UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

Panda Stonewall LLC	)))	ER17-1821-002

To: The Honorable Suzanne Krolikowski
Presiding Administrative Law Judge

REPLY BRIEF OF THE INDEPENDENT MARKET MONITOR FOR PJM

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Cases

Monitoring Analytics, LLC, acting in its capacity as the Independent Market Monitor for PJM Interconnection, L.L.C. ("PJM") ("Market Monitor"), submits this reply brief. The reply addresses arguments on brief concerning two issues: (i) Should the level of Panda Stonewall's cost of service rate be limited to the recovery of costs unaccounted for in the parameters of the PJM Market Design? (ii) What power factor should Panda Stonewall use to calculate its reactive supply rate?[1]

I. ARGUMENT

A. Panda Stonewall Must Show That Its Rate Is Just and Reasonable within the Existing PJM Market Rules, Including No Double Recovery.

1. Panda Stonewall Is Not Entitled to Double Recovery to Make Up for Unsubstantiated Claims of Inadequate Capacity Market Revenues.

Panda Stonewall, citing to Order No. 888 and certain cases applying the *AEP* method, argues (at 73): "Implicit in this precedent is the Commission's recognition that cost-based compensation is necessary because the capacity markets do not adequately compensate generators for reactive power [footnote omitted]—a recognition only the IMM challenges here."[2] The cited cases precede the implementation of the PJM Capacity Market, the Reliability Pricing Model (RPM), and therefore cannot support Panda Stonewall's claim. The Commission has nowhere recognized implicitly or explicitly that capacity markets in general and the PJM Capacity Market specifically do not adequately compensate generators for reactive power. Panda Stonewall's argument implies that the

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1 *See* Joint Statement of Issues (October 24, 2018), items JSI 7 and JSI 8.

2 Panda Stonewall Br. at 73, *citing Promoting Wholesale Competition Through Open Access Nondiscriminatory Transmission Services by Public Utilities and Recovery of Stranded Costs by Public Utilities and Transmitting Utilities*, Order No. 888, FERC Stats. & Regs. ¶ 31,036 (1996); *Dynegy*, 121 FERC ¶ 61,025 (2007); *Duke Energy Fayet*te, 104 FERC ¶ 61,090 (2003); *Am. Elec. Power Serv. Corp.*, 88 FERC ¶ 61,141 (1999).

PJM capacity Market does not adequately compensate generators in general. Exactly the same rules should apply to the capital investment in all parts of generating units. There should be no arbitrary distinction between reactive investment and energy investment. In fact there is no such distinction. Power plants are designed and built to provide both real and reactive power. The same power plant and the same equipment provide both. Cost allocation is an accounting approach that separates what is not actually separable, generally for use in cost of service regulatory environments.

2. Real and Reactive Power Is Produced by the Same Plant and Equipment.

Staff disagrees (at 62) "that Panda Stonewall may be double recovering its investment costs associated with reactive capability because it also receives a Net Energy and Ancillary Service Revenue Offset (EAS)." Staff misunderstands the issue. Double recovery is not the result of the offset. The offset is designed to avoid double recovery, but avoids double recovery only up to $2,199. As Panda Stonewall Witness Wofford explains, the existence of the EAS offset avoids "double recovery."[3]

Staff's proposed ARR covers only a fraction of the "costs associated with the provision of reactive power service."

Staff states (at 63): "The Commission has found that capacity payments from ISO-NE's Forward Capacity Auctions and Schedule 2 capability payments for reactive service are two distinct services designed to achieve different purposes."[4] No one argues

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[3] Tr. 1511:20 –1513:2.

[4] Staff Init. Br. at 62, *citing ISO New England, Inc., and NEPOOL Participants Committee*, 118 FERC ¶ 61,163, at Ordering Paragraph (B) (2007) (*ISO New England*). Order Paragraph (B) states, "ISO-NE must implement prior to the commencement of the first FCA commitment year beginning June 1, 2010, tariff provisions to ensure that resources eligible for CC payments under Schedule 2 that provide reactive supply and voltage control do not receive double compensation." The cited passage shows that the Commission is concerned about potential double recovery, not unconcerned as Staff asserts.

otherwise. Staff's confusion on this point is rooted in its confusion about the nature of plant and equipment used to generate real and reactive output. As Panda Stonewall Witness Wofford confirmed, "Everything is related to reactive production when you build a power plant."[5] Recognition that the same plant is used for real and reactive power is essential to understand what the *AEP* method does. The *AEP* method allocates a percentage of investment in plant to cost of service rates for reactive capability and, necessarily, a percentage somewhere else. In AEP in 1993, somewhere else was a different cost of service category. In the PJM market design somewhere else is the capacity market. The reason the $2,199 offset exists in the rules is to avoid allocating the same dollars twice. There is no other rationale. If there were no potential double recovery, there would be no offset.

It should be noted that the "distinct services" quote upon which Staff places misguided reliance comes from a case involving neither cost of service ratemaking nor application of the *AEP* method.[6] ISO New England provides for a fixed payment for compensation for reactive capability, not a cost of service rate based on an allocation of the costs of the specific unit.

Staff's position on this point should be disregarded.

3. A Quantifiable Double Recovery Is Not a Required Showing and Is Not Relevant to a Proper Allocation of the Same Costs Between Cost-Based and Market-Based Rates.

Panda Stonewall states (at 75): "The IMM admitted that his position in this proceeding applies to any generator recovering costs in the capacity market, that he has not identified any specific costs that Panda Stonewall is double recovering through the capacity market, and that he makes no attempt even to calculate Panda Stonewall's actual recovery of any of its costs for providing reactive power.[n.358: Tr. 1752:15-19, 1753:7-

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5 Tr. 1511:12—14.

6 *See id.*

9, 1754:14-24, 1755:3-24 (Bowring).] Dominion goes even further out on a limb claiming, "To adopt the IMM's position would require Your Honor to find … that there is quantifiable double-recovery." Staff makes a similar claim (at 63). No party stating this view cites to any case law. Neither has actually considered the logic of their arguments or recognized that the existence of the $2,199 offset is explicit recognition that double recovery exists and that the market design includes a partial, but outdated, offset for that double recovery. Case law contradicts the assertion of a quantifiability requirement.[7]

In *Maine PUC*, the Commission considered a complaint alleging a double recovery of capital costs in reactive payments and capacity market payments. In that Section 206 case, the Maine PUC had the burden of proof, unlike this Section 205 case, where Panda Stonewall has the burden of proof.

The Commission recognized the issue of double recovery but determined that it would be competed away in the ISO New England market design.[8] An offset was necessary, but it would result from competition. While the potential for double recovery existed in ISO-NE, competition in the capacity market naturally resulted in an offset. The Commission stated (at P 44):

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[7] *See, e.g.*, *Maine Public Utilities Commission v. ISO New England*, 126 FERC ¶ 61,090 (2009) (Maine PUC).

[8] Reactive capability rates in PJM are not negotiated rates and VAR support or regulation is compensated under separate rules in PJM. The Commission determined that ISO New England reactive capability rate was a negotiated rate, not a cost of service rate as is the case in PJM. The Commission determined that "generators … asked to provide additional services including VAR support or regulation … will be compensated for those services through the appropriate ISO tariff or markets, not through the FCM." 126 FERC at PP 46–47. In PJM, separate rules exist to compensate generators when they operate to provide reactive service to PJM. This case involves only a cost of service rates for reactive capability, which is directly analogous to resource adequacy (MW and MVAr) and not "VAR support or regulation." *Id*. at PP 39–42.

> We agree with ISO-NE that any *potential* for double recovery is sufficiently reduced to ensure that the CC Rate component is just and reasonable. That is, qualified, VAR-capable generating resources have an incentive to reduce their FCM bids by the amount of their net revenues from the CC Rate component, given that resources which do not provide reactive service (e.g., demand resources and imports) do not need to recover the costs of such reactive service. [Emphasis added.]

The Commission also cited with approval testimony for the suppliers (at P 45):

> [T]he Forward Capacity Market was designed so that new capacity resources that seek to clear in the market will have an incentive to bid a price that reflects the minimum revenue needed to support their investment costs, net of other anticipated revenue streams, including those from providing reactive service.[footnote omitted] [T]he competitive dynamic of the Forward Capacity Auction should result in the exclusion of the CC Rate component payments from the offers of either new or existing capacity resources. .[footnote omitted] That is because bidding above this minimum level would result in the supplier pricing itself out of the capacity market at times when being in the market would be profitable. We agree that sellers in a competitive Forward Capacity Auction will have an incentive to submit bids that take into account revenues from the CC Rate component and, as a result, double recovery is not a concern.

The same conditions do not exist in the PJM capacity market. Reliance on competitive forces in the PJM Capacity Market will not work because of well documented market power in the PJM Capacity Market. In the PJM capacity market offers are always mitigated as a result of endemic market power in the capacity market.[9]

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[9] *See, e.g.*, Market Monitor, Analysis of the 2021/2022 RPM Base Residual Auction: Revised (August 24, 2018), which can be accessed at: *<http://www.monitoringanalytics.com/reports/Reports/2018/IMM_Analysis_of_the_20212022_RPM_BRA_Revised_20180824.pdf>*; PJM, 2021/2022 RPM Base Residual Auction Results (May 23, 2017), which can be accessed at:

The PJM OATT defines the components of a competitive offer. Offers are not assumed to be competitive. Under the definition of competitive offers, $2,199 per MW-year of revenue from cost of service payments for reactive capability are subtracted from the offer of the reference revenue used to establish the RPM demand curve (VRR curve). In this case the Market Monitor agrees that Panda Stonewall is entitled to recovery of up to $2,199 per MW-Year if Panda Stonewall can demonstrate a revenue requirement equal to or greater than this level. (Staff argues Panda Stonewall fails do so, and argues a lower revenue requirement than $2,199 per MW-year.) Revenues above the offset level are not accounted for in the PJM market design, and such revenues therefore raise exactly the double recovery issue that the Commission identifies in *Maine PUC*: Sellers in the PJM Capacity Market have market power, and, therefore do not have the incentive to reduce their offers by their reactive revenue requirement. The demand curve in the PJM Capacity Market does not account for revenues exceeding $2,199 per MW-year. The offer cap in the PJM Capacity Market does not account for revenues exceeding $2,199 per MW-year. While the Commission did recognize the double recovery issue in *Maine PUC*, the facts in Panda Stonewall are significantly different than the facts in *Maine PUC*.

Panda Stonewall supports no legal argument that refutes the economic analysis provided by the Market Monitor. Panda Stonewall's assertions simply echo the Presiding Judge's question to Dr. Bowring at hearing about whether there exists accounting evidence that shows double recovery. Dr. Bowring's response was that accounting evidence is not relevant in a market where there is the opportunity rather than a guarantee to receive revenue. The question is central to this case. The problem identified in the question is that one must be careful in comparing cost of service revenue guarantees with opportunities to earn revenues in markets.

<https://www.pjm.com/-/media/markets-ops/rpm/rpm-auction-info/2021-2022/2021-2022-base-residual-auction-report.ashx?la=en>.

The application of cost of service standards to market based rate structures is not the correct approach. The Market Monitor could have attempted to calculate a projected cost recovery over a defined time period in markets, but any such analysis would be ambiguous, and it would also be misleading because it is irrelevant. It is the opportunity to recover all costs in the market that is relevant and not the relative competitive success of a unit in the market.

As an example, if the total revenue requirement associated with all of Panda's capacity were $100M and Panda recovered $20M through a cost of service rate and $50M through markets, total revenues would be $70M, or $30M less than the total capacity revenue requirement. There is no logically correct way to assign the market revenues to reactive and other capacity costs. If the market revenues were first assigned to reactive, then there would be double recovery. If the market revenues were first assigned to other capacity costs, there might not be double recovery.

Even if quantification were necessary, then Panda Stonewall is the party who bears the burden to provide it. Panda Stonewall knows its costs and its projected market revenues. Panda Stonewall has not shown that it will not recover its costs.

Panda Stonewall's case is not deficient because it fails to quantify its expected compensation through markets. Panda Stonewall's case is deficient because it fails to acknowledge the logic inherent in its own case applying the *AEP* method. Panda Stonewall is filing to recover the portion of its costs not already allocated for recovery through markets. Panda Stonewall fails to refute the Market Monitor's argument that the portion already allocated to recovery through markets is costs exceeding the $2,199 offset. Panda Stonewall's testimony concedes that the approach used in PJM to avoid double recovery is the $2,199 offset.[10]

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[10] Tr. 1511:20 –1513:2.

Allowing both cost of service recovery and the opportunity for market based recovery of the same investment costs exceeding $2,199 create unlawful duplicative recovery of the same investment that is unjust and unreasonable. It is wrong to require customers to pay twice. That PJM currently has a hybrid rate structure for capital cost recovery is not a reason to ignore the double recovery issue. The best possible economic and logical analysis should be applied in order to ensure a just and reasonable outcome. Past failure to identify and address this issue, mostly in settled case, is not a reason to avoid the issue now that it is squarely presented. The Federal Power Act exists to prevent such abuse. Taking the PJM market design as it is, no rate greater than $2,199 per MW-Year can properly be allowed.

4. Double Recovery Logic

As identified by the Presiding Judge, a central issue in this matter is the definition of double recovery. Does double recovery have to be empirically proven? Does double recovery have to be demonstrated logically? The definition of double recovery between cost of service recovery and market recovery requires careful thought.

a. Full Overlap

Imagine two market designs. Under one market design, unit owners recover 100 percent of the capacity costs of generating units through cost of service regulation. The capacity costs are allocated to wholesale customers. Under the other market design, unit owners have the opportunity to recover 100 percent of the capacity costs of the same generating units through a capacity market. The capacity costs are allocated to wholesale customers. Both market designs provide unit owners the opportunity to recover 100 percent of their capacity costs.

Now imagine a wholesale market design in which both approaches to capacity costs are implemented.

Is there double recovery in this situation if both cost of service and the market are implemented in the same design?

Logically, there is double recovery. There is double recovery because there are two elements of the market design, both designed to provide unit owners the opportunity to recover 100 percent of their capacity costs.

There is double recovery not because unit owners would recover exactly the same amount under both approaches, but because unit owners have the opportunity to recover 100 percent of capacity costs under both approaches.

If annual capacity costs are $100 million, unit owners would expect to receive $100 million under cost of service regulation. Unit owners would expect to recover an amount less than, equal to or greater than $100 million under the market approach.

There would be double recovery if unit owners recovered zero capacity costs under the market approach, recovered $100 million under the market approach or recovered $200 million under the market approach. It is not necessary to demonstrate actual recovery of $100 million under the markets approach in order to demonstrate double recovery. The actual level of recovery under the market approach is irrelevant.

A logical wholesale market design would have one mechanism for capital costs or the other, but not two mechanisms, both designed with the same goal.

b. Partial Overlap

Imagine the same market design with one modification. In the new design, unit owners are allowed to recover only 25 percent of capacity costs through cost of service regulation. In the new design, unit owners still have the opportunity to recover 100 percent of the capacity costs of the same generating units through a capacity market.

Is there double recovery in this situation if both cost of service and the market are implemented in the same design?

Logically, there is double recovery, although less than in the first design. There is double recovery because there are two elements of the market design, one designed to provide unit owners the opportunity to recover 25 percent of their capacity costs and the other designed to provide unit owners the opportunity to recover 100 percent of their capacity costs.

There is double recovery not because unit owners would recover exactly the same amount under both approaches, but because unit owners have the opportunity to recover the same 25 percent of capacity costs under both approaches.

If annual capacity costs are $100 million, unit owners would expect to receive $25 million under cost of service regulation. Unit owners would expect to recover an amount less than, equal to or greater than $100 million under the market approach.

There would be double recovery if unit owners recovered zero capacity costs under the market approach, recovered $25 million under the market approach, recovered $125 million under the market approach or recovered $200 million under the market approach. It is not necessary to demonstrate actual recovery of $100 million under the markets approach in order to demonstrate double recovery. The actual level of recovery under the market approach is irrelevant.

c. Hybrid Approach

While a more logical, more efficient, more transparent and more easily administered wholesale market design would have one mechanism for capital costs or the other, but not two, both designed with the same goal, PJM has a hybrid design, apparently for legacy reasons. What would a logical hybrid design look like?

A logical hybrid design would reflect in the market approach that 25 percent of capacity costs are already collected through cost of service rates. The design of the market approach only has to provide the opportunity to recover 75 percent of capacity costs, or $75 million in this example. An essential point is that the division must be explicitly stated and that there must be an explicit recognition that the two parts of the design are different but must be made compatible. In this case, 25 percent of the capacity costs are assigned to cost of service regulation and 75 percent of the capacity costs are assigned to the market. In that case there would not be double recovery.

However, there cannot be a workable design that assigns an undefined share of capacity costs to cost of service regulation but 75 percent to the market. If 50 percent of costs for a unit owner were allowed to be recovered under cost of service regulation and

75 percent of costs were assigned to the market, there would be double recovery. While not as extreme as assigning 100 percent to both mechanisms, the logical issue is identical.

This is exactly the situation faced here with the Panda Stonewall reactive cost recovery issue. The analogue of $25 million is the $2,199 per MW-year. As Panda Stonewall is allowed the opportunity to recover all capacity costs minus $2,199 under the market approach, Panda Stonewall should not be allowed to recover more than $2,199 under the cost of service approach.

5. The Market Monitor Seeks No Changes to the PJM Market Design in this Proceeding.

The Market Monitor has explained repeatedly that it seeks no changes to the PJM market design in this proceeding.

Nevertheless, Panda Stonewall, continuing with its red herring tactic, states (at 73): "[T]he IMM has attempted to hijack this proceeding to revisit decided matters of Commission policy. [n.356: The IMM freely admits that the ultimate aim of his participation in this proceeding is to "eliminat[e]" the "continued nonmarket approach to providing reactive [power]," arguing that *any* cost-based compensation for reactive power, whether through the ancillary services revenue offset or otherwise, is economically inefficient because it requires the use of "inaccurate allocators" or "inaccurate reactive revenue offsets." Ex. IMM-001 at 8:3-4, 6:22-27 (Bowring Answering Testimony). He thus raises no contested issues of law or fact concerning Panda's revenue requirement, but challenges only Commission policy on reactive power compensation as a whole.]"

The Market Monitor's position on matters not at issue in this proceeding is not relevant to whether Panda Stonewall's proposed rate at issue in this proceeding is just and reasonable. Panda Stonewall misstates the Market Monitor's position in this proceeding. The Market Monitor has not proposed to change the ancillary service revenue offset in

this proceeding.[11] For consistency and transparency, the Market Monitor has pointed out that a more logical and market based approach to reactive costs would be to include 100 percent of such costs in the capacity market. But that is not the issue here.

The Market Monitor seeks no change to the PJM market design in this proceeding. The Market Monitor argues only for a rate consistent with the PJM market design as it exists. Panda Stonewall is not free to ignore the market design of which Schedule 2 is part when it files a cost of service rate for reactive capability under Schedule 2. Panda Stonewall must demonstrate that its rate is consistent with the existing design in order to show that it is just and reasonable.

6. The Commission Does Not Require That Reactive Power Production Must Be Recovered Through Cost Based Rates.

Panda Stonewall argues (at 74): "[B]ecause the Commission has already decided that reactive power production must be recovered through cost-based rates, it has concluded that these cost-based rates—which all generators have used to recover their reactive power costs since the AEP decision—do not result in double recovery. [n.357, citing: *See Promoting Wholesale Competition Through Open Access Nondiscriminatory Transmission Services by Public Utilities and Recovery of Stranded Costs by Public Utilities and Transmitting Utilities*, Order No. 888, FERC Stats. & Regs. ¶ 31,036 (1996); *see also Dynegy*, 121 FERC ¶ 61,025; *Duke Energy Fayette*, 104 FERC ¶ 61,090; *Am. Elec. Power Serv. Corp.*, 88 FERC ¶ 61,141; PJM, Intra-PJM Tariffs, Open Access Transmission Tariff, Schedule 2.]"

Panda Stonewall has its facts wrong and the implications wrong. The Commission has never held that "reactive power production must be recovered through cost-based rates." Even with cost-based rates for reactive, it does not follow that cost-based rates do not result in double recovery. A substantial portion of the costs of reactive power is

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[11] *See* OATT Attachment DD § 5.10(a)(v)(A).

recovered by every generation resource in PJM through market based rates, including the PJM Capacity Market.

Panda Stonewall complains (at 73—74): "Without any legal or evidentiary support, the IMM contends that generators are already compensated for reactive power, in part, through PJM's markets." Panda Stonewall relies on capacity markets for compensation for reactive power production whether or not Panda Stonewall realizes it. The evidence is the market design itself. The $2,199 offset exists to avoid double recovery. Panda Stonewall Witness Wofford acknowledges there no double recovery "because of the existence of the net market revenues offset."[12] Even if Panda Stonewall received exactly the inflated rate it filed, Panda Stonewall will continue to rely on having been "already compensated for reactive power, in part, though PJM's markets."

7. Whether Schedule 2 Provides a Stated Rate Is Undisputed.

Panda Stonewall states (at 74):

> The IMM therefore argues that generators with revenue requirements exceeding $2,199 per MW-year receive double recovery via PJM's markets, despite the fact that PJM's tariff contains no such stated rate for reactive power recovery.

Panda Stonewall further argues (at 74):

> Of course, the IMM's position cannot be correct. If it were, it would eliminate the need to apply the AEP methodology to any generator with costs exceeding $2,199 per MW year—and thus would eliminate the need for this proceeding. If amounts greater than the IMM's proposed cap constitute double recovery, then the cap would necessarily be the maximum reactive power revenue requirement available for any generator to recover.

Panda Stonewall errs on every point:

No one claims or implies a stated rate exists.

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[12] Tr. 1511:20 –1513:2.

No one claims or implies that this proceeding is not needed.

No one claims or implies that there is a cap on the maximum reactive power revenue requirement.

Panda Stonewall must demonstrate a revenue requirement of greater than or equal to $2,199 per MW-year. Panda Stonewall and Joint Customers take the position that Panda Stonewall has shown a revenue requirement that equals or exceeds $2,199 per MW-year. Staff takes the position that Panda Stonewall should receive a lower revenue requirement. Panda Stonewall does not receive a $2,199 revenue requirement without a proceeding. Panda Stonewall is still required to prove its revenue requirement. If Staff prevails on its position, then Panda Stonewall would receive less than $2,199 per MW-year. The Market Monitor's arguments concern only the portion of Panda Stonewall's revenue requirement that is not excluded from the recovery through the capacity market design and is, therefore, recoverable under that design. Once Panda Stonewall supports a rate of greater than or equal to $2,199 per MW-year, it does not need to make any further showing. There is no need because compensation under market based rates is not predicated on any such showing. There is, however, compensation, and there is a regulated rate.

Reducing the administrative burden on Panda Stonewall is particularly appropriate. The Market Monitor's proposed approach which recognizes the PJM market design would result in a streamlined administrative process for determining cost of service reactive capability rates. A streamlined administrative process enhances reliance on regulation through competition. A streamlined process reduces reliance on obsolete cost of service ratemaking. There is no requirement that the development of reactive capability rates for generators be costly and excessively complicated. Panda Stonewall explains repeatedly throughout this proceeding that its business model is designed around

competition and not cost of service.[13] Panda Stonewall does not keep FERC accounts because it is competitive.[14] Like many competitive projects, Panda Stonewall was developed through a turnkey arrangement and cannot document its specific costs without reliance on hearsay evidence. Panda Stonewall criticizes the administrative burden posed by this proceeding.[15] Panda Stonewall even indicates that its true concern is to correct alleged deficiencies in the competitive markets.[16]

8. Schedule 2 Relies on the Commission to Determine a Just and Reasonable Rate for Reactive Capability.

Staff states that it disagrees with the Market Monitor's position, explaining (at 62): "Schedule 2 of the PJM OATT does not parameterize or otherwise proscribe [sic] limits to the level of reactive capability investment." State misstates the Market Monitor's position. Schedule 2 does not limit the level of investment in reactive capability nor limit potential compensation for reactive capability. It is the PJM market rules, of which Schedule 2 is only one part, which prescribe such limits. Schedule 2 cannot properly be

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13 *See, e.g.*, Tr. at ("One of the issues of concern to Intervenors, and will be raised in the hearing, is the fact that Panda sought and obtained the allocation of investment dollars, the dollars it paid Bechtel, from Bechtel. However, although it has caused concern among Intervenors, in doing this, Panda followed the approach laid out by the Commission in Chehalis, where the Commission recognized that independent generators, that we've discussed earlier, are different from vertically integrated regulated utilities. Independent generators do not get, usually, a cost-of-service rate. They do not book their costs in the Uniform System of Accounts. Their financial information is not publicly known or available because they operate in a competitive market, not a regulated market.")

14 *Id.*

15 *Id.*

16 *See* Tr. at 517:13–20 ("[T]he business of generating power and reactive power in PJM has gotten much, much riskier. Market revenues in the electricity market and in the capacity market have dropped. Margins of generators have shrunk. Many generators have exited in bankruptcy. While this provides great benefits and lower costs to customers, it comes with increased riskiness and risk to generators.").

considered in isolation from the PJM market design of which it is an integral part. Schedule 2 does not spell out the rules governing the Commission's conduct of cost of service rate proceedings. But it is always presumed that common sense, the Commission's longstanding policies such as the prohibition on double recovery and careful consideration of the rules framework of which Schedule 2 is part will inform such proceedings.

9. PJM Has Done What It Is Required to Do to Avoid Double Recovery.

Staff states (at 63), "it is PJM's responsibility to ensure that resources eligible for compensation under Schedule 2 do not receive double compensation, and any allegations of double recovery not yet prohibited by the current OATT should be addressed in a separate section 206 filing." The OATT provides otherwise. Suppliers' reactive capability rates are not PJM's responsibility. Schedule 2 of the OATT expressly takes responsibility to establish the level of cost of service reactive rates out of PJM's hands and places instead in the hands of suppliers who file a request for recovery at the Commission. The result is numerous individual and uncoordinated ratemaking proceedings. One result of this chaotic approach is the false impression that reactive capability revenues are somehow separate and apart from the PJM market design.

PJM routinely intervenes in and declines to substantively participate in individual reactive rate proceedings. PJM has followed that practice in this proceeding even after it went to hearing. Reliance on PJM to initiate complaints regarding rates that it simply accepts when filed would be misplaced. PJM and PJM's customers rely on the Commission to ensure just and reasonable rates, which necessarily means rates that do not permit double recovery. Meanwhile, PJM has done its part to prevent double recovery in the parts of the OATT that it does control.[17] PJM did file and did obtain approval of

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[17] *See* PJM Operating Agreement § 10.4 ("[PJM shall] Direct the operation and coordinate the maintenance of the facilities of the PJM Region used for both load

the $2,199 offset. The issue in this case is better understood as whether the action that PJM did take to avoid double recovery will be properly recognized and accounted for in proceedings such as this one.

10. The Market Monitor's Position That Double Recovery Should Be Prevented by Acknowledging the $2,199 Offset Does Not Conflict with Any Other Position the Market Monitor Has Taken.

Dominion argues that the Market Monitor's position that the $2,199 constitutes the maximum cost of service rate that avoids double recovery of the same costs in the PJM capacity market conflicts with the Market Monitor's position in the inquiry into in reactive supply compensation pending in AD16-17. Dominion states:

> [T]he IMM described the flaws in the very E&AS offset it seeks to apply in this proceeding. There, the IMM argued to eliminate the contribution of Schedule 2 reactive power compensation from the E&AS offset altogether, relying entirely on the capacity market to provide recovery of the capital costs related to reactive power production, to avoid double-recovery.

Dominion concludes that the Market Monitor contradicts itself when it argues for reliance on an inaccurate offset to cap cost of service rates in this proceeding. Dominion claims: "the IMM argues that the capacity market makes a faulty assumption about reactive revenue recovered elsewhere (through an "inaccurate" offset), and therefore leads to capacity market revenue that is generally higher than it should be." Dominion misstates the Market Monitor's position. The $2,199 offset is not "faulty," and capacity market revenue is not higher than it should be due to the level of the offset. Because Dominion apparently does not understand the Market Monitor's argument, its assertion of a contradiction in the Market Monitor's position is clearly wrong.

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and reactive supply, so as to maintain reliability of service and obtain the benefits of pooling and interchange consistent with this Agreement, and the Reliability Assurance Agreement").

The Market Monitor does not argue that compensation for reactive capability should be limited to $2,199 per MW-year. The Market Monitor argues that such compensation *under cost of service rates* should be limited to $2,199 per MW-year. Total compensation for investment in generating plant capability, both real and reactive output capability, should be determined in the PJM Capacity Market. The level of the offset is irrelevant. If the offset were zero dollars, as the Market Monitor advocates in AD16-17, then all costs would be recoverable in the PJM Capacity Market (and Schedule 2 is properly discarded). If the offset were $1,000 per MW-year, then costs above $1,000 would be recoverable in the capacity market. Because the level of offset actually is $2,199, it follows that only costs above $2,199 are recoverable in the PJM Capacity Market. The level of the offset simply allocates the portion of total revenue requirement or target revenue for a generation resource between the market based rates in the capacity market and cost of service rates for reactive supply capability. The $2,199 offset does not need to accurately reflect Panda Stonewall's costs or the costs of any other generating resources in order for it to correctly perform the allocative function it performs.

The *AEP* method, as applied in PJM, also allocates the portion of the total revenue requirement for a generation resource between the market based rates in the capacity market and cost of service rates for reactive supply capability. Because Schedule 2 using the *AEP* method and the capacity market design using the $2,199 offset each address one element of the same allocation, the result must be properly reconciled or double recovery results.

If Panda Stonewall does not like the level of the offset, then it has recourse to the Commission. Panda Stonewall skipped a convenient opportunity to do just that in PJM's recently completed quadrennial review of the parameters of used for RPM auctions, which could have included changes to the $2,199 offset. No one sought changes, and PJM's pending filing proposes no changes. Neither Panda Stonewall nor anyone else filed a protest of the decision to maintain the level of offset. That the Market Monitor did not seek to change or protest the level of the offset in the quadrennial review process

belies Dominion's assertion that the level of the offset is the Market Monitor's true concern.

B. The Record Shows Panda Stonewall Chose to Construct, at Greater Cost, a Facility with a Better Power Factor Than PJM Needs.

Panda Stonewall argues "the record lacks any basis for using anything other than Panda's 0.85 nameplate power factor."[18] Panda Stonewall's own witnesses provide a strong record basis for using a 0.90 power factor because they claim that Panda Stonewall deliberately increased its cost to build a plant with a 0.85 power factor instead of a 0.90 power factor even though PJM has determined it does not require more than a 0.90 power factor.[19] Panda Stonewall cites no case law that supports the use of a 0.85 power factor when the facts are as Panda Stonewall's witnesses attest on record.

In addition, there is a basic legal argument that when PJM determines it needs a 0.90 power factor under Schedule 2, generating owners are not free to build plants exceeding a 0.90 power factor and expect to be paid just for having such capability.

Panda Stonewall claims that "Commission precedent squarely forecloses the IMM's position," citing *American Transmission Systems, Inc.*, 119 FERC ¶ 61,020 at PP 15, 27 (2007) ("MISO/ATSI Order"). The MISO/ATSI Order forecloses no argument, "squarely" or otherwise.

First, the MISO/ATSI Order concerns the Midwest Independent System Operator, Inc. and its tariff does not "squarely" apply to PJM Interconnection, L.L.C., and the PJM OATT. The Commission determined to approve a settlement using a nameplate factor instead of requiring use of the applicable interconnection standard for two reasons, neither of which applies in this case.

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[18] Panda Stonewall Init. Br. at 74.

[19] *See* IMM Init. Br. at 25–26.

First, the Commission found no rationale for using the applicable interconnection standard. Here, the Market Monitor offers a compelling rationale: PJM and not Panda Stonewall has the responsibility in the PJM OATT to determine the amount of reactive capability it needs, and that level is 0.90. Panda Stonewall offers no rationale for allowing it to usurp PJM's role in determining the level of capacity the PJM transmission system needs. The Market Monitor offers a clear and simple rationale: Allowing Panda Stonewall to determine the level of capability it needs creates a perverse incentive to invest in more reactive capability than needed.

Panda Stonewall witnesses confirm that the Market Monitor's concern is not theoretical. Panda Stonewall witnesses testify that they consciously chose to obtain a higher power factor at increased cost with no discussion or involvement from PJM.[20] They point to the 0.85 power factor as contributing to a significant increase in cost for Panda Stonewall above other similar projects sponsored by the company.[21] Accepting Panda Stonewall's argument leaves nothing to prevent it or other developers from investing in even greater reactive capability and imposing the resultant greater cost on ratepayers and increasing their own guaranteed cost of service revenues. The rationale for limiting Panda Stonewall to a 0.90 power factor is clear and plain.

Second, the Commission explained its own rationale:

> Because a generator has the ability to produce reactive power up to its nameplate capability, and because it is obligated to do so to prevent or respond to emergency situations, [footnote omitted] there is no rationale that would warrant using anything less in determining a generator's reactive power capability.[22]

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20 *See* IMM Init. Br. at 25–26.

21 *See id.*

22 MISO/ATSI Order at PP 25–27.

The concern is that if MISO uses capability, then MISO should pay for use of that capability. The Commission concern does not apply in PJM because Panda Stonewall will be paid for whatever reactive supply it actually provides to PJM. The Commission cited to a provision in its particular settlement agreement that detailed the obligation.[23]

If PJM directs Panda Stonewall or any generation resource to provide reactive supply, PJM will compensate such resource under different provisions in the PJM market rules.[24] If Panda Stonewall has greater capability than PJM required, it will still be paid when and if that capability is actually used by PJM. The issue here is whether Panda Stonewall should be paid for capability that is unused and above what PJM needs. The rationale provided in the MISO/ATSI Order has no relevance to the PJM market rules for compensating reactive supply.

Finally, the passages cited in the MISO/ATSI Order, to whatever extent they have any relevance at all, are mere dicta. The settlement was approved under the criteria for evaluating contested settlements in *Trailblazer Pipeline Company*.[25] Under *Trailblazer*, a settlement may be approved if the "settlement as a whole, considering not just the contested issues, but the uncontested issues as well, provides a just and reasonable result."[26] The Commission has approved black box settlements under the *Trailblazer* criteria when the record is void of support for particular inputs or terms.[27] Panda Stonewall's argument exclusively relies on discussion from an order that has no binding force at all. The Presiding Judge may resolve this issue as a matter of first impression.

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23 *Id*. at P 27 n.23.

24 PJM Operating Agreement, Schedule 1 §§ 3.2.3, 3.2.3A, 3.2.3B.

25 *See Trailblazer Pipeline Company*, 85 FERC ¶ 61,345 (1998), *order on reh'g*, 87 FERC ¶ 61,110 (1999), *reh'g denied*, 88 FERC ¶ 61,168 (1999).

26 85 FERC ¶ 61,345 *mimeo* at 25.

27 *See GenOn Power Midwest, LP*, 149 FERC ¶ 61,218 at P 35 (2014).

The facts in the record, provided by Panda Stonewall's testimony, provide concrete evidence that the Market Monitor's concerns to apply the market rules so as to avoid gold plating are real. Panda Stonewall should be allowed a power factor no lower (better) that the 0.90 power factor determined by PJM.

Staff argues (at 64), "Schedule 2 does not provide that this minimum power factor for interconnection service is also a cap on the power factor for the purpose of calculating a reactive revenue requirement." It is true that Schedule 2 offers no guidance on how a just and reasonable reactive capability rate should be calculated and instead allows suppliers to make proposals to the Commission. Schedule 2 says nothing about how the Commission should determine whether a rate is just and reasonable. Schedule 2 says nothing supporting (or contradicting) the issues raised by Staff in this proceeding. Following this faulty reasoning, all of Staff's issues concerning the proper cost of service would be rejected as well because they are not described in Schedule 2. Moreover, Schedule 2 does not require (or disallow) use of the *AEP* method. Schedule 2's silence about what constitutes a just and reasonable rate for reactive capability is not a reason to ignore other provisions of the PJM tariff that bear directly upon that question. The PJM market rules do provide the framework within which reactive capability rates must be evaluated. The 0.90 power factor interconnection standard is one such provision. The $2,199 offset is another.

The record shows that developers of resources like Panda Stonewall have the opportunity to develop plants at lower cost and meet PJM requirements. It is neither lawful nor sound public policy to ignore the tariff defined assignment of responsibilities for determining the level of reactive capability needed and to reward Panda Stonewall for inflating its costs. Panda Stonewall has not supported the application of a power factor exceeding 0.90 for determining a just and reasonable rate.

II. CONCLUSION

The Market Monitor respectfully requests that the Commission afford due consideration to these comments on brief as the Commission resolves the issues in this proceeding.

Respectfully submitted,

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Dated: December 21, 2018

CERTIFICATE OF SERVICE

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

Dated at Eagleville, Pennsylvania,
this 21st day of December, 2018.

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