GDECS Phase 5- Proposed Clean-Up, Clarification and Corrections to Governing Documents For GDECS Second Read – February 24, 2020				
	Agreement, Attachment, Section, Title	**Current Language**	**Proposed Revisions**	**Rationale**
1.	Tariff, Attachment DD, section 5.14(h)(3)	The net energy and ancillary services revenue estimate for a combined cycle generator shall be determined in the same manner as that prescribed for a combustion turbine generator in the previous sentence, except that the heat rate assumed for the combined cycle resource shall be 6.722 MMbtu/Mwh, the variable operations and maintenance expenses for such resource shall be $3.23 per MWh, the Peak-Hour Dispatch scenario for both the Day-Ahead and Real-Time Energy Markets shall be modified to dispatch the CC resource continuously during the full peak hour period, as described in section 2.46, for each such period that the resource is economic (using the test set forth in such section), rather than only during the four hour blocks within such period that such resource is economic, and the ancillary service revenues shall be $3198 per MW-year.	The net energy and ancillary services revenue estimate for a combined cycle generator shall be determined in the same manner as that prescribed for a combustion turbine generator in the previous sentence, except that the heat rate assumed for the combined cycle resource shall be 6.722 MMbtu/Mwh, the variable operations and maintenance expenses for such resource shall be $3.23 per MWh, the Peak-Hour Dispatch scenario for both the Day-Ahead and Real-Time Energy Markets shall be modified to dispatch the CC resource continuously during the full peak hour period, as ~~described~~ defined in Peak Hour Dispatch ~~section 2.46~~, for each such period that the resource is economic (using the test set forth in such section), rather than only during the four hour blocks within such period that such resource is economic, and the ancillary service revenues shall be $3198 per MW-year.	The existing reference to section 2.46 referenced in this section referred to the definition of Peak Hour Dispatch, which was previously located within Tariff, Attachment DD. This definitional section has since been removed and brought to the Tariff definition section. Accordingly, PJM is now deleting the reference to section 2.46 and replacing it with the Tariff defined term "Peak Hour Dispatch."
2.	Tariff, Attachment DD, section 5.4(b)	PJM shall conduct for each Delivery Year a First, a Second, and a Third Incremental Auction for the purposes set forth in section 2.34. The First Incremental Auction shall be	PJM shall conduct for each Delivery Year a First, a Second, and a Third Incremental Auction ~~for the purposes set forth in section 2.34~~. The First Incremental Auction shall be	The existing reference to section 2.34 referenced in this section referred to the definition of Incremental

		conducted in the month of September that is twenty months prior to the start of the Delivery Year; the Second Incremental Auction shall be conducted in the month of July that is ten months prior to the start of the Delivery Year; and the Third Incremental Auction shall be conducted in the month of February that is three months prior to the start of the Delivery Year.	conducted in the month of September that is twenty months prior to the start of the Delivery Year; the Second Incremental Auction shall be conducted in the month of July that is ten months prior to the start of the Delivery Year; and the Third Incremental Auction shall be conducted in the month of February that is three months prior to the start of the Delivery Year.	Auction, which was previously defined within Tariff, Attachment DD. This definitional section has since been removed and brought to the Tariff definition section. Accordingly, PJM is now deleting the reference to section 2.34. Since the term "Incremental Auction" is already included in the existing language, no additional term needs to be added in place of the reference to section 2.34.
3.	OA, Schedule 1, section 1.10.1A(d), Day-ahead Energy Market Scheduling OATT, Attachment K-Appendix, section 1.10.1A(d), Day-ahead Energy Market Scheduling	Market Sellers in the Day-ahead Energy Market shall submit offers for the supply of energy, demand reductions, or other services for the following Operating Day for each clock hour for which the Market Seller desires or is required to make its resource available to the Office of the Interconnection. Offers for the supply of energy may be cost-based, market-based, or both, and may vary hourly. Offers shall be submitted to the Office of the Interconnection in the form specified by the Office of the Interconnection and shall contain the information specified in the Office of the Interconnection's Offer Data specification, this Section 1.10.1A(d), Section 1.10.9B, Schedule 2 of the Operating Agreement, and the PJM Manuals, as applicable. Market Sellers owning or	Market Sellers in the Day-ahead Energy Market shall submit offers for the supply of energy, demand reductions, or other services for the following Operating Day for each clock hour for which the Market Seller desires or is required to make its resource available to the Office of the Interconnection. Offers for the supply of energy may be cost-based, market-based, or both, and may vary hourly. Offers shall be submitted to the Office of the Interconnection in the form specified by the Office of the Interconnection and shall contain the information specified in the Office of the Interconnection's Offer Data specification, this Section 1.10.1A(d), Section 1.10.9B, Schedule 2 of the Operating Agreement, and the PJM Manuals, as	The revised language is intended to capture all committed Capacity Resources, rather than referring to individual instances of how a Capacity Resource may receive a commitment. For instance, the existing language does not make clear that a resource that cleared in a BRA or IA, but is then fully replaced is not subject to the must-offer requirement in the energy market and should instead be allowed to elect to offer.

		controlling the output of a Generation Capacity Resource that was committed in an FRR Capacity Plan, self-supplied, offered and cleared in a Base Residual Auction or Incremental Auction, or designated as replacement capacity, as specified in Attachment DD of the PJM Tariff, and that has not been rendered unavailable by a Generator Planned Outage, a Generator Maintenance Outage, or a Generator Forced Outage shall submit offers for the available capacity of such Generation Capacity Resource, including any portion that is self-scheduled by the Generating Market Buyer. Such offers shall be based on the ICAP equivalent of the Market Seller's cleared UCAP capacity commitment, provided, however, where the underlying resource is a Capacity Storage Resource or an Intermittent Resource, the Market Seller shall satisfy the must offer requirement by either self-scheduling or offering the unit as a dispatchable resource, in accordance with the PJM Manuals, where the hourly day-ahead self-scheduled values for such Capacity Storage Resources and Intermittent Resources may vary hour to hour from the capacity commitment. Any offer not designated as a Maximum Emergency offer shall be considered available for scheduling and dispatch under both Emergency and non-Emergency conditions. Offers may only be designated as Maximum Emergency offers to the extent that the Generation Capacity	applicable. Market Sellers owning or controlling the output of a Generation Capacity Resource that ~~was~~ is committed ~~in an FRR Capacity Plan, self-supplied, offered and cleared in a Base Residual Auction or Incremental Auction, or designated as replacement capacity, as specified in~~ as a Capacity Resource under Tariff, Attachment DD or RAA, Schedule 8.1 ~~of the PJM Tariff~~, and that has not been rendered unavailable by a Generator Planned Outage, a Generator Maintenance Outage, or a Generator Forced Outage shall submit offers for the available capacity of such Generation Capacity Resource, including any portion that is self-scheduled by the Generating Market Buyer. Such offers shall be based on the ICAP equivalent of the Market Seller's cleared UCAP capacity commitment, provided, however, where the underlying resource is a Capacity Storage Resource or an Intermittent Resource, the Market Seller shall satisfy the must offer requirement by either self-scheduling or offering the unit as a dispatchable resource, in accordance with the PJM Manuals, where the hourly day-ahead self-scheduled values for such Capacity Storage Resources and Intermittent Resources may vary hour to hour from the capacity commitment. Any offer not designated as a Maximum Emergency offer shall be considered available for scheduling and dispatch under both Emergency and non-Emergency conditions. Offers may only be	

		Resource falls into at least one of the following categories: … The submission of offers for resource increments that have not cleared in a Base Residual Auction or an Incremental Auction, were not committed in an FRR Capacity Plan, and were not designated as replacement capacity under Attachment DD of the PJM Tariff shall be optional, but any such offers must contain the information specified in the Office of the Interconnection's Offer Data specification, Operating Agreement Schedule 1, sections 1.10.1A(d) and 1.10.9B, Operating Agreement, Schedule 2 , and the PJM Manuals, as applicable. Energy offered from generation resources that have not cleared a Base Residual Auction or an Incremental Auction, were not committed in an FRR Capacity Plan, and were not designated as replacement capacity under Attachment DD of the PJM Tariff shall not be supplied from resources that are included in or otherwise committed to supply the Operating Reserves of a Control Area outside the PJM Region.	designated as Maximum Emergency offers to the extent that the Generation Capacity Resource falls into at least one of the following categories: . . . The submission of offers for resource increments that ~~have~~ are not committed as a Capacity Resource ~~cleared in a Base Residual Auction or an Incremental Auction, were not committed in an FRR Capacity Plan, were not designated as replacement capacity~~ under Tariff, Attachment DD or RAA, Schedule 8.1 ~~of the PJM Tariff~~ shall be optional, but any such offers must contain the information specified in the Office of the Interconnection's Offer Data specification, Operating Agreement Schedule 1, sections 1.10.1A(d) and 1.10.9B, Operating Agreement, Schedule 2 , and the PJM Manuals, as applicable. Energy offered from generation resources that are not committed as a Capacity Resource ~~have not cleared a Base Residual Auction or an Incremental Auction, were not committed in an FRR Capacity Plan, and were not designated as replacement capacity~~ under Tariff, Attachment DD ~~of the PJM Tariff~~ or RAA, Schedule 8.1 shall not be supplied from resources that are included in or otherwise committed to supply the ~~O~~operating ~~R~~reserves of a Control Area	

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<tr><td></td><td></td><td></td><td>outside the PJM Region.</td><td></td></tr>
<tr><td>4.</td><td>OA, Schedule 1, section 6.6(c)

OATT, Attachment K-Appendix, section 6.6 (c)</td><td>(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
<table><tr><th>Parameter</th><th>Minimum Down Time (Hrs)</th><th>Minimum Run Time (Hrs)</th><th>Maximum Daily Starts</th><th>Maximum Weekly Starts</th><th>Turn Down Ratio = Economic Maximum MW / Economic Minimum MW</th></tr><tr><td>Small Frame CT and Aero CT Units - Up to 29 MW ICAP</td><td>2.0 or Less</td><td>2.0 or Less</td><td>2 or More</td><td>14 or More</td><td>1.0 or More</td></tr><tr><td>Medium Frame CT and Aero CT Units - 30 MW to 65 MW ICAP</td><td>2.0 or Less</td><td>3.0 or Less</td><td>2 or More</td><td>14 or More</td><td>1.0 or More</td></tr><tr><td>Medium-Large Frame CT Units - 65 MW to 135 MW ICAP</td><td>3.0 or Less</td><td>5.0 or Less</td><td>2 or More</td><td>14 or More</td><td>1.0 or More</td></tr><tr><td>Large Frame CT Units - 135 MW to 180 MW ICAP</td><td>4.0 or Less</td><td>5.0 or Less</td><td>2 or More</td><td>14 or More</td><td>1.0 or More</td></tr><tr><td>Combined Cycle Units</td><td>4.0 or Less</td><td>6.0 or Less</td><td>2 or More</td><td>11 or More</td><td>1.5 or More</td></tr><tr><td>Petroleum and Natural Gas Steam Units - Pre-1985</td><td>7.0 or Less</td><td>8.0 or Less</td><td>1 or More</td><td>7 or More</td><td>3.0 or More</td></tr><tr><td>Petroleum and Natural Gas Steam Units - Post-1985</td><td>3.5 or Less</td><td>5.5 or Less</td><td>2 or More</td><td>11 or More</td><td>2.0 or More</td></tr><tr><td>Sub-Critical Coal Units</td><td>9.0 or Less</td><td>15.0 or Less</td><td>1 or More</td><td>5 or More</td><td>2.0 or More</td></tr><tr><td>Super-Critical Coal Units</td><td>84.0</td><td>24.0 or Less</td><td>1 or More</td><td>2 or More</td><td>1.5 or More</td></tr></table></td><td>(~~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:~~

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<tr><td>5.</td><td>RAA, Schedule 8.1.G.2, Capacity Resource</td><td>The FRR Entity’s net Performance Shortfall among Capacity Performance Resources, if any, for each such Performance Assessment Interval shall be multiplied by a rate of 0.01667 MWs/Performance</td><td>The FRR Entity’s net Performance Shortfall among Capacity Performance Resources, if any, for each such Performance Assessment Interval shall be multiplied by a rate of ~~0.01667~~ 0.00139 MWs/Performance</td><td>The rate for an FRR Entity’s net Performance Shortfall was not changed when PJM moved from hourly settlements to 5</td></tr>
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	Performance	Assessment Interval to establish the additional MW quantities of Capacity Performance Resources or Seasonal Capacity Performance Resources that such FRR Entity must add to its FRR Capacity Plan for the next Delivery Year. Notwithstanding the foregoing, the total additional MWs required as a result of non-performance by the FRR Entity's Capacity Performance Resources in any Delivery Year shall not exceed a MW quantity equal to 0.5 times the MW quantity of the Capacity Performance Resources and Seasonal Capacity Performance Resources that were committed in the FRR Capacity Plan for such Delivery Year. The FRR Entity's net Performance Shortfall among Base Capacity Resources, if any, for each such Performance Assessment Interval shall be multiplied by a rate of [(0.01667 MWs/Performance Assessment Interval) times (the Base Capacity Resource Clearing Price resulting from the RPM Auctions for the Delivery Year for the LDA encompassing the Zone of the FRR Entity, weight-averaged for the Delivery Year based on the prices established and quantities cleared in such auctions, divided by the Net CONE established for such LDA for the Delivery Year)] to establish the additional MW quantities of Capacity Performance Resources or Seasonal Capacity Performance Resources that such FRR Entity must add to its FRR Capacity Plan for the next Delivery Year. Notwithstanding the foregoing, the	Assessment Interval to establish the additional MW quantities of Capacity Performance Resources or Seasonal Capacity Performance Resources that such FRR Entity must add to its FRR Capacity Plan for the next Delivery Year. Notwithstanding the foregoing, the total additional MWs required as a result of non-performance by the FRR Entity's Capacity Performance Resources in any Delivery Year shall not exceed a MW quantity equal to 0.5 times the MW quantity of the Capacity Performance Resources and Seasonal Capacity Performance Resources that were committed in the FRR Capacity Plan for such Delivery Year. The FRR Entity's net Performance Shortfall among Base Capacity Resources, if any, for each such Performance Assessment Interval shall be multiplied by a rate of [(~~0.01667~~ 0.00139 MWs/Performance Assessment Interval) times (the Base Capacity Resource Clearing Price resulting from the RPM Auctions for the Delivery Year for the LDA encompassing the Zone of the FRR Entity, weight-averaged for the Delivery Year based on the prices established and quantities cleared in such auctions, divided by the Net CONE established for such LDA for the Delivery Year)] to establish the additional MW quantities of Capacity Performance Resources or Seasonal Capacity Performance Resources that such FRR Entity must add to its FRR Capacity Plan for the next Delivery Year. Notwithstanding the foregoing, the	minute settlements. This correction now reflects the 5-minute interval.

		total additional MWs required as a result of non-performance by the FRR Entity's Base Capacity Resources in any Delivery Year shall not exceed a MW quantity equal to [(0.5 times the MW quantity of the Base Capacity Resources that were committed in the FRR Capacity Plan for such Delivery Year) times (the Base Capacity Resource Clearing Price resulting from the RPM Auctions for the Delivery Year for the LDA encompassing the Zone of the FRR Entity, weight-averaged for the Delivery Year based on the prices established and quantities cleared in such auctions, divided by the Net CONE established for such LDA for the Delivery Year)].	total additional MWs required as a result of non-performance by the FRR Entity's Base Capacity Resources in any Delivery Year shall not exceed a MW quantity equal to [(0.5 times the MW quantity of the Base Capacity Resources that were committed in the FRR Capacity Plan for such Delivery Year) times (the Base Capacity Resource Clearing Price resulting from the RPM Auctions for the Delivery Year for the LDA encompassing the Zone of the FRR Entity, weight-averaged for the Delivery Year based on the prices established and quantities cleared in such auctions, divided by the Net CONE established for such LDA for the Delivery Year)].	
6.	RAA, Article 1, Definitions	"Planned Generation Capacity Resource" shall mean a Generation Capacity Resource, or additional megawatts to increase the size of a Generation Capacity Resource that is being or has been modified to increase the number of megawatts of available installed capacity thereof, participating in the generation interconnection process under Tariff, Part IV, Subpart A, as applicable, for which: (i) Interconnection Service is scheduled to commence on or before the first day of the Delivery Year for which such resource is to be committed to RPM or to an FRR Capacity Plan; (ii) for any such resource seeking to offer into a Base Residual Auction, or for any such resource of 20 MWs or less seeking to offer into a Base Residual	"Planned Generation Capacity Resource" shall mean a Generation Capacity Resource, or additional megawatts to increase the size of a Generation Capacity Resource that is being or has been modified to increase the number of megawatts of available installed capacity thereof, participating in the generation interconnection process under Tariff, Part IV, Subpart A, as applicable, for which: (i) Interconnection Service is scheduled to commence on or before the first day of the Delivery Year for which such resource is to be committed to RPM or to an FRR Capacity Plan; (ii) for any such resource seeking to offer into a Base Residual Auction, or for any such resource of 20 MWs or less seeking to offer into a Base Residual	The must-offer requirement and mitigation of offer rules for Planned Generation Capacity Resource that cleared a RPM Auction is already described in this definition. The proposed deletion in the definition of Planned Generation Capacity Resource removes repetitive language. Further, the inclusion of this language in the existing location potentially allows new resources that cleared the RPM Auction to not post collateral once it clears

		Auction, a System Impact Study Agreement (or, for resources for which a System Impact Study Agreement is not required, has such other agreement or documentation that is functionally equivalent to a System Impact Study Agreement) has been executed prior to the Base Residual Auction for such Delivery Year; (iii) for any such resource of more than 20 MWs seeking to offer into a Base Residual Auction for the 2019/2020 Delivery Year and subsequent Delivery Years, a Facilities Study Agreement (or, for resources for which a Facilities Study Agreement is not required, has such other agreement or documentation that is functionally equivalent to a Facility Studies Agreement) has been executed prior to the Base Residual Auction for such Delivery Year; (iv) an Interconnection Service Agreement has been executed prior to any Incremental Auction for such Delivery Year in which such resource plans to participate; and (iv) no megawatts of capacity have cleared an RPM Auction for any prior Delivery Year. For purposes of the must-offer requirement and mitigation of offers for any RPM Auction for a Delivery Year, a Generation Capacity Resource shall cease to be considered a Planned Generation Capacity Resource as of the earlier of (i) the date that Interconnection Service commences as to such resource; or (ii) the resource has cleared an RPM Auction for any Delivery Year, in which case it shall become an Existing Generation Capacity	Auction, a System Impact Study Agreement (or, for resources for which a System Impact Study Agreement is not required, has such other agreement or documentation that is functionally equivalent to a System Impact Study Agreement) has been executed prior to the Base Residual Auction for such Delivery Year; (iii) for any such resource of more than 20 MWs seeking to offer into a Base Residual Auction for the 2019/2020 Delivery Year and subsequent Delivery Years, a Facilities Study Agreement (or, for resources for which a Facilities Study Agreement is not required, has such other agreement or documentation that is functionally equivalent to a Facility Studies Agreement) has been executed prior to the Base Residual Auction for such Delivery Year; and (iv) an Interconnection Service Agreement has been executed prior to any Incremental Auction for such Delivery Year in which such resource plans to participate~~; and (iv) no megawatts of capacity have cleared an RPM Auction for any prior Delivery Year~~. For purposes of the must-offer requirement and mitigation of offers for any RPM Auction for a Delivery Year, a Generation Capacity Resource shall cease to be considered a Planned Generation Capacity Resource as of the earlier of (i) the date that Interconnection Service commences as to such resource; or (ii) the resource has cleared an RPM Auction for any Delivery Year, in which case it shall become an Existing Generation Capacity Resource for	an auction, even though the resource may not have reached commencement of interconnection service.

		Resource for any RPM Auction for all subsequent Delivery Years.	any RPM Auction for all subsequent Delivery Years.	
7.	OA, Schedule 2, section 2.5(a)(iii)-(v), Information Required To Be Included in Fuel Cost Policies.	(iii) Market Sellers shall report, for all of the generation resource's operating modes, fuels, and at various operating temperatures, the incremental, no load and start heat requirements, the method of developing heat inputs, and the frequency of updating heat inputs. (iv) A Fuel Cost Policy shall include any applicable unit specific performance factors, and the method used to determine them, which may be modified seasonally to reflect ambient conditions. (v) A Fuel Cost Policy shall include the cost-based Start Cost calculation for the generation resource, and identify for each temperature state the starting fuel (MMBtu), station service (MWh), start Maintenance Adder, and any Start Additional Labor Cost.	(iii) Market Sellers shall report, for all of the generation resource's operating modes, fuels, and at various operating temperatures, the incremental, no load and start heat requirements, the method of developing heat inputs, and the frequency of updating heat inputs when requested by the Office of Interconnection. (iv) Market Sellers ~~A Fuel Cost Policy~~ shall include any applicable unit specific performance factors, and the method used to determine them, which may be modified seasonally to reflect ambient conditions when requested by the Office of Interconnection. (v) Market Sellers ~~A Fuel Cost Policy~~ shall include the cost-based Start Cost calculation for the generation resource, and identify for each temperature state the starting fuel (MMBtu), station service (MWh), start Maintenance Adder, and any Start Additional Labor Cost when requested by the Office of Interconnection.	The revised language clarifies that the Market Sellers have the obligation to provide certain information to PJM when requested. Market Sellers already include all of the heat inputs, performance factors, and start cost calculation in Cost Offer Assumption ("COA") module in Member Information Reporting Application ("MIRA") so it is no longer necessary to also be included in the Fuel Cost Policy. PJM retains the ability to obtain this information upon request.
8.	OA, Schedule 2, section 4.1, Maintenance Adders.	Maintenance Adders are expenses directly related to electric production and can be a function of starts and/or run hours. Allowable expenses may include repair,	Maintenance Adders are expenses directly related to electric production and can be a function of starts and/or run hours. Allowable expenses may include repair,	This revision clarifies that a Market Seller may use all available maintenance history in calculating their Maintenance Adder. For

		replacement, and major inspection, and overhaul expenses including variable long term service agreement expenses. Maintenance Adders are calculated as the 10 or 20 year average cost of a unit's maintenance history, or all avaliable actual maintenance history if a unit has less than 10 years of maintenance history. The major inspection and overhaul costs listed below in sections (a)-(c) are not exhaustive. A Market Seller may include costs in cost-based offers if those costs are similar to the costs outlined in this provision, so long as they are variable costs that are directly attributable to the production of electricity.	replacement, and major inspection, and overhaul expenses including variable long term service agreement expenses. Maintenance Adders are calculated as the 10 or 20 year average cost of a unit's maintenance history, or all ~~avaliable~~ available actual maintenance history if a unit has less than ~~1~~20 years of maintenance history. The major inspection and overhaul costs listed below in sections (a)-(c) are not exhaustive. A Market Seller may include costs in cost-based offers if those costs are similar to the costs outlined in this provision, so long as they are variable costs that are directly attributable to the production of electricity.	example, a Market Seller may be allowed to use 12 years of actual expenses, rather than being limited to just 10 or 20 years. This section also includes a minor spelling correction.
9.	OA, section 18.17.5, Disclosure to New York ISO and New York ISO Market Advisor Concerning Facilities in PSE&G Zone. OATT, Attachment M-Appendix,	**OA 18.17.5 Disclosure to New York ISO and New York ISO Market Advisor Concerning Facilities in PSE&G Zone.** (a) Subject to the requirements of section 18.17.5(b) below, the Office of the Interconnection 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 the New York ISO and the New York ISO Market Advisor to the	Delete Operating Agreement Section 18.17.15 and parallel Tariff, Attachment M-Appendix, I, E in their entirety.	On April 28, 2016, ConEd informed PJM that it was not exercising the rollover provisions of the TSAs pursuant to sections 2.2 and 2.3 of the PJM Open Access Transmission Tariff (PJM Tariff) and, therefore, the TSAs would terminate on April 30, 2017, by their terms. As a result, the ConEd Wheel terminated on April 30, 2017, the confidentiality provisions applicable to the ConEd Wheel in Operating

	I, E (applicable to the IMM)	limited extent that the Office of the Interconnection or its Market Monitoring Unit determines necessary to carry out the responsibilities of the Office of the Interconnection, the New York ISO and 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. (b) The Office of the Interconnection may release a Member's confidential information pursuant to section 18.17.5(a) above 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 18.17. 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 18.17.5(a) above that is designated as confidential shall be		Agreement Section 18.17.15 and parallel IMM provisions in the Tariff, Attachment M- Appendix, I, E are no longer needed.

		protected from disclosure in accordance with this section 18.17. **Tariff, Attachment M- Appendix I 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.		
10.	OA, Schedule 1, section 5.3 (b), Unscheduled Transmission Service (Loop Flow). Tariff, Attachment K-Appendix, section 5.3 (b), Unscheduled Transmission	**5.3 Unscheduled Transmission Service (Loop Flow).** (b) With respect to payments by the Office of the Interconnection to the New York Independent System Operator for the installation and operation of phase angle regulating facilities at Ramapo to control or limit unscheduled transmission service (loop flow), each of the following Transmission Owners with revenue requirements under the PJM Tariff shall pay a share of the charges on a transmission revenue requirements ratio share basis: Allegheny Electric Cooperative, Inc., Atlantic City Electric Company, Baltimore Gas and Electric Company,	Delete Operating Agreement Schedule 1, section 5.3 (b) and parallel provisions in Tariff, Attachment K-Appendix, section 5.3 (b) in their entirety.	On October 14, 2019, the PARs Facilities Agreement between members of the NYPP and certain "PJM classic" transmission owners and all obligations for payments under that agreement terminated ending the need for these Tariff and OA provisions (See Notice of Termination filed on November 8, 2019, in FERC Docket No. ER20-345).

	Service (Loop Flow).	Delmarva Power & Light Company, Jersey Central Power & Light Company, Mid-Atlantic Interstate Transmission, LLC (but only with respect to transmission revenue requirements associated with the Metropolitan Edison Company Zone), PECO Energy Company, Pennsylvania Power & Light Company, Potomac Electric Power Company, Public Service Electric and Gas Company, Rockland Electric Company, and UGI Utilities, Inc.		
~~11.~~	~~Tariff, Attachment O, Form of Interconnection Service Agreement, 1.0~~	~~1.0 Parties. This Interconnection Service Agreement ("ISA") including the Specifications, Schedules and Appendices attached hereto and incorporated herein, is entered into by and between PJM Interconnection, L.L.C., the Regional Transmission Organization for the PJM Region (hereinafter "Transmission Provider" or "PJM"),~~ ~~_____~~ ~~("Interconnection Customer" [OPTIONAL: or "[short name"]]) and~~ ~~_____~~ ~~("Interconnected Transmission Owner" [OPTIONAL: or "[short name]"]). All capitalized terms herein shall have the meanings set forth in the appended definitions of such terms as stated in Part I of the PJM Open Access Transmission Tariff ("Tariff"). [Use as/when applicable: This ISA supersedes the~~ ~~_____~~ ~~{insert details to identify the agreement~~	~~Add to the end:~~ ~~[Use as/when applicable: This ISA amends the~~ ~~_____~~ ~~{insert details to identify the agreement being amended, such as whether it is an Interim Interconnection Service Agreement, Interconnection Service Agreement, or Interconnection Agreement, the effective date of the agreement, the service agreement number designation, and the FERC docket number, if applicable, for the agreement being amended.}]]~~	~~There are times when an ISA needs to be amended rather than superseded for example when the ISA is assigned and amended to permit the assignee to step into the shows of the IC/assignor.~~

		~~being superseded, such as whether it is an Interim Interconnection Service Agreement, Interconnection Service Agreement, or Interconnection Agreement, the effective date of the agreement, the service agreement number designation, and the FERC docket number, if applicable, for the agreement being superseded.}]]~~		
~~12.~~	~~OA, Definitions I-L~~	~~N/A~~	~~Intermittent Resource - shall mean a Generation Capacity Resource with output that can vary as a function of its energy source, such as wind, solar, run of river hydroelectric power and other renewable resources.~~	~~OA, Schedule 1, section 1.10.1A(d), and OATT, Attachment K-Appendix, section 1.10.1A(d) both refer to special rules related to Intermittent Resources. However, while the term "Intermittent Resource" is defined in the OATT, it is not defined in the OA. This revision would add the definition of "Intermittent Resource" that is currently in the OATT into the OA.~~
~~13.~~11.	OA, Schedule 1, section 1.7.17, Operating Reserves OATT, Attachment	1.7.17 Operating Reserves. (a) The following procedures shall apply to any generation unit subject to the dispatch of the Office of the Interconnection for which construction commenced before July 9, 1996, or any Demand Resource subject to the dispatch of the Office of the Interconnection.	~~1.7.17 Operating Reserves.~~ ~~(a) The following procedures shall apply to any generation unit subject to the dispatch of the Office of the Interconnection for which construction commenced before July 9, 1996, or any Demand Resource subject to the dispatch of the Office of the Interconnection.~~	1.7.17(a) and (b) contain legacy language that is no longer relevant. The only pertinent language in this section is (c) and (d). PJM proposes to relocate

	K-Appendix, section 1.7.17, Operating Reserves	(b) The Office of the Interconnection shall schedule to the Operating Reserve and load-following objectives of the Control Zones of the PJM Region and the PJM Interchange Energy Market in scheduling generation resources and/or Demand Resources pursuant to this Schedule. A table of Operating Reserve objectives for each Control Zone is calculated and published annually in the PJM Manuals. Reserve levels are probabilistically determined based on the season's historical load forecasting error and forced outage rates. (c) Nuclear generation resources shall not be eligible for Operating Reserve payments unless: 1) the Office of the Interconnection directs such resources to reduce output, in which case, such units shall be compensated in accordance with Tariff, Attachment K-Appendix, section 3.2.3(f) and the parallel provision of Operating Agreement, Schedule 1, section 3.2.3(f); or 2) the resource submits a request for a risk premium to the Market Monitoring Unit under the procedures specified in Tariff, Attachment M – Appendix, section II.B. A nuclear generation resource (i) must submit a risk premium consistent with its agreement under such process, or, (ii) if it has not agreed with the	~~(b) The Office of the Interconnection shall schedule to the Operating Reserve and load-following objectives of the Control Zones of the PJM Region and the PJM Interchange Energy Market in scheduling generation resources and/or Demand Resources pursuant to this Schedule. A table of Operating Reserve objectives for each Control Zone is calculated and published annually in the PJM Manuals. Reserve levels are probabilistically determined based on the season's historical load forecasting error and forced outage rates.~~ (c) *[See comments in Rationale for relocation]* Nuclear generation resources shall not be eligible for Operating Reserve payments unless: 1) the Office of the Interconnection directs such resources to reduce output, in which case, such units shall be compensated in accordance with Tariff, Attachment K-Appendix, section 3.2.3(f) and the parallel provision of Operating Agreement, Schedule 1, section 3.2.3(f); or 2) the resource submits a request for a risk premium to the Market Monitoring Unit under the procedures specified in Tariff, Attachment M – Appendix, section II.B. A nuclear generation resource (i) must submit a risk premium consistent with its agreement	(c) to 3.2.3 (e), in a new paragraph directly after the paragraph that begins with "A Generation Capacity Resource that operates outside of its unit-specific parameters will not receive Operating Reserve Credits..." PJM also proposes to relocate (d) to the end of 3.2.3(a).

		Market Monitoring Unit on an appropriate risk premium, may submit its own determination of an appropriate risk premium to the Office of the Interconnection, subject to acceptance by the Office of the Interconnection, with or without prior approval from the Commission. (d) PJMSettlement shall be the Counterparty to the purchases and sales of Operating Reserve in the PJM Interchange Energy Market.	under such process, or, (ii) if it has not agreed with the Market Monitoring Unit on an appropriate risk premium, may submit its own determination of an appropriate risk premium to the Office of the Interconnection, subject to acceptance by the Office of the Interconnection, with or without prior approval from the Commission. (d) PJMSettlement shall be the Counterparty to the purchases and sales of Operating Reserve in the PJM Interchange Energy Market. *[See comments in Rationale for relocation]*	
~~14.~~12.	OA, Schedule 1, section 1.10.1A, Day-ahead Energy Market Scheduling. OATT, Attachment K-Appendix, section 1.10.1A, Day-ahead Energy Market Scheduling.	ix) Shall not exceed a demand reduction offer price of $1,000/megawatt-hour, except when an Economic Load Response Participant, an Emergency Load Response participant, or a Pre-Emergency Load Response participant submits a cost-based offer that includes an incremental cost component that is above $1,000/megawatt-hour, then its market-based offer must be less than or equal to the cost-based offer but in no event greater than $2,000/megawatt-hour; and	ix) Shall not exceed a demand reduction offer price of $1,000/megawatt-hour, except when an Economic Load Response Participant, an Emergency Load Response participant, or a Pre-Emergency Load Response participant submits a cost-based offer that includes an incremental cost component that is above $1,000/megawatt-hour, then its market-based offer must be less than or equal to the cost-based offer but in no event greater than $2,000/megawatt-hour; and x) Shall not exceed an offer price as follows for Emergency Load Response and Pre-Emergency Load Response participants with:	This Commission-approved language was inadvertently dropped from the OA and OATT in the Order No. 831 compliance filing.

			a) a 30 minute lead time, pursuant to Section A.2 of Attachment DD-1 of the Tariff and the parallel provision of Schedule 6 of the RAA, $1,000/megawatt-hour, plus the applicable Reserve Penalty Factor for the Primary Reserve Requirement, minus $1.00; b) an approved 60 minute lead time, pursuant to Section A.2 of Attachment DD-1 of the Tariff and the parallel provision of Schedule 6 of the RAA, $1,000/megawatt-hour, plus [the applicable Reserve Penalty Factor for the Primary Reserve Requirement divided by 2]; and c) an approved 120 minute lead time, pursuant to Section A.2 of Attachment DD-1 of the Tariff and the parallel provisions of Schedule 6 of the RAA, $1,100/megawatt-hour.	
~~15.~~13.	OA, Schedule 1, section 1.10.3, Self-Scheduled Resources OATT, Attachment K-Appendix, section 1.10.3, Self-	(b) The offered prices of resources that are self-scheduled, or otherwise not following the dispatch orders of the Office of the Interconnection, shall not be considered by the Office of the Interconnection in determining Locational Marginal Prices.	(b) The offered prices of resources that are self-scheduled~~, or otherwise not following the dispatch orders of~~ and not dispatchable by the Office of the Interconnection~~,~~ shall not be considered by the Office of the Interconnection in determining Locational Marginal Prices.	Provides clarification to existing market rule that self-scheduled dispatchable resources can set price.

	Scheduled Resources			
~~16.~~14.	OA, Schedule 1, section 1.10.4, Capacity Resources OATT, Attachment K-Appendix, section 1.10.4, Capacity Resources	1.10.3 Self-scheduled Resources. Self-scheduled resources shall be governed by the following principles and procedures. (a)Each Generating Market Buyer shall use all reasonable efforts, consistent with Good Utility Practice, not to self-schedule resources in excess of its Equivalent Load. […] (e) Hydropower units, excluding pumped storage units, may only be self-scheduled. 1.10.4 Capacity Resources. (a)A Generation Capacity Resource committed to service of PJM loads under the Reliability Pricing Model or Fixed Resource Requirement Alternative that is selected as a pool-scheduled resource shall be made available for scheduling and dispatch at the direction of the Office of the Interconnection. [...] (c)A resource that has been self-scheduled shall not receive payments or credits for Start-up Costs or No-load Costs.	1.10.3 Self-scheduled Resources. Self-scheduled resources shall be governed by the following principles and procedures. (a)Each Generating Market Buyer shall use all reasonable efforts, consistent with Good Utility Practice, not to self-schedule resources in excess of its Equivalent Load. […](e) Hydropower units, excluding pumped storage units, may only be self-scheduled. (f) A resource that has been self-scheduled shall not receive payments or credits for Start-up Costs or No-load Costs. 1.10.4 Capacity Resources. (a)A Generation Capacity Resource committed to service of PJM loads under the Reliability Pricing Model or Fixed Resource Requirement Alternative that is selected as a pool-scheduled resource shall be made available for scheduling and dispatch at the direction of the Office of the Interconnection. [...] ~~(c)A resource that has been self-scheduled shall not receive payments or credits for Start-up Costs or No-load Costs.~~	Transfers bullet to Self-scheduled Resource section. This does not belong in the Capacity Resources section.
~~17.~~15.	OA, Schedule 1, section	(b) A Market Participant may adjust the schedule of a resource under its dispatch	(b) A Market Participant may adjust the schedule of a resource under its dispatch	This update was missed during the Order No. 825

	1.10.9, Hourly Scheduling OATT, Attachment K-Appendix, section 1.10.9, Hourly Scheduling	control on an hour-to-hour basis beginning at 10:00 p.m. of the day before each Operating Day, provided that the Office of the Interconnection is notified not later than 65 minutes prior to the hour in which the adjustment is to take effect, as follows and as specified in section 1.10.9A of this Schedule:	control on an hour-to-hour basis beginning at ~~10:00~~ 6:30 p.m. of the day before each Operating Day, provided that the Office of the Interconnection is notified not later than 65 minutes prior to the hour in which the adjustment is to take effect, as follows and as specified in section 1.10.9A of this Schedule:	Hourly Offers filing (ER16-372).
~~18.~~16.	OA, Schedule 1, section 2.3, Determination of System Conditions Using the State Estimator OATT, Attachment K-Appendix, section 2.3, Determination of System Conditions Using the State Estimator	The Office of the Interconnection shall obtain a State Estimator solution every five minutes , which shall provide the megawatt output of generators and the loads at busses in the PJM Region, transmission line losses, and actual flows or loadings on constrained transmission facilities.	The Office of the Interconnection shall obtain a State Estimator solution at least every five minutes~~-~~, which shall provide the megawatt output of generators and the loads at busses in the PJM Region, transmission line losses, and actual flows or loadings on constrained transmission facilities.	Provided clarification regarding frequency of SE solution.
~~19.~~17.	OA, Schedule 1, section 2.6, Calculation of	For the Day-ahead Energy Market, day-ahead Locational Marginal Prices shall be	For the Day-ahead Energy Market, day-ahead Locational Marginal Prices shall be	This revision is designed to acknowledge that the Day-

	Day-ahead Prices. OATT, Attachment K-Appendix, section 2.6, Calculation of Day-ahead Prices.	determined on the basis of the least-cost, security-constrained dispatch, model flows and system conditions resulting from the load specifications (including PRD Curves properly submitted by Load Serving Entities for the Price Responsive Demand loads that they serve), offers for generation, dispatchable load, Increment Offers, Decrement Bids, offers for demand reductions, and bilateral transactions submitted to the Office of the Interconnection and scheduled in the Day-ahead Energy Market.	determined on the basis of the least-cost, security-constrained dispatch, model flows and system conditions resulting from the load specifications ~~(including PRD Curves properly submitted by Load Serving Entities for the Price Responsive Demand loads that they serve)~~, offers for generation, dispatchable load, Increment Offers, Decrement Bids, offers for demand reductions, and bilateral transactions submitted to the Office of the Interconnection and scheduled in the Day-ahead Energy Market.	ahead Energy Market does not consider PRD curves. Instead, PRD is bid into the Day-ahead Energy Market using Price-Sensitive Demand bids.
~~20.~~	~~OA, Schedule 1, section 3.2.3, Operating Reserves OATT, Attachment K-Appendix, section 3.2.3, Operating Reserves~~	~~(f) A Market Seller of a unit not defined in subsection (f-1), (f-2), or (f-4) hereof (or self-scheduled, if operating according to Section 1.10.3 (c) hereof), the output of which is reduced or suspended at the request of the Office of the Interconnection due to a transmission constraint or other reliability issue, and for which the real-time LMP at the unit's bus is higher than the unit's offer corresponding to the level of output requested by the Office of the Interconnection (as indicated either by the desired MWs of output from the unit determined by PJM's unit dispatch system or as directed by the PJM dispatcher through a manual override), shall be credited for each~~	~~(f) A Market Seller of a unit not defined in subsection (f-1), (f-2), or (f-4) hereof (or self-scheduled, if operating according to Section 1.10.3 (c) hereof), the output of which is reduced or suspended at the request of the Office of the Interconnection due to a transmission constraint or other reliability issue, and for which the real-time LMP at the unit's bus is higher than the unit's offer corresponding to the level of output requested by the Office of the Interconnection (as indicated either by the desired MWs of output from the unit determined by PJM's unit dispatch system or as directed by the PJM dispatcher through a manual override), shall be credited for each Real-time~~	~~Utilizes the existing LOC Deviation definition.~~

		Real-time Settlement Interval in an amount equal to the product of (A) the deviation of the generating unit's output necessary to follow the Office of the Interconnection's signals and the generating unit's expected output level if it had been dispatched in economic merit order, times (B) the Locational Marginal Price at the generation bus for the generating unit, minus (C) the Total Lost Opportunity Cost Offer, provided that the resulting outcome is greater than $0.00. This equation is represented as (A*B) - C.	Settlement Interval in an amount equal to the product of (A) the LOC Ddeviation of the generating unit's output necessary to follow the Office of the Interconnection's signals and the generating unit's expected output level if it had been dispatched in economic merit order, times (B) the Locational Marginal Price at the generation bus for the generating unit, minus (C) the Total Lost Opportunity Cost Offer, provided that the resulting outcome is greater than $0.00. This equation is represented as (A*B) - C.	
21.	OA, Schedule 1, section 3.2.3A, Synchronized Reserve OATT, Attachment K-Appendix, section 3.2.3A, Synchronized Reserve	(e) For each Real-time Settlement Interval and for determining the 5-minute Synchronized Reserve clearing price, the estimated unit-specific opportunity cost for a generation resource will be determined in accordance with the following equation: (A x B) + (C x D) Where A = The Locational Marginal Price at the generation bus for the generation resource; B = The megawatts of energy used to provide Synchronized Reserve submitted as part of the Synchronized Reserve offer; C = The deviation of the set point of the	(e) For each Real-time Settlement Interval and for determining the 5-minute Synchronized Reserve Market Cclearing Pprice for each Real-time Settlement Interval, the estimated unit-specific opportunity cost for a generation resource will be determined in accordance with the following equation: (A x B) + (C x D) Where A = The Locational Marginal Price at the generation bus for the generation resource; B = The megawatts of energy used to provide Synchronized Reserve submitted as part of the Synchronized Reserve offer;	The current explanation of LOC used in pricing is not consistent with how PJM uses LOC for pricing. The current explanation describes a $ value, not $/MW value as it should.

		generation resource that is expected to be required in order to provide Synchronized Reserve from the generation resource's expected output level if it had been dispatched in economic merit order; and D = The difference between the Locational Marginal Price at the generation bus for the generation resource and the offer price for energy from the generation resource (at the megawatt level of the Synchronized Reserve set point for the resource) in the PJM Interchange Energy Market when the Locational Marginal Price at the generation bus is greater than the offer price for energy from the generation resource. The opportunity costs for a Demand Resource shall be zero.	C = The deviation of the set point of the generation resource that is expected to be required in order to provide Synchronized Reserve from the generation resource's expected output level if it had been dispatched in economic merit orderThe Synchronized Reserve capability offered by the generation resource; and D = The shall be the difference between the Locational Marginal Price at the generation bus for the generation resource and the offer price for energy from the generation resource (at the megawatt level of the Synchronized Reserve set energy dispatch point for the resource) in the PJM Interchange Energy Market when the Locational Marginal Price at the generation bus is greater than the offer price for energy from the generation resource. The opportunity costs for a Demand Resource shall be zero.	
22.	OA, Schedule 1, section 3.2.3A, Synchronized Reserve OATT, Attachment K-Appendix,	(f)In determining the credit under subsection (b) to a resource selected to provide Tier 2 Synchronized Reserve and that actively follows the Office of the Interconnection's signals and instructions, the unit-specific opportunity cost of a generation resource shall be determined for each Real-time Settlement Interval that the Office of the	(f)In determining the credit under subsection (b) to a resource selected to provide Tier 2 Synchronized Reserve and that actively follows the Office of the Interconnection's signals and instructions, the unit-specific opportunity cost of a generation resource shall be determined for each Real-time Settlement Interval that the Office of the	Updated to be consistent with the Non-Synchronized Reserve LOC calculation and represent C as the area "under the curve."

	~~section 3.2.3A, Synchronized Reserve~~	~~Interconnection requires a generation resource to provide Tier 2 Synchronized Reserve and shall be in accordance with the following equation:~~ ~~(A x B) + (C x D)~~ ~~Where:~~ ~~A = The megawatts of energy used by the resource to provide Synchronized Reserve as submitted as part of the generation resource's Synchronized Reserve offer;~~ ~~B = The Locational Marginal Price at the generation bus of the generation resource;~~ ~~C = The deviation of the generation resource's output necessary to follow the Office of the Interconnection's signals and instructions from the generation resource's expected output level if it had been dispatched in economic merit order; and~~ ~~D = The difference between the Locational Marginal Price at the generation bus for the generation resource and the offer price for energy from the generation resource (at the megawatt level of the Synchronized Reserve set point for the generation resource) in the PJM Interchange Energy Market when the Locational Marginal Price at the generation~~	~~Interconnection requires a generation resource to provide Tier 2 Synchronized Reserve and shall be in accordance with the following equation:~~ ~~(A x B) + [(B x C) – D]~~ ~~+ (C x D)~~ ~~Where:~~ ~~A = The megawatts of energy used by the resource to provide Synchronized Reserve as submitted as part of the generation resource's Synchronized Reserve offer;~~ ~~B =The Locational Marginal Price at the generation bus of the generation resource;~~ ~~C = The deviation of the generation resource's energy output necessary to follow the Office of the Interconnection's signals and instructions from the generation resource's expected energy output level if it had been dispatched in economic merit order; and~~ ~~D= The applicable offer for the deviation as described above in C.~~ ~~D = The difference between the Locational Marginal Price at the generation bus for the generation resource and the offer price for energy from the generation resource (at the megawatt level of the Synchronized Reserve set point for the generation resource) in the~~	

		bus is greater than the offer price for energy from the generation resource. The opportunity costs for a Demand Resource shall be zero.	PJM Interchange Energy Market when the Locational Marginal Price at the generation bus is greater than the offer price for energy from the generation resource. The opportunity costs for a Demand Resource shall be zero.	
23.	OA, Schedule 1, section 3.2.3A.001, Non-Synchronized Reserve OATT, Attachment K-Appendix, section 3.2.3A.001, Non-Synchronized Reserve	(d) For each Real-time Settlement Interval and for determining the 5-minute Non-Synchronized Reserve clearing price, the unit-specific opportunity cost for a generation resource that is not providing energy because they are providing Non-Synchronized Reserves will be determined in accordance with the following equation: (A x B) – C Where: A = The deviation of the generation resource's output necessary to follow the Office of the Interconnection's signals and instructions from the generation resource's expected output level if it had been dispatched in economic merit order; B = The Locational Marginal Price at the generation bus for the generation resource;	(d) For determining the 5-minute Non-Synchronized Reserve Clearing Price for each Real-time Settlement Interval and for determining the 5-minute Non-Synchronized Reserve clearing price, the estimated unit-specific opportunity cost for a generation resource that is not providing energy because they are providing Non-Synchronized Reserves will shall be the difference between the determined in accordance with the following equation: (A x B) – C Where: A = The deviation of the generation resource's output necessary to follow the Office of the Interconnection's signals and instructions from the generation resource's expected output level if it had been	The current explanation of LOC used in pricing is not consistent with how PJM uses LOC for pricing. The current language describes a $ value, not $/MW value as it should.

		and C = The applicable offer for energy from the generation resource in the PJM Interchange Energy Market.	dispatched in economic merit order; B = The Locational Marginal Price at the generation bus for the generation resource; and C = Tthe applicable offer price for energy from the generation resource (at the megawatt level of the Non-Synchronized Reserve assignment) in the PJM Interchange Energy Market when the Locational Marginal Price at the generation bus is greater than the offer price for energy at the generation bus.	
24.	OA, Schedule 1, section 3.2.3A.001, Non-Synchronized Reserve OATT, Attachment	(e) In determining the credit under subsection (b) to a resource selected to provide Non-Synchronized Reserve and that follows the Office of the Interconnection's signals and instructions, the unit-specific opportunity cost of a generation resource shall be determined for each Real-time Settlement Interval that the Office of the	(e) In determining the credit under subsection (b) to a resource selected to provide Non-Synchronized Reserve and that follows the Office of the Interconnection's signals and instructions, the unit-specific opportunity cost of a generation resource shall be determined for each Real-time Settlement Interval that the Office of the	Clarification to describe the MW value associated with the offer.

	~~K. Appendix, section 3.2.3A.001, Non-Synchronized Reserve~~	~~Interconnection requires a generation resource to provide Non- Synchronized Reserve and shall be in accordance with the following equation:~~ ~~(A x B) - C~~ ~~Where:~~ ~~A = The deviation of the generation resource's output necessary to follow the Office of the Interconnection's signals and instructions from the generation resource's expected output level if it had been dispatched in economic merit order;~~ ~~B = The Locational Marginal Price at the generation bus for the generation resource; and~~ ~~C = The applicable offer for energy from the generation resource in the PJM Interchange Energy Market.~~	~~Interconnection requires a generation resource to provide Non- Synchronized Reserve and shall be in accordance with the following equation:~~ ~~(A x B) - C~~ ~~Where:~~ ~~A = The deviation of the generation resource's output necessary to follow the Office of the Interconnection's signals and instructions from the generation resource's expected output level if it had been dispatched in economic merit order;~~ ~~B = The Locational Marginal Price at the generation bus for the generation resource; and~~ ~~C = The applicable offer for the deviation as described above in A.energy from the generation resource in the PJM Interchange Energy Market.~~	
~~25.~~18.	OA, Schedule 1, section 3.2.3B, Reactive Services	(c) A Market Seller providing Reactive Services from either a steam-electric generating unit or combined cycle unit operating in combined cycle mode, where such unit is pool-scheduled (or self-	(c) A Market Seller providing Reactive Services from either a steam-electric generating unit or combined cycle unit operating in combined cycle mode, where such unit is pool-scheduled (or self-	Clarification that the credit is calculated on a five-minute basis.

	OATT, Attachment K-Appendix, section 3.2.3B, Reactive Services	scheduled, if operating according to Section 1.10.3 (c) hereof), and where the real time LMP at the unit's bus is higher than the price offered by the Market Seller for energy from the unit at the level of output requested by the Office of the Interconnection (as indicated either by the desired MWs of output from the unit determined by PJM's unit dispatch system or as directed by the PJM dispatcher through a manual override) shall be compensated for lost opportunity cost by receiving a credit in an amount equal to the product of (A) the deviation of the generating unit's output necessary to follow the Office of the Interconnection's signals and the generating unit's expected output level if it had been dispatched in economic merit order, times (B) the Real-time Price at the generation bus for the generating unit, minus (C) the Total Lost Opportunity Cost Offer, provided that the resulting outcome is greater than $0.00. This equation is represented as (A*B) - C.	scheduled, if operating according to Section 1.10.3 (c) hereof), and where the real time LMP at the unit's bus is higher than the price offered by the Market Seller for energy from the unit at the level of output requested by the Office of the Interconnection (as indicated either by the desired MWs of output from the unit determined by PJM's unit dispatch system or as directed by the PJM dispatcher through a manual override) shall be compensated for lost opportunity cost by receiving a credit for each Real-time Settlement Interval in an amount equal to the product of (A) the deviation of the generating unit's output necessary to follow the Office of the Interconnection's signals and the generating unit's expected output level if it had been dispatched in economic merit order, times (B) the Real-time Price at the generation bus for the generating unit, minus (C) the Total Lost Opportunity Cost Offer, provided that the resulting outcome is greater than $0.00. This equation is represented as (A*B) - C.	
~~26.~~19.	OA, Schedule 1, section 3.2.3B, Reactive Services	(d) A Market Seller providing Reactive Services from either a combustion turbine unit or combined cycle unit operating in simple cycle mode that is pool scheduled (or self-scheduled, if operating according to	(d) A Market Seller providing Reactive Services from either a combustion turbine unit or combined cycle unit operating in simple cycle mode that is pool scheduled (or self-scheduled, if operating according to	Clarification that the credit is calculated on a five-minute basis.

	OATT, Attachment K-Appendix, section 3.2.3B, Reactive Services	Section 1.10.3 (c) hereof), operated as requested by the Office of the Interconnection, shall be compensated for lost opportunity cost, limited to the lesser of the unit's Economic Maximum or the unit's Generation Resource Maximum Output, if the unit output is reduced at the direction of the Office of the Interconnection and the real time LMP at the unit's bus is higher than the price offered by the Market Seller for energy from the unit at the level of output requested by the Office of the Interconnection as directed by the PJM dispatcher, then the Market Seller shall be credited in a manner consistent with that described above in Section 3.2.3B(c) for a steam unit or a combined cycle unit operating in combined cycle mode.	Section 1.10.3 (c) hereof), operated as requested by the Office of the Interconnection, shall be compensated for lost opportunity cost for each Real-time Settlement Interval, limited to the lesser of the unit's Economic Maximum or the unit's Generation Resource Maximum Output, if the unit output is reduced at the direction of the Office of the Interconnection and the real time LMP at the unit's bus is higher than the price offered by the Market Seller for energy from the unit at the level of output requested by the Office of the Interconnection as directed by the PJM dispatcher, then the Market Seller shall be credited in a manner consistent with that described above in Section 3.2.3B(c) for a steam unit or a combined cycle unit operating in combined cycle mode.	
~~27.~~20.	OA, Schedule 1, section 3.2.3B, Reactive Services OATT, Attachment K-Appendix, section 3.2.3B,	(f) A Market Seller providing Reactive Services from either a steam-electric generating unit, combined cycle unit or combustion turbine unit, where such unit is pool scheduled (or self-scheduled, if operating according to Section 1.10.3 (c) hereof), and where the real time LMP at the unit's bus is lower than the price offered by the Market Seller for energy from the unit at the level of output requested by the Office of	(f) A Market Seller providing Reactive Services from either a steam-electric generating unit, combined cycle unit or combustion turbine unit, where such unit is pool scheduled (or self-scheduled, if operating according to Section 1.10.3 (c) hereof), and where the real time LMP at the unit's bus is lower than the price offered by the Market Seller for energy from the unit at the level of output requested by the Office of	Correcting a reference to hourly that was missed in the Order No. 825 Hourly Offers filing (ER16-372).

	Reactive Services	the Interconnection (as indicated either by the desired MWs of output from the unit determined by PJM's unit dispatch system or as directed by the PJM dispatcher through a manual override), shall receive a credit hourly in an amount equal to {(AG - LMPDMW) x (UB - URTLMP)} where: AG equals the actual output of the unit; LMPDMW equals the level of output for the unit determined according to the point on the scheduled offer curve on which the unit was operating corresponding to the real time LMP at the unit's bus and adjusted for any Regulation or Tier 2 Synchronized Reserve assignments; UB equals the unit offer for that unit for which output is increased, determined according to the lesser of the Final Offer or Committed Offer; URTLMP equals the real time LMP at the unit's bus; and where UB - URTLMP shall not be negative.	the Interconnection (as indicated either by the desired MWs of output from the unit determined by PJM's unit dispatch system or as directed by the PJM dispatcher through a manual override), shall receive a credit ~~hourly~~ in an amount equal to {(AG - LMPDMW) x (UB - URTLMP)} where: AG equals the actual output of the unit; LMPDMW equals the level of output for the unit determined according to the point on the scheduled offer curve on which the unit was operating corresponding to the real time LMP at the unit's bus and adjusted for any Regulation or Tier 2 Synchronized Reserve assignments; UB equals the unit offer for that unit for which output is increased, determined according to the lesser of the Final Offer or Committed Offer; URTLMP equals the real time LMP at the unit's bus; and where UB - URTLMP shall not be negative.	
~~28.~~21.	OATT, Definitions L-	"New Service Queue" shall mean all Interconnection Requests, Completed	"New Services Queue" shall mean all Interconnection Requests, Completed	The definition for "New Service Queues" was not

	M-N	Applications, and Upgrade Requests that are received within each six-month period ending on April 30 and October 31 of each year shall collectively comprise a New Services Queue.	Applications, and Upgrade Requests that are received within each six-month period ending on ~~April 30~~March 31 and ~~October 31~~September 30 of each year shall collectively comprise a New Services Queue.	updated 2 years ago in connection with the filings made in Docket No. ER16-2518. In this docket PJM made several changes to the queue, including the timing of the windows. The changes were described in the filing letter (dated August 31, 2016), captured in other places in the Tariff, and captured in the Manuals. The Commission accepted this filing on October 7, 2016.
~~29.~~22.	OA, section 10.4, Duties and Responsibilities	xv) Consult with the standing or other committees established pursuant to Section 8.6(a) on matters within the responsibility of the committee;	xv) Consult with the standing or other committees established pursuant to Operating Agreement, s~~S~~ection 8.6~~(a)~~ on matters within the responsibility of the committee;	Because the reference to Operating Agreement, section 8.6(a) does not exist, an updated cross-reference is provided.
~~30.~~23.	OA, section 14B	14A TRANSMISSION LOSSES 14A.1 Description of Transmission Losses 14A.2 Inclusion of State Estimator Transmission Losses 14A.3 Other Losses 15. ENFORCEMENT OF OBLIGATIONS	14A TRANSMISSION LOSSES 14A.1 Description of Transmission Losses 14A.2 Inclusion of State Estimator Transmission Losses 14A.3 Other Losses 14B. BILLING AND PAYMENT 14B.1 Billing Procedure 14B.2 Payments	Section 14B of the OA is not represented in the Table of Contents.

			14B.3 Interest on Unpaid Balances 14B.4 Additional Billing and Payment Provisions With Respect to Counterparty 15. ENFORCEMENT OF OBLIGATIONS	
~~31.~~24.	RAA, Article 4	**ARTICLE 4 -- ADDITION OF NEW PARTIES** Each Party agrees that any entity that (i) is or will become a Load Serving Entity, (ii) complies with the process and data requirements set forth in Schedule 1, and (iii) meets the standards for interconnection set forth in Schedule 2 shall become a Party to this Agreement and shall be listed on Schedule 16 of this Agreement upon becoming a party to the Operating Agreement, and execution of a counterpart of this Agreement.	**ARTICLE 4 -- ADDITION OF NEW PARTIES** Each Party agrees that any entity that (i) is or will become a Load Serving Entity, (ii) complies with the process and data requirements set forth in RAA, Schedule 1, and (iii) meets the standards for interconnection set forth in RAA, Schedule 2 shall become a Party to this Agreement and shall be listed on RAA, Schedule ~~16~~ 17~~of this Agreement~~ upon becoming a party to the Operating Agreement, and execution of a counterpart of this Agreement.	Correct cross-reference.
~~32.~~25.	OA, Schedule 10, section 4	**4.Jurisdiction.** The Parties agree that (i) any dispute or conflict requesting the relief in sections 3.1, and 3.2(a) above shall be submitted to FERC for hearing and resolution; (ii) any dispute or conflict requesting the relief in section 3.2(c) above may be submitted to FERC or any court of competent jurisdiction for hearing	**4. Jurisdiction.** The Parties agree that (i) any dispute or conflict requesting the relief in Operating Agreement, Schedule 10, section~~s~~ 3.1~~,~~ and Operating Agreement, Schedule 10, section 3.2(a) ~~above~~ shall be submitted to FERC for hearing and resolution; (ii) any dispute or conflict requesting the relief in Operating	Conforming to standard naming convention.

		and resolution; and (iii) jurisdiction over all other actions and requested relief shall lie in any court of competent jurisdiction.	Agreement, Schedule 10, section 3.2(c) ~~above~~ may be submitted to FERC or any court of competent jurisdiction for hearing and resolution; and (iii) jurisdiction over all other actions and requested relief shall lie in any court of competent jurisdiction.	
~~33.~~26.	OA, Schedule 10	[left justified] RECITALS	[centered] RECITALS	To center heading to keep formatting consistent
~~34.~~27.	OA, Schedule 10, section 1 Heading	DEFINITIONS.	~~DEFINITIONS~~Definitions.	To keep formatting consistent
~~35.~~28.	OA, Schedule 10, section 5	If to PJM: General Counsel 2750 Monroe Blvd. Audubon, PA 19403 Vincent.Duane@pjm.com	If to PJM: General Counsel 2750 Monroe Blvd. Audubon, PA 19403 ~~Vincent.Duane@pjm.com~~GeneralCounsel@pjm.com	To change notice address to general law department email address to avoid further changes due to departures or changes in personnel.
~~36.~~29.	RAA, Schedule 8.1.H	**H. Annexation of service territory by Public Power Entity** 1. In the event a Public Power Entity that is an FRR Entity annexes service territory to include new customers on sites where no load had previously existed, then the incremental load on such a site shall be treated as unanticipated load growth, and such FRR Entity shall be required to commit sufficient resources to cover such obligation in the relevant Delivery Year. 2. In the event a Public Power Entity that is an FRR Entity annexes service territory to include load from a Party that has not elected the FRR Alternative, then:	**H. Annexation of service territory by Public Power Entity** 1.In the event a Public Power Entity that is an FRR Entity annexes service territory to include new customers on sites where no load had previously existed, then the incremental load on such a site shall be treated as unanticipated load growth, and such FRR Entity shall be required to commit sufficient resources to cover such obligation in the relevant Delivery Year. 2.In the event a Public Power Entity that is an FRR Entity annexes service territory to include load from a Party that has not elected the FRR Alternative, then:	There are currently two sections of RAA, Schedule 8.1.H. The highlighted language shows the differences between the two previously accepted sections. However, when the language was last revised, it was improperly placed at the beginning of Schedule 8.1. This change would merely replace the

		a. For any Delivery Year for which a Base Residual Auction already has been conducted, such acquiring FRR Entity shall meet its obligations for the incremental load by paying PJM for incremental obligations (including any additional demand curve obligation) at the Capacity Resource Clearing Price for the relevant location. Any such revenues shall be used to pay Capacity Resources that cleared in the Base Residual Auction for that LDA. b. For any Delivery Year for which a Base Residual Auction has not been conducted, such acquiring FRR Entity shall include such incremental load in its FRR Capacity Plan. 3.Annexation whereby a Party that has not elected the FRR Alternative acquires load from an FRR entity: a. For any Delivery Year for which a Base Residual Auction already has been conducted, PJM would consider shifted load as unanticipated load growth for purposes of determining whether to hold a Second Incremental Auction. If a Second Incremental Auction is held, FRR entity would have a must offer requirement for sufficient capacity to meet the load obligation of such shifted load. If no Second Incremental Auction is conducted, the FRR Entity may sell the associated quantity of capacity into an RPM Auction or bilaterally. b. For any Delivery Year for which a Base Residual Auction has not been conducted, the FRR Entity that lost such load would no longer include such load in its FRR Capacity	a. For any Delivery Year for which a Base Residual Auction already has been conducted, such acquiring FRR Entity shall pay a Locational Reliability Charge for the acquired load. b. For any Delivery Year for which a Base Residual Auction has not been conducted, such acquiring FRR Entity shall include such incremental load in its FRR Capacity Plan. 3.Annexation whereby a Party that has not elected the FRR Alternative acquires load from an FRR Entity: a. For any Delivery Year for which a Base Residual Auction already has been conducted, PJM would consider shifted load as unanticipated load growth for purposes of determining the RTO/LDA Reliability Requirements, Limited Resource and Sub-Annual Constraints for the 2017/2018 Delivery Year, and Base Capacity Demand Resource Constraint and Base Capacity Resource Constraint for the 2018/2019 and 2019/2020 Delivery Years in all future Incremental Auction(s) for such Delivery Years, and such shifted load shall pay a Locational Reliability Charge. For the next Incremental Auction, the FRR Entity would have an RPM must offer requirement for a fixed amount of unforced capacity equal to the shifted load times the updated Forecast Pool Requirement applicable to the next Incremental Auction. The FRR Entity would continue to have an RPM must offer requirement for all future Incremental Auctions for such Delivery Year; however, the RPM must offer requirement would terminate once the FRR Entity cleared the required fixed amount of Unforced Capacity in Incremental Auction(s) for such Delivery Year.	language in Schedule 8.1.H with the correct language that was filed and accepted from Docket No. ER17-1372

		Plan, and PJM would include such shifted load in future BRAs.	any Delivery Year for which a Base Residual Auction has not been conducted, the FRR Entity that lost such load would no longer include such load in its FRR Capacity Plan, and PJM would include such shifted load in future BRAs.	