

**UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION**

New Jersey Board of Public Utilities,)	
)	
Complainant,)	
)	
v.)	Docket No. EL18-54-000
)	
PJM Interconnection, L.L.C., New York)	
Independent System Operator, Inc.,)	
Consolidated Edison Company of)	
New York, Inc., Linden VFT, LLC,)	
Hudson Transmission Partners, LLC and)	
New York Power Authority,)	
)	
Respondents.)	

**COMMENTS OF INDEPENDENT
POWER PRODUCERS OF NEW YORK, INC.**

On December 22, 2017, the New Jersey Board of Public Utilities (“NJBP”U”) filed with the Federal Energy Regulatory Commission (“Commission”) a complaint (the “Complaint”) pursuant to Sections 206 and 309 of the Federal Power Act (“FPA”) against PJM Interconnection, L.L.C. (“PJM”), the New York Independent System Operator, Inc. (“NYISO”), Consolidated Edison Company of New York, Inc., Linden VFT, LLC (“Linden VFT”), Hudson Transmission Partners, LLC (“HTP”), and the New York Power Authority. Pursuant to the Commission’s Notice Granting Request for Extension of Time to File Comments, issued on January 3, 2018, Independent Power Producers of New York, Inc. (“IPPNY”) hereby comments on the Complaint.¹

¹ IPPNY filed a doc-less motion to intervene out-of-time on February 23, 2018 in this docket.

In its Complaint, NJBPU challenges the right of Linden VFT and HTP to effectively retain the benefits of the same capacity export service under a different name while avoiding their associated cost allocation for transmission upgrades on the PJM system.² NJBPU requested, among other things, that the Commission rule that Linden VFT's and HTP's conversion of their Firm Transmission Withdrawal Rights ("Firm TWRs") to Non-Firm Transmission Withdrawal Rights ("Non-Firm TWRs") (the "Conversion") does not allow them to avoid their required cost allocation of Regional Transmission Expansion Plan ("RTEP") projects because their transmission lines continue to provide reliability and capacity benefits to the NYISO post-Conversion.³

To most effectively address the concerns raised by NJBPU and the relief that it seeks, the Commission should first ensure that PJM and the NYISO are addressing the ramifications of Linden VFT and HTP's decisions to make the Conversion in accordance with their tariffs, past Commission orders concerning these lines and the long-recognized distinction between firm and non-firm service. As discussed below and in the attached affidavit of Mr. Mark D. Younger of Hudson Energy Economics, LLC, the Commission should determine in its ruling on the Complaint that the PJM and NYISO tariffs, past Commission orders, and the core distinction between firm and non-firm transmission service prohibit Linden VFT and HTP from continuing to supply installed capacity ("ICAP") over their transmission lines to NYISO. By terminating their Firm TWRs to the New York border and replacing those rights with Non-Firm TWRs, Linden VFT and HTP can no longer demonstrate that their deliveries will not be curtailed by PJM if they are otherwise needed to address a reliability or operational issue on the PJM system.

² Complaint at 1–3.

³ *Id.*

Thus, they are ineligible to sell ICAP into NYISO Zone J and any ICAP that would have sought to utilize these lines to sell into New York should be offered in PJM. The NYISO and PJM’s erroneous tariff interpretations that the Conversion does not disqualify Linden VFT and HTP from selling ICAP to NYISO are currently jeopardizing reliability in both markets due to uncertainty whether PJM will curtail energy in PJM or to New York when faced with a reliability or operational issue and harming the New York and PJM markets. Unless the Commission takes corrective action, the NYISO and PJM’s erroneous tariff interpretations will continue to artificially impact the clearing prices in these markets and cause unnecessary reliability and operational risks on both sides of the interface. Accordingly, based on the plain language of their tariffs, Commission orders, and longstanding Commission precedent related to firm and non-firm service, the Commission should order PJM and the NYISO: (i) to recognize the post-Conversion non-firm curtailable properties of these lines; and (ii) because these lines cannot show they have firm service to the New York border and no longer meet the definition of an Installed Capacity Supplier, to prohibit further ICAP sales to NYISO Zone J across these lines.

I. BACKGROUND

NJBPU raised many complex arguments, but its ultimate dispute in the Complaint and in the other related dockets it references—Docket Nos. EL17-84, EL17-90, EL17-94, ER17-725, ER17-905 and ER17-950—is quite simple. Its dispute vis-à-vis Linden VFT and HTP concerns whether Linden VFT and HTP, the owners of merchant transmission facilities (“MTFs”) that interconnect PJM and the NYISO and provide 330 MW and 660 MW of transfer capability between the two regions, respectively, should be able to avoid their proportionate share of the costs of RTEP projects, specifically the \$1.2 billion Bergen-Linden Corridor Project (“BLC

Project”), by converting their Firm TWRs to Non-Firm TWRs.⁴ Firm TWRs permit the rights-holder to schedule energy *and* capacity withdrawals from the PJM system to the New York border.⁵ Non-Firm TWRs provide a reduced level of service that permit the rights-holder to schedule energy on an as-available basis subject to curtailment by PJM.⁶

NJBPU claims that the BLC Project was built to address reliability issues resulting, in part, from NYISO’s need for electricity imports from PJM over the Linden VFT and HTP transmission lines.⁷ The NJBPU argues that the avoidance by Linden VFT and HTP of the BLC Project costs unfairly reallocates these costs to New Jersey electricity consumers because the NYISO continues to receive the capacity benefits of these projects without any associated party compensating PJM for necessary transmission system upgrades.⁸

While the NYISO receives capacity benefits in a variety of ways, the NYISO receives the largest capacity benefit from the import of ICAP from suppliers in PJM to meet NYISO ICAP requirements.⁹ If specific requirements are met, the NYISO tariff allows PJM suppliers to sell ICAP to the NYISO either over the AC interface between the two regions or over MTFs, like Linden VFT and HTP, which the NYISO has awarded Unforced Capacity Deliverability Rights (“UDRs”).¹⁰ UDRs are controllable lines that interconnect neighboring regions to Localities in

⁴ Younger Aff. ¶ 4 (citing Complaint ¶ 89).

⁵ *Id.* ¶ 29 (citing PJM OATT § 1, Definitions E-F at 8).

⁶ *Id.* ¶ 28 (citing PJM OATT § 1, Definitions L-M-N at 14).

⁷ *See* Complaint ¶¶ 89–91.

⁸ *See id.* ¶ 96.

⁹ Younger Aff. ¶ 14.

¹⁰ *Id.*

the NYISO and allow external capacity imports assuming they comply with all the requirements for Installed Capacity Suppliers under the NYISO's tariffs.¹¹

Critical to the issues in this case, the NYISO's tariffs require that MTFs demonstrate deliverability from the generator's location in PJM to the MTF's interconnection point in PJM *and* from that point to the New York interface.¹² Until they terminated their Firm TWRs this past December,¹³ Linden VFT and HTP had Firm TWRs to deliver energy and ICAP from their interconnection points in the PJM system to the New York interface, and Linden VFT's customers had Firm Point-to-Point rights to deliver energy and ICAP to the Linden VFT interconnection point in PJM.¹⁴ This combination of Firm Point-to-Point transmission service and Firm TWRs ensured that PJM could not curtail the transaction to the NYISO, thus meeting the NYISO's requirements for the ICAP to be eligible to meet the requirements for Installed Capacity Suppliers to serve Zone J load.¹⁵ After its request for the Conversion, Linden VFT requested that PJM grant it long-term Firm Point-to-Point transmission service within PJM, arguing that such service would effectively continue Linden VFT's service to New York without any responsibility for the RTEP project costs.¹⁶

Based on its pleadings filed to date, unlike Linden VFT, HTP has not sought Firm Point-to-Point transmission service. This is likely due to the fact that HTP, even while it had Firm

¹¹ *Id.*

¹² *Id.* ¶ 15.

¹³ HTP reported to the Commission that it terminated its Firm TWRs as of December 15, 2017 and now only has Non-Firm TWRs; Linden VFT reported to the Commission that it converted its Firm TWRs to Non-Firm TWRs effective December 31, 2017. *Id.* ¶ 22 (citations omitted).

¹⁴ *Id.* ¶ 15.

¹⁵ *See id.*

¹⁶ *See* Docket No. EL17-90-000, *Linden VFT, LLC v. Pub. Serv. Elec. & Gas Co. & PJM Interconnection, L.L.C.*, Answer, Motion for Leave to Answer, and Motion to Lodge of the IMM (Nov. 13, 2017), at 2, 4 (“Linden Answer”).

TWRs, could sell only *de minimis* amounts of ICAP into Zone J because its MTF is a mitigated resource in the NYISO's ICAP auction and its ICAP offers do not clear the ICAP auctions.¹⁷

As noted in the Complaint, Linden VFT and HTP sought to terminate their Firm TWRs and replace these rights with Non-Firm TWRs, which ultimately resulted in two FPA § 206 proceedings to determine whether they should be authorized to take these actions.¹⁸ In its Firm TWR Proceeding, Linden VFT forthrightly acknowledged that converting to Non-Firm TWR service to the New York border, by definition, meant its transactions to New York would face the risk of being interrupted.¹⁹ In Docket Nos. EL17-90 and EL17-84, the Commission issued separate orders that determined that Linden VFT and HTP must be permitted to convert their Firm TWRs to Non-Firm TWRs and directed PJM to make a compliance filing reflecting such conversions.²⁰

In its Linden VFT Order, the Commission drew an important distinction between Firm TWR service and Non-Firm TWR service. The Commission stated that pursuant to Linden VFT's original Firm TWR service, "PJM must guarantee that its transmission system is robust enough to permit Linden to use its Firm TWRs to export 330 MWs of power from its source in PJM *across the river to New York at all times.*"²¹ In contrast, the Commission stated that "[c]onverting those Firm TWRs to Non-Firm TWRs imposes no additional obligation on PJM

¹⁷ Docket No. EL17-84-000, *PJM Interconnection, L.L.C.*, Motion for Leave to Answer and Answer of the New York Power Authority (Nov. 14, 2017), at 5; *see also* Younger Aff. ¶ .

¹⁸ Docket No. EL17-90-000, *supra*, Complaint (Sept. 18, 2017) ("Linden VFT Complaint"); Docket No. EL17-84-000, *supra*, Notice of Institution of Section 206 Proceeding (Sept. 8, 2017).

¹⁹ Linden VFT Complaint at 11.

²⁰ *Linden VFT, LLC v. Pub. Serv. Elec. & Gas Co. & PJM Interconnection, L.L.C.*, 161 FERC ¶ 61,264 (2017) ("Linden VFT Order"); *PJM Interconnection, L.L.C.*, 161 FERC ¶ 61,262 (2017) ("HTP Order").

²¹ Linden VFT Order at P 25 (emphasis added).

and, in fact, is less burdensome in that PJM will no longer have to guarantee that its transmission system can support such use.”²² Thus, the Commission made clear that the consequence of the Conversion is that “the Linden facility is fully controllable by PJM so that PJM can shut off flows if those flows jeopardize reliability or cause operational problems in New Jersey or elsewhere on the PJM system.”²³ Linden VFT also acknowledged that “PJM can shut off flows, consistent with applicable rules and procedures.”²⁴

Over NJBPU’s objections, the Commission also ruled that, under Schedule 12 of PJM’s tariff, RTEP project costs would no longer be allocable to Linden VFT and HTP as of the effective date of their conversion from Firm TWRs to Non-Firm TWRs, finding “[n]either PSEG nor [NJBPU] have argued that those provisions [*i.e.*, Schedule 12] are unjust and unreasonable.”²⁵ Establishing “HTP and Linden VFT could retain the same capacity export service with a different name in order to avoid an allocation of RTEP costs,” the NJBPU argued in this Complaint that Schedule 12 is unjust and unreasonable.²⁶

In its Complaint, NJBPU requested, *inter alia*, “that the Commission find that NYISO leans upon the PJM system pursuant to a series of interregional actions that violate PJM tariff provisions and FERC approved contracts and orders, resulting in an unjust, unreasonable, and unduly discriminatory rate for PJM ratepayers—especially New Jersey ratepayers.”²⁷ NJBPU

²² *Id.*

²³ *Id.* (citation omitted).

²⁴ Linden VFT Complaint at 11.

²⁵ Linden VFT Order at PP 31–32; HTP Order at PP 49–50. Schedule 12 of PJM’s tariff provides, in pertinent part, that RTEP costs are allocated to MTFs based “on the actual [Firm TWRs] that have been awarded to the [MTF].” *See* PJM OATT, Schedule 12(b)(x)(B)(2).

²⁶ Complaint ¶ 171.

²⁷ *Id.* at 1.

further requested that the Commission direct PJM and NYISO to take any other necessary actions to ensure a just and reasonable rate.²⁸ Finally, NJBPU requested that the Commission “take the necessary procedural steps to dispose of all related issues in a coordinated fashion” in Docket Nos. EL17-84, EL17-90, EL17-94, ER17-725, ER17-905, and ER17-950 because the issues in its Complaint “are inextricably linked” to the issues in those proceedings.²⁹

Subsequent to NJBPU’s filing, several other State Commissions synthesized the issues in this proceeding stating, “[a]side from potential cost and equity impacts, the Indicated State Commissions are concerned with the level of uncertainty introduced in the region. The RTEP process has been challenged, grid operations may have been altered and markets are potentially impacted.”³⁰ The Indicated State Commissions “request[ed] FERC take the necessary actions to address these cases to stem the stated concerns attributed to this issue” and “asked FERC to fully investigate and provide due consideration to the underlying issues raised in the Complaint.”³¹ Ultimately, PJM and NYISO must evaluate and analyze the various transmission interfaces between them in a consistent manner that is (1) transparent, (2) eliminates conflict or doubt with respect to what load will be considered firm and served, (3) complies with their tariffs and Commission orders, and (4) maintains reliability.

II. THE COMMISSION SHOULD RULE THAT PJM AND THE NYISO CANNOT ALLOW ICAP SALES OVER THE LINDEN VFT AND HTP TRANSMISSION LINES BECAUSE THEY NO LONGER HAVE FIRM SERVICE TO THE NEW YORK BORDER.

The NYISO recently stated in presentations to market participants that Linden VFT is

²⁸ *Id.* at 2.

²⁹ *Id.*

³⁰ Docket No. EL18-54-000, *N.J. Bd. Of Pub. Utilities v. PJM Interconnection, L.L.C. et al.*, Comments of the Indicated State Commissions (Feb. 6, 2018), at 2.

³¹ *Id.* at 3.

eligible to continue selling ICAP into New York even though it no longer has Firm TWRs to deliver ICAP over its transmission line into New York.³² The NYISO stated that “[b]ased on the NYISO’s current understanding and its discussions with PJM, External ICAP that procures Long Term Firm Point-to-Point Out Service with receipt at the source of the External ICAP (or equivalent) and delivered to the UDR Point of Interconnection within PJM is eligible to satisfy the NYISO UDR deliverability provisions of MST 5.12.2.1.”³³ The NYISO indicated that Linden VFT had secured Firm Point-to-Point transmission service to deliver energy to the receipt point of the Linden VFT line in PJM and that PJM had assured the NYISO that its transactions over the transmission line to NYISO would not be curtailed and would comply with the NYISO’s ICAP rules.³⁴ The NYISO therefore determined that Linden VFT could continue to provide ICAP to the NYISO market.³⁵ While HTP has not, to IPPNY’s knowledge, requested Firm Point-to-Point transmission service for deliveries in PJM, the NYISO’s treatment of Linden VFT would likely apply to HTP or any other UDR connected to PJM assuming they have Firm Point-to-Point service in PJM and Non-Firm TWRs for deliveries across the line into New York.³⁶

The NYISO’s and, as indicated by the NYISO to market participants, PJM’s decision to allow Linden VFT to continue to sell ICAP to New York over its transmission line notwithstanding the Conversion clearly violates the NYISO and PJM tariffs. Pursuant to the

³² Younger Aff. ¶ 24 (citation omitted).

³³ Zachary T. Smith, *Proposed ICAP Manual Revisions Regarding Deliverability Requirements for Capacity Imports from PJM*, NYISO (Jan. 17, 2018), at 2, http://www.nyiso.com/public/webdocs/markets_operations/committees/bic/meeting_materials/2018-01-17/5%20Import%20Right%20Deliverability%20Requirements%20final.pdf.

³⁴ Younger Aff. ¶ 25.

³⁵ *Id.*

³⁶ *See id.*

provisions in the NYISO’s Market Administration and Control Area Services Tariff (“Services Tariff”) that govern how external ICAP Suppliers may deliver ICAP via a UDR, transmission line owners are ineligible to use a UDR to supply ICAP into the NYISO’s Zone J if PJM can recall or curtail the delivery to satisfy PJM’s own loads:

External Generators, External System Resources, and Control Area System Resources qualify as Installed Capacity Suppliers if they demonstrate to the satisfaction of the NYISO that the Installed Capacity Equivalent of their Unforced Capacity is deliverable to the NYCA or, in the case of an entity using a UDR to meet a Locational Minimum Installed Capacity Requirement, to the NYCA interface associated with that UDR transmission facility *and will not be recalled or curtailed by an External Control Area to satisfy its own Control Area Loads*, or, in the case of Control Area System Resources, if they demonstrate that the External Control Area will afford the NYCA Load the same curtailment priority that they afford their own Control Area Native Load Customers.³⁷

The major flaw in the NYISO’s determination is that it ignores that PJM has the right under its tariff to recall or curtail deliveries over Linden VFT and HTP to satisfy its own control area needs because Linden VFT and HTP now have Non-Firm TWRs. The Commission reaffirmed that right in its Linden VFT and HTP Orders.³⁸ Under PJM’s tariff, as confirmed by the Commission in its Linden VFT and HTP Orders discussed above, Non-Firm TWRs are a lower quality of service than Firm TWRs. The PJM OATT defines Firm TWRs and Non-Firm TWRs as:

“Firm Transmission Withdrawal Rights” shall mean the rights *to schedule energy and capacity* withdrawals from a Point of Interconnection of a Merchant Transmission Facility with the Transmission System. Firm Transmission Withdrawal Rights may be awarded only to a Merchant D.C. Transmission Facility that connects the Transmission System with another control area.

³⁷ NYISO Services Tariff § 5.12.2.1 (emphasis added).

³⁸ Linden VFT Order ¶ 3; HTP Order ¶ 2.

Withdrawals scheduled using Firm Transmission Withdrawal Rights have rights similar to those under Firm Point-to-Point Transmission Service.³⁹

“No-Firm (sic) Transmission Withdrawal Rights” shall mean the rights to schedule energy withdrawals from a specified point on the Transmission System. Non-Firm Transmission Withdrawal Rights may be awarded only to a Merchant D.C. Transmission Facility that connects the Transmission System to another control area. *Withdrawals scheduled using Non-Firm Transmission Withdrawal Rights have rights similar to those under Non-Firm Point-to-Point Transmission Service.*⁴⁰

Two key distinctions between Firm TWRs and Non-Firm TWRs are: (1) Firm TWRs are defined as allowing the right to schedule “energy and capacity withdrawals”⁴¹ while Non-Firm TWRs allow the scheduling of energy withdrawals only and (2) Firm TWRs receive the same priority as Firm Point-to-Point service while Non-Firm TWRs receive the same priority as Non-Firm Point-to-Point service. Non-Firm Point-to-Point Transmission Service is defined as:

Point-To-Point Transmission Service under the Tariff that is reserved *and scheduled on an as-available basis and is subject to Curtailment or Interruption* as set forth in Tariff, Part II, section 14.7. Non-Firm Point-To-Point Transmission Service is available on a stand-alone basis for periods ranging from one hour to one month.⁴²

Thus, under the PJM tariff, Linden VFT and HTP cannot export ICAP to NYISO because Non-Firm TWRs cannot be used to export capacity. Firm TWRs are required to export capacity to the NYISO, rights which Linden VFT and HTP already relinquished. In addition, Linden VFT and HTP cannot qualify under Section 5.12.2.1 of the NYISO’s Services Tariff as an ICAP Supplier because PJM has the right and obligation to curtail deliveries over the transmission line

³⁹ PJM OATT § 1, Definitions E-F at 8 (emphasis added).

⁴⁰ *Id.* § 1, Definitions L-M-N at 14 (emphasis added).

⁴¹ *Id.* § 1, Definitions E-F at 8

⁴² *Id.* § 1, Definitions L-M-N at 14 (emphasis added).

to address reliability or any other operational issue on the PJM system. Indeed, it is hard to fathom why PJM assured the NYISO that it will not curtail service over Linden VFT because not curtailing Linden VFT's non-firm service means that PJM must curtail load in PJM when faced with such reliability or operational issues on the PJM system.⁴³ PJM's curtailment of New Jersey or PJM load instead of curtailing deliveries over Linden VFT's transmission line to New York load would violate PJM's Manual 14e, which provides that "the capability to withdraw capacity/energy at a defined Point of Interconnection with the PJM Transmission System is directly comparable to the capability of load to withdraw capacity/energy from the PJM Transmission System."⁴⁴

PJM's decision to allow capacity to be sold over Linden VFT and HTP into NYISO is unjust, unreasonable, and unduly discriminatory. It creates an undue preference because, to comply with Section 5.12.2.1 of the NYISO's Services Tariff, PJM must effectively give a higher level of reliability assurance to NYISO load than to PJM load while allowing Linden VFT and HTP to avoid the costs that other PJM firm customers must pay to maintain system reliability.⁴⁵

The combination of Firm Point-to-Point transmission service to the Linden VFT interconnection point on the PJM system with Non-Firm TWRs to the New York border does not allow Linden VFT to sell ICAP over its transmission line to NYISO. As Mr. Younger explains in his affidavit, an MTF must demonstrate deliverability across two separate paths to sell ICAP

⁴³ See Younger Aff. ¶ 26, 34.

⁴⁴ *Manual 14e*, PJM Interconnection, L.L.C. (May 26, 2016), at 36, <https://www.pjm.com/-/media/documents/manuals/m14e.ashx>.

⁴⁵ Younger Aff. ¶ 36.

to New York.⁴⁶ It must have both Firm Point-to-Point service from the generator's location in PJM to the Linden VFT receipt point in PJM *and* it must have Firm TWRs from that point to the New York interface in order to dependably and reliably serve New York load.⁴⁷ Linden VFT correctly recognized that "it would face an increased risk that its exports over its facility to the NYISO border would be subject to interruption" if its request to terminate its Firm TWRs was granted and it subsequently only held Firm Point-to-Point service within PJM and Non-Firm TWRs to the New York border.⁴⁸ To state the risk is "increased" is an understatement. As the Commission held in its Linden VFT Order, "the Linden facility is fully controllable by PJM so that PJM can shut off flows if those flows jeopardize reliability or cause operational problems in New Jersey or elsewhere on the PJM system."⁴⁹

Therefore, the Commission should determine that Linden VFT and HTP, and any other UDR between PJM and New York with Non-Firm TWRs to the New York border are ineligible to sell ICAP to the NYISO.

III. THE NYISO'S AND PJM'S ERRONEOUS DETERMINATION THAT THE CONVERSION DOES NOT DISQUALIFY LINDEN VFT AND HTP FROM SUPPLYING ICAP TO THE NYISO IS CURRENTLY JEOPARDIZING RELIABILITY AND CAUSING SIGNIFICANT FINANCIAL HARM TO THE NEW YORK AND PJM MARKETS AND, UNLESS THE COMMISSION TAKES CORRECTIVE ACTION, SUCH HARM TO THESE MARKETS WILL CONTINUE UNABATED.

As Mr. Younger demonstrates in his affidavit, a Commission ruling determining that Linden VFT is ineligible to sell ICAP to New York with their Non-Firm TWRs is required to

⁴⁶ *Id.* ¶ 15.

⁴⁷ *Id.*

⁴⁸ Linden Answer at 4–5.

⁴⁹ Linden VFT Order at 11.

avoid continuing harm to the NYISO and PJM markets.⁵⁰ This past January's ICAP market auction results demonstrate that Linden VFT is continuing to sell the same amount of ICAP with its Non-Firm TWRs that it sold with its Firm TWRs prior to the Conversion.⁵¹

With respect to the harm to PJM markets, IPPNY agrees with NJBPU that PJM markets are harmed because PJM and NYISO are allowing Linden VFT, impermissibly, to obtain firm transmission service while avoiding their allocation of RTEP costs that are required of all firm customers. The impermissible sale of ICAP also artificially suppresses the level of ICAP that would otherwise supply the PJM market, unjustly causing higher ICAP prices for PJM loads.⁵² Finally, as discussed above, if PJM allows ICAP exports over the Linden VFT transmission line to the NYISO, PJM necessarily must give up its right under the PJM tariff to curtail such exports.⁵³ This increases the risk that PJM will have to curtail its own load during times when the PJM control area has a supply deficiency instead of curtailing the exports to the NYISO.⁵⁴

When faced with decisions related to what load should be served, PJM appears to have placed itself in the unenviable position of making a choice between the conflicting obligations of serving PJM load (and curtailing New York load) in accordance with its OATT or serving New York load (and curtailing PJM load) in accordance with the assurance given to the NYISO.

With respect to harm to the NYISO, the NYISO faces the risk that ICAP exported over the Linden VFT transmission line on which it relied to meet system needs will not be available if

⁵⁰ Younger Aff. ¶ 37–45.

⁵¹ *Id.* ¶ 44.

⁵² *Id.* ¶ 38.

⁵³ *Id.* ¶ 39.

⁵⁴ *Id.*

PJM correctly decides that it must curtail such exports to maintain reliability for loads in PJM.⁵⁵ PJM would have the greatest need to curtail service over Non-Firm TWRs on high load, high unit outage days, or during other correlated system contingencies, which are when the NYISO is most likely to need deliveries from its ICAP resources.⁵⁶ The receipt point of Linden VFT is a mere one mile from New York City, ensuring that weather conditions are identical. If PJM is experiencing system stress in New Jersey, it is likely that the NYISO is experiencing the same in New York City.

In addition, allowing the impermissible export of ICAP over the Linden VFT line has artificially suppressed—and will continue to artificially suppress—the ICAP clearing prices in all of New York.⁵⁷ Mr. Younger calculated that ICAP clearing prices will be suppressed by as much as approximately \$3.50/kW-month in Zone J and by as much as approximately \$2.25/kW-month and \$0.75/kW-month in the G-J Locality and New York Control Area, respectively.⁵⁸ Such price suppression could cause the premature retirement of otherwise economic resources.⁵⁹

IV. CONCLUSION

For the foregoing reasons, it is critical for the Commission to ensure that the Conversions are correctly treated in order to most effectively address the concerns raised, and the relief sought by, NJBPU. Accordingly, the Commission should determine in its ruling on the Complaint that the PJM and NYISO tariffs prohibit Linden VFT and HTP from supplying ICAP over their transmission lines to the NYISO because they no longer have Firm TWRs to the New York

⁵⁵ *Id.* ¶ 40.

⁵⁶ *Id.*

⁵⁷ *Id.* ¶ 42.

⁵⁸ *Id.* ¶ 43.

⁵⁹ *Id.*

border and direct PJM and the NYISO: (i) to recognize the post-Conversion non-firm curtailable properties of the Linden VFT and HTP lines; and (ii) because these lines cannot show they have firm service to the New York border and no longer meet the definition of an ICAP Supplier, to prohibit further ICAP sales to NYISO Zone J across these lines.

Respectfully submitted,

David B. Johnson

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Dated: February 23, 2018

CERTIFICATE OF SERVICE

I hereby certify that on this day, I served the foregoing document by electronic mail or first-class mail upon each person designated on the official service list compiled by the Secretary to the Commission in this proceeding.

David B. Johnson
David B. Johnson

Dated: February 23, 2018

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AFFIDAVIT OF MARK D. YOUNGER

1. My name is Mark D. Younger. I am employed as President of Hudson Energy Economics, LLC. My business address is 480 Pondview Road, Petersburg, New York 12138.

2. My entire professional career has been devoted to matters relating to electric generation and the development of competitive electricity markets. For over fifteen years, I have been an active participant in the working groups refining the New York Independent System Operator, Inc. (“NYISO”) market structure and identifying corrections, improvements and enhancements to the market design, including all aspects of its energy, ancillary services, and installed capacity (“ICAP”) markets. Pertinent to this case, I have participated in the development of rules addressing the requirements for both internal and external resources to participate as Installed Capacity Suppliers in the NYISO’s capacity

markets. In addition, for the last eleven years I have been the main generator sector representative for the Installed Capacity Subcommittee (“ICS”) of the New York State Reliability Council (“NYSRC”). The ICS oversees the reliability analyses conducted by the NYISO and the NYSRC sets the installed reserve margin (“IRM”) for New York State on an annual basis based on that analysis. In this capacity, I have reviewed, and provided input on, the NYISO’s IRM study assumptions and results. Over this time period, I have also testified in numerous Federal Energy Regulatory Commission (“Commission”) and New York State Public Service Commission proceedings relating to all aspects of the overall NYISO market design. My resume is attached as Exhibit MDY-1.

3. I write this affidavit in support of the Comments of Independent Power Producers of New York, Inc. (“IPPNY”) on the New Jersey Board of Public Utilities’ (“NJBPU”) complaint against PJM Interconnection, L.L.C. (“PJM”), NYISO, Consolidated Edison Company of New York, Inc. (“Con Ed”), Linden VFT, LLC (“Linden VFT”), Hudson Transmission Partners, LLC (“HTP”) and the New York Power Authority (“NYPA”) that was filed in the above-captioned docket on December 22, 2017 (the “Complaint”).
4. In its Complaint, NJBPU alleges, among other things, that the NYISO receives various reliability and capacity benefits from the merchant transmission facilities (“MTFs”) owned by HTP and Linden VFT and interconnected to the PJM and NYISO systems for the transmission of electric power between the PJM and NYISO regions. NJBPU complains that the NYISO is continuing to receive these benefits without any associated party providing compensation for the \$1.2 billion Bergen-Linden Corridor Project (“BLC Project”), a Regional Transmission Expansion Plan (“RTEP”) project, that was required

to, among other things, alleviate reliability issues in northern New Jersey, which “were driven significantly by transfers to New York,” over the MTFs owned by HTP and Linden VFT and other transmission lines.¹ NJBPU alleges that HTP and Linden VFT have attempted to avoid their required cost allocation for the BLC Project by converting their Firm Transmission Withdrawal Rights (“Firm TWRs”) to Non-Firm Transmission Withdrawal Rights (“Non-Firm TWRs”) (the “Conversion”). Specific to these two facilities, NJBPU challenges their ability to avoid any financial obligations for the BLC Project even though PJM and the NYISO have permitted them to retain the benefits of the same capacity export service with a different name. NJBPU complains that this results in the misallocation of the BLC Project costs to New Jersey load serving entities because the NYISO continues to receive capacity benefits from these lines without compensating PJM for the BLC Project.

5. Given the capacity benefits concerns raised by the NJBPU, IPPNY asked me to address whether HTP and Linden VFT may continue to provide capacity benefits—specifically, in the form of making ICAP sales to New York—after the Conversion and, if not, whether the NYISO’s and PJM’s decision to allow such benefits to continue despite the Conversion causes harm to NYISO and PJM. Notwithstanding the election they have made, PJM and the NYISO have allowed Linden VFT, and possibly HTP, to continue providing capacity benefits and apparently Linden VFT is, in fact, continuing to sell ICAP to New York. I agree with NJBPU that the NYISO’s and PJM’s treatment of the Conversion already caused direct harm to the New York and PJM markets. Unless it is

¹ Complaint ¶ 89 (citation omitted).

corrected, it will continue to harm these markets and could threaten reliability. As I discuss in greater detail below, HTP and Linden VFT cannot sell ICAP from PJM to NYISO because they each elected to make the Conversion.

6. Based on its characterization of PJM's position, the NYISO's position, however, is that the Conversion did not affect the ability of HTP and Linden VFT to supply ICAP to NYISO. This position is contrary to the NYISO's and PJM's tariffs, Commission orders and the core distinction between firm and non-firm service. The lack of transparency with respect to these continuing ICAP sales is also creating significant uncertainty with respect to what load will be served by PJM during periods when flows "jeopardize reliability or cause operational problems in New Jersey or elsewhere on the PJM system."²
7. To export ICAP from PJM into New York to serve NYISO Zone J load, firm service is required all the way to the New York interface. Yet the NYISO has stated that PJM assured its transactions over Linden VFT's transmission line will not be curtailed notwithstanding the Conversion. PJM is thus enabling Linden VFT and HTP to effectively receive the benefits of firm service to sell ICAP to Zone J load when, by virtue of their own actions, they only possess non-firm rights to deliver energy into Zone J. The NYISO cannot rely on these statements because it would require PJM to curtail and shed load in PJM while allowing these non-firm exports across the lines to continue to be delivered into New York. PJM has no authority under its tariff to make such a promise now that Linden VFT and HTP have terminated their Firm TWRs because

² *Linden VFT, LLC v. Pub. Serv. Elec. & Gas Co. & PJM Interconnection, L.L.C.*, 161 FERC ¶ 61,264 (2017), ¶ 25 (citation omitted) ("Linden VFT Order").

- PJM's tariff requires that it cut the Non-Firm TWRs before it cuts its own firm load.
8. Their actions harm PJM because, based on PJM's assurances, the NYISO is impermissibly allowing a sale of ICAP over Linden VFT's transmission line into New York.³ ICAP sales from PJM to New York under these circumstances reduce the amount of ICAP available to sell into the PJM market which may raise PJM market clearing prices.
 9. The New York market is also harmed because, if treated correctly as a non-firm supply, the ICAP deliveries across the Linden VFT and HTP lines into Zone J do not provide the minimum level of certainty from a reliability standpoint that is required under the NYISO tariff for these resources to qualify as Installed Capacity Suppliers. The sale of the non-qualifying ICAP unjustly suppresses ICAP prices in New York thereby suppressing the signals that other Installed Capacity Suppliers rely upon to cover their costs.
 10. A review of the NYISO UCAP Auction Results shows that there has been no significant change in the amount of ICAP sold in Zone J following the Conversion by either Linden VFT or HTP. The reasonable conclusion is that the NYISO has continued to allow at least Linden VFT to sell ICAP into Zone J even though it does not meet the minimum requirements of the NYISO's Market Administration and Control Area Services Tariff ("Services Tariff"). Therefore, the damage to the NYISO markets is already occurring and will continue until PJM and NYISO comply with their respective tariffs or this issue is corrected by the Commission.
 11. In addition to the financial ramifications, NJBPU is correct that there are also significant

³ Were HTP to take similar steps, permitting ICAP sales over its transmission line into New York would cause additional harm.

reliability and operational problems that should not be permitted to go unresolved in this proceeding. PJM has the obligation to curtail these transactions over these non-firm transmission lines when needed to serve its own loads as mandated by its tariffs.⁴ If PJM allows the power to flow and cuts its own load, PJM consumers will be harmed while New York consumers are impermissibly provided service. Contrary to PJM's Open Access Transmission Tariff ("OATT"), recent Commission orders and years of Commission precedent associated with firm and non-firm services, non-firm New York load and customers will receive service while firm load and customers in PJM are curtailed. On the other hand, if PJM curtails service to New York in accordance with PJM's OATT obligations, NYISO consumers are harmed because PJM is not abiding by its assurance that the transactions over these non-firm transmission lines would not be curtailed. PJM's assurance to the NYISO and NYISO's acceptance of that assurance in light of all the contrary obligations and Commission orders casts significant uncertainty over reliability and system operations because it is not known which load will be served and which load will be curtailed. The Commission should order PJM and the NYISO to treat the Linden VFT and HTP lines as non-firm curtailable lines that are not able to sell ICAP to New York Zone J and do not meet the definition of a Capacity Supplier in Zone J, which is in accordance with the plain language of their tariffs, recent Commission orders and long-standing Commission precedent related to firm and non-firm service.

12. In its Complaint, NJBPU requests, among other things, that the Commission find that the NYISO impermissibly leans on the PJM system pursuant to a series of interregional

⁴ "[T]he Linden facility is fully controllable by PJM so that PJM can shut off flows if those flows jeopardize reliability or cause operational problems in New Jersey or elsewhere on the PJM system." Linden VFT Order ¶ 25.

actions to receive transmission and capacity benefits without compensating PJM for necessary transmission system upgrades. It also claims that other parties have unfairly sought to circumvent their cost responsibilities.

13. As other State Commissions have pointed out in their comments in this docket, the circumstances presented in this case are extremely opaque and are creating a great deal of uncertainty with respect to what will ultimately happen with these flows when PJM is faced with a decision.⁵ To address the concerns raised by NJBPU, the Commission should first ensure that the Conversion is addressed in accordance with the PJM and NYISO tariffs, past Commission orders concerning these facilities, and the long-recognized distinction between firm and non-firm service. As I explain below, the Commission should determine that Linden VFT and HTP are ineligible to sell ICAP into Zone J because they terminated their Firm TWRs for the MTFs and can no longer demonstrate that their deliveries will not be curtailed by PJM if they are otherwise needed to address a reliability or operational issue on the PJM system. In accordance with the plain language of their tariffs, recent Commission orders and longstanding Commission precedent related to firm and non-firm service, the Commission should thus order PJM and the NYISO to recognize that the Linden VFT and HTP lines, post-Conversion, are non-firm curtailable lines that do not meet the definition of an Installed Capacity Supplier in New York Zone J.

Background

14. In its Complaint, NJBPU challenges, among other things, whether New York should be

⁵ Docket No. EL18-54-000, *N.J. Bd. Of Pub. Utilities v. PJM Interconnection, L.L.C. et al.*, Comments of the Indicated State Commissions (Feb. 6, 2018), at 2–3.

permitted to continue to receive capacity benefits from PJM over these two lines without compensating PJM for necessary transmission upgrades. Capacity benefits come in various forms but the form of capacity benefits that has the most significant impact is the sale of ICAP from a facility in PJM to meet NYISO ICAP requirements. If paired with the correct service, ICAP can be sold from PJM to New York in two ways. First, each year, the NYISO defines the amount of ICAP imports that may be sold from PJM to New York over the AC interface between the two regions. Second, given the nature of their interconnection between the two systems, the Linden VFT and HTP transmission lines are MTFs that have been awarded Unforced Capacity Deliverability Rights (“UDRs”). UDRs are controllable lines into NYISO Localities that are authorized to import external capacity resources into the NYISO only if those imports meet all of the requirements for Installed Capacity Suppliers under the NYISO’s tariffs.

15. As Linden itself has previously explained to the Commission, to demonstrate eligibility to sell ICAP to New York, a MTF must demonstrate deliverability across two separate paths—specifically, from the generator’s location to the Linden VFT interface on the PJM side *and* from that point to the New York interface.⁶ Originally, the owners of the Linden VFT line secured Firm TWRs from its interconnection point on the PJM system to the New York interface to satisfy the required second path. Until recently, customers on the Linden VFT line satisfied the first path by securing Firm Point-to-Point rights to

⁶ Docket No. EL17-84-000, *PJM Interconnection, L.L.C.*, Answer of Linden VFT, LLC (Nov. 13, 2017), at 4–5 (“Linden November 13 Answer”).

the Linden VFT interconnection point on the PJM side.⁷ Combining Firm Point-to-Point service within PJM and Firm TWRs to the New York border ensured the export from PJM to the NYISO would not be curtailed in accordance with the PJM OATT because the requirements of both paths were satisfied and, therefore, this ICAP was deliverable to Zone J load. Linden VFT sold ICAP in the New York market on that basis through December 2017.⁸

16. Until recently, HTP also had Firm TWRs to the New York interface.⁹ HTP was mitigated under the NYISO's Buyer-Side Market Power Mitigation Rules. It is required to submit capacity offers no lower than a predesignated Offer Floor and, upon information and belief, has not cleared more than an insignificant amount of its capacity in the NYISO's spot market auctions. Recent capacity clearing prices in New York have been well below HTP's Offer Floor so it is doubtful that they have offered significant capacity into the NYISO market. NYPA recently confirmed to the Commission that HTP has made only *de minimis* ICAP sales due to the Offer Floor mitigation.¹⁰
17. As NJBPU explains, last year, both Linden VFT and HTP sought to terminate their Firm TWRs and replace these rights with Non-Firm TWRs.¹¹ After a series of pleadings were filed in several dockets, two Section 206 proceedings were commenced to determine whether Linden VFT and HTP should be authorized to take these actions (hereinafter,

⁷ See Docket No. EL17-90-001, *Linden VFT, LLC v. Pub. Serv. Elec. & Gas Co. & PJM Interconnection, L.L.C.*, Answer and Motion for Leave to Answer and Answer of Linden VFT, LLC (Jan. 31, 2018), at 3 (“Linden January 31 Answer”).

⁸ *Id.*

⁹ Complaint ¶ 58 (citing *PJM Interconnection, L.L.C.*, 161 FERC ¶ 61,262 (2017) (“HTP Order”).

¹⁰ Docket No. EL17-84-000, *supra*, Motion for Leave to Answer and Answer of the New York Power Authority (Nov. 14, 2017), at 5 (“NYPA Answer”).

¹¹ Complaint ¶¶ 54–57.

“Linden VFT Firm TWR Proceeding” and “HTP Firm TWR Proceeding,” respectively).¹²

18. In the Linden VFT Firm TWR Proceeding, Linden VFT explained to the Commission that it was proposing a change to both paths of this service going forward. With respect to the first path, Linden VFT was seeking to obtain Firm Point-to-Point rights to its interconnection point on the PJM side of the system so that its customers would no longer have to obtain firm service to satisfy the requirements of this first path.¹³ Second, Linden VFT expressly established in the Linden VFT Firm TWR Proceeding that it would only hold *Non-Firm* TWRs on the second path after the Conversion (*i.e.*, the TWR service path from its facilities in PJM interconnection across the line into the NYISO) if its request were to be granted.¹⁴ Thus, as Linden VFT correctly acknowledged, “it would face an increased risk that its exports over its facility to the NYISO border would be subject to interruption.”¹⁵
19. In the HTP Firm TWR Proceeding, NYPA, the anchor customer of HTP that is contractually entitled to the majority of the HTP line’s 660 MW of transmission capacity, told the Commission that neither it nor HTP has submitted a request for long-term firm point-to-point transmission service from PJM or has any immediate plans to export ICAP from PJM using Non-Firm TWRs.¹⁶ By seeking authorization to complete the Conversion, Linden VFT and HTP were acknowledging that their energy deliveries

¹² See Linden VFT Order ¶ 1; HTP Order ¶ 1.

¹³ Docket No. EL17-90-000, *Linden VFT, LLC v. Pub. Serv. Elec. & Gas Co. & PJM Interconnection, L.L.C.*, Complaint (Sept. 18, 2017), at 8–9 (“Linden VFT Complaint”).

¹⁴ *Id.*

¹⁵ Linden November 13 Answer at 4–5. To state the risk is “increased” is an understatement. PJM has the obligation to curtail service over the non-firm line to meet reliability needs in New Jersey or resolve operational problems in New Jersey or elsewhere on the PJM system.

¹⁶ NYPA Answer at 3.

would no longer be given firm service rights.

20. In its orders in these two proceedings (“Firm TWR Orders”), the Commission determined that Non-Firm TWRs do not provide firm service.¹⁷ In supporting its decision that Linden VFT and HTP should be permitted to complete the Conversion, the Commission established, for example, that Linden VFT’s previous Firm TWR service required that “PJM must guarantee that its transmission system is robust enough to permit Linden to use its Firm TWRs to export 330 MWs of power from its source in PJM *across the river to New York at all times.*”¹⁸
21. Converting to non-firm service, however, triggered the core distinction between Firm and Non-Firm TWR service. Specifically, per the Commission, “[c]onverting those Firm TWRs to Non-Firm TWRs imposes no additional obligation on PJM and, in fact, is less burdensome in that PJM will no longer have to guarantee that its transmission system can support such use.”¹⁹ Thus, as stated by the Commission, the ramification of electing Non-Firm TWR service is that, “the Linden facility is fully controllable by PJM so that PJM can shut off flows if those flows jeopardize reliability or cause operational problems in New Jersey or elsewhere on the PJM system.”²⁰ Linden VFT itself recognized that “PJM can shut off flows, consistent with applicable rules and procedures.”²¹
22. HTP indicated to the Commission that it terminated its Firm TWRs as of December 15,

¹⁷ Linden VFT Order ¶ 3; HTP Order ¶ 2.

¹⁸ Linden VFT Order ¶ 25 (emphasis added).

¹⁹ *Id.*

²⁰ *Id.* (citation omitted).

²¹ Linden VFT Complaint at 11.

2017 and now only has Non-Firm TWRs.²² Linden VFT indicated to the Commission that it converted its Firm TWRs to Non-Firm TWRs effective December 31, 2017.²³

23. From the capacity market auction results and the associated NYISO report issued for the January 2018 capacity market, it appears that Linden VFT offered and sold ICAP from PJM into the New York market. Consistent with the market clearing at much lower prices than HTP's minimum offer floor, it appears that either HTP was not selling any ICAP before the Conversion or that they continue to sell the same small amount of ICAP they were selling before.

PJM and the NYISO Can No Longer Permit ICAP Sales from the Linden VFT and HTP Lines Because They Have Terminated Their Firm TWRs.

24. Prior to the issuance of the Commission's Firm TWR Orders, the NYISO made a presentation at the September 18, 2017 Installed Capacity working group meeting advising Market Participants that "based on the NYISO's current understanding and its discussions with PJM," an entity with Firm Point-to-Point service to the interconnection point with the PJM system was eligible to sell ICAP to New York.²⁴ In response to questions, the NYISO stated the basis for its position was PJM's assurances that transactions over the Linden VFT to New York would not be curtailed. While the NYISO "updated" this presentation at some point following this meeting, the revised presentation, which contains the penalties the entity will face if it fails to provide energy, still does not explain how a resource with only Non-Firm TWRs (which must be curtailed

²² Docket No. EL17-84-001, *PJM Interconnection, L.L.C.*, Answer of HTP (Jan. 31, 2018), at 2.

²³ Linden January 31 Answer at 3.

²⁴ Zachary T. Smith, *Discussion of UDR Deliverability Requirements*, NYISO (Sept. 18, 2017), at 8, http://www.nyiso.com/public/webdocs/markets_operations/committees/bic_icapwg/meeting_materials/2017-09-18/UDR%20Deliverability%20Requirements.pdf.

by PJM to secure its own load, reliability requirements and system operational needs) could be deemed eligible to be an Installed Capacity Supplier in the first instance.

Indeed, by seeking to use penalties as the policing mechanism that Linden VFT has arranged sufficiently firm transmission to be an Installed Capacity Supplier in New York while knowing the transmission service procured by Linden VFT is not sufficiently firm to assure that the energy deliveries will not be cut to meet a resource shortage in PJM, the NYISO is violating its own tariff.

25. At a committee working group meeting last month which took place after the Commission issued its Firm TWR Orders, the NYISO reaffirmed that Linden VFT continued to be eligible to sell ICAP into New York despite the fact it had terminated its Firm TWRs and only had Non-Firm TWRs on the second path for delivery into New York. The NYISO stated that, based on its understanding and discussions with PJM, “External ICAP that procures Long Term Firm Point-to-Point Out Service with receipt at the source of the External ICAP (or equivalent) and delivered to the UDR Point of Interconnection within PJM is eligible to satisfy the NYISO UDR deliverability provisions of MST 5.12.2.1.”²⁵ The NYISO stated that Linden VFT had arranged for Firm Point-to-Point service terminating on the PJM side and PJM assured the NYISO transactions across the Linden VFT would not be curtailed, and therefore, the NYISO had determined that Linden VFT could continue to provide ICAP to the NYISO market. The NYISO’s determination with respect to Linden VFT presumably applies to HTP or any

²⁵ Zachary T. Smith, *Proposed ICAP Manual Revisions Regarding Deliverability Requirements for Capacity Imports from PJM*, NYISO (Jan. 17, 2018), at 2, http://www.nyiso.com/public/webdocs/markets_operations/committees/bic/meeting_materials/2018-01-17/5%20Import%20Right%20Deliverability%20Requirements%20final.pdf.

- other UDR connected to PJM if it obtains similar Point-to-Point service *within PJM* combined with Non-Firm TWRs to the New York interface.
26. The NYISO has not provided any other information explaining why it has elected to accept PJM's blanket assurances that Linden VFT can continue to deliver ICAP to the NYISO despite its termination of its Firm TWRs and PJM's obligation pursuant to its OATT to curtail service for Non-Firm TWRs if flows into New York jeopardize reliability or cause operational problems in New Jersey or elsewhere on the PJM system.
27. The NYISO's position in this regard is particularly problematic given that, during this same time period, the NYISO has advanced clarifications to its ICAP Manual to specify that entities that seek to import capacity over the AC interface must secure firm transmission rights *across the New York border into New York* to make such ICAP sales. Those clarifications were approved by the Business Issues Committee at its January 2018 meeting and will be implemented by the NYISO effective May 1, 2018.
28. There is no basis for PJM to promise to the NYISO that it will not recall or curtail the non-firm delivery across Linden VFT's transmission line (or HTP's transmission line) to meet PJM Control Area Loads given explicit language in PJM's OATT and the Commission orders. Non-Firm TWRs have a lower priority of service under the PJM tariff.

Non-Firm Transmission Withdrawal Rights:

"No-Firm (sic) Transmission Withdrawal Rights" shall mean the rights to *schedule energy withdrawals* from a specified point on the Transmission System. Non-Firm Transmission Withdrawal Rights may be awarded only to a Merchant D.C. Transmission Facility that connects the Transmission System to another control area. *Withdrawals scheduled using Non-Firm Transmission Withdrawal*

*Rights have rights similar to those under Non-Firm Point-to-Point Transmission Service.*²⁶

29. Moreover, the key difference between the definition of Firm TWRs and Non-Firm TWRs is that Firm TWRs are defined as allowing the right to schedule “energy and capacity withdrawals”²⁷ while Non-Firm TWRs only allow the scheduling of energy withdrawals. Firm TWRs are accorded the same priority as Firm Point-to-Point service.
30. In light of the plain language in the PJM OATT, the Commission’s recent orders and the core distinction between firm and non-firm service, the deliveries across any UDR with Non-Firm TWRs cannot qualify to deliver ICAP under the NYISO’s Services Tariff.
31. The provisions in the NYISO’s Services Tariff regarding external ICAP providers delivering via a UDR clearly provide that an entity is not eligible to supply ICAP into New York Zone J if PJM can recall or curtail the entity to satisfy PJM’s own loads, the very obligation and right accorded to PJM under its tariffs when addressing Non-Firm TWR service. Section 5.12.2.1 of the NYISO’s Services Tariff provides as follows:

External Generators, External System Resources, and Control Area System Resources qualify as Installed Capacity Suppliers if they demonstrate to the satisfaction of the NYISO that the Installed Capacity Equivalent of their Unforced Capacity is deliverable to the [New York Control Area (“NYCA”)] or, in the case of an entity using a UDR to meet a Locational Minimum Installed Capacity Requirement, to the NYCA interface associated with that UDR transmission facility *and will not be recalled or curtailed by an External Control Area to satisfy its own Control Area Loads*, or, in the case of Control Area System Resources, if they demonstrate that the External Control Area will afford the NYCA Load the same curtailment priority that they afford their own Control Area Native Load Customers. (Emphasis added.)

²⁶ PJM OATT § 1, Definitions L-M-N at 14 (emphasis added).

²⁷ *Id.* § 1, Definitions E-F at 8.

32. The NYISO did not provide any support for its assertion that Linden VFT can continue to supply ICAP to New York other than its opaque assertion that PJM said its treatment would comply with the NYISO tariff.
33. Given the non-firm nature of the Non-Firm TWRs that Linden VFT (and HTP) have now chosen, PJM cannot assure the NYISO that deliveries using Non-Firm TWRs can meet the requirement that the delivery of energy across the transmission interconnection between PJM and NYISO “will not be recalled or curtailed by an External Control Area to satisfy its own Control Area Loads” as required by Section 5.12.2.1 of the NYISO’s Services Tariff for Linden VFT to be eligible to be an Installed Capacity Supplier.
34. In fact, as the Commission found in its Firm TWR Orders, the distinction between taking firm and non-firm service, by definition, means that PJM shall curtail the export of energy across the now non-firm lines to protect against and otherwise address reliability or any other operational issues that may be experienced across the PJM system.²⁸
35. Failing to curtail the non-firm export and cutting load within PJM will violate PJM’s rules. PJM Manual 14e states that “the capability to withdraw capacity/energy at a defined Point of Interconnection with the PJM Transmission System is directly comparable to the capability of load to withdraw capacity/energy from the PJM Transmission System.”²⁹
36. For PJM to confirm it will not curtail transactions over the Linden VFT (or HTP) lines and, thus, to meet the requirements of Section 5.12.2.1 of the NYISO’s Services Tariff

²⁸ Linden VFT Order ¶ 32; HTP Order ¶ 50.

²⁹ *Manual 14e*, PJM Interconnection, L.L.C. (May 26, 2016), at 36, <https://www.pjm.com/-/media/documents/manuals/m14e.ashx>.

for the NYISO to allow the ICAP sale in the first place, PJM must give the Non-Firm TWRs equal or higher priority to withdraw energy from the PJM system compared to PJM's own firm load. Giving this level of priority to exports across a UDR with Non-Firm TWRs either entirely ignores or blatantly contradicts the fact the owners of these lines have elected to convert their Firm TWRs to Non-Firm TWRs. Effectively, PJM would be assigning a higher level of reliability assurance—an undue preference—to the NYISO's customers than it accords to its own firm customers while, at the same time, the non-firm service that Linden VFT and HTP have selected allows them to avoid the costs that other firm customers are required to bear to maintain system reliability.

Permitting Linden VFT (and HTP) to Continue to Sell ICAP into the NYISO's Markets after They Have Elected to Convert to Non-Firm TWR Service Harms Both the PJM and NYISO Markets.

37. PJM's assurance to the NYISO that it will continue to provide energy to New York matching Linden VFT's ICAP sales in the face of Linden VFT's and HTP's election to switch to Non-Firm TWR service will have adverse consequences for both PJM and the NYISO. If Linden VFT and HTP are allowed to supply ICAP to New York with their Non-Firm TWRs, the PJM markets would be harmed in three ways. First, as the NJBPU explained in its complaint, Linden VFT and HTP would effectively obtain firm service from PJM without being required to bear the fair allocation of RTEP costs that are required of all firm customers.³⁰

³⁰ Complaint at 2–4.

38. Second, allowing these impermissible ICAP sales artificially reduces the ICAP supplies that would otherwise be available to the PJM market, thereby unjustly raising prices for PJM loads, all else equal.
39. Third, for capacity to continue to be sold to New York across these lines, PJM must continue to attest that it will not curtail the exports even if its own control area loads are not able to be met by the remaining generation supplies available to PJM. This means that there is a greater risk of load not being served in PJM when curtailing this non-firm export would alleviate, or even eliminate, the load curtailment in PJM.
40. There is a flip-side to this reliability and operational risk that would harm New York. Specifically, should PJM ultimately (and correctly) determine it cannot curtail its own loads in favor of these non-firm TWR transactions because such actions are expressly prohibited by its tariffs, the ICAP New York was counting on to serve its load would not provide the needed energy. The Non-Firm TWRs are most likely to be curtailed on high load, high unit outage days. These are precisely the days that NYISO needs to rely upon deliveries from its ICAP resources the most.
41. In short, when presented with a potential loss of load risk in the PJM system as a result of insufficient generating capability, PJM's assurance to New York means PJM must choose either to curtail load in the PJM system to accommodate Linden VFT's (and HTP's) non-firm delivery to NYISO in accordance with its assurance or comply with its tariff requirements and past Commission orders and curtail the export to New York. PJM must comply with its tariffs.
42. The NYISO market is further harmed by the fact that allowing resources that do not meet the NYISO requirements to be Installed Capacity Suppliers would artificially suppress

the ICAP clearing prices across the entire State of New York. The NYISO market is composed of a statewide ICAP market (the NYCA market) and three sub-zones (Zone J, New York City (“NYC”); Zone K, Long Island; and the LHV Zone, Zones G-J). The NYC zone is nested within the LHV zone, which is then nested within the entire NYCA market. ICAP that sells in NYC also counts toward the LHV and NYCA ICAP requirement. Thus, ICAP delivered into Zone J across the Linden VFT and HTP lines will impact the clearing prices on the Zone J Curve, the LHV Zone Curve and the NYCA Curve.

43. The slope of the Zone J unforced capacity demand curve for the 2017 Summer Capability Period was \$1.19/kW-month per 100 MW of supply while the slopes for the LHV Zone and NYCA Curves were \$0.78/kW-month per 100 MW supply and \$0.23/kW-month per 100 MW supply, respectively. Consequently, allowing Linden VFT to continue to sell ICAP to New York despite its election to convert to Non-Firm TWRs will result in artificially suppressing the Zone J capacity clearing prices as much as approximately \$3.50/kW-month and artificially suppressing the LHV Zone and NYCA prices by as much as approximately \$2.25/kW-month and \$0.75/kW-month, respectively.³¹ Ignoring the election made by Linden VFT and HTP and effectively continuing to treat these resources as if they still have firm service means that all other Installed Capacity Suppliers in New York that are complying with the tariff requirements to be Installed Capacity Suppliers will be underpaid. It is well-documented that the lower energy prices,

³¹ If the clearing price on the demand curve for a more constrained zone, such as NYC, would be lower than the clearing price on a zone it is nested within, such as the LHV, then the NYC resources will clear at the higher price of the zone within which it is nested. The slope on the curve also changes slightly from capability period to capability period as a result of changes to the Locality average EFORD.

and consequently lower net energy revenues, resulting from the shale gas phenomenon and other factors have placed increasing pressure on the capacity market to account for the “missing money.” Such artificial price suppression could result in premature retirement of some of those resources.

44. It is important to understand that the impacts of PJM and NYISO’s erroneous actions are already being felt in their markets. Based upon the ICAP market auction results for January published by the NYISO, it appears that Linden VFT continued to sell the same level of ICAP from PJM to New York that it was selling before the Conversion.
45. Unless the Commission directs PJM and the NYISO to apply their respective tariffs and treat these sales as non-firm supply, these impacts will continue. As a result, ICAP market clearing prices will be artificially suppressed in New York and may be artificially inflated in PJM, and both regions will needlessly be exposed to heightened reliability and operational risks.
46. This concludes my affidavit.

**UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION**

New Jersey Board of Public Utilities,)
)
Complainant,)
)
v.)
)
PJM Interconnection, L.L.C., New York)
Independent System Operator, Inc.,)
Consolidated Edison Company of)
New York, Inc., Linden VFT, LLC,)
Hudson Transmission Partners, LLC and)
New York Power Authority,)
)
Respondents.)

Docket No. EL18-54-000

I declare under penalty of perjury that the forgoing is true and correct.

Executed on February, 23, 2018

Mark D. Younger
Mark D. Younger

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Mr. Younger is President of Hudson Energy Economics, LLC and has over thirty-five years of experience in energy analysis.

EDUCATION

MBA, Cornell University, 1983

M.E., Operations Research
Cornell University, 1983

B.S., Engineering, Major - Operations Research
Cornell University 1981

PROFESSIONAL EXPERIENCE

President

Hudson Energy Economics, LLC (2012 - Present)

Specialist on electric deregulation, market structure issues and deregulated electric energy, ancillary service and capacity market design. Involved as an active participant in the working groups refining the New York Independent System Operator, Inc. ("NYISO") market structure and developing methods to improve the market design, including all aspects of its energy, ancillary services and capacity markets.

Vice President

Slater Consulting (1994 - 2012)

Involved as an active participant in the working groups refining the New York Independent System Operator, Inc. ("NYISO") market structure and developing methods to improve the market design, including all aspects of its energy, ancillary services and capacity markets. One of the original architects of New York's capacity demand curve.

Senior Project Manager

Morse, Richard, Weisenmiller & Associates, Inc. (1986-1994)

Responsible for directing MRW's projects on production cost modeling. Prepared extensive analysis and expert witness testimony on avoided costs in California, New York, Pennsylvania and New Jersey. Performed analyses of electric utility emissions reductions associated with cogeneration projects.

Energy Economist

Pacific Gas & Electric Company (1983-1986)

Responsible for developing models and methods for integrated supply and demand-side resource analysis. Developed and performed an analysis of resource planning under uncertainty using Monte Carlo techniques.

Research Specialist for Duane Chapman, Professor of Resource Economics Cornell University (1982-1983)

Formulated the financial simulation section of the University Research Group on Energy's (URGE) integrated model of the electric utility industry. Performed an analysis of the impact on New York Pollution levels and New York utilities of proposed acid rain abatement strategies.

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- Affidavit on behalf of the Independent Power Producers of New York on the dollars that gas local distribution companies would collect annually by charging electric generator gas interruptible transportation customers in New York City a \$0.10 per Dth charge and the cost that would impose on electricity consumers in NYC. (NY PSC Docket No. 17-G-0011)
- Affidavit on behalf of Roseton Generating, LLC on the inappropriateness of blocking generators located in the NYISO Localities from selling capacity to the ISO-NE market during the 2017-2018 capability year (FERC Docket No. ER16-2451-000) September 23, 2016
- Affidavit on behalf of the Independent Power Producers of New York and the Electric Power Supply Association on the flaws in the NYISO's proposed implementation of a Renewable and Self Supply Exemption (FERC Docket No. ER16-1404-000) May 31, 2016.
- Affidavit on behalf of the Independent Power Producers of New York and the Electric Power Supply Association on the flaws in the NYISO's Information Response on the Deficiencies in Its Analysis of the Need for Uneconomic Retention Mitigation and NYCA wide Uneconomic Entry Mitigation (FERC Docket No. EL13-62-002) January 19, 2016.
- Affidavit on behalf of the Independent Power Producers of New York and the Electric Power Supply Association on the flaws in the NYISO's proposed Reliability Must Run compliance filing (FERC Docket No. ER16-120-000) November 30, 2015.
- Affidavit on behalf of the Independent Power Producers of New York regarding the flaws in claims that lightly regulated utilities claimed confidential information is already in the public domain and in the harm from releasing such data. (NY PSC Matter No. 13-01288) September 3, 2015.
- Affidavit on behalf of the Independent Power Producers of New York regarding the flaws in the NY PSC, NYPA and NYSERDA proposed fundamental revisions to the NYISO's Buyer-Side Mitigation Rules. (FERC Docket No. EL15-64-000) June 29, 2015.
- Affidavit on behalf of the Independent Power Producers of New York regarding the need to maintain confidentiality for certain data submitted to the New York Public Service Commission by lightly regulated utilities. (NY PSC Matter No. 13-01288) June 17, 2015.
- Affidavit on behalf of the PSEG Companies regarding how market rules that affect price formation have developed within the NYISO and how those rules should be incorporated into PJM Interconnection L.L.C.'s ("PJM") market design. (FERC Docket No. AD14-14-000) March, 6, 2015.
- Affidavit on behalf of the Independent Power Producers of New York regarding the failure of TDI to show that they Champlain Hudson Power Express should be given a line specific exemption from Buyer-Side uneconomic entry mitigation and the failure of TDI to demonstrate that the existing NYISO tariff's application of mitigation to its project was not Just and Reasonable (FERC Docket No. EL15-33-000), January 15, 2015.
- Affidavit on behalf of the Independent Power Producers of New York regarding flaws in the NYISO's and Transmission Owners proposals for a Competitive Entry Exemption from Buyer-Side uneconomic entry mitigation and the failure of the Transmission Owners to demonstrate that the existing NYISO tariff was not Just and Reasonable (FERC Docket No. EL15-25-000), January 15, 2015.

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- Affidavit on behalf of the Independent Power Producers of New York regarding the flaws in the NYISO's proposal to define generator outage states and associated requirements and calculations (FERC Docket No. ER14-2518-000), September 2, 2014.
- Affidavit on behalf of the Independent Power Producers of New York regarding the need to maintain confidentiality for certain data submitted to the New York Public Service Commission by lightly regulated utilities. (NY PSC Matter No. 13-01288) August 6, 2014.
- Second Supplemental Affidavit on behalf of the Independent Power Producers of New York regarding the need to mitigate the uneconomic retention of the Dunkirk Power Plant which is being retained pursuant to a 10 year out-of-market contract (FERC Docket No. EL13-62-000), March 25, 2014.
- Supplemental Affidavit on behalf of Entergy rebutting the claimed rate impacts associated with the implementation of the NYISO Lower Hudson Valley capacity zone. (FERC Docket No. ER14-500-000), January 6, 2014.
- Affidavit on behalf of Entergy regarding the need to not use a phase in for implementing the Lower Hudson Valley Demand Curve capacity zone. (FERC Docket No. ER14-500-000), December 20, 2013.
- Affidavit on behalf of Entergy regarding the need to reject a phase in for implementing the NYISO Lower Hudson Valley capacity zone Demand Curve. (FERC Docket No. ER14-500-000), December 20, 2013.
- Affidavit on behalf of the Independent Power Producers of New York regarding the appropriate values for determining the NYISO Installed Capacity Demand Curves. (FERC Docket No. ER14-500-000), December 20, 2013.
- Second Supplemental Affidavit on behalf of Entergy regarding why it is inappropriate to phase in capacity prices for the NYISO New Capacity Zone for the Lower Hudson Valley region and why the new information that the NYISO relied upon for their filing is neither new nor correct. (FERC Docket No. ER13-1380-000), November 12, 2013.
- Affidavit on behalf of the Independent Power Producers of New York before the Board of the NYISO regarding the proposed demand curves being set at too low a level to adequately address the risk of entering the New York electricity markets as a merchant facility. October 2, 2013.
- Supplemental Affidavit on behalf of the Independent Power Producers of New York regarding the why regulated RMR contracts must bid into the NYISO Installed Capacity Market at their full going forward costs. (FERC Docket No. EL13-62-000), June 14, 2013.
- Supplemental Affidavit on behalf of Entergy regarding the need to not delay in implement a New Capacity Zone for the Lower Hudson Valley region and the flaws in arguments that a New Capacity Zone is not needed at this time. (FERC Docket No. ER13-1380-000), June 5, 2013.
- Affidavit on behalf of Entergy regarding the need to implement a New Capacity Zone for the Lower Hudson Valley region. (FERC Docket No. ER13-1380-000), May 21, 2013.
- Affidavit on behalf of the Independent Power Producers of New York regarding the need to revise the NYISO tariff to assure that generators with regulated RMR contracts bid into the

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NYISO Installed Capacity Market at their going forward costs. (FERC Docket No. EL13-62-000), May 10, 2013.

- Affidavit on behalf of the Independent Power Producers of New York to the NYISO Board of Directors regarding why a peaking unit should continue to be used as the Demand Curve Proxy Unit. April 17, 2013.
- Affidavit on behalf of the Independent Power Producers of New York regarding the inappropriate requirement that Cayuga bid into the NYISO Installed Capacity Market at a de minimis price while recovering its costs from a regulated RMR contract. (FERC Docket No. ER13-405-000), January 7, 2013.
- Affidavit on behalf of the New York City Suppliers rebutting Hudson Transmission Partners claims that their Buyer-Side Mitigation examination by the NYISO had been performed in a manner inconsistent with the NYISO Service Tariff Requirements. (FERC Docket No. EL12-98-000), November 13, 2012.
- Affidavit on behalf of Entergy Nuclear Power Marketing, LLC and the GenOn Parties concerning the NYISO's June 29, 2012 Compliance Filing proposing tariff revisions to its Market Administration and Control Area Services Tariff ("Services Tariff") to implement both buyer-side and supplier-side mitigation measures for New Capacity. (FERC Docket No. ER12-360-001), July 20, 2012.
- Rebuttal Testimony on behalf of the Independent Power Producers of New York on the flaws in the project sponsor's and the New York Department of Public Service's evaluation of the economics of the Champlain Hudson Power Express. (NYPSC Docket No. 10-T-0139), June 28, 2012.
- Testimony on behalf of the Independent Power Producers of New York on the economics of the Champlain Hudson Power Express. (NYPSC Docket No. 10-T-0139), June 7, 2012.
- Third Supplemental Affidavit on behalf of the New York City Suppliers rebutting Bayonne Energy Center's claims regarding their gas pricing advantage and the value of TCCs for their project. (FERC Docket No. EL11-50-000), October 10, 2011.
- Second Supplemental Affidavit on behalf of the New York City Suppliers on the New York Independent System Operator's flawed analysis in its mitigation determination for Astoria Energy II and the Bayonne Energy Center. (FERC Docket No. EL11-50-000), September 23, 2011.
- Supplemental Affidavit on behalf of the New York City Suppliers on the New York Independent System Operator's failure to properly apply its capacity market mitigation rules to Astoria Energy II and the Bayonne Energy Center. (FERC Docket No. EL11-50-000), July 11, 2011.
- Second Supplemental Affidavit on behalf of the New York City Suppliers on the tight correlation between natural gas pricing and LBMPs and the inability of the NERA model to represent this relationship. (FERC Docket No. EL11-42-000), July 21, 2011.
- Affidavit on behalf of the New York City Suppliers on the New York Independent System Operator's failure to properly apply its capacity market mitigation rules to Astoria Energy II and the Bayonne Energy Center. (FERC Docket No. EL11-50-000), July 11, 2011.

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- Supplemental Affidavit on behalf of the New York City Suppliers on the flaws and inconsistencies shown in the New York Independent System Operator release of data to use for the New York City uneconomic entry mitigation exemption test. (FERC Docket No. EL11-42-000), June 15, 2011.
- Affidavit on behalf of the New York City Suppliers on the proper way to apply the New York City uneconomic entry mitigation exemption test. (FERC Docket No. EL11-42-000), May 31, 2011.
- Affidavit on behalf of the Independent Power Producers of New York in response to the NYISO's Compliance Filing on the Capacity Demand Curve on the appropriate level of average excess to assume in setting the Capacity Demand Curve. (FERC Docket No. ER11-2224-004), April 19, 2011.
- Affidavit on behalf of New York City Suppliers on the need to revise the Baseline for Special Case Resources. (FERC Docket No. ER11-2906-000). March 4, 2011.
- Reply Affidavit on behalf of the Independent Power Producers of New York on New York Installed Capacity Demand Curve on the arguments against including System Deliverability Upgrade costs in the Demand Curves, on the inappropriateness of using a Long Island unit as a proxy for the NYCA demand curve and set the Demand Curve based upon inaccurately and the flaws of using historic auction results to determine the amount of excess capability due to winter unit ratings. (FERC Docket No. ER11-2224-000), January 7, 2011.
- Affidavit on behalf of the Independent Power Producers of New York on New York Installed Capacity Demand Curve on the need for accurate representation of the average excess capacity levels, System Deliverability Upgrade costs and New York City interconnection costs in the development of the Demand Curves. (FERC Docket No. ER11-2224-000), December 21, 2010.
- Affidavit on behalf of New York City Suppliers on the New York Independent System Operator's proposed revisions to the New York City Installed Capacity Mitigation measures on the impact of the NYISO's changes on reducing the effectiveness of the mitigation. (FERC Docket No. ER10-3043), November 22, 2010.
- Affidavit on behalf of the Independent Power Producers of New York in response to the Comments of the New York Transmission Owners on the NYISO's Second Tariff Compliance Filing and Request for Waiver of the NYISO on the inappropriateness of using the price at the 104% point on the New York City Demand Curve as the Net CONE value. (FERC Docket No. ER08-695-001), June 21, 2010.
- Affidavit on behalf of AES Eastern Energy, L.P., Constellation Energy Nuclear Group, LLC, Empire Generating Co., LLC, GDF SUEZ Energy North America, NRG Companies, PSEG Companies, Shell Energy North America (US), L.P., and TC Ravenswood, LLC on the New York Independent System Operator and New York Transmission Owner compliance filing to implement the Comprehensive Deliverability Plan on the need to apply a deliverability test to capacity imports. (FERC Docket No. ER04-449-019), May 18, 2009.
- Affidavit on behalf of the Independent Power Producers of New York on the NYISO's October 30, 2008 Tariff Compliance Filing on the In-City Capacity Mitigation on the inappropriateness of the NYISO's proposed Special Case Resource uneconomic entry

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mitigation and test for uneconomic exports. (FERC Docket No. EL07-39), December 2, 2008.

- Affidavit on behalf of the In City Capacity Suppliers in support of their Section 206 filing to restate the New York City Installed Capacity Demand Curve pursuant to expiration of the New York City ICIP Tax Abatement Program. (FERC Docket No. EL09-4), October 14, 2008.
- Affidavit on behalf of the Independent Power Producers of New York in support of their motion for leave to file answer, and answer to the New York Transmission Owner's Comments on the Commission decision implementing New York City Capacity Market Mitigation on the appropriateness of using the Net CONE as shown at 100% of the minimum capacity requirement as the basis for the mitigation offer floor. (FERC Docket No. ER08-695), June 11, 2008.
- Affidavit in support of the limited protest being submitted by Astoria Generating Company, L.P. to address the New York Independent System Operator's ("NYISO") Second Tariff Compliance Filing of and Request for Waiver of the New York Independent System Operator Inc. Implementing New York City ICAP Market Mitigation Measures ("NYISO Compliance Filing") to address appropriate recognition of opportunity costs associated with exports and appropriate thresholds and penalties for determining mitigation. (FERC Docket No. ER08-695-001), May 27, 2008.
- Testimony on behalf of the Independent Power Producers of New York on the Vertical Market Power concerns on the Acquisition of Energy East Corporation by Iberdrola, S.A. (NY PSC Case 07-M-0906). January 11, 2008.
- Affidavit on behalf of AES Eastern Energy, L.P., Astoria Generating Company, L.P., a US Power Generating Company, Entergy Nuclear Power Marketing, LLC and the Mirant Parties on New York Installed Capacity Demand Curve on the appropriate values for the Demand Curve. (FERC Docket No. ER08-283-000), December 31, 2007.
- Affidavit on behalf of AES Eastern Energy on the New York State Department of Environmental Conservation's and New York State Energy Research Development Authority's proposed regulations to implement the Regional Greenhouse Gas Initiative (6 NYCRR Part 242, 6 NYCRR Part 200 and 21 NYCRR Part 507), December 19, 2007
- Affidavit on behalf of Astoria Generating Company, L.P., a U.S. Power Generating Company on the NYISO's proposed Capacity Market Mitigation Measures on the appropriate design of New York City Installed Capacity mitigation measures. (FERC Docket No. EL07-39-000), December 10, 2007.
- Affidavit on behalf of Astoria Generating Company, L.P., a U.S. Power Generating Company on the NYISO's proposed Capacity Market Mitigation Measures. (FERC Docket No. EL07-39-000), November 19, 2007.
- Affidavit on behalf of AES Eastern Energy, LP., Astoria Generating Company, L.P., a U.S. Power Generating Company, Dynegy Northeast Generation, Inc., Entergy Nuclear Power Marketing, LLC, the Indeck Companies, and the Mirant Parties to NYISO Board of Directors on NYISO Staff proposed Installed Capacity Demand Curves on the appropriate values for the Demand Curves. October 1, 2007.

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- Affidavit on behalf of the Independent Power Producers of New York to NYISO Board of Directors on NYISO Staff proposed Installed Capacity Demand Curves on the appropriate values for the Demand Curves. October 1, 2007.
- Affidavit on behalf of the Independent Power Producers of New York on the Vertical Market Power concerns in the Merger of National Grid PLC and KeySpan Corporation. (NY PSC Case 06-M-0878), July 11, 2007.
- Affidavit on behalf of the Independent Power Producers of New York on the proper determination of Location Based Marginal Costs on May 8 and 9, 2000 (FERC Docket No. EL01-19-006), July 8, 2005.
- Affidavit on behalf of Entergy Corporation, Mirant Bowline, LLC, Mirant Lovett, LLC, Mirant NY-Gen, LLC, Mirant Americas Energy Marketing, and Sithe Energies, Inc. to NYISO Board of Directors on NYISO Staff proposed Installed Capacity Demand Curves. October 15, 2004
- Affidavit on behalf of the Independent Power Producers of New York to NYISO Board of Directors on NYISO Staff proposed Installed Capacity Demand Curves. October 15, 2004
- Affidavit on behalf of the Independent Power Producers of New York on New York Installed Capacity Demand Curve (FERC Docket No. ER03-647-000) on the need to implement an Installed Capacity Demand Curve for the NYISO. April 10, 2003.
- Affidavit on behalf of AES, Mirant & Sithe to NYISO Board of Directors on Appeal of the Management Committee Decision on the ICAP Demand Curve on the need to implement an Installed Capacity Demand Curve for the NYISO. March 7, 2003.
- Affidavit on behalf of the Independent Power Producers of New York to NYISO Board of Directors on Appeal of the Management Committee Decision on the ICAP Demand Curve on the need to implement an Installed Capacity Demand Curve for the NYISO. March 7, 2003.
- Affidavit on behalf of the Independent Power Producers on the ICAP Demand Curve under Appeal of the NYISO Business Issues Committee decision at the NYISO Management Committee on the need to implement an Installed Capacity Demand Curve for the NYISO. December 27, 2002.
- Affidavit on behalf of Reliant Energy Power Generation on Setting the Conduct and Impact Thresholds for in-City Generating Units. (FERC Docket No. ER01-3155-002 et. al.), May 15, 2002.
- Testimony on behalf of TransGas Energy Systems in their Article 10 Citing proceeding (NY PSC Case 01-F-1276) on the energy and pollutant savings associated the TransGas Energy Systems proposed 1000 MW Combined Cycle facility.
- Affidavit on behalf of Reliant Energy Power Generation on New York Independent System Operator's Compliance Filing Regarding Comprehensive Market Mitigation Measures. (FERC Docket No. ER01-3155-002 et. al.), April 23, 2002
- Testimony on behalf of Orion Power New York GP, Inc. on Con Edison Company of New York, Inc.'s Proposal to Revise the Localized Market Power Mitigation Measures (FERC Docket No. ER98-3169-000), April 3, 2001.

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- Affidavit on behalf of Southern Energy North America, Inc., AES NY, L. L. C., Sithe Power Marketing, L. P., & FPL Energy LLC on the need to retain the PJM Installed Capacity Market. (FERC Docket No. EL01-3-000), October, 25, 2000.
- Testimony on behalf of the Mid-Atlantic Power Supply Association on the Baltimore Gas & Electric Company stranded costs. (Maryland PSC Case No. 8794), December 22, 1998.
- Testimony on behalf of Enron Power Marketing, Inc on New York Electricity Companies' request for market-based rate authority. (FERC Docket No. ER97-1523 et al.), October 31, 1997.
- Testimony on behalf of Sithe Energies, Inc on Petition of Niagara Mohawk Power Corporation to Employ 1996 Fuel Adjustment Clause Targets in 1997 (NY PSC Case 96-E-0928) on the inappropriateness of using the outdated targets to determine the 1997 avoided costs.
- Testimony on behalf of the Independent Power Producers of New York and Enron Capital & Trade Resources on Central Hudson Gas & Electric Corporation rate/restructuring proceeding (NY PSC Case 96-E-0909) on the problems with the proposed settlement associated with the proposal that Central Hudson continue to be a vertically integrated utility holding company and to propose interim rate treatment until the time that Central Hudson divests its generation assets.
- Testimony on behalf of the Independent Power Producers of New York and Enron Capital & Trade Resources on Orange & Rockland Utilities, Inc. rate/restructuring proceeding (NY PSC Case 96-E-0900) on the problems in the proposed settlement associated with Orange and Rockland continuing to own generation resources in the deregulated competitive generation market, propose incentives for Orange and Rockland to divest, and, to propose interim rate treatment until the time that Orange and Rockland divests its generation assets..
- Testimony on behalf of the Independent Power Producers of New York and Enron Capital & Trade Resources on Consolidated Edison Company of New York, Inc. rate/restructuring proceeding (NY PSC Case 96-E-0897) on the problems in the propose settlement associated with Con Edison continuing to be a vertically integrated utility owning generation resources in the developing competitive generation market, to propose stronger incentives for divestiture of Con Edison's fossil generation and to propose interim regulatory treatment until the time that Con Edison divests its generation assets.
- Testimony on behalf of the Independent Power Producers of New York and Enron Capital & Trade Resources on New York State Electric & Gas Corporation rate/restructuring proceeding (NY PSC Case 96-E-0891) on the problems with NYSEG's proposal to continue owning generation under a utility holding structure, the manner in which the proposed structure shielded the generating company from competition, and the need to divest the generating assets.
- Testimony on behalf of Sithe Energies, Inc on Consolidated Edison Company of New York, Inc. rate proceeding (NY PSC Case 96-E-0798) on the appropriate bases for calculating the short run avoided energy costs for Qualifying Facilities for Con Ed.

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- Testimony on behalf of California Cogeneration Council on Southern California Edison 1995 Energy Cost Adjustment Clause (CPUC Application No. 95-05-049) on the value of Qualifying Facilities for SCE
- Testimony on behalf of California Cogeneration Council on Pacific Gas & Electric Company 1995 Energy Cost Adjustment Clause (CPUC Application No. 95-04-002) on the value of Qualifying Facilities for PG&E and the O&M costs avoided by QFs
- Testimony on behalf of Sithe Energies, Inc on Consolidated Edison Company of New York, Inc. rate proceeding (NY PSC Case 94-E-0334) on the appropriate bases for calculating the short run avoided energy costs for Qualifying Facilities for Con Ed.
- Testimony on behalf of the Independent Power Producers of New York on Niagara Mohawk Power Corporation rate proceeding, (NY PSC Cases 94-E-0098 and 94-E-0099) on need to retire certain generating units that are part of their portfolio or in the alternative to introduce rate making that puts Niagara Mohawk at risk for the units being economic.
- Testimony on behalf of California Cogeneration Council on San Diego Gas & Electric Company 1994 Energy Cost Adjustment Clause (CPUC Application No. 94-10-023) on the value of Qualifying Facilities for SDG&E and the O&M costs avoided by QFs
- Testimony on behalf of California Cogeneration Council on Pacific Gas & Electric Company 1994 Energy Cost Adjustment Clause (CPUC Application No. 94-04-002) on the value of Qualifying Facilities for PG&E and the O&M costs avoided by QFs
- Testimony on behalf of Sithe Energies, Inc on Combined Long Run Avoided Cost and Generic Fuel Adjustment Clause proceeding (NY PSC Cases 93-E-0912 and 93-E-1075) on the appropriate long and short run avoided energy costs for Qualifying Facilities.
- Testimony on behalf of Sithe Energies, Inc on Niagara Mohawk Power Corporation 1993 Rate Case (NY PSC Cases 93-E-0376, et al.) on the appropriate bases for calculating the short run avoided energy costs for Qualifying Facilities for NMPC.
- Testimony on behalf of Kamine and Besicorp Companies on New York Public Service Commission Curtailment Proceeding (NY PSC Case Nos. 92-E-0814 and 88-E-081) on the need for Niagara Mohawk Power Corporation to curtail Qualifying Facilities
- Testimony on behalf of KELCO Division of MERCK & Co., Inc. on San Diego Gas & Electric Company 1992 Energy Cost Adjustment Clause (CPUC Application No. 92-09-078) on the value of Qualifying Facilities for SDG&E and the O&M costs avoided by QFs
- Testimony on behalf of California Cogeneration Council on Southern California Edison 1992 Energy Cost Adjustment Clause (CPUC Application No. 92-05-047) on the value of Qualifying Facilities for SCE
- Testimony on behalf of California Cogeneration Council on Pacific Gas & Electric Company 1992 Energy Cost Adjustment Clause (CPUC Application No. 92-04-001) on the value of Qualifying Facilities for PG&E and the O&M costs avoided by QFs

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- Testimony on behalf of KELCO Division of MERCK & Co., Inc. on San Diego Gas & Electric Company 1991 Energy Cost Adjustment Clause (CPUC Application No. 91-09-059) on the value of Qualifying Facilities for SDG&E and the O&M costs avoided by QFs
- Testimony on behalf of California Cogeneration Council on Pacific Gas & Electric Company 1991 Energy Cost Adjustment Clause (CPUC Application No. 91-04-003) on the value of Qualifying Facilities for PG&E
- Testimony on behalf of California Cogeneration Council on Pacific Gas & Electric Company 1990 Energy Cost Adjustment Clause (CPUC Application No. 90-04-003) on the value of Qualifying Facilities for PG&E
- Testimony on behalf of California Cogeneration Council on San Diego Gas & Electric Company 1989 Energy Cost Adjustment Clause (CPUC Application No. 89-09-031) on the value of Qualifying Facilities for SDG&E
- Testimony on behalf of California Cogeneration Council on Pacific Gas & Electric Company 1989 Energy Cost Adjustment Clause (CPUC Application No. 89-04-001) on the value of Qualifying Facilities for PG&E (1989, Phases I and II)
- Testimony on behalf of California Cogeneration Council on Pacific Gas & Electric Company 1990 Test Year General Rate Case (CPUC Application No. 88-12-005) on the amount of utility operations and maintenance costs avoided by the presence of QF generation.
- Testimony on behalf of California Cogeneration Council on San Diego Gas & Electric Company 1988 Energy Cost Adjustment Clause (CPUC Application No. 88-07-003) on the value of Qualifying Facilities for SDG&E.
- Testimony on behalf of California Cogeneration Council on Pacific Gas & Electric Company 1988 Energy Cost Adjustment Clause (CPUC Applications Nos. 88-04-020 and 88-04-057) on the value of Qualifying Facilities for PG&E (1988, Phases I and II).