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March 30, 2009

Honorably 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. ER09-730-_____

Dear Ms. Bose:

Pursuant to section 205 of the Federal Power Act, 16 U.S.C. § 824d, the Federal Energy Regulatory Commission's ("FERC" or the "Commission") regulations, 18 C.F.R. Part 35, and the Commission's Notice of Extension of Time issued in this proceeding on March 12, 2009, PJM Interconnection, L.L.C. ("PJM") hereby submits for filing the attached revised PJM Open Access Transmission Tariff ("Tariff") sheets to substitute the identified Tariff sheets filed in this proceeding on February 19, 2009.¹

I. Background

On February 19, 2009, PJM submitted for filing revised practices and rules governing the provision of Black Start Service and related revenue recovery for Black Start Service providers. Broadly, these revisions were crafted to address the following purposes:

1. Establish a tiered level of commitment for a Black Start Unit to provide service dependent upon whether they are seeking to recover additional fixed cost capital improvements or not;
2. Allow Black Start Service providers the opportunity to recoup reasonable costs that would otherwise not be incurred but for maintaining their Black Start units in compliance with NERC standards; and

¹ Capitalized terms not otherwise defined herein have the meaning specified in the PJM Operating Agreement or the PJM Open Access Transmission Tariff, as appropriate.

3. Establish an alternative capital cost recovery mechanism by allowing a Black Start Service provider to seek Commission approved cost of service recovery in lieu of the proposed Schedule 6A formulaic rate.

PJM requested that the Commission accept the proposed Tariff revisions for filing, allowing them to become effective on April 21, 2009. The Commission issued a Combined Notice of Filing on February 23, 2009, setting a due date for interventions, comments and protests of March 12, 2009.

Shortly after the February 19 Filing, several stakeholders pointed out that certain aspects of the proposed Tariff revisions could benefit from additional clarification. Namely, there was a question whether proposed Paragraph 6 and 6A would require Black Start Units failing to fulfill their commitment established under the terms of the Black Start Service rules to fully refund any amount of Black Start revenues recovered, or whether it was intended that they simply forego recovery of any additional cost recovery. Moreover, under proposed Paragraph 18, there was a question whether Black Start Unit owners were strictly limited to the recovery of Black Start Capital Costs and/or Black Start Unit O&M as approved by the Commission, or whether the Black Start Unit owner had the option to certify those costs to PJM as well.

As a result of this uncertainty, on March 10, 2009, PJM filed a Motion for Extension of Time to File Comments to allow interested parties an additional 14 days to file interventions, protests and comments to the February 19 Filing, and to allow PJM, the various interested parties and stakeholders the opportunity to discuss whether any refinements to the filed revisions were necessary. On March 12, 2009, the Commission entered an Order granting PJM's Motion for Extension of Time, and extended the time for filing interventions, comments or protests until March 26, 2009.

Since that time, PJM has convened several teleconference meetings with interested parties to discuss the filed Tariff revisions and whether additional clarifications were necessary to address the issues identified above. Some parties disagreed, in principle, with several aspects of the filing, but PJM has explained to those parties that its ability to amend the filing is limited by its accepted parliamentary procedures. At this point, any revisions to the filed Tariff sheets by PJM could only be in the form of clarifying the intent of the revisions, not wholesale amendments which would require approval of PJM's members. Thus, PJM agreed to submit the attached minor clarifications which are needed to address the issues initially identified.

II. The Proposed Revisions

A. Revenue Requirements

To better explain the proposed clarifications made in this errata filing, further explanation of proposed Schedule 6A revenue requirements provisions are in order. As proposed, Schedule 6A contemplates three avenues of revenue recovery for a Black Start Service provider²:

² An implicit fourth option also exists. The Black Start Unit owner may seek recovery of its Black Start costs by application of its own Section 205 rights; however, in that case, the Black Start Unit Owner would be

1. A Black Start provider may establish a rolling two-year commitment under Paragraph 5, forego recovery of any new or additional Black Start Capital Costs, and obtain its revenue requirements under the formulaic rate as set forth in Paragraph 18 (the “Legacy Rate”)³;
2. A Black Start Service provider may establish a longer commitment period pursuant to Paragraph 6, elect to recover new or additional Black Start Capital Costs, and obtain its revenue requirements by application of the formulaic rate as set forth in Paragraph 18 (the “Capital Cost Recovery Rate”),⁴ or;
3. A Black Start Unit Owner may elect to establish a commitment period pursuant to Paragraph 5 or 6, but establish its revenue requirements based on a FERC-approved rate for the recovery of the cost of providing such service for the entire duration of the commitment terms provided in Paragraph 5 or 6 (the “FERC-approved Rate”).

Paragraph 6 and 6A of proposed Schedule 6A, as submitted in the February 19 Filing, could be interpreted to require that a Black Start Unit Owner who fails to fulfill its applicable commitment period, for any reason, would have to refund any amounts that it received pursuant to this Schedule 6A, whether it elected rate recovery pursuant to the Legacy Rate, the Capital Cost Recovery Rate or the FERC-approved Rate. However, this result was not intended.

As such, changes have been proposed in this errata filing to clarify that if a Black Start Service provider, who is obtaining revenue recovery pursuant to the Schedule 6A formula (*i.e.* collecting pursuant to the Legacy Rate or Capital Cost Recovery Rate), fails to fulfill its applicable commitment period as established in Paragraph 5 or 6, it will not be required to refund any amounts that it has already recovered; but it will forego any entitlement to future revenues. The intent was not to penalize Black Start Service providers for failing (for any reason) to fulfill its applicable commitment, but to ensure that it would not continue to receive revenue recovery when it is unable, or unwilling, to provide the service on a forward basis.

However, a distinction must be made for those Black Start Unit Owners not electing to utilize the formulaic rate. In the event that a Black Start Unit Owner elects to establish its revenue requirements based on the FERC-approved Rate identified in Option 3 above, the

responsible for billing and collection of its own revenue requirements and would operate outside the provisions of Schedule 6A. The advantage to a Black Start Unit Owner providing service pursuant to Schedule 6A is that it receives the benefit of PJM’s billing and collection of its revenue requirements.

³ Importantly, even under the Legacy Rate, a Black Start Service provider electing to forego any new or additional Black Start Capital Costs, may still recover variable Black Start Unit O&M (which may include costs incurred by a Black Start Unit Owner in order to meet NERC Reliability Standards that apply to the Black Start Unit solely on the basis of the provision of Black Start Service by that unit).

⁴ The applicable commitment period is established by application of the CRF Table set forth in Paragraph 18.

potential exists that the Black Start Unit Owner could justify a recovery of its revenue requirements on a mismatched basis with its applicable commitment period as set forth in Schedule 6A.

For example, by application of the CRF Table in Paragraph 18, a Black Start Unit Owner with a relatively new unit (*i.e.* 1 to 5 years old) electing to establish a commitment period pursuant to Paragraph 6, would be required to commit that unit to Black Start Service for 20 years. The Black Start Unit Owner could, then, at its election, seek to recover its revenue requirements under a FERC-approved Rate that conceivably could allow the Black Start Unit owner to recoup its Black Start Costs in less than 20 years (*e.g.* 10 years). In the event that the Black Start Unit Owner elects, and receives, its costs recovery on an accelerated basis (*i.e.*, recovers its costs sooner than the expiration of its commitment period), and fails to fulfill its applicable commitment period, the provisions of Paragraph 6 and 6A would require that unit owner to refund any amounts it had received pursuant to the FERC-approved rate above and beyond what it would have recovered by application of the Paragraph 18 formulaic rate.⁵

In example provided in the above paragraph, if the Black Start Unit Owner stops providing Black Start Service in year 15, PJM would calculate what the unit owner would have been paid by application of the formulaic rate for those 15 years (utilizing the same declared and approved costs applied by the Commission in the determination of the owner's revenue requirements), compare it with what the Black Start Unit Owner received pursuant to its FERC-approved rate, and require the Black Start Unit Owner to refund to PJM the amount that it collected above and beyond what it would have received by application of the formulaic rate. This ensures that the PJM stakeholders are paying a rate for Black Start Service commensurate with the Black Start Service they are receiving.

B. Documentation of Black Start Capital Costs

As originally proposed, the definition of "Black Start Capital Costs" contained in Paragraph 18 could be interpreted to require that the Black Start Unit Owner receive approval of those costs by the Commission before the unit owner could recover those costs. Schedule 6A, currently, allows the Black Start Unit Owner to certify its Black Start Service costs to PJM, without separate Commission approval, and PJM did not intend to change this current practice. Therefore, additional language has been added to the substituted definition of "Black Start Capital Costs" to define those costs as the capital costs documented by the owner or accepted by the Commission.⁶

⁵ The exact provisions clarified by this change can be found on Substitute Original Sheet 238A and Substitute First Revised Sheet 239. The revised language in Paragraph 6 states: "Such Black Start Unit shall forego any otherwise existing entitlement to future revenues collected pursuant to this Schedule 6A and fully refunds any amount of the Black Start Capital Costs recovered under a FERC-approved rate (recovered on an accelerated basis pursuant to the provisions of Paragraph 18(i))." Similar language has been inserted into Paragraph 6A as well.

⁶ The exact provision clarified by this change is found on Substitute Original Sheet No. 241A.

C. Clean-up Revisions

Various, minor, revisions have been offered on the remaining substituted Tariff sheets to correct grammatical and/or punctuation errors.

III. Effective Date and Request for Waiver of 60-Day Notice Period

PJM requests an effective date of April 21, 2009, for the substituted Tariff sheets offered in this filing so as to be considered *in pari materia* with the with Tariff revisions offered in the February 19 Filing. Ordinarily, pursuant to the Commission's regulations, 18 C.F.R. § 35.3(a), revisions to the Tariff must be filed with at least 60 days prior notice, but the Commission may waive this requirement for good cause shown.⁷ Good cause exists to grant a waiver in this instance. The substituted Tariff sheets do not alter the original February 19 Filing in any material or substantive way, and interested parties have been given an appropriate period to provide comments or protests to that initial filing.⁸ Therefore, waiving the 60 day notice requirement will not adversely affect a party's interest in this matter.

IV. Documents Enclosed

PJM encloses the original and six copies of the following:

1. This transmittal letter;
2. Attachment A (Substituted Tariff Sheets in non-redline format);
3. Attachment B (Substituted Tariff Sheets in redlined format).

V. Service

PJM has served a copy of this filing on all PJM Members and all state utility regulatory commissions in the PJM Region by posting this filing electronically. Electronic service is permitted as of November 3, 2008, under the Commission's regulations⁹ pursuant to Order No. 714¹⁰ and the Commission's Notice of Effectiveness of Regulations issued on October 28, 2008, in Docket No. RM01-5-000. In compliance with these regulations, PJM will post a copy of this filing to the FERC filings section of its internet site, located at the following link:

⁷ See *Central Hudson Gas & Electric Corporation, et al.*, 60 FERC ¶61,106, mimeo at pp. 4-7 (1992), *reh'g denied*, 61 FERC ¶61,089 (1992).

⁸ Indeed, several parties have filed comments and protests to the February 19 Filing, and it is unlikely that the substituted Tariff sheets offered in this submittal would affect or alter the concerns raised by those commentators.

⁹ See 18 C.F.R. §§ 35.2, 154.2, 154.208 and 341.2.

¹⁰ *Electronic Tariff Filings*, Order No. 714, 124 FERC ¶ 61,270 (2008).

<http://www.pjm.com/documents/ferc.html> 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 Region¹¹ alerting them that this filing has been made by PJM today and is available by following such link.

VI. Conclusion

For the foregoing reasons, PJM requests that the Commission accept the attached Substituted Tariff Sheets for filing.

Respectfully submitted,



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¹¹ PJM already maintains updates and regularly uses e-mail lists for all PJM members and affected commissions.

CERTIFICATE OF SERVICE

I hereby certify that I have this day served the foregoing document upon each person designated on the official service list compiled by the Secretary in this proceeding.

Dated at Norristown, Pennsylvania this 30th day of March, 2009.



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Attachment A

Tariff Changes

Clean Version

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5. Black Start Units selected to provide Black Start Service in accordance with Paragraph 4 and electing to forego any recovery of new or additional Black Start Capital Costs shall commit to provide Black Start Service for an initial term of no less than two years. The term commitment shall continue to extend until the Black Start Unit owner, or the Transmission Owner, with the consent of the Transmission Provider, or the Transmission Provider, with the consent of the Transmission Owner, provides written, one-year advance notice of its intention to terminate the commitment.

6. Black Start Units selected to provide Black Start Service in accordance with Paragraph 4 and electing to recover new or additional Black Start Capital Costs shall commit to provide Black Start Service for a term based upon a reasonable estimate of the expected life of the Black Start Unit, as set forth in the CRF Factor Table in Paragraph 18. Either the Transmission Provider, with the consent of the Transmission Owner, or the Transmission Owner, with the consent of the Transmission Provider, may terminate the commitment with one year advance notice of its intention to the Black Start Unit owner, but the Transmission Owner shall reimburse the Black Start Unit owner for any amount of unrecovered Fixed Black Start Service Costs over a period not to exceed five years. A Black Start Unit owner may terminate the provision of Black Start Service with one year advance notice (or its commitment period may be involuntarily terminated pursuant to the Paragraph 15 below). Such Black Start Unit shall forego any otherwise existing entitlement to future revenues collected pursuant to this Schedule 6A and fully refunds any amount of the Black Start Capital Costs recovered under a FERC-approved rate (recovered on an accelerated basis pursuant to the provisions of Paragraph 17(i)) in excess of the amount that would have been recovered pursuant to Paragraph 18 during the same period. At the conclusion of the term of commitment established under this Paragraph 6, a Black Start Unit shall commence a new term of commitment under either Paragraph 5 or 6, as applicable.

- 6A. In the event that a Black Start Unit fails to fulfill its commitment established under Paragraph 5 to provide Black Start Service, receipt of any Black Start Service revenues associated with the non-performing Black Start Unit shall cease and, for the period of the unit's non-performance, the Black Start Unit owner shall forfeit the Black Start Service revenues associated with the non-performing Black Start Unit that it received or would have received had the Black Start Unit performed, not to exceed revenues for a maximum of one year.

In the event that a Black Start Unit fails to fulfill its commitment established under Paragraph 6 above, such unit shall forego any otherwise existing entitlement to future revenues collected pursuant to this Schedule 6A and fully refund any amount of the Black Start Capital Costs recovered under a FERC-approved rate (recovered on an accelerated basis pursuant to the provisions of Paragraph 17(i)) in excess of the amount that would have been recovered pursuant to Paragraph 18 during the same period, but such unit remains eligible to establish a new commitment under Paragraph 5 or 6.

Performance Standards and Outage Restrictions

7. Black Start Units must have the capabilities listed below. These capabilities must be demonstrated in accordance with the criteria set forth in the PJM manuals and will remain in effect for the duration of the commitment to provide Black Start Service.
- a. A Black Start Unit must be able to close its output circuit breaker to a dead (de-energized) bus within 90 minutes of a request from the Transmission Owner or the Transmission Provider.
 - b. A Black Start Unit must be capable of maintaining frequency and voltage under varying load.
 - c. A Black Start Unit must be able to maintain rated output for a period of time identified by each Transmission Owner's system restoration requirements, in conjunction with the Transmission Provider.
8. Each owner of Black Start Units or Black Start Plants must maintain procedures for the start-up of the Black Start Units.
9. If a Black Start Unit is a generating unit with a high operating factor (subject to Transmission Provider concurrence) with the ability to automatically remain operating at reduced levels when disconnected from the grid, this ability must be demonstrated in accordance with the criteria set forth in the PJM manuals.
10. No more than one Black Start Unit at a Black Start Plant may be subject to planned maintenance at any one time. This restriction excludes outages on common plant equipment that may make all units unavailable. A Black Start Unit not currently designated as critical and on the same voltage level may be

Revenue Requirements

16. The annual Black Start Service revenue requirement shall be the sum of the annual Black Start Service revenue requirements for each generator that is designated as providing Black Start Service and has provided the Transmission Provider with a calculation of its annual Black Start Service revenue requirements. A separate line item shall appear on the participants' Transmission Provider bill for Black Start Service charges and credits.
17. Black Start Service revenue requirements for each Black Start Unit shall be based, at the election of the owner, on either (i) a FERC-approved rate for the recovery of the cost of providing such service for the entire duration of the commitment term set forth in either Paragraph 5 or 6, as applicable, or (ii) the formulas set forth in Paragraph 18 of this Schedule 6A for the commitment term set forth in Paragraph 5 or 6 as applicable. Each generator's Black Start Service revenue requirements shall be an annual calculation. No change to a Black Start Service revenue requirement shall become effective until the existing revenue requirement has been effective for at least twelve months. PJM will presume that any FERC-approved cost recovery plan would be the exclusive basis for the recovery of a Black Start Unit's recovery of its costs during the applicable term.
18. The formula for calculating a generator's annual Black Start Service revenue requirement is:

$$\{(\text{Fixed BSSC}) + (\text{Variable BSSC}) + (\text{Training Costs}) + (\text{Fuel Storage Costs})\} * (1 + Z)$$

For units that have the demonstrated ability to operate at reduced levels when automatically disconnected from the grid, the formula is revised to:

$$(\text{Training Costs}) * (1 + Z)$$

where:

Fixed BSSC

Black Start Units with commitment established under Paragraph 5 shall calculate Fixed BSSC or "Fixed Black Start Service Costs" in accordance the following formula:

$$\text{CONE} * 365 * \text{Black Start Unit Capacity} * X$$

Where:

"CONE" is the then current net Cost of New Entry for the CONE Area where the Black Start Unit is located as set forth in Section 5.10 of Attachment DD.

“Black Start Unit Capacity” is the Black Start Unit’s installed capacity, expressed in MW.

X is the Black Start Service allocation factor unless a higher or lower value is supported by the documentation of the actual costs of providing Black Start Service. For such units qualifying as Black Start Units on the basis of demonstrated ability to operate at reduced levels when automatically disconnected from the grid, X shall be zero. For Black Start Units with a commitment established under Paragraph 5, X shall be .01 for Hydro units, .02 for Diesel or CT units. For Black Start Units having recovered new or additional Fixed Black Start Service Costs on an accelerated basis prior to April 21, 2009, X shall instead be .005 for Hydro units and .01 Diesel or CT units.

Black Start Units with commitments established under Paragraph 6 above shall calculate Fixed BSSC or “Fixed Black Start Service Costs” in accordance with the following formula:

$$\text{Black Start Capital Cost} * \text{CRF}$$

Where:

“Black Start Capital Costs” is the capital cost documented by the owner or accepted by the Commission for the incremental equipment solely necessary to enable a unit to provide Black Start Service in addition to whatever other product or services such unit may provide. Such costs shall include those incurred by a Black Start Owner in order to meet NERC Reliability Standards that apply to Black Start Units solely on the basis of the provision of Black Start Service by such unit.

“CRF” or “Capital Recovery Factor “ is equal to the levelized CRF based on the age of the Black Start Unit, which is modified to provide Black Start Service, as present in the CRF Table:

Age of Black Start Unit	Years of Remaining Life of Black Start Unit	Levelized CRF
1 to 5	20	0.125
6 to 10	15	0.146
11 to 15	10	0.198
16+	5	0.363

Attachment B

Tariff Changes

Redline Version

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5. ~~Owners of Black Start Units initially shall commit to providing Black Start Service for a two year period. Black Start Unit owners and Transmission Owners that identify the Black Start Unit as critical may terminate this two year commitment upon notice given one year before the date the commitment period ends.~~ Black Start Units selected to provide Black Start Service in accordance with Paragraph 4 and electing to forego any recovery of new or additional Black Start Capital Costs shall commit to provide Black Start Service for an initial term of no less than two years. The term commitment shall continue to extend until the Black Start Unit owner, or the Transmission Owner, with the consent of the Transmission Provider, or the Transmission Provider, with the consent of the Transmission Owner, provides written, one-year advance notice of its intention to terminate the commitment.

6. Black Start Units selected to provide Black Start Service in accordance with Paragraph 4 and electing to recover new or additional Black Start Capital Costs shall commit to provide Black Start Service for a term based upon a reasonable estimate of the expected life of the Black Start Unit, as set forth in the CRF Factor Table in Paragraph 18. Either the Transmission Provider, with the consent of the Transmission Owner, or the Transmission Owner, with the consent of the Transmission Provider, may terminate the commitment with one year advance notice of its intention to the Black Start Unit owner, but the Transmission Owner shall reimburse the Black Start Unit owner for any amount of unrecovered Fixed Black Start Service Costs over a period not to exceed five years. A Black Start Unit owner may terminate the provision of Black Start Service with one year advance notice (or its commitment period may be involuntarily terminated pursuant to the Paragraph 15 below). Such Black Start Unit shall forego any otherwise existing entitlement to future revenues collected pursuant to this Schedule 6A and fully refunds any amount of the Black Start Capital Costs recovered under a FERC-approved rate (recovered on an accelerated basis pursuant to the provisions of Paragraph 17(i)) in excess of the amount that would have been recovered pursuant to Paragraph 18 during the same period. At the conclusion of the term of commitment established under this Paragraph 6, a Black Start Unit shall commence a new term of commitment under either Paragraph 5 or 6, as applicable.

~~6A. In the event that neither the Black Start Unit owner nor the Transmission Owner exercises its right to terminate by providing a one year notice of termination, the commitment to provide Black Start Service automatically will be extended for an additional year to maintain a rolling two-year commitment.~~ In the event that a Black Start Unit fails to fulfill its ~~two-year rolling~~ commitment established under Paragraph 5 to provide Black Start Service, receipt of any Black Start Service revenues associated with the non-performing Black Start Unit shall cease and, for the period of the unit's non-performance, the Black Start Unit owner shall forfeit the Black Start Service revenues associated with the non-performing Black Start Unit that it received or would have received had the Black Start Unit performed, not to exceed revenues for a maximum of one year.

In the event that a Black Start Unit fails to fulfill its commitment established under Paragraph 6 above, such unit shall forego any otherwise existing entitlement to future revenues collected pursuant to this Schedule 6A and fully refund any amount of the Black Start Capital Costs recovered under a FERC-approved rate (recovered on an accelerated basis pursuant to the provisions of Paragraph 17(i)) in excess of the amount that would have been recovered pursuant to Paragraph 18 during the same period, but such unit remains eligible to establish a new commitment under Paragraph 5 or 6.

~~6. Transmission Provider may terminate a Black Start Unit's designation as critical by providing two years prior notice of such termination.~~

Performance Standards and Outage Restrictions

7. Black Start Units must have the capabilities listed below. These capabilities must be demonstrated in accordance with the criteria set forth in the PJM manuals and will remain in effect for the duration of the commitment to provide Black Start Service.
 - a. A Black Start Unit must be able to close its output circuit breaker to a dead (de-energized) bus within 90 minutes of a request from the Transmission Owner or the Transmission Provider.
 - b. A Black Start Unit must be capable of maintaining frequency and voltage under varying load.
 - c. A Black Start Unit must be able to maintain rated output for a period of time identified by each Transmission Owner's system restoration requirements, in conjunction with the Transmission Provider.
8. Each owner of Black Start Units or Black Start Plants must maintain procedures for the start-up of the Black Start Units.
9. If a Black Start Unit is a generating unit with a high operating factor (subject to Transmission Provider concurrence) with the ability to automatically remain operating at reduced levels when disconnected from the grid, this ability must be demonstrated in accordance with the criteria set forth in the PJM manuals.

10. No more than one Black Start Unit at a Black Start Plant may be subject to planned maintenance at any one time. This restriction excludes outages on common plant equipment that may make all units unavailable. A Black Start Unit not currently designated as critical and on the same voltage level may be

Revenue Requirements

16. The annual Black Start Service revenue requirement shall be the sum of the annual Black Start Service revenue requirements for each generator that is designated as providing Black Start Service and has provided the Transmission Provider with a calculation of its annual Black Start Service revenue requirements. A separate line item shall appear on the participants' Transmission Provider bill for Black Start Service charges and credits.
17. Black Start Service revenue requirements for each Black Start Unit shall be based, ~~on the formula, at the election of the owner, on either (i) a FERC-approved rate for the recovery of the cost of providing such service for the entire duration of the commitment term set forth in either Paragraph 5 or 6, as applicable, or (ii) the formulas set forth in Paragraph 18 of this Schedule 6A for the commitment term set forth in Paragraph 5 or 6 as applicable.~~ Each generator's Black Start Service revenue requirements shall be an annual calculation. ~~No Changes to the Black Start Service revenue requirements may be made annually, but will become effective in the second year of the generator's commitment to provide Black Start Service shall become effective until the existing revenue requirement has been effective for at least twelve months. PJM will presume that any FERC-approved cost recovery plan would be the exclusive basis for the recovery of a Black Start Unit's recovery of its costs during the applicable term.~~
18. The formula for calculating a generator's annual Black Start Service revenue requirement is:

$$\{(\text{Fixed } \del{\text{BSS}}\text{Black Start Service Costs}) + (\text{Variable } \del{\text{BSS}}\text{Black Start Service Costs}) + (\text{Training Costs}) + (\text{Fuel Storage } \del{\text{Costs}} \& \del{\text{Carrying Costs}})\} * (1 + \del{\text{Incentive Factor}}\text{Z})$$

For units that have the demonstrated ability to operate at reduced levels when automatically disconnected from the grid, the formula is revised to:

$$(\text{Training Costs}) * (1 + \del{\text{Incentive Factor}}\text{Z})$$

where:

Fixed Black Start Service Costs~~BSSC~~

Black Start Units with commitment established under Paragraph 5 shall calculate Fixed BSSC or "Fixed Black Start Service Costs" in accordance the following formula:

$$\del{\text{CONE}} = \del{\text{CDR}} * 365 * \text{Black Start Unit } \del{\text{e}}\text{Capacity} * \text{X}$$

Where:

"CONE" is the then current net Cost of New Entry for the CONE Area where the Black Start Unit is located as set forth in Section 5.10 of Attachment DD.

CDR = PJM Capacity Deficiency Rate on an installed capacity basis

“Black Start Unit Capacity” =is the Black Start Unit’s installed capacity, expressed in MW.

X =is the Black Start Service allocation factor (~~Hydro = 0.01, Diesel = 0.02, CT = 0.02~~) unless a higher or lower another value is supported by the documentation of the actual costs of providing Black Start Service. For such units qualifying as Black Start Units on the basis of demonstrated ability to operate at reduced levels when automatically disconnected from the grid, X shall be zero. For Black Start Units with a commitment established under Paragraph 5, X shall be .01 for Hydro units, .02 for Diesel or CT units. For Black Start Units having recovered new or additional Fixed Black Start Service Costs on an accelerated basis prior to April 21, 2009, X shall instead be .005 for Hydro units and .01 Diesel or CT units.

Black Start Units with commitments established under Paragraph 6 above shall calculate Fixed BSSC or “Fixed Black Start Service Costs” in accordance with the following formula:

$$\underline{\text{Black Start Capital Cost} * \text{CRF}}$$

Where:

“Black Start Capital Costs” is the capital cost documented by the owner or accepted by the Commission for the incremental equipment solely necessary to enable a unit to provide Black Start Service in addition to whatever other product or services such unit may provide. Such costs shall include those incurred by a Black Start Owner in order to meet NERC Reliability Standards that apply to Black Start Units solely on the basis of the provision of Black Start Service by such unit.

“CRF” or “Capital Recovery Factor “ is equal to the levelized CRF based on the age of the Black Start Unit, which is modified to provide Black Start Service, as present in the CRF Table:

<u>Age of Black Start Unit</u>	<u>Years of Remaining Life of Black Start Unit</u>	<u>Levelized CRF</u>
<u>1 to 5</u>	<u>20</u>	<u>0.125</u>
<u>6 to 10</u>	<u>15</u>	<u>0.146</u>
<u>11 to 15</u>	<u>10</u>	<u>0.198</u>
<u>16+</u>	<u>5</u>	<u>0.363</u>