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October 26, 2004

Honorable Magalie Roman Salas Secretary Federal Energy Regulatory Commission 888 First Street, N.E., Room 1A Washington, D.C. 20426

Re: <u>PJM Interconnection, L.L.C.</u>, Docket Nos. ER04-539-001, ER04-539-002, EL04-121-000

Dear Ms. Salas:

Pursuant to the Federal Energy Regulatory Commission's ("Commission") order in <u>PJM Interconnection</u>, L.L.C., 108 FERC ¶ 61,187 (2004) ("August 10 Order"), PJM Interconnection, L.L.C. ("PJM") submits (1) a Report of the PJM Market Monitor Regarding Offer Capping of Major Transmission Constraints ("Report") and (2) amendments to the PJM Open Access Transmission Tariff ("PJM Tariff") and the Amended and Restated Operating Agreement of PJM Interconnection, L.L.C. ("Operating Agreement") (i) to revise PJM's offer capping rules to provide that PJM

The Report is attached hereto as Attachment 1.

shall conduct annual competitive analyses of transmission constraints, and if the results of such analyses warrant, file amendments to the PJM Tariff and Operating Agreement to include additional exemptions from its offer capping rules; and (ii) to exempt the "APS South" interface from PJM's offer capping rules, based on this year's analysis.

I. Background

In the August 10 Order, the Commission addressed, among other things, PJM's current offer capping rules as they pertain to the Northern Illinois Control Area ("NICA") and other areas into which PJM is currently expanding. The Commission noted that "PJM's tariff generally provides for mitigation whenever a generator is called out of merit due to a transmission constraint" but that "section 6.4(d) of PJM's tariff provides an exception from such mitigation" for "generation resources used to relieve the Western, Central and Eastern reactive limits in the PJM Control Area." The Commission further expressed the concern that "as PJM expands, there is not in place a mechanism for determining whether other major transmission constraints into and/or out of the newly integrated areas should also be exempted from triggering mitigation of some or all generators called out of merit." Therefore, the Commission required PJM, within 60 days, to justify its current offer capping exemption provision or to propose a revision to that provision that would require PJM to perform the competitive analysis necessary to

August 10 Order at P 73; see also PJM Tariff § 6.4(d).

^{3 &}lt;u>Id.</u> at P 75.

The Commission issued a Notice of Extension of Time on October 8, 2004, in Docket No. EL04-121-000 granting PJM an extension of time until October 26, 2004 to submit the filings required by the August 10 Order.

determine whether an exemption from mitigation is appropriate when new control areas are added to PJM.⁵ It further directed PJM to provide "a competitive analysis of whether constraints on the major transmission interfaces into and/or out of AEP, DP&L, and VEPCO should also trigger offer capping as those companies move into PJM." Finally, the Commission required PJM "to address in its response whether offer capping should be limited to those generators that fail the market power test."

II. Revision to Offer-Cap Exemption Provision

In response to the Commission's concern that, as PJM expands, there is no mechanism in place "for determining whether other major transmission constraints into and/or out of the newly integrated areas should also be exempted from triggering mitigation of some or all generators called out of merit," PJM proposes to modify section 6.4.1(d) of its market rules. The modification provides that PJM shall perform competitive analyses of major transmission constraints annually and, when the results of those analyses warrant, make the necessary filings with the Commission to exempt additional transmission constraints from PJM's offer capping rules. The first annual competitive analysis will be conducted after six months of experience with the integration

⁵ August 10 Order at P 75.

^{6 &}lt;u>Id.</u> at P. 76.

⁷ <u>Id.</u> at P. 75.

⁸ Id.

Market rule 6.4.1(d) is in both the Appendix to Attachment K of the PJM Tariff and Schedule 1 to the Operating Agreement. Therefore, the proposed amendments are made to both documents.

of American Electric Power Company ("AEP"), The Dayton Power and Light Company ("DP&L"), and Virginia Electric Power Company ("VEPCO"). 10 This annual competitive analysis process addresses the Commission's desire that major transmission constraints resulting from the integration of new areas into PJM be analyzed regularly to determine whether they should be exempted from offer capping. At the same time, it will provide a mechanism for assessing annually whether circumstances have changed regarding existing constraints that would warrant exempting additional constraints from offer capping rules.

PJM also is taking this opportunity to further revise section 6.4.1(d) to remove the exemption of the PJM-NICA 500 MW pathway when it is constrained from west to east from the offer capping rules. This exemption has become moot, as the pathway no longer exists due to the integration of AEP into PJM.¹¹

Finally, based on the results of the competitive analysis performed by the PJM Market Monitor, described in the attached Report and discussed below, PJM is revising section 6.4.1(d) to exempt the "APS South" interface from PJM's offer capping rules.

III. PJM Market Monitor Report

In response to the August 10 Order, the PJM Market Monitor conducted a competitive analysis of major transmission constraints into and/or out of AEP, DP&L, and VEPCO to determine whether constraints on any of these facilities should trigger

Report at P 4.

See PJM Tariff, Appendix to Attachment K § 9.1.

capping as the companies are integrated into PJM.¹² The PJM Market Monitor studied eleven major facilities.¹³ Seven of these facilities were selected based on the fifteen most frequently constrained facilities in the PJM expanded footprint, based on the frequency that TLRs were called.¹⁴ As the PJM Market Monitor explains in the Report, seven separate monitored facilities are associated with the fifteen flowgates with frequent TLRs. The APS South interface was added to the list based on the amount of load that it isolated. The currently exempt Western, Central and Eastern reactive limits also were studied to provide a frame of reference for the analysis.¹⁵

Based on the results of the competitive analysis (described in detail in the attached Report), the PJM Market Monitor concluded that, "[t]he delivered price test results indicate that the APS South interface should be exempted from offer capping." The "APS South" interface lies between the former APS¹⁷ system and PJM, prior to APS's integration into PJM and includes the Mt. Storm-Doubs and Mt. Storm-Meadow Book facilities. Notably, this additional exemption is made possible by the integration

Although the Commission did not direct PJM to evaluate the Commonwealth Edison Company ("ComEd") region, the PJM Market Monitor examined ComEd and determined that there were no significant congestion or Transmission Loading Relief procedures ("TLRs") warranting inclusion of ComEd in the analysis.

Report at P 8, Table 1.

Report at P.9.

¹⁵ Id.

^{16 &}lt;u>Id.</u> at P 19.

[&]quot;APS" refers to Allegheny Power.

Report at P 10.

of ComEd, DP&L and AEP into PJM, as well as the anticipated integration of VEPCO.¹⁹ The integration of these systems into PJM creates a larger market and a larger pool of generation under redispatch that has a significant impact on the APS South facilities.²⁰ Additionally, the integration internalized flows from generation that previously was controlled primarily using TLRs rather than redispatch;²¹ relying on redispatch rather than TLRs is one of the important goals of establishing large regional markets using locational marginal pricing.

While the results of the PJM Market Monitor's analysis indicates that the level of competition from the integration of the new systems into PJM also has reduced offer capping at the Bedington-Black Oak constraint, the need for offer capping has not been entirely eliminated because there still are times when the supply of available control actions is very small and the ownership of the resources is highly concentrated.²² Therefore, at this time, the Bedington-Black Oak constraint is not a candidate for exemption from offer capping. Nonetheless, as a result of the integration of the new system, the frequency of offer capping will be far less.²³

Similarly, the delivered price test results associated with the other facilities studied (Kammer Transformer, Sammis-Wylie Ridge, Mt. Storm-Doubs Kanawah-Matt

^{19 &}lt;u>Id.</u> at P 20.

²⁰ Id. at P 21.

^{21 &}lt;u>Id.</u>

^{22 &}lt;u>Id.</u> at P 23.

^{23 &}lt;u>Id.</u> at P 24.

Funk, Cloverdale-Lexington, and the Wylie Ridge Transformer) do not support exempting these facilities from offer capping.²⁴

Finally, in the August 10 Order, the Commission directed PJM to address "whether offer capping should be limited to those generators that fail the market power test."25 As the PJM Market Monitor explains in the Report, "[a]s a general matter in PJM, offer capping is confined to cases where there is little or no diversity of ownership." therefore, "all generation owners have market power and the question of limiting offer capping does not arise."26 Depending on the exact test, it still is possible for a generation owner that passes the individual components of the delivered price test to exercise market power in a market where other generation owners fail the delivered price test. Nonetheless, as a general matter, individual generation owners of units that can relieve a constraint for which other generation owners have demonstrated market power could be exempted from offer capping, based on a detailed analysis of their market position under the full range of possible market conditions.²⁷ If it can be shown that such owners cannot exercise market power, they should be exempted from offer capping. Such an analysis should be made on a case by case basis. 28 The PJM Market Monitor will conduct such an analysis annually. If, based on the analysis, any generator should be exempt from offer

<u>Id.</u> at P 26.

August 10 Order at P.75.

Report at P 6.

^{27 &}lt;u>Id.</u>

^{28 &}lt;u>Id.</u>

capping, the PJM Market Monitor either will propose to add such exemptions to section 6.4.1(d) of the market rules or otherwise propose modifications to section 6.4 to address the matter. Any such change to section 6.4 will require Commission acceptance.²⁹

IV. Effective Date

PJM requests an effective date for the revisions to section 6.4.1(d) of the PJM Tariff and the Operating Agreement no earlier than the day following the issuance of the Commission order accepting for filing the revisions. Pursuant to section 206(b) of the Federal Power Act (16 U.S.C. § 824), the Commission set a refund date of 60 days from the August 10 Order.³⁰ Because of the nature of offer caps, however, PJM cannot retroactively undo offer caps that were in place for markets that already have cleared. Therefore, PJM requests that the Commission make the proposed amendments to the PJM Tariff and Operating Agreement providing an additional exemption for APS South from PJM's offer capping rules effective prospectively only.

V. Documents Enclosed

PJM encloses the original and five copies of each of the following:

- 1. This transmittal letter;
- 2. Attachment 1: Report
- 3. Attachment 2: Revised PJM Tariff and Operating Agreement sheets and redlined versions of same.
- 4. Form of <u>Federal Register</u> Notice (also enclosed on diskette).

²⁹ <u>Id.</u>

August 10 Order at P 77.

VI. Correspondence And Communications

Correspondence and communications with respect to this filing should be sent to, and PJM requests the Secretary to include on the official service list, the following:

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VII. Service and Federal Register Notice

PJM has served a copy of this filing upon all PJM members, each state electric utility regulatory commission in the PJM region, and each person designated on the official service list compiled by the Secretary in Docket Nos. ER04-539-001, 002 and EL04-121-000. A form of notice suitable for publication in the <u>Federal Register</u> is attached and is enclosed on diskette.

Respectfully submitted,

Barry S. Spector Carrie L. Bumgarner

Counsel for PJM Interconnection, L.L.C

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Attachment 1

Report of the PJM Market Monitor Regarding Offer Capping of Major Transmission Constraints Docket Nos. ER04-539-001, 002 and EL04-121-000

- 1. The Federal Energy Regulatory Commission ("Commission") in the Order on Rehearing and Compliance filing issued on August 10, 2004 in Docket Nos. ER04-539-001, 002 and EL04-121 ("August 10 Order")¹ discussed the issue of major transmission constraints in PJM Interconnection, L.L.C. ("PJM") and local market power mitigation. Specifically it stated:
 - 72. However, we are concerned that PJM's current tariff is no longer appropriate in determining whether generators in new areas should be exempt from mitigation and are instituting a procedure under section 206 of the FPA to determine whether PJM has identified the appropriate triggers for offering capping mitigation in the control areas of those companies that have recently joined it and/or are in the process of joining it: Allegheny Power, ComEd, AEP, DP&L and VEPCO, and that will join in the future.
 - 73. PJM's tariff generally provides for mitigation whenever a generator is called out of merit due to a transmission constraint. However, section 6.4(d) of PJM's tariff provides an exception from such mitigation:

Price caps shall not be applicable to generation resources used to relieve the Western, Central and Eastern reactive limits in the PJM Control Area. In addition, price caps shall not be applicable to generation resources used to relieve any other transmission limit as to which the FERC has authorized the used of market based rates.

- 74. Under this provision, generators are not offer capped when the constraint is due to transmission constraints on these three transmission interfaces. The rationale for the exceptions is that sufficient competition exists on each side of these constraints to prevent any generator from acquiring market power when the constraint develops.
- 75. We are concerned that as PJM expands, there is not in place a mechanism for determining whether other major transmission constraints into and/or out of the newly integrated areas should

PJM Interconnection, L.L.C., 108 FERC ¶ 61,187 (2004) ("August 10 Order").

also be exempted from triggering mitigation of some or all generators called out of merit. Currently, the burden is placed on individual generators to seek an exception to PJM's mitigation procedures, or they will, by default, be subject to mitigation. It is our view that, as new members join PJM and new control areas come under PJM's control, the onus should be on PJM to demonstrate why generators in those control areas should be mitigated when constraints on the major transmission interfaces into the control area arise. We therefore will require PJM to respond within 60 days of the date of this order to justify its current provision or to propose a revision to that provision that will require PJM to perform the competitive analysis to determine whether an exemption from mitigation is appropriate when new control areas are added to PJM. Because of the concerns with respect to the offer capping of all units, as discussed above, we will require PJM to address in its response whether offer capping should be limited to those generators that fail the market power test.

76. In addition, such an analysis has not been submitted for the new areas that have already been accepted as members of PJM or have such applications pending. Therefore, pursuant to sections 206, 304, and 307 of the FPA, the Commission will require PJM to provide, within 60 days of this order, a competitive analysis of whether constraints on the major transmission interfaces into and/or out of AEP, DP&L, and VEPCO should also trigger offer capping as those companies move into PJM.²

- 2. The August 10 Order requires PJM to address three issues:
 - a. The OA³ provision concerning exemption from offer capping related to major transmission constraints;
 - b. Whether offer capping should be limited to those generators that fail the market power test; and
 - c. An analysis of competition at major transmission constraints associated with the newly integrated parts of PJM.
- 3. The August 10 Order requires PJM to justify, or propose a modification to, the current tariff provision governing the exemption from offer capping related to major transmission constraints.

Id. at PP 72-76.

The "OA" refers to the Amended and Restated Operating Agreement of PJM Interconnection, L.L.C.

The OA provision in question (Schedule 1, \S 6.4.1(d))⁴ states:

- (d) Offer price caps shall not be applicable to generation resources used to relieve the Western, Central and Eastern reactive limits in the PJM Control Area or to the generation transfer pathway established under Section 9 of this Schedule when such pathway is constrained from west to east. In addition, offer price caps shall not be applicable to generation resources used to relieve any other transmission limit as to which the FERC has determined that offer price caps shall not be applicable.
- 4. PJM will file a modification to section 6.4.1(d) cited above that will require PJM to perform a competitive analysis of major transmission constraints every 12 months and to recommend to the Commission, if warranted by the results, additional transmission constraints that should be exempt from offer capping. PJM proposes to perform the first such analysis after six months of experience with the integration of AEP, DP&L and VEPCO, based on the actual data that results.
- 5. After the integration of APS,⁵ PJM performed a competitive analysis of the Bedington-Black Oak constraint to determine whether that major transmission constraint between APS and PJM should be exempt from offer capping. At that time, PJM determined that competitive conditions did not support an exemption from offer capping for the Bedington-Black Oak constraint.
- 6. The August 10 Order requires PJM "to address in its response whether offer capping should be limited to those generators that fail the market power test."

As a general matter in PJM, offer capping is confined to cases where there is little or no diversity of ownership. In such cases, all generation owners have market power and the question of limiting offer capping does not arise. Further, the application of offer capping in PJM automatically exempts any units that are lowered to provide constraint control. If the most cost-effective action to resolve a constraint is a lower, no offer capping is applied under the PJM rules. PJM applies offer capping only for raises. This is especially relevant to the facilities identified in this report as explained below.

In addition, limiting offer capping to those units identified as having market power raises questions not directly addressed by the Commission's currently defined approach to market power. In a market with a high level of concentration, the

This section also appears in the Appendix to Attachment K of the PJM Open Access Transmission Tariff.

[&]quot;APS" refers to Allegheny Power.

⁶ August 10 Order at P 75.

Commission states that HHIs are an indicator of the likelihood of coordinated action. No conclusion is reached about the implications for market power if a generation owner passes the pivotal supplier and market share tests but fails the HHI test. This could be the case for a generation owner in a market dominated by one or more other generators. Depending on the exact test, it is still possible for a generation owner that passes the individual components of the delivered price test to exercise market power in a market where other generation owners fail the delivered price test. For example, if there is a significant difference between the costs of a single generation owner that passes the individual delivered price tests and the costs of the generation owner that fails the test, the lower cost owner will not be constrained by competition or by offer capping of the generator that fails the test and the result could be the exercise of market power.

Nonetheless, as a general matter, individual generation owners of units that can relieve a constraint, for which other generation owners have demonstrated market power, could be exempted from offer capping, based on a detailed analysis of their market position under the full range of possible market conditions. If it can be shown that such owners cannot exercise market power, they should be exempted from offer capping. Such an analysis should be made on a case by case basis. The PJM Market Monitoring Unit ("MMU") will conduct such an analysis annually as part of the analysis of major transmission constraints. If, based on the analysis, any generators should be exempt from offer capping, the MMU will either propose to add such exemptions to section 6.4 or otherwise propose modifications to section 6.4 to address the matter. Any such change to section 6.4 will require Commission acceptance.

7. The August 10 Order also requires PJM to provide a competitive analysis of whether constraints on the major transmission interfaces into and/or out of American Electric Power Company ("AEP"), The Dayton Power & Light Company ("DP&L"), and Virginia Electric Power Company ("VEPCO") should also trigger offer capping as those companies move into PJM. That analysis follows.

AEP Power Mktg., Inc., 107 FERC ¶ 61,018, order on reh'g, 108 FERC ¶ 61,026, at P 111 (2004) ("AEP Order").

⁸ August 10 Order at P 76.

8. PJM examined the transmission facilities listed in Table 1 below.

Table 1.

Table 1.				
	Studied Facilities			
1	Kammer Transformer			
2	Sammis – Wylie Ridge			
3	Wylie Ridge Transformer			
4	Black Oak – Bedington			
5	APS South			
6	Mt. Storm – Doubs			
7	Kanawah – Matt Funk			
8	Cloverdale – Lexington			
9	Western Interface			
10	Central Interface			
11	Eastern Interface			

- 9. The facilities in Table 1 were selected based on the fifteen most frequently constrained facilities in the PJM expanded footprint, based on the frequency of occurrence of TLRs.9 Although the Commission did not direct PJM to evaluate the ComEd region, the MMU examined ComEd and determined that there was no significant congestion or TLRs warranting inclusion of ComEd in the analysis. TLRs are the only available measure of constrained hours in areas without markets. In the next annual competitive analysis of major transmission constraints, PJM will have market data available for the newly integrated areas. The list was sorted by monitored facility and the result was that there are seven separate monitored facilities associated with the fifteen flowgates with frequent TLRs. As an example of this logic, if the Wylie Ridge Transformer appeared several times in the top fifteen occurrences but with multiple contingent facilities, one Wylie Ridge Transformer monitored facility/contingent facility pair was selected as representative of the constrained facility. The competitive analysis is the same for each such facility. APS South was added to the list based on the amount of load that it isolated. Finally, the currently exempt Western, Central and Eastern reactive limits in PJM Mid-Atlantic were added to provide a frame of reference for the analysis.
- 10. With the exception of APS South, the other defined facilities are not interfaces in the same sense that the Western, Central and Eastern reactive limits in PJM are interfaces. These PJM reactive interfaces are relatively broad sets of facilities which are affected by large numbers of units on both sides that limit flows across the system under certain conditions. As a result of the strong high voltage transmission system in

⁹ "TLR" refers to Transmission Loading Relief procedures.

the newly integrated areas, there are no new constraining internal interfaces between the newly integrated areas and the pre-integration PJM area comparable to the Western, Central and Eastern reactive limits. The APS South interface lies between the former APS and PJM, prior to the APS integration, but still required TLRs due to the absence of redispatch options. The APS South interface includes the Mt. Storm – Doubs and Mt. Storm – Meadow Brook facilities.

- 11. Competitive analysis of major transmission constraints is more complex than the competitive analysis of local load pockets. This is the case because in general, depending on the constraint, there are two broad control strategies used in actual system operations. Units on the unconstrained side of the major transmission constraint, with a significant impact on the facility, can be lowered (output reduced in response to a price signal) in order to relieve the constraint together with a corresponding raise (increase in energy output in response to a price signal) on either the unconstrained or the constrained side of the facility, to maintain system energy balance. Units on the constrained side of the major transmission constraint, with a significant impact on the facility, can be raised in order to relieve the constraint, together with a corresponding lower to maintain system energy balance. In contrast, for a local load pocket, the only cost effective strategy is typically to raise the output of a unit inside the load pocket.
- 12. The PJM system software routinely provides the least cost solution to managing congestion across major transmission constraints by selecting the least cost combination of raises and lowers to meet the load, taking account of transmission constraints, while maintaining overall balance between energy output and load, the energy balance. The object in the competitive analysis is to reproduce the logic used in the market software so that the competitive analysis correctly defines the market, the market participants and the associated supply curve for each studied major transmission constraint. The MMU coordinated extensively with PJM markets personnel to achieve this objective.
- 13. Using GE MAPS, a supply curve was constructed for each constraint showing the effective MW of supply, rank ordered by effective cost, where effective MW are the MW impact on the constraint as determined by unit-specific distribution factors and the effective cost is a function of the system locational marginal price ("LMP"), the distribution factors and the units' production cost. ¹⁰ Consistent with actual PJM dispatch, units with a significant impact on the respective constraints were included in the analysis. The supply curve represents the resources, and their associated costs, available to relieve the specified constraint. Importantly, these resources include both the ability to increase output at specific units and thereby reduce the load on the constrained facility and the ability to reduce output at specific units and thereby reduce the load on the constrained facility.

The effective cost of raising or lowering the output of a unit to control a constraint equals (LMP – Offer)/dfax, where LMP is the system LMP in \$/MWh. Offer is the offer of the unit in \$/MWh and dfax is the distribution factor.

- 14. The competitive analysis followed the logic of the Commission's current market power approach.¹¹ A delivered price test was performed, focusing on competitive resources available to solve the identified major transmission constraints, including a market share test, a market concentration test and a pivotal supplier test.
- 15. Load duration analysis was used to divide load levels into four quartiles for each constraint for more discrete analysis. The essential difference among the four load quartiles is the system load and the corresponding system price. The level of the system price affects the competitiveness of resources available to relieve constraints. A local supply curve for each constraint was developed based on the effective MW and effective cost for all units with a significant impact on the constraint.
- 16. A delivered price analysis was performed for each identified constraint. The delivered price test was based on dividing the supply curve associated with each load quartile into four quartiles, representing relatively competitive resources within each quartile of the supply curve for each system load condition. The supply curve quartiles included resources with effective costs that varied by up to 50 percent, so that this test is extremely conservative compared to the 5 percent threshold specified by the Commission for the delivered price test. 12 For each supply curve quartile, market shares were calculated for each constraint at each load level and corresponding Herfindahl-Hirschman Indices ("HHIs") were calculated. The requirement, or demand for, MW levels of control actions was determined by reviewing a range of actual system conditions and selecting a representative high requirement for control actions actually taken by PJM. This data was available from PJM only for constraints that were within PJM prior to the identified integration. A pivotal supplier analysis was performed to determine the extent to which one or more suppliers were individually or jointly pivotal in the market to provide required control for the identified major transmission constraints. The competitive analysis assumes throughout that unit output is offered at marginal cost, consistent with a competitive market. No explicit modeling of various forms of non-competitive behavior was undertaken.
- 17. The delivered price test results for the pre-integration PJM transmission constraints are shown in Table 2. These results focus on the fourth load quartile and the first quartile of the corresponding supply curve of effective MW to control the constraints. The results for the Western, Central and Eastern interfaces are consistent. Each shows a maximum market share of about 27 percent, HHIs from 1054 to 1280 and more than three jointly pivotal suppliers. Thus, it continues to be

See AEP Order.

Id. at App. F.

The fourth load quartile was chosen as it includes relatively high prices (\$56 per MWh) in order to reflect the associated impact on available cost effective control actions and the first quartile of the supply curve was chosen as it represents competitive control actions consistent with the definition of the delivered price test.

appropriate to exempt the three historical interfaces in PJM from offer capping based on competitive supply alternatives. The results for the APS South interface are comparable, with a higher maximum market share of 35.8 percent, an HHI of 2091 and more than three pivotal suppliers. Based on this analysis it is appropriate to exempt the APS South interface from offer capping. The results for the remaining PJM constraints indicate that these constraints do not have adequate competitive supply alternatives to support exemption from offer capping. Sammis-Wylie Ridge, Wylie Ridge Transformer, Mt. Storm-Doubs and Bedington-Black Oak have maximum market shares that range from 29.5 percent to 44.7 percent, HHIs that range from 2053 to 3559 and either one or two jointly pivotal suppliers.

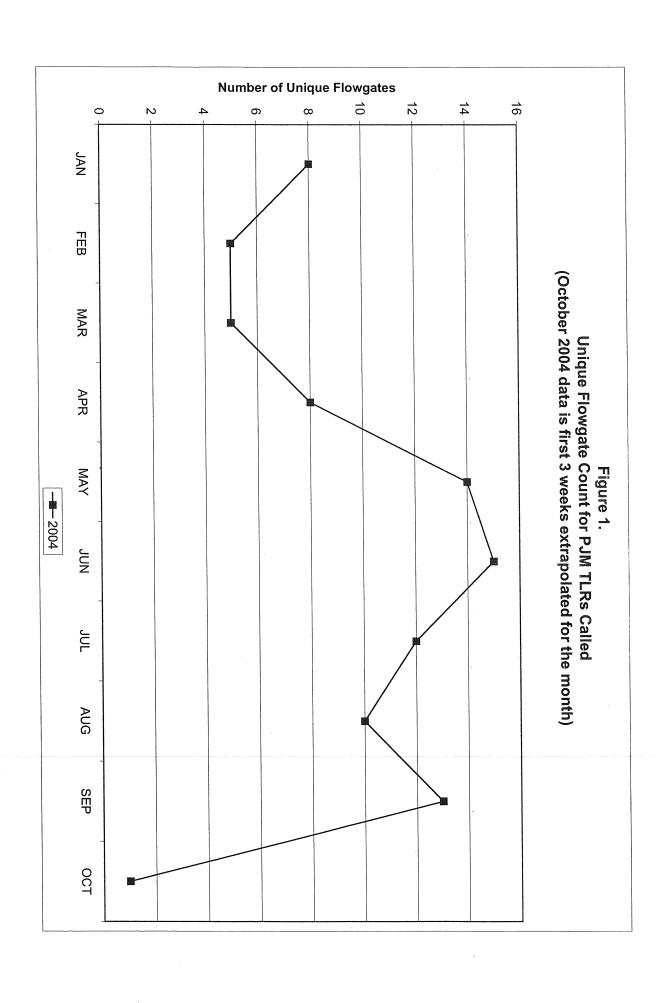
18. The results for the transmission constraints in the newly integrated areas indicate market shares that range from 34.6 percent to 59.8 percent and HHIs that range from 2027 to 5194. Kanawah-Matt Funk has a maximum market share of 59.8 percent and an HHI of 5194 and thus clearly fails the market power tests. Based on this data, Kanawah-Matt Funk should not be exempted from offer capping. It is important to note that AEP currently has a 765 kV transmission line under construction from Wyoming to Jacksons' Ferry that is expected to reduce congestion on Kanawah-Matt Funk after its in service date of June 2006. Kammer and Cloverdale-Lexington have maximum market shares of approximately 35 percent and HHIs of approximately 2000. As a result of the fact that these are constraints from the newly integrated areas, there is no PJM data on the amount of effective MW needed to relieve constraints, if they occur. However, TLR data was examined for recent TLR events at these facilities and the associated required relief was calculated from NERC data. Based on this level of required relief, both Kammer and Cloverdale-Lexington have two jointly pivotal suppliers. Based on this data, neither Kammer nor Cloverdale-Lexington should be exempted from offer capping at this time. This conclusion will be reexamined when six months of PJM operational data is available.

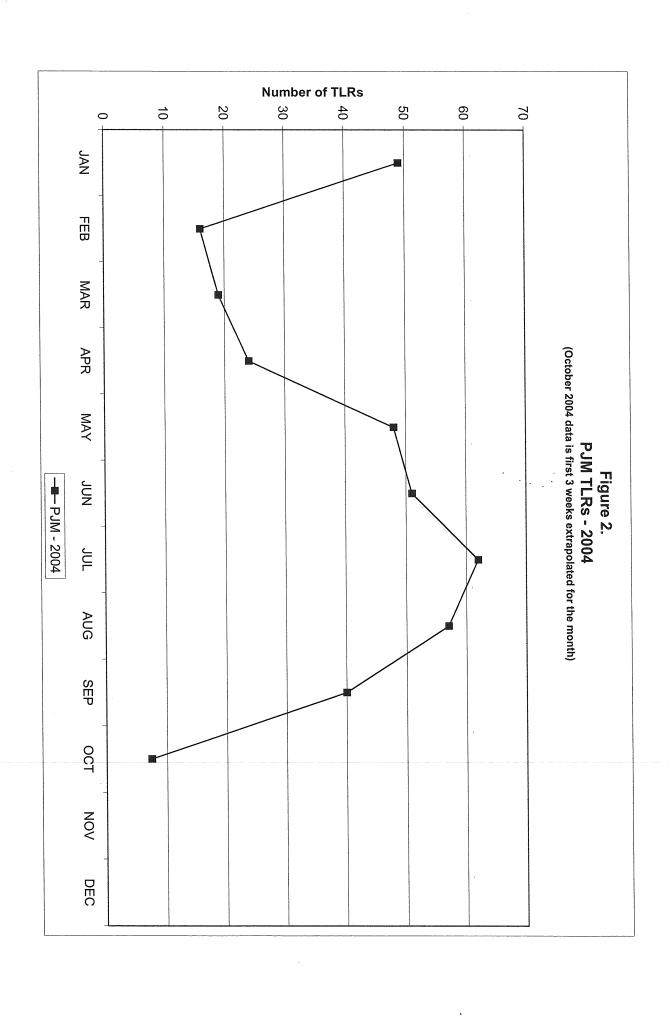
Flowgate		нні	Max Market Share	Pivotal Test	Overall Result
3	Eastern Interface	1054	27.7%	Pass	Pass
4	Central Interface	1160	26.7%	Pass	Pass
5	Western Interface	1280	26.9%	Pass	Pass
100	Kammer xFormer	2070	34.6%	Fail	Fail
111	Sammis-Wylie Ridge	3559	42.9%	Fail	Fail
50	AP South	2091	35.8%	Pass	Pass
1790	Mt Storm Doubs	2053	35.5%	Fail	Fail
2353	Black Oak Bedington	2083	29.5%	Fail	Fail
2358	Wylie Ridge xFRMR	2638	44.7%	Fail	Fail
2403	Kanawah Matt Funk	5194	59.8%	N/A	Fail
2406	Cloverdale Lexington	2027	35.4%	Fail	Fail

- 19. The delivered price test results indicate that the APS South interface should be exempted from offer capping as the Western, Central and Eastern interfaces currently are exempted.
- 20. The APS South interface should be exempted from offer capping in large part as the result of the integration of Commonwealth Edison Company ("ComEd"), DP&L and AEP and the anticipated integration of VEPCO.
- 21. The integration of ComEd, DP&L and AEP and the anticipated integration of VEPCO, created a larger market and a larger pool of generation under redispatch that has a significant impact on all the identified facilities that were within PJM prior to the identified integration. The integration internalized flows from generation that were previously controllable primarily using the rather blunt instrument of TLRs rather than redispatch. Despite the fact that the competitive analysis does not permit a recommendation to exempt the other transmission constraints from offer capping, the integration has significantly reduced the incidence of offer capping.
- 22. While only several weeks of post-AEP integration data are available, the available data on TLRs indicate that PJM has called significantly fewer TLRs post the AEP integration than pre-integration. From September to October 2004, PJM TLRs declined from 40 to 7, or 83 percent. TLRs for October 2004 were measured for the first 25 days and extrapolated for the balance of the month to make monthly comparisons. (Figure 1.) The number of unique flowgates for which PJM declared TLRs declined from an average of 13 for the May through September 2004, post-ComEd integration period, and 13 in September, to just one flowgate in October (first three weeks of October). (Figure 2.)
- 23. While the supply of competitive resources has been increased for a broad range of system conditions, the supply is not greater for all conditions. For example, the cost effectiveness of lowers is reduced as the system LMP increases and the competitive supply of effective control actions shrinks significantly at some times. The operation of the PJM offer capping rule automatically accounts for the increased competition from new resources as well as conditions under which that competition does not exist. The offer capping rule provides that PJM system operators will always attempt to find the least cost solution to any constraint. A primary source of such least cost solutions can be the redispatch downward (lower) of units. When cost effective lowers are available, PJM system operators do not offer cap any units. However when system conditions mean that such resources are not available and the level of competition is reduced, PJM system operators will offer cap out of merit units that are needed to control the constraint. The actual incidence of offer capping for Bedington-Black Oak illustrates this point. The increased level of competition resulting from integration has significantly reduced offer capping at Bedington-Black Oak but not entirely eliminated the need for offer capping. There are still times when the supply of available control actions is very small and the ownership of the resources is highly concentrated.

- 24. Data on offer capping indicate that offer capping for the Bedington-Black Oak constraint has been reduced significantly post integration in the day ahead markets. There were 196 constrained hours in the day ahead market for Bedington-Black Oak in September 2004 and 24 constrained hours in October 2004 (through October 24). There were 9 days on which offer capping occurred in the day ahead market in September for Bedington-Black Oak and no day ahead offer capping in October for Bedington-Black Oak (October data is through October 26). In October this suggests that the constraint was controlled using lowers and without offer capping. Verified real time data is not yet available for October.
- 25. Of the identified flowgates in PJM, Wylie Ridge was constrained for about 1 percent of hours in September and about 9 percent of hours in October, to date. The number increased in October because PJM had redispatch options to control Wylie Ridge after integration that had not been available prior to integration. TLRs had been used rather than redispatch options prior to the identified integration. The constrained hours in October 2004 did not result in any offer capping because there were less expensive alternatives available to control the constraint. Neither Mt. Storm-Doubs nor APS South was constrained in September or October 2004, to date. None of the remaining flowgates, identified in Table 1, in the newly integrated areas, were constrained during October 2004, to date.
- 26. The delivered price test results also indicate that the Kammer Transformer, Sammis-Wylie Ridge, Kanawah-Matt Funk, Cloverdale-Lexington, and the Wylie Ridge Transformer should remain subject to PJM's offer capping rules for local market power at this time. As a general matter, the available set of units to control these constraints is limited as is the ownership of the units. Current data suggest that offer capping will be quite limited. Nonetheless, these constraints should be reexamined after there is at least six months experience with the integration of AEP, DP&L and VEPCO. At that time there will be experience under an LMP system to indicate the frequency with which these facilities are constrained, the nature of the supply curves of effective MW to control any constraints as actually experienced by PJM operators and the demand for constraint control that will permit a pivotal supplier test.
- 27. In conclusion, the integration of ComEd, DP&L, AEP and the anticipated integration of VEPCO have had a significant positive impact on the management of congestion within PJM. The availability of additional generation resources to the west of certain major transmission constraints has made available additional control actions to PJM operators. This, in turn, has resulted in a significant reduction in offer capping in PJM. The MMU analysis concludes that the continued exemption of the Western, Central and Eastern interfaces is supported by competitive analysis as is the exemption of the APS South interface from offer capping. PJM will continue to perform annual reviews of significant transmission constraints to determine their eligibility for exemption from offer capping. In addition PJM will review the identified transmission constraints after six months of experience with the integration of AEP, DP&L and VEPCO, based on the actual data that results in order to determine whether additional major transmission constraints should be exempt from

offer capping and to determine, for any cases where offer capping remains, whether to recommend to FERC that individual generation owners should be exempted from offer capping for identified constraints.





Attachment 2

Tariff Revisions

Non-Redline Version

K://PJM/Tarrevs/Tariff 102604 Offer Price Caps (clean).doc

- (b) The energy offer price by any generation resource requested to be dispatched in accordance with Section 6.3 of this Schedule shall be capped at the levels specified below. If the Office of the Interconnection is able to do so, such offer prices shall be capped only during each hour when the affected resource is so scheduled, and otherwise shall be capped for the entire Operating Day. The energy offer prices as capped shall be used to determine any Locational Marginal Price affected by the price of such resource.
- (c) Generation resources subject to an offer price cap shall be paid for energy at the applicable Locational Marginal Price.
- (d) Offer price caps shall not be applicable to generation resources used to relieve the Western, Central and Eastern reactive limits in the MAAC Control Zone and the APS South interface. In addition, offer price caps shall not be applicable to generation resources used to relieve any other transmission limit as to which the FERC has determined that offer price caps shall not be applicable. PJM shall conduct an annual competitive analysis of major transmission constraints on the Transmission System. In the event that the results of an annual competitive analysis indicate that a transmission constraint warrants exemption from offer capping, PJM shall make the necessary filing with the Commission to add such constraint to those listed in this section 6.4.1(d).
- (e) Offer price caps shall be suspended for any transmission limit(s) for any hour in which there are not three or fewer generation suppliers available for redispatch under subsection (a) that are jointly pivotal with respect to such transmission limit(s). Notwithstanding the number of jointly pivotal suppliers in any hour, if the Market Monitoring Unit determines that a reasonable level of competition will not exist based on an evaluation of all facts and circumstances, it may propose to the Commission the removal of offer-capping suspensions otherwise authorized by this section. Such proposals shall take effect only upon Commission acceptance or approval.

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Vice President, Government Policy

Issued On: October 26, 2004

Filed to comply with order of the Federal Energy Regulatory Commission, Docket No. ER04-539-001 & 002, issued August 10, 2004, 108 FERC ¶ 61,187.

Tariff Revisions

Redline Version

K://PJM/Tarrevs/Tariff 102604 Offer Price Caps (redline).doc

- (b) The energy offer price by any generation resource requested to be dispatched in accordance with Section 6.3 of this Schedule shall be capped at the levels specified below. If the Office of the Interconnection is able to do so, such offer prices shall be capped only during each hour when the affected resource is so scheduled, and otherwise shall be capped for the entire Operating Day. The energy offer prices as capped shall be used to determine any Locational Marginal Price affected by the price of such resource.
- (c) Generation resources subject to an offer price cap shall be paid for energy at the applicable Locational Marginal Price.
- (d) Offer price caps shall not be applicable to generation resources used to relieve the Western, Central and Eastern reactive limits in the MAAC Control Zone and the APS South interface in the PJM Control Area or to the generation transfer pathway established under Section 9 of this Schedule when such pathway is constrained from west to east. In addition, offer price caps shall not be applicable to generation resources used to relieve any other transmission limit as to which the FERC has determined that offer price caps shall not be applicable. PJM shall conduct an annual competitive analysis of major transmission constraints on the Transmission System. In the event that the results of an annual competitive analysis indicate that a transmission constraint warrants exemption from offer capping, PJM shall make the necessary filing with the Commission to add such constraint to those listed in this section 6.4.1(d).
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Operating Agreement Revisions Non-Redline Version

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necessary state or local siting, construction and operating permits, to the ability to acquire necessary right-of-way, and to the right to recover, pursuant to appropriate financial arrangements and tariffs or contracts, all reasonably incurred costs, plus a reasonable return on investment, provided that, in the event that a Member cannot reinforce the local Transmission Facilities due to the unavailability of required financing, the local Transmission Facilities must be removed from the monitoring responsibility and dispatch control of the Office of the Interconnection within 60 days of the determination that required financing is unavailable. The local Transmission Facilities will remain under the monitoring and dispatch control of the Office of the Interconnection during the construction of the reinforcements.

6.4 Offer Price Caps.

6.4.1 Applicability.

- (a) Except as specified below, if, at any time, it is determined by the Office of the Interconnection in accordance with Sections 1.10.8 or 6.1 of this Schedule that any generation resource may be dispatched out of economic merit order to maintain system reliability as a result of limits on transmission capability, the offer prices for energy from such resource shall be capped at the levels specified below. If the Office of the Interconnection is able to do so, such offer prices shall be capped only during each hour when the transmission limit affects the schedule of the affected resource, and otherwise shall be capped for the entire Operating Day. The energy offer prices as capped shall be used to determine any Locational Marginal Price affected by the offer price of such resource.
- (b) The energy offer price by any generation resource requested to be dispatched in accordance with Section 6.3 of this Schedule shall be capped at the levels specified below. If the Office of the Interconnection is able to do so, such offer prices shall be capped only during each hour when the affected resource is so scheduled, and otherwise shall be capped for the entire Operating Day. The energy offer prices as capped shall be used to determine any Locational Marginal Price affected by the price of such resource.
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Operating Agreement RevisionsRedline Version

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Offer Price Caps. 6.4

Applicability.

- (a) Except as specified below, if, at any time, it is determined by the Office of the Interconnection in accordance with Sections 1.10.8 or 6.1 of this Schedule that any generation resource may be dispatched out of economic merit order to maintain system reliability as a result of limits on transmission capability, the offer prices for energy from such resource shall be capped at the levels specified below. If the Office of the Interconnection is able to do so, such offer prices shall be capped only during each hour when the transmission limit affects the schedule of the affected resource, and otherwise shall be capped for the entire Operating Day. The energy offer prices as capped shall be used to determine any Locational Marginal Price affected by the offer price of such resource.
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NOTICE OF FILING

UNITED STATES OF AMERICA FEDERAL ENERGY REGULATORY COMMISSION

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PJM Interconnection, L.L.C.

Docket Nos.

ER04-539-001, 002

EL04-121-000

NOTICE OF FILING

(October ___ 2004)

Take notice that on October 26, 2004, in compliance with <u>PJM Interconnection</u>, <u>L.L.C.</u>, 108 FERC ¶ 61,187 (2004), PJM Interconnection, L.L.C. ("PJM") submitted (1) the Report of the PJM Market Monitor Regarding Offer Capping of Major Transmission Constraints Docket Nos. ER04-539-001, 002, EL04-121-000 ("Report") and (2) amendments to the PJM Open Access Transmission Tariff ("PJM Tariff") and the Amended and Restated Operating Agreement of PJM Interconnection, L.L.C. ("Operating Agreement") (i) to revise PJM's offer capping rules to provide that PJM shall conduct annual competitive analyses of transmission constraints, and if the results of such analyses warrant, file amendments to the PJM Tariff and Operating Agreement to include additional exemptions from its offer capping rules; and (ii) to exempt the APS South interface from PJM's offer capping rules.

Copies of the filing were served upon all PJM members, each state electric utility regulatory commission in the PJM region, and each person designated on the official service list compiled by the Secretary in Docket Nos. ER04-539-001, 002 and EL04-121.

Any person desiring to intervene or to protest this filing must file in accordance with Rules 211 and 214 of the Commission's Rules of Practice and Procedure (18 CFR 385.211 and 385.214). Protests will be considered by the Commission in determining the appropriate action to be taken, but will not serve to make protestants parties to the proceeding. Any person wishing to become a party must file a notice of intervention or motion to intervene, as appropriate. Such notices, motions, or protests must be filed on or before the comment date. Anyone filing a motion to intervene or protest must serve a copy of that document on the Applicant. On or before the comment date, it is not necessary to serve motions to intervene or protests on persons other than the Applicant.

The Commission encourages electronic submission of protests and interventions in lieu of paper using the "eFiling" link at http://www.ferc.gov. Persons unable to file electronically should submit an original and 14 copies of the protest or intervention to the Federal Energy Regulatory Commission, 888 First Street, N.E., Washington, D.C. 20426.

This filing is accessible on-line at http://www.ferc.gov, using the "eLibrary" link and is available for review in the Commission's Public Reference Room in Washington, D.C. There is an "eSubscription" link on the web site that enables subscribers to receive email notification when a document is added to a subscribed docket(s). For assistance

with any FERC Online service, please email <u>FERCOnlineSupport@ferc.gov</u>, or call (866) 208-3676 (toll free). For TTY, call (202) 502-8659.

Comment Date: 5:00 pm Eastern Time on (insert date).

Magalie R. Salas Secretary

CERTIFICATE OF SERVICE

I hereby certify that I have this day served a copy of this filing upon all PJM members, each state electric utility regulatory commission in the PJM region, and each person designated on the official service list compiled by the Secretary in Docket Nos. ER04-539-001, 002 and EL04-121-000.

Carrie L. Bumgarner