by such Capacity Market Seller meets the criteria to qualify for an exception to the RPM must-offer requirement because the resource (i) is reasonably expected to be physically unable to participate in the relevant auction; (ii) has a financially and physically firm commitment to an external sale of its capacity; or (iii) was interconnected to the Transmission System as an Energy Resource and not subsequently converted to a Capacity Resource. The Market Monitoring Unit shall notify the Capacity Market Seller and the Office of the Interconnection of its determination by no later than ninety (90) days prior to the commencement of the offer period for the applicable RPM Auction.

In order to establish that a resource is reasonably expected to be physically unable to participate in the relevant auction as set forth in (i) above, the Capacity Market Seller must demonstrate that:

A. It has a documented plan in place to retire the resource prior to or during the Delivery Year, and has submitted a notice of Deactivation to the Office of the Interconnection consistent with Section 113.1 of the PJM Tariff, without regard to whether the Office of the Interconnection has requested the Capacity Market Seller to continue to operate the resource beyond its desired deactivation date in accordance with Section 113.2 of the PJM Tariff for the purpose of maintaining the reliability of the PJM Transmission System and the Capacity Market Seller has agreed to do so;

B. Significant physical operational restrictions cause long term or permanent changes to the installed capacity value of the resource, or the resource is under major repair that will extend into the applicable Delivery Year, that will result in the imposition of RPM performance penalties pursuant to Attachment DD of the PJM Tariff;

C. The Capacity Market Seller is involved in an ongoing regulatory proceeding (e.g. – regarding potential environmental restrictions) specific to the resource and has received an order, decision, final rule, opinion or other final directive from the regulatory authority that will result in the retirement of the resource; or,

D. A resource considered an Existing Generating Capacity Resource because it cleared an RPM Auction for a Delivery Year prior to the Delivery Year of the relevant auction, but which is not yet in service, is unable to achieve full commercial operation prior to the Delivery Year of the relevant auction. The Capacity Market Seller must submit to the Office of the Interconnection and the Market Monitoring Unit a written sworn, notarized statement of a corporate officer certifying that the resource will not be in full commercial operation prior to the referenced Delivery Year.

5. If a Capacity Market Seller submits for the portion of a Generation Capacity Resource that it owns or controls, and the Office of Interconnection accepts, a Sell Offer (i) at a level of installed capacity that the Market Monitoring Unit believes is inconsistent with the level established under Section 5.6.6 of Attachment DD of the PJM Tariff, (ii) at a level of installed capacity inconsistent with its determination of eligibility for an exception listed in Section II.C.4 above, or (iii) a maximum EFORD that the Market Monitoring Unit believes is inconsistent with the maximum level determined under Section II.C.3 of this Appendix, the Market Monitoring Unit may exercise its powers to inform Commission staff of its concerns and/or request a determination from the Commission that would require the Generation Capacity Resource to submit a new or revised Sell Offer, notwithstanding any determination to the contrary made under Section 6.6 of Attachment DD.

The Market Monitoring Unit shall also consider the documentation provided by the Capacity Market Seller pursuant to Section 6.6 of Attachment DD, for generation resources for which the Office of the Interconnection has not approved an exception to the RPM must-offer requirement as set forth in Section 6.6(g) of Attachment DD, to determine whether the Capacity Market Seller's failure to offer part or all of one or more generation resources into an RPM Auction would result in an increase of greater than five percent in any Zonal Capacity Price determined through such auction as required by Section 6.6(i) of Attachment DD, and shall inform both the Capacity Market Seller and the Office of the Interconnection of its determination by no later than two (2) business days after the close of the offer period for the applicable RPM Auction.

**D. Unit Specific Minimum Sell Offers:**

1. If a Capacity Market Seller timely submits an exemption or exception request, with all of the required supporting documentation as specified in section 5.14(h) of Attachment DD, the Market Monitoring Unit shall review the request and documentation and shall provide in writing

to the Capacity Market Seller and the Office of the Interconnection by no later than forty five (45) days after receipt of the exemption or exception request its determination whether it believes the requested exemption or exception should be granted in accordance with the standards and criteria set forth in section 5.14(h). If the Market Monitoring Unit determines that the Sell Offer proposed in a Unit-Specific Exception request raises market power concerns, it shall advise the Capacity Market Seller of the minimum Sell Offer in the relevant auction that would not raise market power concerns, with such calculation based on the data and documentation received, by no later than forty five (45) days after receipt of the request.

2. All information submitted to the Office of the Interconnection or the Market Monitoring Unit by a Market Participant is subject to verification by the Market Monitoring Unit.

3. In the event that the Market Monitoring Unit reasonably believes that a request for a Competitive Entry Exemption or a Self-Supply Exemption that has been granted contains fraudulent or material misrepresentations or omissions such that the Capacity Market Seller would not have been eligible for the exemption for that MOPR Screened Generation Resource had the request not contained such misrepresentations or omissions, then it shall notify the Office of the Interconnection and Capacity Market Seller of its findings and provide the Office of the Interconnection with all of the data and documentation supporting its findings, and may take any other action required or permitted under Attachment M.

**E. Market Seller Offer Caps:**

1. Based on the data and calculations submitted by the Capacity Market Sellers for each Existing Generation Capacity Resource and the formulas specified in Section 6.7(d) of Attachment DD, the Market Monitoring Unit shall calculate the Market Seller Offer Cap for each such resource and provide it to the Capacity Market Seller and the Office of the Interconnection by no later than ninety (90) days before the commencement of the offer period for the applicable RPM Auction.

2. The Market Monitoring Unit must attempt to reach agreement with the Capacity Market Seller on the appropriate level of the Market Seller Offer Cap by no later than ninety (90) days prior to the commencement of the offer period for the applicable RPM Auction. If such agreement cannot be reached, then the Market Monitoring Unit shall inform the Capacity Market Seller and the Office of the Interconnection of its determination of the appropriate level of the Market Seller Offer Cap by no later than ninety (90) days prior to the commencement of the offer period for the applicable RPM Auction, and the Market Monitoring Unit may pursue any action available to it under Attachment M.

3. Nothing herein shall preclude any Capacity Market Seller and the Market Monitoring Unit from agreeing to, nor require either such entity to agree to, an alternative market seller offer cap determined on a mutually agreeable basis. Any such alternative offer cap shall be filed with the Commission for its approval. This provision is duplicated in Section 6.4(a) of Attachment DD.

**F. Mitigation of Offers from Planned Generation Capacity Resources:**

Pursuant to Section 6.5 of Attachment DD, the Market Monitoring Unit shall evaluate Sell Offers for Planned Generation Capacity Resources to determine whether market power mitigation should be applied and notify in writing each Capacity Market Seller whose Sell Offer has been determined to be non-competitive and subject to mitigation, with a copy to the Office of the Interconnection, by no later than one (1) business day after the close of the offer period for the applicable RPM Auction.

**G. Data Submission:**

Pursuant to Section 6.7 of Attachment DD, the Market Monitoring Unit may request additional information from any potential auction participant as deemed necessary by the Market Monitoring Unit, including, without limitation, additional cost data on resources in a class that is not otherwise expected to include the marginal price setting resource. All data submitted to the Office of the Interconnection or the Market Monitoring Unit by a Market Participant is subject to verification by the Market Monitoring Unit.

**H. Determination of Default Avoidable Cost Rates:**

1. The Market Monitoring Unit shall conduct an annual review of the table of default Avoidable Cost Rates included in Section 6.7(c) of Attachment DD and calculated on the bases set forth therein, and determine whether the values included therein need to be updated. If the Market Monitoring Unit determines that the Avoidable Cost Rates need to be updated, it shall provide to the Office of the Interconnection updated values or notice of its determination that updated values are not needed by no later than September 30<sup>th</sup> of each year.

2. The Market Monitoring Unit shall indicate in its posted reports on RPM performance the number of Generation Capacity Resources and megawatts per LDA that use the retirement default Avoidable Cost Rates.

3. If a Capacity Market Seller does not elect to use a default Avoidable Cost Rate and has timely provided to the Market Monitoring Unit its request to apply a unit-specific Avoidable Cost Rate, along with the data described in Section 6.7 of Attachment DD, the Market Monitoring Unit shall calculate the Avoidable Cost Rate and provide a unit-specific value to the Capacity Market Seller for each such resource, and notify the Capacity Market Seller and the Office of the Interconnection in writing by no later than ninety (90) days prior to the commencement of the offer period for the applicable RPM Auction whether it agrees that the unit-specific Avoidable Cost Rate is acceptable. The Capacity Market Seller and Office of the Interconnection's deadlines relating to the submittal and acceptance of a request for a unit-specific Avoidable Cost Rate are delineated in section 6.7(d) of Attachment DD.

**I. Determination of PJM Market Revenues:**

The Market Monitoring Unit shall calculate the Projected PJM Market Revenues for any Generation Capacity Resource to which the Avoidable Cost Rate is applied pursuant to Section 6.8(d) of Attachment DD, and notify the Capacity Market Seller and the Office of the

Interconnection of its determination in writing by no later than ninety (90) days prior to the commencement of the offer period for the applicable RPM Auction.

**J. Determination of Opportunity Costs:**

The Market Monitoring Unit shall review and verify the documentation of prices available to Existing Generation Capacity Resources in markets external to PJM and proposed for inclusion in Opportunity Costs pursuant to Section 6.7(d)(ii) of Attachment DD. The Market Monitoring Unit shall notify, in writing, such Generation Capacity Resource and the Office of the Interconnection if it is dissatisfied with the documentation provided and whether it objects to the inclusion of such Opportunity Costs in a Market Seller Offer by no later than ninety (90) days prior to the commencement of the offer period for the applicable RPM Auction. If such Generation Capacity Resource submits a Market Seller Offer that includes Opportunity Costs that have not been documented and verified to the Market Monitoring Unit's satisfaction, then the Market Monitoring Unit may exercise its powers to inform Commission staff of its concerns and request a determination that would require the Generation Capacity Resource to remove them.

**III. BLACKSTART SERVICE**

A. Upon the submission by a Black Start Unit owner of a request for Black Start Service revenue requirements and changes to the Black Start Service revenue requirements for the Black Start Unit, the Black Start Unit owner and the Market Monitoring Unit shall attempt to agree to values on the level of each component included in the Black Start Service revenue requirements by no later than May 14 of each year. The Market Monitoring Unit shall calculate the revenue requirement for each Black Start Unit and provide its calculation to the Office of the Interconnection by no later than May 14 of each year.

B. Pursuant to the terms of Schedule 6A of the PJM Tariff and the PJM Manuals, the Market Monitoring Unit will analyze any requested generator black start cost changes on an annual basis and shall notify the Office of the Interconnection of any costs to which it and the Black Start Unit owner have agreed or the Market Monitoring Unit's determination regarding any cost components to which agreement has not been obtained. If a Black Start Unit owner includes a cost component inconsistent with its agreement or inconsistent with the Market Monitoring Unit's determination regarding such cost component, and the Office of the Interconnection accepts the Black Start Service revenue requirements submitted by the Black Start Unit owner, the Market Monitoring Unit may exercise its powers to inform Commission staff of its concerns and request a determination that would require the Black Start Service generator to utilize the values determined by the Market Monitoring Unit or the Office of the Interconnection or such other values as determined by the Commission.

**IV. DEACTIVATION RATES**

1. Upon receipt of a notice to deactivate a generating unit under Part V of the PJM Tariff from the Office of the Interconnection forwarded pursuant to Section 113.1 of the PJM Tariff, the Market Monitoring Unit shall analyze the effects of the proposed deactivation with regard to

potential market power issues and shall notify the Office of the Interconnection and the generator owner (of, if applicable, its designated agent) within 30 days of the deactivation request if a market power issue has been identified. Such notice shall include the specific market power impact resulting from the proposed deactivation of the generating unit, as well as an initial assessment of any steps that could be taken to mitigate the market power impact.

2. The Market Monitoring Unit and the generating unit owner shall attempt to come to agreement on the level of each component included in the Deactivation Avoidable Cost Credit. In the case of cost of service filing submitted to the Commission in alternative to the Deactivation Cost Credit, the Market Monitoring Unit shall indicate to the generating unit owner in advance of filing its views regarding the proposed method or cost components of recovery. The Market Monitoring Unit shall notify the Office of the Interconnection of any costs to which it and the generating unit owner have agreed or the Market Monitoring Unit's determination regarding any cost components to which agreement has not been obtained. If a generating unit owner includes a cost component inconsistent with its agreement or inconsistent with the Market Monitoring Unit's determination regarding such cost components, the Market Monitoring Unit may exercise its powers to inform Commission staff of its concerns and seek a determination that would require the Generating unit to include an appropriate cost component. This provision is duplicated in Sections 114 and 119 of Part V of the PJM Tariff.

#### **V. OPPORTUNITY COST CALCULATION**

The Market Monitoring Unit shall review requests for opportunity cost compensation under Sections 3.2.3(f-3) and 3.2.3B(h) of Schedule 1 of the Operating Agreement, discuss with the Office of the Interconnection and individual Market Sellers the amount of compensation, and file exercise its powers to inform Commission staff of its concerns and request a determination of compensation as provided by such sections. These requirements are duplicated in Sections 3.2.3(f-3) and 3.2.3B(h) of Schedule 1 of the Operating Agreement.

#### **VI. FTR FORFEITURE RULE**

The Market Monitoring Unit shall calculate Transmission Congestion Credits as required under Section 5.2.1(b) of Schedule 1 of the Operating Agreement, including the determination of the identity of the Effective FTR Holder and an evaluation of the overall benefits accrued by an entity or affiliated entities trading in FTRs and Virtual Transactions in the Day-ahead Energy Market, and provide such calculations to the Office of the Interconnection. Nothing in this section shall preclude the Market Monitoring Unit from action to recover inappropriate benefits from the subject activity if the amount forfeited is less than the benefit derived by the Effective FTR Holder. If the Office of the Interconnection imposes a forfeiture of the Transmission Congestion Credit in an amount that the Market Monitoring Unit disagrees with, then it may exercise its powers to inform Commission staff of its concerns and request an adjustment.

#### **VII. FORCED OUTAGE RULE**

1. The Market Monitoring Unit shall observe offers submitted in the Day-ahead Energy Market to determine whether all or part of a generating unit's capacity (MW) is designated as

Maximum Emergency and (i) such offer in the Real-time Energy Market designates a smaller amount of capacity from that unit as Maximum Emergency for the same time period, and (ii) there is no physical reason to designate a larger amount of capacity as Maximum Emergency in the offer in the Day-ahead Energy Market than in the Real-time Energy Market, the Market Monitoring Unit shall notify the Office of Interconnection.

2. If the Market Monitoring Unit observes that (i) an offer submitted in the Day-ahead Energy market designates all or part of capacity (MW) of a Generating unit as economic maximum that is less than the economic maximum designated in the offer in the Real-time Energy Market, and (ii) there is no physical reason to designate a lower economic maximum in the offer in the Day-ahead Energy Market than in the offer in the Real-time Energy Market, the Market Monitoring Unit shall notify the Office of Interconnection.

### **VIII. DATA COLLECTION AND VERIFICATION**

The Market Monitoring Unit shall gather and keep confidential detailed data on the procurement and usage of fuel to produce electric power transmitted in the PJM Region in order to assist the performance of its duties under Attachment M. To achieve this objective, the Market Monitoring Unit shall maintain on its website a mechanism that allows Members to conveniently and confidentially submit such data and develop a manual in consultation with stakeholders that describes the nature of and procedure for collecting data. Members of PJM owning a Generating unit that is located in the PJM Region (including Dynamic Transfer units), or is included in a PJM Black Start Service plan, committed as a Generation Capacity Resource for the current or future Delivery Year, or otherwise subject to a commitment to provide service to PJM, shall provide data to the Market Monitoring Unit.

Section(s) of the  
PJM Operating Agreement  
(Marked / Redline Format)

## 6.6 Minimum Generator Operating Parameters – Parameter Limited Schedules.

(a) Market Sellers submitting Offer Data for Generation Capacity Resources shall submit and be subject to pre-determined limits on cost-based offers, which are always parameter limited. Market Sellers submitting Offer Data for Generation Capacity Resources shall submit and be subject to pre-determined limits on market-based offers conforming to parameter limitations (“parameter limited schedules”) under the following circumstances:

- (i) The Market Seller fails the three pivotal supplier test. When this subsection applies, the parameter limited schedule shall be the less limiting, i.e. more flexible, of the defined parameter limited schedules or the submitted offer parameters.
- (ii) For the 2014/2015 through 2017/2018 Delivery Years, the Office of the Interconnection: (i) declares a Maximum Generation Emergency; (ii) issues a Maximum Generation Emergency Alert; or (iii) schedules units based on the anticipation of a Maximum Generation Emergency or a Maximum Generation Emergency Alert for all, or any part, of an Operating Day.
- (iii) For Capacity Performance Resources, the Office of the Interconnection: (i) declares a Maximum Generation Emergency; (ii) issues a Maximum Generation Emergency Alert, Hot Weather Alert, Cold Weather Alert; or (iii) schedules units based on the anticipation of a Maximum Generation Emergency, Maximum Generation Emergency Alert, Hot Weather Alert or Cold Weather Alert for all, or any part, of an Operating Day.
- (iv) For Base Capacity Resources, the Office of the Interconnection: (i) declares a Maximum Generation Emergency during hot weather operations; (ii) issues a Maximum Generation Emergency Alert or Hot Weather Alert during hot weather operations; or (iii) schedules units based on the anticipation of a Hot Weather Alert, or a Maximum Generation Emergency or Maximum Generation Emergency Alert during hot weather operations, for all, or any part, of an Operating Day.

(b) For the 2014/2015 through 2017/2018 Delivery Years for Generation Capacity Resources other than Capacity Performance Resources, and the 2016/2017 through 2019/2020 Delivery Years for Generation Capacity Resources identified and committed in an FRR Capacity Plan, parameter limited schedules shall be defined for the following parameters:

- (i) Turn Down Ratio;
- (ii) Minimum Down Time;
- (iii) Minimum Run Time;

- (iv) Maximum Daily Starts;
- (v) Maximum Weekly Starts.

For the 2018/2019 and 2019/2020 Delivery Years for Base Capacity Resources during Hot Weather Alerts, Emergency Actions during hot weather operations, and when the resourceunit is offer capped to maintain system reliability as a result of limits on transmission capability per Section 6.4 hereof, and for the 2016/2017 Delivery Year and subsequent Delivery Years for Capacity Performance Resources during Hot Weather Alerts, Cold Weather Alerts, Emergency Actions, and when the resourceunit is offer capped to maintain system reliability as a result of limits on transmission capability per Section 6.4 hereof, the Office of the Interconnection shall determine the unit-specific achievable operating parameters for each individual resourceunit on the basis of its operating design characteristics and other constraints, recognizing that remedial and ongoing investment and maintenance may be required to perform on the basis of those characteristics, for the following parameters:

- (i) Turn Down Ratio;
- (ii) Minimum Down Time;
- (iii) Minimum Run Time;
- (iv) Maximum Daily Starts;
- (v) Maximum Weekly Starts;
- (vi) Maximum Run Time;
- (vii) Start-up Time; and
- (viii) Notification Time.

These unit-specific values shall apply for the generation-resourcegenerating unit unless it is operating pursuant to an exception from those values under subsection (h) hereof due to operational limitations that prevent the resourceunit from meeting the minimum parameters. Throughout the analysis process, the Office of the Interconnection shall consult with the Market Monitoring Unit, and consider any input received from the Market Monitoring Unit, in its determination of a resourceunit's unit-specific parameter limited schedule values.

In order to make its determination of the unit-specific parameter limited schedule values for a Generation-Capacity-Resourceunit, the Office of the Interconnection may request that the Capacity Market Seller provide to it and the Market Monitoring Unit certain data and documentation as further detailed in the PJM Manuals. Once the Office of the Interconnection has made a determination of the unit-specific parameter limited schedule values for a Generation-Capacity-Resourceunit, those values will remain applicable to the resourceunit until such time as

the Office of the Interconnection determines that a change is needed based on changed operational capabilities of the resourceunit.

A Capacity Market Seller that does not believe its ~~Generation Capacity Resource~~generating unit can meet the unit-specific values determined by the Office of the Interconnection due to actual operating constraints, and who desires to establish adjusted unit-specific parameters for those resourceunits may request adjusted unit-specific parameter limitations. Any such request must be submitted to the Office of the Interconnection by no later than the February 28 immediately preceding the first Delivery Year for which the adjusted unit-specific parameters are requested to commence. Capacity Market Sellers shall supply, for each ~~Generation Capacity Resource~~generating unit, technical information about the operational limits to support the requested parameters, as further detailed in the PJM Manuals. The Office of the Interconnection shall consult with the Market Monitoring Unit, and consider any input received from the Market Monitoring Unit, in its determination of a resourceunit's request for adjusted unit-specific parameter limited schedule values. After it has completed its evaluation of the request, the Office of the Interconnection shall notify the Capacity Market Seller in writing, with a copy to the Market Monitoring Unit, whether the request is approved or denied, by no later than April 15. The effective date of the request, if approved by the Office of the Interconnection, shall be no earlier than June 1.

The operational limitations referenced in this section 6.6 shall be (a) physical operational limitations based on the operating design characteristics of the resourceunit, or (b) other actual physical constraints, including those based on contractual limits, that are not based on the characteristics of the resourceunit. *In order for a contractual or other actual constraint to be deemed a physical constraint that can be reflected in its unit-specific parameter limits for a Generation Capacity Resource, the Capacity Market Seller must demonstrate that contractual or other actual constraint is not simply an economic decision but a physical restriction that could not be rectified among any commercial alternatives actually available to it.*

(c) For the 2014/2015 through 2017/2018 Delivery Years, the following table specifies default parameter limited schedule values, by technology type, for ~~generation resource~~generating units, no portion of which is not committed as a Capacity Performance Resources:

**Parameter Limited Schedule Matrix**

<b>Parameter</b>	<b>Minimum Down Time (Hrs)</b>	<b>Minimum Run Time (Hrs)</b>	<b>Maximum Daily Starts</b>	<b>Maximum Weekly Starts</b>	<b>Turn Down Ratio = Economic Maximum MW / Economic Minimum MW</b>
Small Frame CT and Aero CT Units - Up to 29 MW ICAP	2.0 or Less	2.0 or Less	2 or More	14 or More	1.0 or More
Medium Frame CT and Aero CT Units - 30 MW to 65 MW ICAP	2.0 or Less	3.0 or Less	2 or More	14 or More	1.0 or More
Medium-Large Frame CT Units - 65 MW to 135 MW ICAP	3.0 or Less	5.0 or Less	2 or More	14 or More	1.0 or More
Large Frame CT Units - 135 MW to 180 MW ICAP	4.0 or Less	5.0 or Less	2 or More	14 or More	1.0 or More
Combined Cycle Units	4.0 or Less	6.0 or Less	2 or More	11 or More	1.5 or More
Petroleum and Natural Gas Steam Units - Pre-1985	7.0 or Less	8.0 or Less	1 or More	7 or More	3.0 or More
Petroleum and Natural Gas Steam Units - Post-1985	3.5 or Less	5.5 or Less	2 or More	11 or More	2.0 or More
Sub-Critical Coal Units	9.0 or Less	15.0 or Less	1 or More	5 or More	2.0 or More
Super-Critical Coal Units	84.0	24.0 or Less	1 or More	2 or More	1.5 or More

(d) For the 2014/2015 through 2017/2018 Delivery Years, upon receipt of proposed revised parameter limited schedule values from the Market Monitoring Unit, prepared in accordance with the procedures for periodic review included in section II.B.1 of Attachment M - Appendix,

the Office of the Interconnection shall file to revise the Parameter Limited Schedule Matrix in section 6.6(c) above accordingly. In the event that the Office of the Interconnection disagrees with the values proposed for revising the matrix, the Office of the Interconnection shall file the values that it determines are appropriate.

(e) For the 2014/2015 through 2017/2018 Delivery Years, the Market Monitoring Unit shall calculate and provide to Market Sellers ~~for their generation resources unit-specific~~ default values in accordance with section II.B of Attachment M - Appendix. The default values set forth in the table in subsection (c) above shall apply for the referenced technology types unless a generation resource generating unit is operating pursuant to an exception from the default values under subsection (h) due to physical operational limitations that prevent the ~~resource unit~~ from meeting the minimum parameters, or any megawatts of the unit are committed as a Capacity Performance Resource in which case the unit-specific or adjusted unit-specific values for the generating unit determined by the Office of the Interconnection shall apply to all megawatts of the generating unit offered into the PJM energy markets. For ~~generation resources generating units~~ having the ability to operate on multiple fuels, Market Sellers may submit a parameter limited schedule associated with each fuel type.

(f) For the 2016/2017 Delivery Year and subsequent Delivery Years, the following additional parameter limits shall apply for Capacity Performance Resources, other than Capacity Storage Resources, submitted in the Day-ahead Energy Market or rebidding period that occurs after the clearing of the Day-ahead Energy Market for the following Operating Day, and for the Real-time Energy Market for the same Operating Day, unless the Capacity Market Seller has requested for its Capacity Performance Resource, and the Office of the Interconnection has granted, an adjusted unit-specific start-up and/or notification time due to actual operating constraints pursuant to the process described in subsection (b) above:

- (i) The combined start-up and notification times shall not exceed 24 hours, except when a Hot Weather Alert or Cold Weather Alert has been issued;
- (ii) When a Hot Weather Alert or Cold Weather Alert has been issued, combined start-up and notification times shall not exceed 14 hours;
- (iii) When a Hot Weather Alert or Cold Weather Alert has been issued, notification time shall not exceed one hour; and,
- (iv) When a Hot Weather Alert or Cold Weather Alert has been issued, parameters shall be based on the actual operational limitations of the Capacity Performance Resource for both its market-based schedules and cost-based schedules.

Capacity Storage Resources that clear in a Reliability Pricing Model Auction shall, unless the Capacity Market Seller has requested for its Capacity Storage Resource, and the Office of the Interconnection has granted, an adjusted unit-specific start-up and notification time, and/or minimum down time, due to actual operating constraints pursuant to the process described in subsection (b) above:

- (i) Have combined start-up and notification times that shall not exceed one hour; and,
- (ii) Have a minimum down time that shall not exceed one hour.

(g) For the 2018/2019 and 2019/2020 Delivery Years, the following additional parameter limits for Base Capacity Resources submitted in the Day-ahead Energy Market or rebidding period that occurs after the clearing of the Day-ahead Energy Market for the following Operating Day, and for the Real-time Energy Market for the same Operating Day, unless the Capacity Market Seller has requested for its Base Capacity Resource, and the Office of the Interconnection has granted, an adjusted unit-specific start-up and/or notification time due to actual operating constraints pursuant to the process described in subsection (b) above:

- (i) Combined start-up and notification times shall not exceed 48 hours;
- (ii) When a Hot Weather Alert has been issued, notification time shall not exceed one hour; and,
- (iii) When a Hot Weather Alert has been issued, parameters shall be based on the actual operational limitations of the Base Capacity Resource for both its market-based schedules and cost-based schedules.

(h) If a generating unit is or will become unable to achieve the default or unit-specific values determined by the Office of the Interconnection due to actual operating constraints affecting the unit, the Capacity Market Seller of that unit may submit a written request for an exception to the application of those values. Exceptions to the parameter limited schedule default or unit-specific values shall be categorized as either a one-time temporary exception, lasting 30 days or less; a period exception, lasting at least 31 days and no more than one year; or a persistent exception, lasting for at least one year.

(i) *Temporary Exceptions.* A temporary exception shall be deemed accepted without prior review by the Market Monitoring Unit or the Office of the Interconnection upon submission by the Market Seller of the generation resource generating unit of written notification to the Market Monitoring Unit and the Office of the Interconnection, at least one business day prior to the commencement of the exception, and shall automatically commence and terminate on the dates specified in such notification, which must be for a period of time lasting 30 days or less, unless the termination date is extended pending a request for a period exception or shortened due to a change in the physical conditions of the unit such that the temporary exception is no longer required. Such Market Seller shall provide to the Market Monitoring Unit and the Office of the Interconnection within three days following the commencement of the temporary exception its documentation explaining in detail the reasons for the temporary exception, and shall also respond to additional requests for information from the Market Monitoring Unit and the Office of the Interconnection within

three business days after such request. Failure to provide a timely response to such request for additional information shall cause the temporary exception to terminate the following day. The Market Seller shall notify the Office of the Interconnection and the Market Monitoring Unit in writing of an early termination of a temporary exception due to changed physical conditions by no later than one business day prior to the early termination date. A temporary exception may only be requested one-time for the same physical or actual constraint since an operational constraint that may occur more than once should be the subject of a period exception request rather than multiple temporary exception requests.

In addition, if a Market Seller is unaware of the need for a period exception prior to the February 28 deadline for submitting such requests, the Market Seller may utilize the temporary exception process and seek to modify that exception pursuant to the process described below.

*Modification of Temporary Exceptions.* If, prior to the scheduled termination date, the Market Seller determines that the temporary exception must persist for more than 30 days and, the Market Seller wants to extend the period for which the exception applies, or if a Market Seller is unaware of the need for a period or persistent exception prior to the February 28 deadline for submitting such requests and the Market Seller has submitted a temporary exception request, it must submit to the Market Monitoring Unit and the Office of the Interconnection a written request to modify the temporary exception to become a period exception or a persistent exception, and provide detailed documentation explaining the reasons for the requested modification of the temporary exception. Market Sellers shall supply for each generation resource/generating unit the required historical unit operating data in support of the period or persistent exception request, and if the exception requested is based on new physical operating limits for the resource/unit for which some or all historical operating data is unavailable, the Market Seller may also submit technical information about the physical operational limits of the resource/unit to support the requested parameters. Such Market Seller shall respond to additional requests for information from the Market Monitoring Unit and the Office of the Interconnection within three business days after such request. Such request shall be reviewed by the Market Monitoring Unit and must be evaluated by the Office of the Interconnection using the same standard utilized to evaluate period exception and persistent exception requests. Per Section II.B of Attachment M-Appendix, the Market Monitoring Unit shall evaluate the modification request and provide its determination of whether the request raises market power concerns, and, if so, any modifications that would alleviate those concerns, to the Market Seller, with a copy to Office of the Interconnection, by no later than 15 business days from the date of the modification request. The Office of the Interconnection shall provide its determination whether the request complies with the Tariff and Manuals by no later than 20 business days from the date of the modification request. A temporary exception shall be extended and shall not terminate until the date on which the Office of the Interconnection issues its determination of the modification request.

(ii) *Period Exceptions and Persistent Exceptions.* Market Sellers must submit period exception and persistent exception requests to the Market Monitoring Unit and the Office of the Interconnection by no later than the February 28 immediately preceding the twelve month period from June 1 to May 31 during which the exception is requested to commence. Market Sellers shall supply for each ~~generation resource~~generating unit the required historical unit operating data in support of the period exception or persistent exception request, and if the exception requested is based on new physical operational limits for the ~~resource~~unit for which some or all historical operating data is unavailable, the ~~generation resource~~generating unit may also submit technical information about the physical operational limits for exceptions of the ~~resource~~unit to support the requested parameters. The Market Monitoring Unit shall evaluate such request in accordance with the process set forth in Section II.B of Attachment M - Appendix. A Market Seller (i) must submit a parameter limited schedule value consistent with an agreement with the Market Monitoring Unit under such process or (ii) if it has not agreed with the Market Monitoring Unit on the parameter limited schedule value, may submit its own value to the Office of the Interconnection and to the Market Monitoring Unit, by no later than April 8. Each exception request must indicate the expected duration of the requested exception including the termination date thereof. The proposed parameter limited schedule value submitted by the Market Seller is subject to approval of the Office of the Interconnection pursuant to the requirements of the Tariff and the PJM Manuals. The Office of the Interconnection may engage the services of a consultant with technical expertise to evaluate the exception request. After it has completed its evaluation of the exception request, the Office of the Interconnection shall notify the Market Seller in writing, with a copy to the Market Monitoring Unit, whether the exception request is approved or denied, by no later than April 15. The effective date of the exception, if approved by the Office of the Interconnection, shall be no earlier than June 1 of the applicable Delivery Year. The Office of the Interconnection's determination for an exception shall continue for the period requested and, if requested, for such longer period as the Office of the Interconnection may determine is supported by the data.

The Market Seller shall provide written notification to the Market Monitoring Unit and the Office of the Interconnection of a material change to the facts relied upon by the Market Monitoring Unit and/or the Office of the Interconnection in their evaluations of the Market Seller's request for a period or persistent exception. The Market Monitoring Unit shall provide written notification to the Office of the Interconnection and the Market Seller of any change to its determination regarding the exception request, based on the material change in facts, by no later than 15 business days after receipt of such notice. The Office of the Interconnection shall notify the Market Seller in writing, with a copy to the Market Monitoring Unit, of any change to its determination regarding the exception request, based on the material change in facts, by no later than 20

business days after receipt of the Market Seller's notice. If the Office of the Interconnection determines that the exception no longer complies with the Tariff or Manuals, the following parameter values shall apply to all megawatts of the generating unit offered into the PJM energy markets:

(1) for generating units for which no megawatts of the unit are committed as a Capacity Performance Resource the default values specified in the Parameter Limited Schedule Matrix shall apply for the 2016/2017 through 2017/2018 Delivery years,

(2) for generating units for which any megawatts of the unit are committed as a Base Capacity Resource and no megawatts are committed as a Capacity Performance Resource, and for which no adjusted unit-specific values have been approved by PJM, the Base Capacity Resource unit-specific values determined by PJM shall apply for the 2018/2019 and 2019/2020 Delivery Years,

(3) for generating units for which any megawatts of the unit are committed as a Capacity Performance Resource, but for which no adjusted unit-specific values have been approved by PJM, the Capacity Performance Resource unit-specific values determined by PJM shall apply for the 2016/2017 Delivery Year and subsequent Delivery Years,

(4) for generating units for which any megawatts of the unit are committed as a Base Capacity Resource and no megawatts are committed as a Capacity Performance Resource, and for which adjusted unit-specific values have been approved by PJM, the Base Capacity Resource adjusted unit-specific values shall apply for the 2018/2019 and 2019/2020 Delivery Years, and

(5) for generating units for which any megawatts of the unit are committed as a Capacity Performance Resource and for which adjusted unit-specific values have been approved by PJM, the Capacity Performance Resource adjusted unit-specific values shall apply for the 2016/2017 Delivery Year and subsequent Delivery Years.

(i) Notwithstanding the foregoing, the provisions of this Section 6.6 shall only pertain to the Offer Data a Market Seller must submit to the Office of the Interconnection for its offers into the Day-ahead Energy Market, rebidding period that occurs after the clearing of the Day-ahead Energy Market and Real-time Energy Market, and do not affect or change in any way a Generation Owner's obligation under NERC Reliability Standards to notify the Office of the Interconnection of its actual or expected actual physical operating conditions during the Operating Day.

(j) Notwithstanding anything contrary herein, the unit-specific parameters, adjusted unit-specific parameters or exception to parameter limited schedule values determined by the Office of the Interconnection for a generating unit shall be applicable to that generating unit regardless whether there is a change in the owner, operator or Market Seller of the unit because the parameter limited schedule values for the unit are determined based on the physical limitations of the unit, which should not change merely based on a change in owners, operator or Market

Seller. Because parameter limited schedule values attach to the generating unit and are not owned by a Market Seller of the unit, when there are multiple owners or Market Sellers for a generating unit, all owners and Market Sellers shall be bound by the unit-specific parameters, adjusted unit-specific parameters or exception to parameter limited schedule values determined by the Office of the Interconnection for the unit.

(k) The provisions of this section 6.6 only apply to Generation Capacity Resources, and not to Energy Resources.

# Attachment B

## PJM Open Access Transmission Tariff and PJM Operating Agreement

(Clean Format)

Section(s) of the  
PJM Open Access Transmission Tariff  
(Clean Format)

## 6.6 Minimum Generator Operating Parameters – Parameter Limited Schedules.

(a) Market Sellers submitting Offer Data for Generation Capacity Resources shall submit and be subject to pre-determined limits on cost-based offers, which are always parameter limited. Market Sellers submitting Offer Data for Generation Capacity Resources shall submit and be subject to pre-determined limits on market-based offers conforming to parameter limitations (“parameter limited schedules”) under the following circumstances:

(i) The Market Seller fails the three pivotal supplier test. When this subsection applies, the parameter limited schedule shall be the less limiting, i.e. more flexible, of the defined parameter limited schedules or the submitted offer parameters.

(ii) For the 2014/2015 through 2017/2018 Delivery Years, the Office of the Interconnection: (i) declares a Maximum Generation Emergency; (ii) issues a Maximum Generation Emergency Alert; or (iii) schedules units based on the anticipation of a Maximum Generation Emergency or a Maximum Generation Emergency Alert for all, or any part, of an Operating Day.

(iii) For Capacity Performance Resources, the Office of the Interconnection: (i) declares a Maximum Generation Emergency; (ii) issues a Maximum Generation Emergency Alert, Hot Weather Alert, Cold Weather Alert; or (iii) schedules units based on the anticipation of a Maximum Generation Emergency, Maximum Generation Emergency Alert, Hot Weather Alert or Cold Weather Alert for all, or any part, of an Operating Day.

(iv) For Base Capacity Resources, the Office of the Interconnection: (i) declares a Maximum Generation Emergency during hot weather operations; (ii) issues a Maximum Generation Emergency Alert or Hot Weather Alert during hot weather operations; or (iii) schedules units based on the anticipation of a Hot Weather Alert, or a Maximum Generation Emergency or Maximum Generation Emergency Alert during hot weather operations, for all, or any part, of an Operating Day.

(b) For the 2014/2015 through 2017/2018 Delivery Years *for Generation Capacity Resources other than Capacity Performance Resources, and the 2016/2017 through 2019/2020 Delivery Years for Generation Capacity Resources identified and committed in an FRR Capacity Plan*, parameter limited schedules shall be defined for the following parameters:

- (i) Turn Down Ratio;
- (ii) Minimum Down Time;
- (iii) Minimum Run Time;
- (iv) Maximum Daily Starts;
- (v) Maximum Weekly Starts.

For the 2018/2019 and 2019/2020 Delivery Years for Base Capacity Resources during Hot Weather Alerts, Emergency Actions during hot weather operations, and when the unit is offer capped to maintain system reliability as a result of limits on transmission capability per Section 6.4 hereof, and for the 2016/2017 Delivery Year and subsequent Delivery Years for Capacity Performance Resources during Hot Weather Alerts, Cold Weather Alerts, Emergency Actions, and when the unit is offer capped to maintain system reliability as a result of limits on transmission capability per Section 6.4 hereof, the Office of the Interconnection shall determine the unit-specific achievable operating parameters for each individual unit on the basis of its operating design characteristics and other constraints, recognizing that remedial and ongoing investment and maintenance may be required to perform on the basis of those characteristics, for the following parameters:

- (i) Turn Down Ratio;
- (ii) Minimum Down Time;
- (iii) Minimum Run Time;
- (iv) Maximum Daily Starts;
- (v) Maximum Weekly Starts;
- (vi) Maximum Run Time;
- (vii) Start-up Time; and
- (viii) Notification Time.

These unit-specific values shall apply for the generating unit unless it is operating pursuant to an exception from those values under subsection (h) hereof due to operational limitations that prevent the unit from meeting the minimum parameters. Throughout the analysis process, the Office of the Interconnection shall consult with the Market Monitoring Unit, and consider any input received from the Market Monitoring Unit, in its determination of a unit's unit-specific parameter limited schedule values.

In order to make its determination of the unit-specific parameter limited schedule values for a unit, the Office of the Interconnection may request that the Capacity Market Seller provide to it and the Market Monitoring Unit certain data and documentation as further detailed in the PJM Manuals. Once the Office of the Interconnection has made a determination of the unit-specific parameter limited schedule values for a unit, those values will remain applicable to the unit until such time as the Office of the Interconnection determines that a change is needed based on changed operational capabilities of the unit.

A Capacity Market Seller that does not believe its generating unit can meet the unit-specific values determined by the Office of the Interconnection due to actual operating constraints, and who desires to establish adjusted unit-specific parameters for those units may request adjusted

unit-specific parameter limitations. Any such request must be submitted to the Office of the Interconnection by no later than the February 28 immediately preceding the first Delivery Year for which the adjusted unit-specific parameters are requested to commence. Capacity Market Sellers shall supply, for each generating unit, technical information about the operational limits to support the requested parameters, as further detailed in the PJM Manuals. The Office of the Interconnection shall consult with the Market Monitoring Unit, and consider any input received from the Market Monitoring Unit, in its determination of a unit's request for adjusted unit-specific parameter limited schedule values. After it has completed its evaluation of the request, the Office of the Interconnection shall notify the Capacity Market Seller in writing, with a copy to the Market Monitoring Unit, whether the request is approved or denied, by no later than April 15. The effective date of the request, if approved by the Office of the Interconnection, shall be no earlier than June 1.

The operational limitations referenced in this section 6.6 shall be (a) physical operational limitations based on the operating design characteristics of the unit, or (b) other actual physical constraints, including those based on contractual limits, that are not based on the characteristics of the unit. *In order for a contractual or other actual constraint to be deemed a physical constraint that can be reflected in its unit-specific parameter limits for a Generation Capacity Resource, the Capacity Market Seller must demonstrate that contractual or other actual constraint is not simply an economic decision but a physical restriction that could not be rectified among any commercial alternatives actually available to it.*

(c) For the 2014/2015 through 2017/2018 Delivery Years, the following table specifies default parameter limited schedule values, by technology type, for generating units, no portion of which is committed as a Capacity Performance Resource:

**Parameter Limited Schedule Matrix**

<b>Parameter</b>	<b>Minimum Down Time (Hrs)</b>	<b>Minimum Run Time (Hrs)</b>	<b>Maximum Daily Starts</b>	<b>Maximum Weekly Starts</b>	<b>Turn Down Ratio = Economic Maximum MW / Economic Minimum MW</b>
Small Frame CT and Aero CT Units - Up to 29 MW ICAP	2.0 or Less	2.0 or Less	2 or More	14 or More	1.0 or More
Medium Frame CT and Aero CT Units - 30 MW to 65 MW ICAP	2.0 or Less	3.0 or Less	2 or More	14 or More	1.0 or More
Medium-Large Frame CT Units - 65 MW to 135 MW ICAP	3.0 or Less	5.0 or Less	2 or More	14 or More	1.0 or More
Large Frame CT Units - 135 MW to 180 MW ICAP	4.0 or Less	5.0 or Less	2 or More	14 or More	1.0 or More
Combined Cycle Units	4.0 or Less	6.0 or Less	2 or More	11 or More	1.5 or More
Petroleum and Natural Gas Steam Units - Pre-1985	7.0 or Less	8.0 or Less	1 or More	7 or More	3.0 or More
Petroleum and Natural Gas Steam Units - Post-1985	3.5 or Less	5.5 or Less	2 or More	11 or More	2.0 or More
Sub-Critical Coal Units	9.0 or Less	15.0 or Less	1 or More	5 or More	2.0 or More
Super-Critical Coal Units	84.0	24.0 or Less	1 or More	2 or More	1.5 or More

(d) For the 2014/2015 through 2017/2018 Delivery Years, upon receipt of proposed revised parameter limited schedule values from the Market Monitoring Unit, prepared in accordance with the procedures for periodic review included in section II.B.1 of Attachment M -

Appendix, the Office of the Interconnection shall file to revise the Parameter Limited Schedule Matrix in section 6.6(c) above accordingly. In the event that the Office of the Interconnection disagrees with the values proposed for revising the matrix, the Office of the Interconnection shall file the values that it determines are appropriate.

(e) For the 2014/2015 through 2017/2018 Delivery Years, the Market Monitoring Unit shall calculate and provide to Market Sellers default values in accordance with section II.B of Attachment M - Appendix. The default values set forth in the table in subsection (c) above shall apply for the referenced technology types unless a generating unit is operating pursuant to an exception from the default values under subsection (h) due to physical operational limitations that prevent the unit from meeting the minimum parameters, or any megawatts of the unit are committed as a Capacity Performance Resource in which case the unit-specific or adjusted unit-specific values for the generating unit determined by the Office of the Interconnection shall apply to all megawatts of the generating unit offered into the PJM energy markets. For generating units having the ability to operate on multiple fuels, Market Sellers may submit a parameter limited schedule associated with each fuel type.

(f) For the 2016/2017 Delivery Year and subsequent Delivery Years, the following additional parameter limits shall apply for Capacity Performance Resources, other than Capacity Storage Resources, submitted in the Day-ahead Energy Market or rebidding period that occurs after the clearing of the Day-ahead Energy Market for the following Operating Day, and for the Real-time Energy Market for the same Operating Day, unless the Capacity Market Seller has requested for its Capacity Performance Resource, and the Office of the Interconnection has granted, an adjusted unit-specific start-up and/or notification time due to actual operating constraints pursuant to the process described in subsection (b) above:

- (i) The combined start-up and notification times shall not exceed 24 hours, except when a Hot Weather Alert or Cold Weather Alert has been issued;
- (ii) When a Hot Weather Alert or Cold Weather Alert has been issued, combined start-up and notification times shall not exceed 14 hours;
- (iii) When a Hot Weather Alert or Cold Weather Alert has been issued, notification time shall not exceed one hour; and,
- (iv) When a Hot Weather Alert or Cold Weather Alert has been issued, parameters shall be based on the actual operational limitations of the Capacity Performance Resource for both its market-based schedules and cost-based schedules.

Capacity Storage Resources that clear in a Reliability Pricing Model Auction shall, unless the Capacity Market Seller has requested for its Capacity Storage Resource, and the Office of the Interconnection has granted, an adjusted unit-specific start-up and notification time, and/or minimum down time, due to actual operating constraints pursuant to the process described in subsection (b) above:

- (i) Have combined start-up and notification times that shall not exceed one hour; and,
- (ii) Have a minimum down time that shall not exceed one hour.

(g) For the 2018/2019 and 2019/2020 Delivery Years, the following additional parameter limits for Base Capacity Resources submitted in the Day-ahead Energy Market or rebidding period that occurs after the clearing of the Day-ahead Energy Market for the following Operating Day, and for the Real-time Energy Market for the same Operating Day, unless the Capacity Market Seller has requested for its Base Capacity Resource, and the Office of the Interconnection has granted, an adjusted unit-specific start-up and/or notification time due to actual operating constraints pursuant to the process described in subsection (b) above:

- (i) Combined start-up and notification times shall not exceed 48 hours;
- (ii) When a Hot Weather Alert has been issued, notification time shall not exceed one hour; and,
- (iii) When a Hot Weather Alert has been issued, parameters shall be based on the actual operational limitations of the Base Capacity Resource for both its market-based schedules and cost-based schedules.

(h) If a generating unit is or will become unable to achieve the default or unit-specific values determined by the Office of the Interconnection due to actual operating constraints affecting the unit, the Capacity Market Seller of that unit may submit a written request for an exception to the application of those values. Exceptions to the parameter limited schedule default or unit-specific values shall be categorized as either a one-time temporary exception, lasting 30 days or less; a period exception, lasting at least 31 days and no more than one year; or a persistent exception, lasting for at least one year.

- (i) *Temporary Exceptions.* A temporary exception shall be deemed accepted without prior review by the Market Monitoring Unit or the Office of the Interconnection upon submission by the Market Seller of the generating unit of written notification to the Market Monitoring Unit and the Office of the Interconnection, at least one business day prior to the commencement of the exception, and shall automatically commence and terminate on the dates specified in such notification, which must be for a period of time lasting 30 days or less, unless the termination date is extended pending a request for a period exception or shortened due to a change in the physical conditions of the unit such that the temporary exception is no longer required. Such Market Seller shall provide to the Market Monitoring Unit and the Office of the Interconnection within three days following the commencement of the temporary exception its documentation explaining in detail the reasons for the temporary exception, and shall also respond to additional requests for information from the Market Monitoring Unit and the Office of the Interconnection within three business days after such request. Failure to provide a timely response to such request for additional

information shall cause the temporary exception to terminate the following day. The Market Seller shall notify the Office of the Interconnection and the Market Monitoring Unit in writing of an early termination of a temporary exception due to changed physical conditions by no later than one business day prior to the early termination date. A temporary exception may only be requested one-time for the same physical or actual constraint since an operational constraint that may occur more than once should be the subject of a period exception request rather than multiple temporary exception requests.

In addition, if a Market Seller is unaware of the need for a period exception prior to the February 28 deadline for submitting such requests, the Market Seller may utilize the temporary exception process and seek to modify that exception pursuant to the process described below.

*Modification of Temporary Exceptions.* If, prior to the scheduled termination date the Market Seller determines that the temporary exception must persist for more than 30 days and the Market Seller wants to extend the period for which the exception applies, or if a Market Seller is unaware of the need for a period or persistent exception prior to the February 28 deadline for submitting such requests and the Market Seller has submitted a temporary exception request, it must submit to the Market Monitoring Unit and the Office of the Interconnection a written request to modify the temporary exception to become a period exception or a persistent exception, and provide detailed documentation explaining the reasons for the requested modification of the temporary exception. Market Sellers shall supply for each generating unit the required historical unit operating data in support of the period or persistent exception request, and if the exception requested is based on new physical operating limits for the unit for which some or all historical operating data is unavailable, the Market Seller may also submit technical information about the physical operational limits of the unit to support the requested parameters. Such Market Seller shall respond to additional requests for information from the Market Monitoring Unit and the Office of the Interconnection within three business days after such request. Such request shall be reviewed by the Market Monitoring Unit and must be evaluated by the Office of the Interconnection using the same standard utilized to evaluate period exception and persistent exception requests. Per Section II.B of Attachment M-Appendix, the Market Monitoring Unit shall evaluate the modification request and provide its determination of whether the request raises market power concerns, and, if so, any modifications that would alleviate those concerns, to the Market Seller, with a copy to Office of the Interconnection, by no later than 15 business days from the date of the modification request. The Office of the Interconnection shall provide its determination whether the request complies with the Tariff and Manuals by no later than 20 business days from the date of the modification request. A temporary exception shall be extended and shall not terminate until the date on which the Office of the Interconnection issues its determination of the modification request.

(ii) *Period Exceptions and Persistent Exceptions.* Market Sellers must submit period exception and persistent exception requests to the Market Monitoring Unit and the Office of the Interconnection by no later than the February 28 immediately preceding the twelve month period from June 1 to May 31 during which the exception is requested to commence. Market Sellers shall supply for each generating unit the required historical unit operating data in support of the period exception or persistent exception request, and if the exception requested is based on new physical operational limits for the unit for which some or all historical operating data is unavailable, the generating unit may also submit technical information about the physical operational limits for exceptions of the unit to support the requested parameters. The Market Monitoring Unit shall evaluate such request in accordance with the process set forth in Section II.B of Attachment M - Appendix. A Market Seller (i) must submit a parameter limited schedule value consistent with an agreement with the Market Monitoring Unit under such process or (ii) if it has not agreed with the Market Monitoring Unit on the parameter limited schedule value, may submit its own value to the Office of the Interconnection and to the Market Monitoring Unit, by no later than April 8. Each exception request must indicate the expected duration of the requested exception including the termination date thereof. The proposed parameter limited schedule value submitted by the Market Seller is subject to approval of the Office of the Interconnection pursuant to the requirements of the Tariff and the PJM Manuals. The Office of the Interconnection may engage the services of a consultant with technical expertise to evaluate the exception request. After it has completed its evaluation of the exception request, the Office of the Interconnection shall notify the Market Seller in writing, with a copy to the Market Monitoring Unit, whether the exception request is approved or denied, by no later than April 15. The effective date of the exception, if approved by the Office of the Interconnection, shall be no earlier than June 1 of the applicable Delivery Year. The Office of the Interconnection's determination for an exception shall continue for the period requested and, if requested, for such longer period as the Office of the Interconnection may determine is supported by the data.

The Market Seller shall provide written notification to the Market Monitoring Unit and the Office of the Interconnection of a material change to the facts relied upon by the Market Monitoring Unit and/or the Office of the Interconnection in their evaluations of the Market Seller's request for a period or persistent exception. The Market Monitoring Unit shall provide written notification to the Office of the Interconnection and the Market Seller of any change to its determination regarding the exception request, based on the material change in facts, by no later than 15 business days after receipt of such notice. The Office of the Interconnection shall notify the Market Seller in writing, with a copy to the Market Monitoring Unit, of any change to its determination regarding the exception request, based on the material change in facts, by no later than 20 business days after receipt of the Market Seller's notice. If the Office of the

Interconnection determines that the exception no longer complies with the Tariff or Manuals, the following parameter values shall apply to all megawatts of the generating unit offered into the PJM energy markets:

- (1) for generating units for which no megawatts of the unit are committed as Capacity Performance Resources the default values specified in the Parameter Limited Schedule Matrix shall apply for the 2016/2017 through 2017/2018 Delivery years,
- (2) for generating units for which any megawatts of the unit are committed as a Base Capacity Resource and no megawatts are committed as a Capacity Performance Resource, and for which no adjusted unit-specific values have been approved by PJM, the Base Capacity Resource unit-specific values determined by PJM shall apply for the 2018/2019 and 2019/2020 Delivery Years,
- (3) for generating units for which any megawatts of the unit are committed as a Capacity Performance Resource, but for which no adjusted unit-specific values have been approved by PJM, the Capacity Performance Resource unit-specific values determined by PJM shall apply for the 2016/2017 Delivery Year and subsequent Delivery Years,
- (4) for generating units for which any megawatts of the unit are committed as a Base Capacity Resource and no megawatts are committed as a Capacity Performance Resource, and for which adjusted unit-specific values have been approved by PJM, the Base Capacity Resource adjusted unit-specific values shall apply for the 2018/2019 and 2019/2020 Delivery Years, and
- (5) for generating units for which any megawatts of the unit are committed as a Capacity Performance Resource and for which adjusted unit-specific values have been approved by PJM, the Capacity Performance Resource adjusted unit-specific values shall apply for the 2016/2017 Delivery Year and subsequent Delivery Years.

(i) Notwithstanding the foregoing, the provisions of this Section 6.6 shall only pertain to the Offer Data a Market Seller must submit to the Office of the Interconnection for its offers into the Day-ahead Energy Market, rebidding period that occurs after the clearing of the Day-ahead Energy Market and Real-time Energy Market, and do not affect or change in any way a Generation Owner's obligation under NERC Reliability Standards to notify the Office of the Interconnection of its actual or expected actual physical operating conditions during the Operating Day.

(j) Notwithstanding anything contrary herein, the unit-specific parameters, adjusted unit-specific parameters or exception to parameter limited schedule values determined by the Office of the Interconnection for a generating unit shall be applicable to that generating unit regardless whether there is a change in the owner, operator or Market Seller of the unit because the parameter limited schedule values for the unit are determined based on the physical limitations of the unit, which should not change merely based on a change in owners, operator or Market Seller. Because parameter limited schedule values attach to the generating unit and are not owned by a Market Seller of the unit, when there are multiple owners or Market Sellers for a generating unit, all owners and Market Sellers shall be bound by the unit-specific parameters,

adjusted unit-specific parameters or exception to parameter limited schedule values determined by the Office of the Interconnection for the unit.

(k) The provisions of this section 6.6 only apply to Generation Capacity Resources, and not to Energy Resources.

## ATTACHMENT M – APPENDIX

### I. CONFIDENTIALITY OF DATA AND INFORMATION

#### A. Party Access:

1. No Member shall have a right hereunder to receive or review any documents, data or other information of another Member, including documents, data or other information provided to the Market Monitoring Unit, to the extent such documents, data or information have been designated as confidential pursuant to the procedures adopted by the Market Monitoring Unit or to the extent that they have been designated as confidential by such other Member; provided, however, a Member may receive and review any composite documents, data and other information that may be developed based on such confidential documents, data or information if the composite does not disclose any individual Member's confidential data or information.

2. Except as may be provided in this Appendix, the Plan, the PJM Operating Agreement or in the PJM Tariff, the Market Monitoring Unit shall not disclose to PJM Members or to third parties, any documents, data, or other information of a Member or entity applying for Membership, to the extent such documents, data, or other information has been designated confidential pursuant to the procedures adopted by the Market Monitoring Unit or by such Member or entity applying for membership; provided that nothing contained herein shall prohibit the Market Monitoring Unit from providing any such confidential information to its agents, representatives, or contractors to the extent that such person or entity is bound by an obligation to maintain such confidentiality.

The Market Monitoring Unit, its designated agents, representatives, and contractors shall maintain as confidential the electronic tag (“e-Tag”) data of an e-Tag Author or Balancing Authority (defined as those terms are used in FERC Order No. 771) to the same extent as Member data under this Section I. Nothing contained herein shall prohibit the Market Monitoring Unit from sharing with the market monitor of another Regional Transmission Organization (“RTO”), Independent System Operator (“ISO”), upon their request, the e-Tags of an e-Tag Author or Balancing Authority for intra-PJM Region transactions and interchange transactions scheduled to flow into, out of or through the PJM Region, to the extent such market monitor has requested such information as part of its investigation of possible market violations or market design flaws, and to the extent that such market monitor is bound by a tariff provision requiring that the e-Tag data be maintained as confidential, or in the absence of a tariff requirement governing confidentiality, a written agreement with the Market Monitoring Unit consistent with FERC Order No. 771, and any clarifying orders and implementing regulations.

The Market Monitoring Unit shall collect and use confidential information only in connection with its authority under this Appendix, the Plan, the PJM Operating Agreement or in the PJM Tariff and the retention of such information shall be in accordance with the Office of the Interconnection's data retention policies.

3. Nothing contained herein shall prevent the Market Monitoring Unit from releasing a Member's confidential data or information to a third party provided that the Member has

delivered to the Market Monitoring Unit specific, written authorization for such release setting forth the data or information to be released, to whom such release is authorized, and the period of time for which such release shall be authorized. The Market Monitoring Unit shall limit the release of a Member's confidential data or information to that specific authorization received from the Member. Nothing herein shall prohibit a Member from withdrawing such authorization upon written notice to the Market Monitoring Unit, who shall cease such release as soon as practicable after receipt of such withdrawal notice.

4. Reciprocal provisions to this Section I hereof, delineating the confidentiality requirements of the Office of the Interconnection and PJM members, are set forth in Section 18.17 of the PJM Operating Agreement.

**B. Required Disclosure:**

1. Notwithstanding anything in the foregoing section to the contrary, and subject to the provisions of Section I.C below, if the Market Monitoring Unit is required by applicable law, order, or in the course of administrative or judicial proceedings, to disclose to third parties, information that is otherwise required to be maintained in confidence pursuant to the PJM Tariff, PJM Operating Agreement, Attachment M or this Appendix, the Market Monitoring Unit may make disclosure of such information; provided, however, that as soon as the Market Monitoring Unit learns of the disclosure requirement and prior to making disclosure, the Market Monitoring Unit shall notify the affected Member or Members of the requirement and the terms thereof and the affected Member or Members may direct, at their sole discretion and cost, any challenge to or defense against the disclosure requirement. The Market Monitoring Unit shall cooperate with such affected Members to the maximum extent practicable to minimize the disclosure of the information consistent with applicable law. The Market Monitoring Unit shall cooperate with the affected Members to obtain proprietary or confidential treatment of such information by the person to whom such information is disclosed prior to any such disclosure.

2. Nothing in this Section I shall prohibit or otherwise limit the Market Monitoring Unit's use of information covered herein if such information was: (i) previously known to the Market Monitoring Unit without an obligation of confidentiality; (ii) independently developed by or for the Office of the Interconnection and/or the PJM Market Monitor using non-confidential information; (iii) acquired by the Office of the Interconnection and/or the PJM Market Monitor from a third party which is not, to the Office of the Market Monitoring Unit's knowledge, under an obligation of confidence with respect to such information; (iv) which is or becomes publicly available other than through a manner inconsistent with this Section I.

3. The Market Monitoring Unit shall impose on any contractors retained to provide technical support or otherwise to assist with the implementation of the Plan or this Appendix a contractual duty of confidentiality consistent with the Plan or this Appendix. A Member shall not be obligated to provide confidential or proprietary information to any contractor that does not assume such a duty of confidentiality, and the Market Monitoring Unit shall not provide any such information to any such contractor without the express written permission of the Member providing the information.

**C. Disclosure to FERC and CFTC:**

1. Notwithstanding anything in this Section I to the contrary, if the FERC, the Commodity Futures Trading Commission (“CFTC”) or the staff of those commissions, during the course of an investigation or otherwise, requests information from the Market Monitoring Unit that is otherwise required to be maintained in confidence pursuant to the PJM Tariff, the PJM Operating Agreement, the Plan or this Appendix, the Market Monitoring Unit shall provide the requested information to the FERC, CFTC or their staff, within the time provided for in the request for information. In providing the information to the FERC or its staff, the Market Monitoring Unit may request, consistent with 18 C.F.R. §§ 1b.20 and 388.112, or to the CFTC or its staff, the Market Monitoring Unit may request, consistent with 17 C.F.R. §§ 11.3 and 145.9, that the information be treated as confidential and non-public by the respective commission and its staff and that the information be withheld from public disclosure. The Market Monitoring Unit shall promptly notify any affected Member(s) if the Market Monitoring Unit receives from the FERC, CFTC or their staff, written notice that the commission has decided to release publicly or has asked for comment on whether such commission should release publicly, confidential information previously provided to a commission Market Monitoring Unit.

2. The foregoing Section I.C.1 shall not apply to requests for production of information under Subpart D of the FERC’s Rules of Practice and Procedure (18 CFR Part 385) in proceedings before FERC and its administrative law judges. In all such proceedings, the Office of the Interconnection and/or the Market Monitoring Unit shall follow the procedures in Section I.B.

**D. Disclosure to Authorized Commissions:**

1. Notwithstanding anything in this Section I to the contrary, the Market Monitoring Unit shall disclose confidential information, otherwise required to be maintained in confidence pursuant to the PJM Tariff, the PJM Operating Agreement, the Plan or this Appendix, to an Authorized Commission under the following conditions:

(i) The Authorized Commission has provided the FERC with a properly executed Certification in the form attached to the PJM Operating Agreement as Schedule 10A. Upon receipt of the Authorized Commission’s Certification, the FERC shall provide public notice of the Authorized Commission’s filing pursuant to 18 C.F.R. § 385.2009. If any interested party disputes the accuracy and adequacy of the representations contained in the Authorized Commission’s Certification, that party may file a protest with the FERC within 14 days of the date of such notice, pursuant to 18 C.F.R. § 385.211. The Authorized Commission may file a response to any such protest within seven days. Each party shall bear its own costs in connection with such a protest proceeding. If there are material changes in law that affect the accuracy and adequacy of the representations in the Certification filed with the FERC, the Authorized Commission shall, within thirty (30) days, submit an amended Certification identifying such changes. Any such amended Certification shall be subject to the same procedures for comment and review by the FERC as set forth above in this paragraph.

(ii) Neither the Office of the Interconnection nor the Market Monitoring Unit may disclose data to an Authorized Commission during the FERC's consideration of the Certification and any filed protests. If the FERC does not act upon an Authorized Commission's Certification within 90 days of the date of filing, the Certification shall be deemed approved and the Authorized Commission shall be permitted to receive confidential information pursuant to this Section I. In the event that an interested party protests the Authorized Commission's Certification and the FERC approves the Certification, that party may not challenge any Information Request made by the Authorized Commission on the grounds that the Authorized Commission is unable to protect the confidentiality of the information requested, in the absence of a showing of changed circumstances.

(iii) Any confidential information provided to an Authorized Commission pursuant to this Section I shall not be further disclosed by the recipient Authorized Commission except by order of the FERC.

(iv) The Market Monitoring Unit shall be expressly entitled to rely upon such Authorized Commission Certifications in providing confidential information to the Authorized Commission, and shall in no event be liable, or subject to damages or claims of any kind or nature hereunder, due to the ineffectiveness or inaccuracy of such Authorized Commission Certifications.

(v) The Authorized Commission may provide confidential information obtained from the Market Monitoring Unit to such of its employees, attorneys and contractors as needed to examine or handle that information in the course and scope of their work on behalf of the Authorized Commission, provided that (a) the Authorized Commission has internal procedures in place, pursuant to the Certification, to ensure that each person receiving such information agrees to protect the confidentiality of such information (such employees, attorneys or contractors to be defined hereinafter as "Authorized Persons"); (b) the Authorized Commission provides, pursuant to the Certification, a list of such Authorized Persons to the Office of the Interconnection and the Market Monitoring Unit and updates such list, as necessary, every ninety (90) days; and (c) any third-party contractors provided access to confidential information sign a nondisclosure agreement in the form attached to the PJM Operating Agreement as Schedule 10 before being provided access to any such confidential information.

2. The Market Monitoring Unit may, in the course of discussions with an Authorized Person, orally disclose information otherwise required to be maintained in confidence, without the need for a prior Information Request. Such oral disclosures shall provide enough information to enable the Authorized Person or the Authorized Commission with which that Authorized Person is associated to determine whether additional Information Requests are appropriate. The Market Monitoring Unit will not make any written or electronic disclosures of confidential information to the Authorized Person pursuant to this Section I.D.2. In any such discussions, the Market Monitoring Unit shall ensure that the individual or individuals receiving such confidential information are Authorized Persons as defined herein, orally designate confidential information that is disclosed, and refrain from identifying any specific Affected Member whose information is disclosed. The Market Monitoring Unit shall also be authorized to assist Authorized Persons in interpreting confidential information that is disclosed. The Market

Monitoring Unit shall provide any Affected Member with oral notice of any oral disclosure immediately, but not later than one (1) business day after the oral disclosure. Such oral notice to the Affected Member shall include the substance of the oral disclosure, but shall not reveal any confidential information of any other Member and must be received by the Affected Member before the name of the Affected Member is released to the Authorized Person; provided however, disclosure of the identity of the Affected Party must be made to the Authorized Commission with which the Authorized Person is associated within two (2) business days of the initial oral disclosure.

3. As regards Information Requests:

(i) Information Requests to the Office of the Interconnection and/or Market Monitoring Unit by an Authorized Commission shall be in writing, which shall include electronic communications, addressed to the Market Monitoring Unit, and shall: (a) describe the information sought in sufficient detail to allow a response to the Information Request; (b) provide a general description of the purpose of the Information Request; (c) state the time period for which confidential information is requested; and (d) re-affirm that only Authorized Persons shall have access to the confidential information requested. The Market Monitoring Unit shall provide an Affected Member with written notice, which shall include electronic communication, of an Information Request by an Authorized Commission as soon as possible, but not later than two (2) business days after the receipt of the Information Request.

(ii) Subject to the provisions of Section I.D.3(iii) below, the Market Monitoring Unit shall supply confidential information to the Authorized Commission in response to any Information Request within five (5) business days of the receipt of the Information Request, to the extent that the requested confidential information can be made available within such period; provided however, that in no event shall confidential information be released prior to the end of the fourth (4th) business day without the express consent of the Affected Member. To the extent that the Market Monitoring Unit cannot reasonably prepare and deliver the requested confidential information within such five (5) day period, it shall, within such period, provide the Authorized Commission with a written schedule for the provision of such remaining confidential information. Upon providing confidential information to the Authorized Commission, the Market Monitoring Unit shall either provide a copy of the confidential information to the Affected Member(s), or provide a listing of the confidential information disclosed; provided, however, that the Market Monitoring Unit shall not reveal any Member's confidential information to any other Member.

(iii) Notwithstanding Section I.D.3(ii), above, should the Office of the Interconnection, the Market Monitoring Unit or an Affected Member object to an Information Request or any portion thereof, any of them may, within four (4) business days following the Market Monitoring Unit's receipt of the Information Request, request, in writing, a conference with the Authorized Commission to resolve differences concerning the scope or timing of the Information Request; provided, however, nothing herein shall require the Authorized Commission to participate in any conference. Any party to the conference may seek assistance from FERC staff in resolution of the dispute or terminate the conference process at any time. Should such conference be refused or terminated by any participant or should such conference

not resolve the dispute, then the Office of the Interconnection, Market Monitoring Unit, or the Affected Member may file a complaint with the FERC pursuant to Rule 206 objecting to the Information Request within ten (10) business days following receipt of written notice from any conference participant terminating such conference. Any complaints filed at the FERC objecting to a particular Information Request shall be designated by the party as a “fast track” complaint and each party shall bear its own costs in connection with such FERC proceeding. The grounds for such a complaint shall be limited to the following: (a) the Authorized Commission is no longer able to preserve the confidentiality of the requested information due to changed circumstances relating to the Authorized Commission’s ability to protect confidential information arising since the filing of or rejection of a protest directed to the Authorized Commission’s Certification; (b) complying with the Information Request would be unduly burdensome to the complainant, and the complainant has made a good faith effort to negotiate limitations in the scope of the requested information; or (c) other exceptional circumstances exist such that complying with the Information Request would result in harm to the complainant. There shall be a presumption that “exceptional circumstances,” as used in the prior sentence, does not include circumstances in which an Authorized Commission has requested wholesale market data (or Market Monitoring Unit workpapers that support or explain conclusions or analyses) generated in the ordinary course and scope of the operations of the Market Monitoring Unit. There shall be a presumption that circumstances in which an Authorized Commission has requested personnel files, internal emails and internal company memos, analyses and related work product constitute “exceptional circumstances” as used in the prior sentence. If no complaint challenging the Information Request is filed within the ten (10) day period defined above, the Office of the Interconnection and/or Market Monitoring Unit shall utilize its best efforts to respond to the Information Request promptly. If a complaint is filed, and the Commission does not act on that complaint within ninety (90) days, the complaint shall be deemed denied and the Market Monitoring Unit shall use its best efforts to respond to the Information Request promptly.

(iv) Any Authorized Commission may initiate appropriate legal action at the FERC within ten (10) business days following receipt of information designated as “Confidential,” challenging such designation. Any complaints filed at FERC objecting to the designation of information as “Confidential” shall be designated by the party as a “fast track” complaint and each party shall bear its own costs in connection with such FERC proceeding. The party filing such a complaint shall be required to prove that the material disclosed does not merit “Confidential” status because it is publicly available from other sources or contains no trade secret or other sensitive commercial information (with “publicly available” not being deemed to include unauthorized disclosures of otherwise confidential data).

4. In the event of any breach of confidentiality of information disclosed pursuant to an Information Request by an Authorized Commission or Authorized Person:

(i) The Authorized Commission or Authorized Person shall promptly notify the Market Monitoring Unit, who shall, in turn, promptly notify any Affected Member of any inadvertent or intentional release, or possible release, of confidential information provided pursuant to this Section I.

(ii) The Office Market Monitoring Unit shall terminate the right of such Authorized Commission to receive confidential information under this Section I upon written notice to such Authorized Commission unless: (i) there was no harm or damage suffered by the Affected Member; or (ii) similar good cause is shown. Any appeal of the Market Monitoring Unit's actions under this Section I shall be to Commission. An Authorized Commission shall be entitled to reestablish its certification as set forth in Section I.D.1 by submitting a filing with the Commission showing that it has taken appropriate corrective action. If the Commission does not act upon an Authorized Commission's recertification filing with sixty (60) days of the date of the filing, the recertification shall be deemed approved and the Authorized Commission shall be permitted to receive confidential information pursuant to this section.

(iii) The Office of the Interconnection, the Market Monitoring Unit, and/or the Affected Member shall have the right to seek and obtain at least the following types of relief: (a) an order from the FERC requiring any breach to cease and preventing any future breaches; (b) temporary, preliminary, and/or permanent injunctive relief with respect to any breach; and (c) the immediate return of all confidential information to the Market Monitoring Unit.

(iv) No Authorized Person or Authorized Commission shall have responsibility or liability whatsoever under this section for any and all liabilities, losses, damages, demands, fines, monetary judgments, penalties, costs and expenses caused by, resulting from, or arising out of or in connection with the release of confidential information to persons not authorized to receive it, provided that such Authorized Person is an agent, servant, employee or member of an Authorized Commission at the time of such unauthorized release. Nothing in this Section I.D.4(iv) is intended to limit the liability of any person who is not an agent, servant, employee or member of an Authorized Commission at the time of such unauthorized release for any and all economic losses, damages, demands, fines, monetary judgments, penalties, costs and expenses caused by, resulting from, or arising out of or in connection with such unauthorized release.

(v) Any dispute or conflict requesting the relief in Section I.D.4(ii) or I.D.4(iii)(a) above, shall be submitted to the FERC for hearing and resolution. Any dispute or conflict requesting the relief in Section I.D.4(iii)(c) above may be submitted to FERC or any court of competent jurisdiction for hearing and resolution.

#### **E. Market Monitoring:**

1. Subject to the requirements of Section E.2, the Market Monitoring Unit may release confidential information of Public Service Electric & Gas Company ("PSE&G"), Consolidated Edison Company of New York ("ConEd"), and their affiliates, and the confidential information of any Member regarding generation and/or transmission facilities located within the PSE&G Zone to the New York Independent System Operator, Inc. ("New York ISO"), the market monitoring unit of New York ISO and the New York ISO Market Advisor to the limited extent that the Office of the Interconnection or the Market Monitoring Unit determines necessary to carry out the responsibilities of PJM, New York ISO or the market monitoring units of the Office of the Interconnection and the New York ISO under FERC Opinion No. 476 (see Consolidated Edison Company v. Public Service Electric and Gas Company, et al., 108 FERC ¶ 61,120, at P 215 (2004)) to conduct joint investigations to ensure that gaming, abuse of market power, or

similar activities do not take place with regard to power transfers under the contracts that are the subject of FERC Opinion No. 476.

2. The Market Monitoring Unit may release a Member's confidential information pursuant to Section I.E.1 to the New York ISO, the market monitoring unit of the New York ISO and the New York ISO Market Advisor only if the New York ISO, the market monitoring unit of the New York ISO and the New York ISO Market Advisor are subject to obligations limiting the disclosure of such information that are equivalent to or greater than the limitations on disclosure specified in this Section I.E. Information received from the New York ISO, the market monitoring unit of the New York ISO, or the New York ISO Market Advisor under Section I.E.1 that is designated as confidential shall be protected from disclosure in accordance with this Section I.E.

## **II. DEVELOPMENT OF INPUTS FOR PROSPECTIVE MITIGATION**

### **A. Offer Price Caps:**

1. The Market Monitor or his designee shall advise the Office of the Interconnection whether it believes that the cost references, methods and rules included in the Cost Development Guidelines are accurate and appropriate, as specified in the PJM Manuals.

2. The Market Monitoring Unit shall review upon request of a Market Seller, and may review upon its own initiative at any time, the incremental costs (defined in Section 6.4.2 of Schedule 1 of the Operating Agreement) included in the Offer Price Cap of a generating unit in order to ensure that the Market Seller has correctly applied the Cost Development Guidelines and that the level of the Offer Price Cap is otherwise acceptable.

3. On or before the 21st day of each month, the Market Monitoring Unit shall calculate in accordance with the applicable criteria whether each generating unit with an offer cap calculated under Section 6.4.2 of Schedule 1 of the Operating Agreement is eligible to include an adder based on Frequently Mitigated Unit or Associated Unit status, and shall issue a written notice of the applicable adder, with a copy to the Office of the Interconnection, to the Market Seller for each unit that meets the criteria for Frequently Mitigated Unit or Associated Unit status.

4. Notwithstanding the number of jointly pivotal suppliers in any hour, if the Market Monitoring Unit determines that a reasonable level of competition will not exist based on an evaluation of all facts and circumstances, it may propose to the Commission the removal of offer-capping suspensions otherwise authorized by Section 6.4 of Schedule 1 of the Operating Agreement. Such proposals shall take effect upon Commission acceptance of the Market Monitoring Unit's filing.

### **B. Minimum Generator Operating Parameters:**

1. For the 2014/2015 through 2017/2018 Delivery Years, the Market Monitoring Unit shall provide to the Office of the Interconnection a table of default unit class specific parameter limits to be known as the "Parameter Limited Schedule Matrix" to be included in Section 6.6(c) of

Schedule 1 of the Operating Agreement. The Parameter Limited Schedule Matrix shall include default values on a unit-type basis as specified in Section 6.6(c). The Market Monitoring Unit shall review the Parameter Limited Schedule Matrix annually, and, in the event it determines that revision is appropriate, shall provide a revised matrix to the Office of the Interconnection by no later than December 31 prior to the annual enrollment period.

2. The Market Monitoring Unit shall notify Market Sellers of generating units and the Office of the Interconnection no later than April 1 of its determination of market power concerns raised regarding each request for a period exception or persistent exception to a value specified in the Parameter Limited Schedule Matrix or the parameters defined in Section 6.6 of Schedule 1 of the Operating Agreement and the PJM Manuals, provided that the Market Monitoring Unit receives such request by no later than February 28.

If, prior to the scheduled termination date, a Market Seller submits a request to modify a temporary exception, the Market Monitoring Unit shall review such request using the same standard utilized to evaluate period exception and persistent exception requests, and shall provide its determination of whether the request raises market power concerns, and, if so, any modifications that would alleviate those concerns, to the Market Seller, with a copy to Office of the Interconnection, by no later than 15 business days from the date of the modification request.

3. When a Market Seller notifies the Market Monitoring Unit of a material change to the facts relied upon by the Market Monitoring Unit and/or the Office of the Interconnection to support a parameter limited schedule period or persistent exception, the Market Monitoring Unit shall make a determination, and provide written notification to the Office of the Interconnection and the Market Seller, of any change to its determination regarding the exemption request, based on the material change in facts, by no later than 15 business days after receipt of such notice.

4. The Market Monitoring Unit shall notify the Office of the Interconnection of any risk premium to which it and a Market Seller owning or operating nuclear generation resource agree or its determination if agreement is not obtained. If a Market Seller submits a risk premium for its nuclear generation resource that is inconsistent with its agreement or inconsistent with the Market Monitoring Unit's determination regarding such risk premium, the Market Monitoring Unit may exercise its powers to inform Commission staff of its concerns pursuant to Attachment M.

**C. RPM Must-Offer Requirement:**

1. The Market Monitoring Unit shall maintain, post on its website and provide to the Office of the Interconnection prior to each RPM Auction (updated, as necessary, on at least a quarterly basis), a list of Existing Generation Capacity Resources located in the PJM Region that are subject to the RPM must-offer requirement set forth in Section 6.6 of Attachment DD.

2. The Market Monitoring Unit shall evaluate requests submitted by Capacity Market Sellers for a determination that a Generation Capacity Resource, or any portion thereof, be removed from Capacity Resource status or exempted from status as a Generation Capacity Resource subject to Section II.C.1 above and inform both the Capacity Market Seller and the

Office of the Interconnection of such determination in writing by no later ninety (90) days prior to the commencement of the offer period for the applicable RPM Auction. A Generation Capacity Resource located in the PJM Region shall not be removed from Capacity Resource status to the extent the resource is committed to service of PJM loads as a result of an RPM Auction, FRR Capacity Plan, Locational UCAP transaction and/or by designation as a replacement resource under this Attachment DD.

3. The Market Monitoring Unit shall evaluate the data and documentation provided to it by a potential Capacity Market Seller to establish the EFORD to be included in a Sell Offer applicable to each resource pursuant to Section 6.6(b) of Attachment DD. If a Capacity Market Seller timely submits a request for an alternative maximum level of EFORD that may be used in a Sell Offer for RPM Auctions held prior to the date on which the final EFORDs used for a Delivery Year are posted, the Market Monitoring Unit shall attempt to reach agreement with the Capacity Market Seller on the alternate maximum level of the EFORD by no later than ninety (90) days prior to the commencement of the offer period for the Base Residual Auction for the applicable Delivery Year. By no later than ninety (90) days prior to the commencement of the offer period for the Base Residual Auction for the applicable Delivery Year, the Market Monitoring Unit shall notify the Office of the Interconnection in writing, notifying the Capacity Market Seller by copy of the same, of any alternative maximum EFORD to which it and the Capacity Market Seller agree or its determination of the alternative maximum EFORD if agreement is not obtained.

4. The Market Monitoring Unit shall consider the documentation provided to it by a potential Capacity Market Seller pursuant to Section 6.6 of Attachment DD, and determine whether a resource owned or controlled by such Capacity Market Seller meets the criteria to qualify for an exception to the RPM must-offer requirement because the resource (i) is reasonably expected to be physically unable to participate in the relevant auction; (ii) has a financially and physically firm commitment to an external sale of its capacity; or (iii) was interconnected to the Transmission System as an Energy Resource and not subsequently converted to a Capacity Resource. The Market Monitoring Unit shall notify the Capacity Market Seller and the Office of the Interconnection of its determination by no later than ninety (90) days prior to the commencement of the offer period for the applicable RPM Auction.

In order to establish that a resource is reasonably expected to be physically unable to participate in the relevant auction as set forth in (i) above, the Capacity Market Seller must demonstrate that:

A. It has a documented plan in place to retire the resource prior to or during the Delivery Year, and has submitted a notice of Deactivation to the Office of the Interconnection consistent with Section 113.1 of the PJM Tariff, without regard to whether the Office of the Interconnection has requested the Capacity Market Seller to continue to operate the resource beyond its desired deactivation date in accordance with Section 113.2 of the PJM Tariff for the purpose of maintaining the reliability of the PJM Transmission System and the Capacity Market Seller has agreed to do so;

B. Significant physical operational restrictions cause long term or permanent changes to the installed capacity value of the resource, or the resource is under major repair that will extend into the applicable Delivery Year, that will result in the imposition of RPM performance penalties pursuant to Attachment DD of the PJM Tariff;

C. The Capacity Market Seller is involved in an ongoing regulatory proceeding (e.g. – regarding potential environmental restrictions) specific to the resource and has received an order, decision, final rule, opinion or other final directive from the regulatory authority that will result in the retirement of the resource; or,

D. A resource considered an Existing Generating Capacity Resource because it cleared an RPM Auction for a Delivery Year prior to the Delivery Year of the relevant auction, but which is not yet in service, is unable to achieve full commercial operation prior to the Delivery Year of the relevant auction. The Capacity Market Seller must submit to the Office of the Interconnection and the Market Monitoring Unit a written sworn, notarized statement of a corporate officer certifying that the resource will not be in full commercial operation prior to the referenced Delivery Year.

5. If a Capacity Market Seller submits for the portion of a Generation Capacity Resource that it owns or controls, and the Office of Interconnection accepts, a Sell Offer (i) at a level of installed capacity that the Market Monitoring Unit believes is inconsistent with the level established under Section 5.6.6 of Attachment DD of the PJM Tariff, (ii) at a level of installed capacity inconsistent with its determination of eligibility for an exception listed in Section II.C.4 above, or (iii) a maximum EFORD that the Market Monitoring Unit believes is inconsistent with the maximum level determined under Section II.C.3 of this Appendix, the Market Monitoring Unit may exercise its powers to inform Commission staff of its concerns and/or request a determination from the Commission that would require the Generation Capacity Resource to submit a new or revised Sell Offer, notwithstanding any determination to the contrary made under Section 6.6 of Attachment DD.

The Market Monitoring Unit shall also consider the documentation provided by the Capacity Market Seller pursuant to Section 6.6 of Attachment DD, for generation resources for which the Office of the Interconnection has not approved an exception to the RPM must-offer requirement as set forth in Section 6.6(g) of Attachment DD, to determine whether the Capacity Market Seller's failure to offer part or all of one or more generation resources into an RPM Auction would result in an increase of greater than five percent in any Zonal Capacity Price determined through such auction as required by Section 6.6(i) of Attachment DD, and shall inform both the Capacity Market Seller and the Office of the Interconnection of its determination by no later than two (2) business days after the close of the offer period for the applicable RPM Auction.

**D. Unit Specific Minimum Sell Offers:**

1. If a Capacity Market Seller timely submits an exemption or exception request, with all of the required supporting documentation as specified in section 5.14(h) of Attachment DD, the Market Monitoring Unit shall review the request and documentation and shall provide in writing

to the Capacity Market Seller and the Office of the Interconnection by no later than forty five (45) days after receipt of the exemption or exception request its determination whether it believes the requested exemption or exception should be granted in accordance with the standards and criteria set forth in section 5.14(h). If the Market Monitoring Unit determines that the Sell Offer proposed in a Unit-Specific Exception request raises market power concerns, it shall advise the Capacity Market Seller of the minimum Sell Offer in the relevant auction that would not raise market power concerns, with such calculation based on the data and documentation received, by no later than forty five (45) days after receipt of the request.

2. All information submitted to the Office of the Interconnection or the Market Monitoring Unit by a Market Participant is subject to verification by the Market Monitoring Unit.

3. In the event that the Market Monitoring Unit reasonably believes that a request for a Competitive Entry Exemption or a Self-Supply Exemption that has been granted contains fraudulent or material misrepresentations or omissions such that the Capacity Market Seller would not have been eligible for the exemption for that MOPR Screened Generation Resource had the request not contained such misrepresentations or omissions, then it shall notify the Office of the Interconnection and Capacity Market Seller of its findings and provide the Office of the Interconnection with all of the data and documentation supporting its findings, and may take any other action required or permitted under Attachment M.

**E. Market Seller Offer Caps:**

1. Based on the data and calculations submitted by the Capacity Market Sellers for each Existing Generation Capacity Resource and the formulas specified in Section 6.7(d) of Attachment DD, the Market Monitoring Unit shall calculate the Market Seller Offer Cap for each such resource and provide it to the Capacity Market Seller and the Office of the Interconnection by no later than ninety (90) days before the commencement of the offer period for the applicable RPM Auction.

2. The Market Monitoring Unit must attempt to reach agreement with the Capacity Market Seller on the appropriate level of the Market Seller Offer Cap by no later than ninety (90) days prior to the commencement of the offer period for the applicable RPM Auction. If such agreement cannot be reached, then the Market Monitoring Unit shall inform the Capacity Market Seller and the Office of the Interconnection of its determination of the appropriate level of the Market Seller Offer Cap by no later than ninety (90) days prior to the commencement of the offer period for the applicable RPM Auction, and the Market Monitoring Unit may pursue any action available to it under Attachment M.

3. Nothing herein shall preclude any Capacity Market Seller and the Market Monitoring Unit from agreeing to, nor require either such entity to agree to, an alternative market seller offer cap determined on a mutually agreeable basis. Any such alternative offer cap shall be filed with the Commission for its approval. This provision is duplicated in Section 6.4(a) of Attachment DD.

**F. Mitigation of Offers from Planned Generation Capacity Resources:**

Pursuant to Section 6.5 of Attachment DD, the Market Monitoring Unit shall evaluate Sell Offers for Planned Generation Capacity Resources to determine whether market power mitigation should be applied and notify in writing each Capacity Market Seller whose Sell Offer has been determined to be non-competitive and subject to mitigation, with a copy to the Office of the Interconnection, by no later than one (1) business day after the close of the offer period for the applicable RPM Auction.

**G. Data Submission:**

Pursuant to Section 6.7 of Attachment DD, the Market Monitoring Unit may request additional information from any potential auction participant as deemed necessary by the Market Monitoring Unit, including, without limitation, additional cost data on resources in a class that is not otherwise expected to include the marginal price setting resource. All data submitted to the Office of the Interconnection or the Market Monitoring Unit by a Market Participant is subject to verification by the Market Monitoring Unit.

**H. Determination of Default Avoidable Cost Rates:**

1. The Market Monitoring Unit shall conduct an annual review of the table of default Avoidable Cost Rates included in Section 6.7(c) of Attachment DD and calculated on the bases set forth therein, and determine whether the values included therein need to be updated. If the Market Monitoring Unit determines that the Avoidable Cost Rates need to be updated, it shall provide to the Office of the Interconnection updated values or notice of its determination that updated values are not needed by no later than September 30<sup>th</sup> of each year.

2. The Market Monitoring Unit shall indicate in its posted reports on RPM performance the number of Generation Capacity Resources and megawatts per LDA that use the retirement default Avoidable Cost Rates.

3. If a Capacity Market Seller does not elect to use a default Avoidable Cost Rate and has timely provided to the Market Monitoring Unit its request to apply a unit-specific Avoidable Cost Rate, along with the data described in Section 6.7 of Attachment DD, the Market Monitoring Unit shall calculate the Avoidable Cost Rate and provide a unit-specific value to the Capacity Market Seller for each such resource, and notify the Capacity Market Seller and the Office of the Interconnection in writing by no later than ninety (90) days prior to the commencement of the offer period for the applicable RPM Auction whether it agrees that the unit-specific Avoidable Cost Rate is acceptable. The Capacity Market Seller and Office of the Interconnection's deadlines relating to the submittal and acceptance of a request for a unit-specific Avoidable Cost Rate are delineated in section 6.7(d) of Attachment DD.

**I. Determination of PJM Market Revenues:**

The Market Monitoring Unit shall calculate the Projected PJM Market Revenues for any Generation Capacity Resource to which the Avoidable Cost Rate is applied pursuant to Section 6.8(d) of Attachment DD, and notify the Capacity Market Seller and the Office of the

Interconnection of its determination in writing by no later than ninety (90) days prior to the commencement of the offer period for the applicable RPM Auction.

**J. Determination of Opportunity Costs:**

The Market Monitoring Unit shall review and verify the documentation of prices available to Existing Generation Capacity Resources in markets external to PJM and proposed for inclusion in Opportunity Costs pursuant to Section 6.7(d)(ii) of Attachment DD. The Market Monitoring Unit shall notify, in writing, such Generation Capacity Resource and the Office of the Interconnection if it is dissatisfied with the documentation provided and whether it objects to the inclusion of such Opportunity Costs in a Market Seller Offer by no later than ninety (90) days prior to the commencement of the offer period for the applicable RPM Auction. If such Generation Capacity Resource submits a Market Seller Offer that includes Opportunity Costs that have not been documented and verified to the Market Monitoring Unit's satisfaction, then the Market Monitoring Unit may exercise its powers to inform Commission staff of its concerns and request a determination that would require the Generation Capacity Resource to remove them.

**III. BLACKSTART SERVICE**

A. Upon the submission by a Black Start Unit owner of a request for Black Start Service revenue requirements and changes to the Black Start Service revenue requirements for the Black Start Unit, the Black Start Unit owner and the Market Monitoring Unit shall attempt to agree to values on the level of each component included in the Black Start Service revenue requirements by no later than May 14 of each year. The Market Monitoring Unit shall calculate the revenue requirement for each Black Start Unit and provide its calculation to the Office of the Interconnection by no later than May 14 of each year.

B. Pursuant to the terms of Schedule 6A of the PJM Tariff and the PJM Manuals, the Market Monitoring Unit will analyze any requested generator black start cost changes on an annual basis and shall notify the Office of the Interconnection of any costs to which it and the Black Start Unit owner have agreed or the Market Monitoring Unit's determination regarding any cost components to which agreement has not been obtained. If a Black Start Unit owner includes a cost component inconsistent with its agreement or inconsistent with the Market Monitoring Unit's determination regarding such cost component, and the Office of the Interconnection accepts the Black Start Service revenue requirements submitted by the Black Start Unit owner, the Market Monitoring Unit may exercise its powers to inform Commission staff of its concerns and request a determination that would require the Black Start Service generator to utilize the values determined by the Market Monitoring Unit or the Office of the Interconnection or such other values as determined by the Commission.

**IV. DEACTIVATION RATES**

1. Upon receipt of a notice to deactivate a generating unit under Part V of the PJM Tariff from the Office of the Interconnection forwarded pursuant to Section 113.1 of the PJM Tariff, the Market Monitoring Unit shall analyze the effects of the proposed deactivation with regard to

potential market power issues and shall notify the Office of the Interconnection and the generator owner (of, if applicable, its designated agent) within 30 days of the deactivation request if a market power issue has been identified. Such notice shall include the specific market power impact resulting from the proposed deactivation of the generating unit, as well as an initial assessment of any steps that could be taken to mitigate the market power impact.

2. The Market Monitoring Unit and the generating unit owner shall attempt to come to agreement on the level of each component included in the Deactivation Avoidable Cost Credit. In the case of cost of service filing submitted to the Commission in alternative to the Deactivation Cost Credit, the Market Monitoring Unit shall indicate to the generating unit owner in advance of filing its views regarding the proposed method or cost components of recovery. The Market Monitoring Unit shall notify the Office of the Interconnection of any costs to which it and the generating unit owner have agreed or the Market Monitoring Unit's determination regarding any cost components to which agreement has not been obtained. If a generating unit owner includes a cost component inconsistent with its agreement or inconsistent with the Market Monitoring Unit's determination regarding such cost components, the Market Monitoring Unit may exercise its powers to inform Commission staff of its concerns and seek a determination that would require the Generating unit to include an appropriate cost component. This provision is duplicated in Sections 114 and 119 of Part V of the PJM Tariff.

#### **V. OPPORTUNITY COST CALCULATION**

The Market Monitoring Unit shall review requests for opportunity cost compensation under Sections 3.2.3(f-3) and 3.2.3B(h) of Schedule 1 of the Operating Agreement, discuss with the Office of the Interconnection and individual Market Sellers the amount of compensation, and file exercise its powers to inform Commission staff of its concerns and request a determination of compensation as provided by such sections. These requirements are duplicated in Sections 3.2.3(f-3) and 3.2.3B(h) of Schedule 1 of the Operating Agreement.

#### **VI. FTR FORFEITURE RULE**

The Market Monitoring Unit shall calculate Transmission Congestion Credits as required under Section 5.2.1(b) of Schedule 1 of the Operating Agreement, including the determination of the identity of the Effective FTR Holder and an evaluation of the overall benefits accrued by an entity or affiliated entities trading in FTRs and Virtual Transactions in the Day-ahead Energy Market, and provide such calculations to the Office of the Interconnection. Nothing in this section shall preclude the Market Monitoring Unit from action to recover inappropriate benefits from the subject activity if the amount forfeited is less than the benefit derived by the Effective FTR Holder. If the Office of the Interconnection imposes a forfeiture of the Transmission Congestion Credit in an amount that the Market Monitoring Unit disagrees with, then it may exercise its powers to inform Commission staff of its concerns and request an adjustment.

#### **VII. FORCED OUTAGE RULE**

1. The Market Monitoring Unit shall observe offers submitted in the Day-ahead Energy Market to determine whether all or part of a generating unit's capacity (MW) is designated as

Maximum Emergency and (i) such offer in the Real-time Energy Market designates a smaller amount of capacity from that unit as Maximum Emergency for the same time period, and (ii) there is no physical reason to designate a larger amount of capacity as Maximum Emergency in the offer in the Day-ahead Energy Market than in the Real-time Energy Market, the Market Monitoring Unit shall notify the Office of Interconnection.

2. If the Market Monitoring Unit observes that (i) an offer submitted in the Day-ahead Energy market designates all or part of capacity (MW) of a Generating unit as economic maximum that is less than the economic maximum designated in the offer in the Real-time Energy Market, and (ii) there is no physical reason to designate a lower economic maximum in the offer in the Day-ahead Energy Market than in the offer in the Real-time Energy Market, the Market Monitoring Unit shall notify the Office of Interconnection.

### **VIII. DATA COLLECTION AND VERIFICATION**

The Market Monitoring Unit shall gather and keep confidential detailed data on the procurement and usage of fuel to produce electric power transmitted in the PJM Region in order to assist the performance of its duties under Attachment M. To achieve this objective, the Market Monitoring Unit shall maintain on its website a mechanism that allows Members to conveniently and confidentially submit such data and develop a manual in consultation with stakeholders that describes the nature of and procedure for collecting data. Members of PJM owning a Generating unit that is located in the PJM Region (including Dynamic Transfer units), or is included in a PJM Black Start Service plan, committed as a Generation Capacity Resource for the current or future Delivery Year, or otherwise subject to a commitment to provide service to PJM, shall provide data to the Market Monitoring Unit.

Section(s) of the  
PJM Operating Agreement  
(Clean Format)

## 6.6 Minimum Generator Operating Parameters – Parameter Limited Schedules.

(a) Market Sellers submitting Offer Data for Generation Capacity Resources shall submit and be subject to pre-determined limits on cost-based offers, which are always parameter limited. Market Sellers submitting Offer Data for Generation Capacity Resources shall submit and be subject to pre-determined limits on market-based offers conforming to parameter limitations (“parameter limited schedules”) under the following circumstances:

- (i) The Market Seller fails the three pivotal supplier test. When this subsection applies, the parameter limited schedule shall be the less limiting, i.e. more flexible, of the defined parameter limited schedules or the submitted offer parameters.
- (ii) For the 2014/2015 through 2017/2018 Delivery Years, the Office of the Interconnection: (i) declares a Maximum Generation Emergency; (ii) issues a Maximum Generation Emergency Alert; or (iii) schedules units based on the anticipation of a Maximum Generation Emergency or a Maximum Generation Emergency Alert for all, or any part, of an Operating Day.
- (iii) For Capacity Performance Resources, the Office of the Interconnection: (i) declares a Maximum Generation Emergency; (ii) issues a Maximum Generation Emergency Alert, Hot Weather Alert, Cold Weather Alert; or (iii) schedules units based on the anticipation of a Maximum Generation Emergency, Maximum Generation Emergency Alert, Hot Weather Alert or Cold Weather Alert for all, or any part, of an Operating Day.
- (iv) For Base Capacity Resources, the Office of the Interconnection: (i) declares a Maximum Generation Emergency during hot weather operations; (ii) issues a Maximum Generation Emergency Alert or Hot Weather Alert during hot weather operations; or (iii) schedules units based on the anticipation of a Hot Weather Alert, or a Maximum Generation Emergency or Maximum Generation Emergency Alert during hot weather operations, for all, or any part, of an Operating Day.

(b) For the 2014/2015 through 2017/2018 Delivery Years for Generation Capacity Resources other than Capacity Performance Resources, and the 2016/2017 through 2019/2020 Delivery Years for Generation Capacity Resources identified and committed in an FRR Capacity Plan, parameter limited schedules shall be defined for the following parameters:

- (i) Turn Down Ratio;
- (ii) Minimum Down Time;
- (iii) Minimum Run Time;

- (iv) Maximum Daily Starts;
- (v) Maximum Weekly Starts.

For the 2018/2019 and 2019/2020 Delivery Years for Base Capacity Resources during Hot Weather Alerts, Emergency Actions during hot weather operations, and when the unit is offer capped to maintain system reliability as a result of limits on transmission capability per Section 6.4 hereof, and for the 2016/2017 Delivery Year and subsequent Delivery Years for Capacity Performance Resources during Hot Weather Alerts, Cold Weather Alerts, Emergency Actions, and when the unit is offer capped to maintain system reliability as a result of limits on transmission capability per Section 6.4 hereof, the Office of the Interconnection shall determine the unit-specific achievable operating parameters for each individual unit on the basis of its operating design characteristics and other constraints, recognizing that remedial and ongoing investment and maintenance may be required to perform on the basis of those characteristics, for the following parameters:

- (i) Turn Down Ratio;
- (ii) Minimum Down Time;
- (iii) Minimum Run Time;
- (iv) Maximum Daily Starts;
- (v) Maximum Weekly Starts;
- (vi) Maximum Run Time;
- (vii) Start-up Time; and
- (viii) Notification Time.

These unit-specific values shall apply for the generating unit unless it is operating pursuant to an exception from those values under subsection (h) hereof due to operational limitations that prevent the unit from meeting the minimum parameters. Throughout the analysis process, the Office of the Interconnection shall consult with the Market Monitoring Unit, and consider any input received from the Market Monitoring Unit, in its determination of a unit's unit-specific parameter limited schedule values.

In order to make its determination of the unit-specific parameter limited schedule values for a unit, the Office of the Interconnection may request that the Capacity Market Seller provide to it and the Market Monitoring Unit certain data and documentation as further detailed in the PJM Manuals. Once the Office of the Interconnection has made a determination of the unit-specific parameter limited schedule values for a unit, those values will remain applicable to the unit until such time as the Office of the Interconnection determines that a change is needed based on changed operational capabilities of the unit.

A Capacity Market Seller that does not believe its generating unit can meet the unit-specific values determined by the Office of the Interconnection due to actual operating constraints, and who desires to establish adjusted unit-specific parameters for those units may request adjusted unit-specific parameter limitations. Any such request must be submitted to the Office of the Interconnection by no later than the February 28 immediately preceding the first Delivery Year for which the adjusted unit-specific parameters are requested to commence. Capacity Market Sellers shall supply, for each generating unit, technical information about the operational limits to support the requested parameters, as further detailed in the PJM Manuals. The Office of the Interconnection shall consult with the Market Monitoring Unit, and consider any input received from the Market Monitoring Unit, in its determination of a unit's request for adjusted unit-specific parameter limited schedule values. After it has completed its evaluation of the request, the Office of the Interconnection shall notify the Capacity Market Seller in writing, with a copy to the Market Monitoring Unit, whether the request is approved or denied, by no later than April 15. The effective date of the request, if approved by the Office of the Interconnection, shall be no earlier than June 1.

The operational limitations referenced in this section 6.6 shall be (a) physical operational limitations based on the operating design characteristics of the unit, or (b) other actual physical constraints, including those based on contractual limits, that are not based on the characteristics of the unit. *In order for a contractual or other actual constraint to be deemed a physical constraint that can be reflected in its unit-specific parameter limits for a Generation Capacity Resource, the Capacity Market Seller must demonstrate that contractual or other actual constraint is not simply an economic decision but a physical restriction that could not be rectified among any commercial alternatives actually available to it.*

(c) For the 2014/2015 through 2017/2018 Delivery Years, the following table specifies default parameter limited schedule values, by technology type, for generating units, no portion of which is committed as a Capacity Performance Resource:

**Parameter Limited Schedule Matrix**

<b>Parameter</b>	<b>Minimum Down Time (Hrs)</b>	<b>Minimum Run Time (Hrs)</b>	<b>Maximum Daily Starts</b>	<b>Maximum Weekly Starts</b>	<b>Turn Down Ratio = Economic Maximum MW / Economic Minimum MW</b>
Small Frame CT and Aero CT Units - Up to 29 MW ICAP	2.0 or Less	2.0 or Less	2 or More	14 or More	1.0 or More
Medium Frame CT and Aero CT Units - 30 MW to 65 MW ICAP	2.0 or Less	3.0 or Less	2 or More	14 or More	1.0 or More
Medium-Large Frame CT Units - 65 MW to 135 MW ICAP	3.0 or Less	5.0 or Less	2 or More	14 or More	1.0 or More
Large Frame CT Units - 135 MW to 180 MW ICAP	4.0 or Less	5.0 or Less	2 or More	14 or More	1.0 or More
Combined Cycle Units	4.0 or Less	6.0 or Less	2 or More	11 or More	1.5 or More
Petroleum and Natural Gas Steam Units - Pre-1985	7.0 or Less	8.0 or Less	1 or More	7 or More	3.0 or More
Petroleum and Natural Gas Steam Units - Post-1985	3.5 or Less	5.5 or Less	2 or More	11 or More	2.0 or More
Sub-Critical Coal Units	9.0 or Less	15.0 or Less	1 or More	5 or More	2.0 or More
Super-Critical Coal Units	84.0	24.0 or Less	1 or More	2 or More	1.5 or More

(d) For the 2014/2015 through 2017/2018 Delivery Years, upon receipt of proposed revised parameter limited schedule values from the Market Monitoring Unit, prepared in accordance with the procedures for periodic review included in section II.B.1 of Attachment M - Appendix,

the Office of the Interconnection shall file to revise the Parameter Limited Schedule Matrix in section 6.6(c) above accordingly. In the event that the Office of the Interconnection disagrees with the values proposed for revising the matrix, the Office of the Interconnection shall file the values that it determines are appropriate.

(e) For the 2014/2015 through 2017/2018 Delivery Years, the Market Monitoring Unit shall calculate and provide to Market Sellers default values in accordance with section II.B of Attachment M - Appendix. The default values set forth in the table in subsection (c) above shall apply for the referenced technology types unless a generating unit is operating pursuant to an exception from the default values under subsection (h) due to physical operational limitations that prevent the unit from meeting the minimum parameters, or any megawatts of the unit are committed as a Capacity Performance Resource in which case the unit-specific or adjusted unit-specific values for the generating unit determined by the Office of the Interconnection shall apply to all megawatts of the generating unit offered into the PJM energy markets. For generating units having the ability to operate on multiple fuels, Market Sellers may submit a parameter limited schedule associated with each fuel type.

(f) For the 2016/2017 Delivery Year and subsequent Delivery Years, the following additional parameter limits shall apply for Capacity Performance Resources, other than Capacity Storage Resources, submitted in the Day-ahead Energy Market or rebidding period that occurs after the clearing of the Day-ahead Energy Market for the following Operating Day, and for the Real-time Energy Market for the same Operating Day, unless the Capacity Market Seller has requested for its Capacity Performance Resource, and the Office of the Interconnection has granted, an adjusted unit-specific start-up and/or notification time due to actual operating constraints pursuant to the process described in subsection (b) above:

- (i) The combined start-up and notification times shall not exceed 24 hours, except when a Hot Weather Alert or Cold Weather Alert has been issued;
- (ii) When a Hot Weather Alert or Cold Weather Alert has been issued, combined start-up and notification times shall not exceed 14 hours;
- (iii) When a Hot Weather Alert or Cold Weather Alert has been issued, notification time shall not exceed one hour; and,
- (iv) When a Hot Weather Alert or Cold Weather Alert has been issued, parameters shall be based on the actual operational limitations of the Capacity Performance Resource for both its market-based schedules and cost-based schedules.

Capacity Storage Resources that clear in a Reliability Pricing Model Auction shall, unless the Capacity Market Seller has requested for its Capacity Storage Resource, and the Office of the Interconnection has granted, an adjusted unit-specific start-up and notification time, and/or minimum down time, due to actual operating constraints pursuant to the process described in subsection (b) above:

- (i) Have combined start-up and notification times that shall not exceed one hour; and,
- (ii) Have a minimum down time that shall not exceed one hour.

(g) For the 2018/2019 and 2019/2020 Delivery Years, the following additional parameter limits for Base Capacity Resources submitted in the Day-ahead Energy Market or rebidding period that occurs after the clearing of the Day-ahead Energy Market for the following Operating Day, and for the Real-time Energy Market for the same Operating Day, unless the Capacity Market Seller has requested for its Base Capacity Resource, and the Office of the Interconnection has granted, an adjusted unit-specific start-up and/or notification time due to actual operating constraints pursuant to the process described in subsection (b) above:

- (i) Combined start-up and notification times shall not exceed 48 hours;
- (ii) When a Hot Weather Alert has been issued, notification time shall not exceed one hour; and,
- (iii) When a Hot Weather Alert has been issued, parameters shall be based on the actual operational limitations of the Base Capacity Resource for both its market-based schedules and cost-based schedules.

(h) If a generating unit is or will become unable to achieve the default or unit-specific values determined by the Office of the Interconnection due to actual operating constraints affecting the unit, the Capacity Market Seller of that unit may submit a written request for an exception to the application of those values. Exceptions to the parameter limited schedule default or unit-specific values shall be categorized as either a one-time temporary exception, lasting 30 days or less; a period exception, lasting at least 31 days and no more than one year; or a persistent exception, lasting for at least one year.

- (i) *Temporary Exceptions.* A temporary exception shall be deemed accepted without prior review by the Market Monitoring Unit or the Office of the Interconnection upon submission by the Market Seller of the generating unit of written notification to the Market Monitoring Unit and the Office of the Interconnection, at least one business day prior to the commencement of the exception, and shall automatically commence and terminate on the dates specified in such notification, which must be for a period of time lasting 30 days or less, unless the termination date is extended pending a request for a period exception or shortened due to a change in the physical conditions of the unit such that the temporary exception is no longer required. Such Market Seller shall provide to the Market Monitoring Unit and the Office of the Interconnection within three days following the commencement of the temporary exception its documentation explaining in detail the reasons for the temporary exception, and shall also respond to additional requests for information from the Market Monitoring Unit and the Office of the Interconnection within three business days after such request. Failure to provide a timely response to such request for additional

information shall cause the temporary exception to terminate the following day. The Market Seller shall notify the Office of the Interconnection and the Market Monitoring Unit in writing of an early termination of a temporary exception due to changed physical conditions by no later than one business day prior to the early termination date. A temporary exception may only be requested one-time for the same physical or actual constraint since an operational constraint that may occur more than once should be the subject of a period exception request rather than multiple temporary exception requests.

In addition, if a Market Seller is unaware of the need for a period exception prior to the February 28 deadline for submitting such requests, the Market Seller may utilize the temporary exception process and seek to modify that exception pursuant to the process described below.

*Modification of Temporary Exceptions.* If, prior to the scheduled termination date the Market Seller determines that the temporary exception must persist for more than 30 days and the Market Seller wants to extend the period for which the exception applies, or if a Market Seller is unaware of the need for a period or persistent exception prior to the February 28 deadline for submitting such requests and the Market Seller has submitted a temporary exception request, it must submit to the Market Monitoring Unit and the Office of the Interconnection a written request to modify the temporary exception to become a period exception or a persistent exception, and provide detailed documentation explaining the reasons for the requested modification of the temporary exception. Market Sellers shall supply for each generating unit the required historical unit operating data in support of the period or persistent exception request, and if the exception requested is based on new physical operating limits for the unit for which some or all historical operating data is unavailable, the Market Seller may also submit technical information about the physical operational limits of the unit to support the requested parameters. Such Market Seller shall respond to additional requests for information from the Market Monitoring Unit and the Office of the Interconnection within three business days after such request. Such request shall be reviewed by the Market Monitoring Unit and must be evaluated by the Office of the Interconnection using the same standard utilized to evaluate period exception and persistent exception requests. Per Section II.B of Attachment M-Appendix, the Market Monitoring Unit shall evaluate the modification request and provide its determination of whether the request raises market power concerns, and, if so, any modifications that would alleviate those concerns, to the Market Seller, with a copy to Office of the Interconnection, by no later than 15 business days from the date of the modification request. The Office of the Interconnection shall provide its determination whether the request complies with the Tariff and Manuals by no later than 20 business days from the date of the modification request. A temporary exception shall be extended and shall not terminate until the date on which the Office of the Interconnection issues its determination of the modification request.

(ii) *Period Exceptions and Persistent Exceptions.* Market Sellers must submit period exception and persistent exception requests to the Market Monitoring Unit and the Office of the Interconnection by no later than the February 28 immediately preceding the twelve month period from June 1 to May 31 during which the exception is requested to commence. Market Sellers shall supply for each generating unit the required historical unit operating data in support of the period exception or persistent exception request, and if the exception requested is based on new physical operational limits for the unit for which some or all historical operating data is unavailable, the generating unit may also submit technical information about the physical operational limits for exceptions of the unit to support the requested parameters. The Market Monitoring Unit shall evaluate such request in accordance with the process set forth in Section II.B of Attachment M - Appendix. A Market Seller (i) must submit a parameter limited schedule value consistent with an agreement with the Market Monitoring Unit under such process or (ii) if it has not agreed with the Market Monitoring Unit on the parameter limited schedule value, may submit its own value to the Office of the Interconnection and to the Market Monitoring Unit, by no later than April 8. Each exception request must indicate the expected duration of the requested exception including the termination date thereof. The proposed parameter limited schedule value submitted by the Market Seller is subject to approval of the Office of the Interconnection pursuant to the requirements of the Tariff and the PJM Manuals. The Office of the Interconnection may engage the services of a consultant with technical expertise to evaluate the exception request. After it has completed its evaluation of the exception request, the Office of the Interconnection shall notify the Market Seller in writing, with a copy to the Market Monitoring Unit, whether the exception request is approved or denied, by no later than April 15. The effective date of the exception, if approved by the Office of the Interconnection, shall be no earlier than June 1 of the applicable Delivery Year. The Office of the Interconnection's determination for an exception shall continue for the period requested and, if requested, for such longer period as the Office of the Interconnection may determine is supported by the data.

The Market Seller shall provide written notification to the Market Monitoring Unit and the Office of the Interconnection of a material change to the facts relied upon by the Market Monitoring Unit and/or the Office of the Interconnection in their evaluations of the Market Seller's request for a period or persistent exception. The Market Monitoring Unit shall provide written notification to the Office of the Interconnection and the Market Seller of any change to its determination regarding the exception request, based on the material change in facts, by no later than 15 business days after receipt of such notice. The Office of the Interconnection shall notify the Market Seller in writing, with a copy to the Market Monitoring Unit, of any change to its determination regarding the exception request, based on the material change in facts, by no later than 20 business days after receipt of the Market Seller's notice. If the Office of the Interconnection determines that the exception no longer complies with the Tariff

or Manuals, the following parameter values shall apply to all megawatts of the generating unit offered into the PJM energy markets:

(1) for generating units for which no megawatts of the unit are committed as Capacity Performance Resources the default values specified in the Parameter Limited Schedule Matrix shall apply for the 2016/2017 through 2017/2018 Delivery years,

(2) for generating units for which any megawatts of the unit are committed as a Base Capacity Resource and no megawatts are committed as a Capacity Performance Resource, and for which no adjusted unit-specific values have been approved by PJM, the Base Capacity Resource unit-specific values determined by PJM shall apply for the 2018/2019 and 2019/2020 Delivery Years,

(3) for generating units for which any megawatts of the unit are committed as a Capacity Performance Resource, but for which no adjusted unit-specific values have been approved by PJM, the Capacity Performance Resource unit-specific values determined by PJM shall apply for the 2016/2017 Delivery Year and subsequent Delivery Years,

(4) for generating units for which any megawatts of the unit are committed as a Base Capacity Resource and no megawatts are committed as a Capacity Performance Resource, and for which adjusted unit-specific values have been approved by PJM, the Base Capacity Resource adjusted unit-specific values shall apply for the 2018/2019 and 2019/2020 Delivery Years, and

(5) for generating units for which any megawatts of the unit are committed as a Capacity Performance Resource and for which adjusted unit-specific values have been approved by PJM, the Capacity Performance Resource adjusted unit-specific values shall apply for the 2016/2017 Delivery Year and subsequent Delivery Years.

(i) Notwithstanding the foregoing, the provisions of this Section 6.6 shall only pertain to the Offer Data a Market Seller must submit to the Office of the Interconnection for its offers into the Day-ahead Energy Market, rebidding period that occurs after the clearing of the Day-ahead Energy Market and Real-time Energy Market, and do not affect or change in any way a Generation Owner's obligation under NERC Reliability Standards to notify the Office of the Interconnection of its actual or expected actual physical operating conditions during the Operating Day.

(j) Notwithstanding anything contrary herein, the unit-specific parameters, adjusted unit-specific parameters or exception to parameter limited schedule values determined by the Office of the Interconnection for a generating unit shall be applicable to that generating unit regardless whether there is a change in the owner, operator or Market Seller of the unit because the parameter limited schedule values for the unit are determined based on the physical limitations of the unit, which should not change merely based on a change in owners, operator or Market Seller. Because parameter limited schedule values attach to the generating unit and are not owned by a Market Seller of the unit, when there are multiple owners or Market Sellers for a

generating unit, all owners and Market Sellers shall be bound by the unit-specific parameters, adjusted unit-specific parameters or exception to parameter limited schedule values determined by the Office of the Interconnection for the unit.

(k) The provisions of this section 6.6 only apply to Generation Capacity Resources, and not to Energy Resources.