GT GreenbergTraurig

Doreen Unis Saia
(518) 689-1430
saiad@gtlaw.com

October 3, 2016

VIA E-MAIL

Mr. Mark Seibert
Manager, Committee Support
New York Independent System Operator, Inc.
10 Krey Boulevard
Rensselaer, New York 12144

Re: Comments on NYISO Staff Final Demand Curve Recommendations

Dear Mr. Seibert:

Our firm is counsel to Entergy Nuclear Power Marketing, LLC ("ENPM"). In accordance with the timeline set forth by NYISO Staff in its September 15, 2016 Final Recommendations and the NYISO's September 29, 2016 email notice, enclosed are the Comments of Entergy Nuclear Power Marketing, LLC on NYISO Staff Final Recommendations for the 2017-2021 Demand Curve Reset Process. ENPM hereby authorizes the NYISO to publicly post its comments and requests the opportunity to participate in oral argument before the NYISO Board of Directors on October 17, 2016.

Should you have any questions, please contact me.

Very truly yours,

GREENBERG TRAURIG, LLP

Doreen Unis Saia

DUS/aaw
Enclosure
cc: Mr. David Allen (w/enc.; via email)
Ms. Deborah Eckels (w/enc.; via email)

ALB 1964271v1

Comments of Entergy Nuclear Power Marketing, LLC on NYISO Staff Final Recommendations for the 2017-2021 Demand Curve Reset Process

On September 15, 2016, the NYISO's year-long Demand Curve Reset Process ("DCRP") culminated in NYISO Staff's issuance of its final recommendations with respect to the NYISO ICAP Demand Curves for Capability Year 2017-2018 and the methodology and inputs to be applied to the annual updates for Capability Years 2018-2019, 2019-2020 and 2020-2021.[1] In its Final Recommendations, NYISO Staff, *inter alia*, finds that the NYISO Board should continue to utilize a dual-fueled Frame F proxy peaking plant equipped with SCR technology for the LHV Zone. NYISO Staff also adopts the Demand Curve consultant's, Analysis Group, recommendation to utilize Iroquois 2 to serve as the natural gas hub for the LHV Zone. In accordance with the timeline set forth by NYISO Staff, Entergy Nuclear Power Marketing, LLC ("ENPM") hereby submits these comments to: (i) address the importance of retaining dual fuel capability for the LHV proxy unit to send accurate and adequate price signals in the constrained Southeastern New York region; and (ii) support the use of Iroquois 2 gas pricing for calculating net energy and ancillary services ("Net E&AS") revenues to meet the Services Tariff mandate that the LHV Zone proxy unit must be economically viable. For the reasons set forth herein, in the numerous presentations developed for this reset process, the final report of the Demand Curve consultants and

[1] See New York Independent System Operator, Inc., "Proposed NYISO Installed Capacity Demand Curves for Capability Year 2017/2018 and Annual Update Methodology and Inputs for Capability Years 2018/2019, 2019/2020 and 2020/2021 – NYISO Staff Final Recommendations" (dated September 15, 2016) (hereinafter, "Final Recommendations").

NYISO Staff's Final Recommendations, ENPM urges the NYISO Board to adopt NYISO Staff's recommendations in this regard.[2]

Turning first to the need to continue to incorporate dual fuel capability for the LHV proxy unit, the Federal Energy Regulatory Commission ("FERC") fully addressed this issue in the last reset process – a fact noted by NYISO Staff in its Final Recommendations.[3] Rejecting protests filed by many of the same parties that challenge the need to equip the LHV proxy unit with dual-fueled capability again in this reset process, the FERC focused on the growing reliance on natural gas as the predominant fuel to produce energy, the increased siting flexibility provided by dual fuel capability and the exorbitant expense of securing primary firm pipeline capacity in lieu of installing dual fuel capability.[4] Based on these factors, the FERC approved NYISO's recommendation to set the LHV Zone Demand Curves based on a dual-fueled proxy peaking plant.[5]

In addition, it bears note that the Demand Curve consultants for the last two reset processes and the NYISO's Market Monitoring Unit ("MMU"), Potomac Economics, support incorporating dual fuel capability into the design of the LHV proxy unit.[6] For example, following several stakeholder meetings where the issue of equipping proxy units

---

[2] ENPM has actively participated in the NYISO's DCRP stakeholder process which began last winter. ENPM has reviewed the comments of the Independent Power Producers of New York, Inc. and supports the positions set forth therein.

[3] See Final Recommendations at 4.

[4] See New York Independent System Operator, Inc., 146 FERC ¶ 61,043 (2014) at PP 78-83.

[5] Id. at P 83.

[6] As noted above, AG was retained by the NYISO to conduct the current DCRP effort and NERA Economic Consulting ("NERA") was the Demand Curve consultant for the last DCRP effort. ICAP Demand Curves were implemented for the LHV Zone for the first time in the last DCRP, and thus, recommendations concerning the components to be used for the LHV proxy peaking plant have only been addressed in these last two reset processes. Prior to that time, the Demand Curve consultants calculated higher costs in the Lower Hudson Valley but no proposals for a proxy peaking unit for this zone could be presented to the FERC.

with dual fuel capability was debated at length, the Analysis Group determined that the value of increased operating and siting flexibility outweighed the modest incremental capital costs of dual fuel equipment.[7]

The NYISO itself also has long lauded the importance of New York having its dual-fueled fleet to provide operational flexibility and to limit the exposure of New York consumers to extreme price spikes. For example, following the polar vortex conditions experienced in the winter 2013-2014, the NYISO testified before the FERC at its technical conference to examine operations, market performance and electric pricing in the Northeast ISOs, "LBMP increases at less than half the natural gas price increases is indicative of NYISO market systems selecting lower-cost resources -- primarily dual-fuel units capable of operating on oil."[8] The NYISO further established that the ability of facilities to turn to operation on oil allowed New York to avoid incurring additional forced outages due to fuel derates.[9] In this reset process, the NYISO's Consumer Liaison echoed the NYISO's longstanding position that there are many relevant factors that must be considered in assessing whether dual fuel capability is warranted.[10]

---

[7] See Analysis Group, Inc., et al., "Study To Establish New York Electricity Market ICAP Demand Curve Parameters" (dated September 13, 2016) (hereinafter, "AG Final Report") at 32-33 (establishing that its recommendation to include dual fuel capability was based on "...review of relevant data and considerations tied to what developers are most likely to include in development projects, in consideration of costs, potential revenues, technology optionality and development and operational risks.")

[8] See FERC Docket AD14-8, Winter 2013-2014 Operations and Market Performance in Regional Transmission Organizations and Independent System Operators, New York Independent System Operator, Inc. presentation "Cold Weather Operating Performance" (FERC Technical Conference, April 1, 2014) at 11. The NYISO's FERC presentation mirrored the operating and markets information that the NYISO had provided to Market Participants in the stakeholder process.

[9] Id. at 2, 8-10.

[10] See New York Independent System Operator, Inc., ICAP presentation, "Consumer Impact Analysis: 2015/2016 ICAP Demand Curve Reset-Additional Analysis" (dated September 27, 2016) (hereinafter, "Consumer Liaison Report") at 15.

No facts have changed since the FERC ruled three years ago to warrant reaching a different conclusion concerning dual fuel capability in this reset process. As the NYISO notes in its Final Recommendations, the Central Hudson Gas & Electric Corporation ("Central Hudson") and Orange and Rockland Utilities, Inc. gas tariffs effectively require fossil-fueled units to have dual fuel capability.[11] Securing firm pipeline capacity remains prohibitively expensive. The Lower Hudson Valley continues to have limited generating facility sites available.[12] Forcing a generator to site in close proximity to an interstate pipeline is likely to result in high gas and electric interconnection costs[13] – a factor explored at length by the NYISO in the last reset process.[14]

Indeed, empirical evidence since the last reset process reveals a heightened need to base the net cost of new entry ("Net CONE") in the LHV Zone on a dual-fueled proxy unit. There have been major infrastructure changes in the Lower Hudson Valley. The

---

[11] See Final Recommendations at 4 & n.5, citing Central Hudson Gas and Electric Corporation Service Classification 14 Interruptible Transportation to Electric Generation Facilities; Orange and Rockland Utilities, Inc. Service Classification 14.

[12] NYISO Staff points to the fact that Zone G is a more limited geographic area containing two gas LDCs that each have multiple city gate connections, and thus, "[t]he ability to site a generating facility within the LDC system intuitively offers flexibility." (See Final Recommendations at 5 & n.8.)

[13] In the last reset process, parties pointed to the prospective Cricket Valley Energy Facility project as an example of a gas-only unit that proposed to connect directly to a pipeline. However, this project provides a poignant illustration of the trade-offs a developer can face when attempting to access the gas system and interconnect to the electric system. As revealed in the results of class year studies conducted by the NYISO, due to its proposed location on the system, the Cricket Valley project faces approximately $300 million in interconnection costs. (See New York Independent System Operator, Inc., Operating Committee presentation, "Class Year 2012 Facilities Studies -- System Upgrade Facilities" (dated November 13, 2014) at 104-105 (identifying $286,959,000 for required New York system upgrade facilities and an additional approximately $10.5 million in required New England system upgrades, which mirrored the amounts identified by the NYISO in the previous Class Year study). The Cricket Valley project rejected its cost allocation in both study years.

[14] In response to continued concerns reiterated at the August 19, 2016 ICAP meeting with respect to the dual fuel capability determinations, NYISO Staff reported that it had done a comprehensive review of the gas and electric infrastructure costs that an LHV developer would face if it were limited to sites in relatively close proximity to interstate pipelines during the last reset process and found such costs to be prohibitive. NYISO Staff further asserted there was no basis to expect that any material change in these costs has occurred since that time.

Danskammer facility, formerly a coal-fired facility, has returned to the system powered by natural gas. Likewise, NRG Energy has made the repairs necessary to return the Bowline 2 unit's derated capacity to service.[15] In addition, construction of the CPV Valley facility, a 650 MW natural gas-fired combined cycle facility, is now underway.[16] All of these facilities will increase the area's need for, and dependence on, natural gas, making dual fuel capability even more critical.

In addition, the NYISO already has documented natural gas shortage conditions in this part of the State over the past several winters. For example, during the five major cold snaps that took place in the winter 2013-2014, the NYISO documented substantial levels of fuel-related derates.[17] Likewise, in its cold weather operations report for this past 2015-2016 winter, the NYISO reported that both New York State as a whole and the Lower Hudson Valley area served by Central Hudson set all-time peak gas usage levels on February 13, 2016.[18] During last winter's sole cold spell which ran from February 12th through February 15th, multiple pipeline and LDC OFOs were instituted and gas supply to generators

---

[15] See New York Independent System Operator, Inc., " 2016 Load and Capacity Data – Gold Book" (released April, 2016) at 41, 46 (designating Danskammer as a natural gas facility and listing a 569 MW summer capability level for the Bowline 2 facility).

[16] See CPV Valley press statement, "Competitive Power Ventures and Diamond Generating Corporation Close Financing on CPV Valley Energy Center in Orange County New York" (dated June 12, 2015); Times Herald Record, "Construction of $900 million power plant in Wawayanda set to start this year" (dated January 31, 2015); see also, AG Final Report at 33 (determining that a developer would take into account net changes in the State's reliance on natural gas due to known new entry, such as the CPV Valley facility and the potential retirement of aging coal and nuclear facilities).

[17] See, e.g., New York Independent System Operator, Inc., Management Committee presentation, "Winter 2013-2014 Cold Weather Overview Update" (dated March 26, 2014) at 9; New York Independent System Operator, Inc., Joint Electric Gas Coordination Working Group & MIWG presentation, "Winter 2013-2014 Cold Weather Operating Performance (dated March 13, 2014) (hereinafter, "Winter 2014 Presentations") at 4, 6, 8, 12 and 15-16.

[18] See New York Independent System Operator, Inc., Management Committee presentation, "Winter 2016 Cold Weather Operations" (dated March 30, 2016) at 8-9.

was curtailed.[19] Thus, even during a very mild winter, limited cold spell periods were enough to strain the system, causing natural gas shortages. In addition, as noted above, the NYISO's winter 2013-2014 analyses established that New York's extensive dual fuel capability also allowed New York to temper increases in electric prices in the face of skyrocketing natural gas prices.[20] Failing to provide adequate price signals to support dual fuel construction will only serve to compromise system reliability and increase the State's vulnerability to more extreme fuel price volatility in the future.

Lastly, New York State has embarked on aggressive public policy programs that are expected to place additional reliance on gas-fired generation. For example, the New York Public Service Commission's ("NYPSC") recent Clean Energy Standard ("CES") mandate for renewable energy facilities to produce 50% of the energy consumed in New York by 2030 is expected to significantly increase the level of intermittent renewable resources on the system.[21] This, in turn, may require gas facilities to provide a corollary ramping function, a factor correctly cited by NYISO Staff in its Final Recommendations.[22] In addition, while the existing fossil-fueled units in the Lower Hudson Valley are primarily dual-fueled facilities,

---

[19] Id. at 8.

[20] See Winter 2014 Presentations at 22 (finding that New York's more limited increase in electric prices in the face of very substantial increases in natural gas prices was "...indicative of NYISO market systems selecting lower-cost resources – primarily the dual fuel units capable of operating on oil.") The NYISO's Consumer Liaison did not identify a direct nexus between cold temperatures and high gas prices based on his review of 2013-2014 winter prices and 2014-2015 winter prices. (See Consumer Liaison Report at 13.) However, the fact that gas price levels are affected by a number of additional factors, including e.g., existing storage levels, does not in any way detract from the thrust of the NYISO's well-documented position that maintaining dual fuel capability has provided New York with critical operating flexibility and ameliorated price volatility.

[21] See NYPSC Case 15-E-0302, et al., Proceeding on Motion of the Commission To Implement a Large-Scale Renewable Program and a Clean Energy Standard, "Order Adopting a Clean Energy Standard" (issued and effective August 1, 2016).

[22] See Final Recommendations at 5.

they are older, less efficient facilities with relatively low capacity factors. As this capacity is replaced, it will be all the more critical to provide price signals that ensure that the operational flexibility afforded by the long existing dual fuel capability in this constrained part of the State is maintained.

Like the dual fuel capability point, the designation of natural gas hubs was addressed at length during the DCRP stakeholder process. AG gave two presentations addressing this specific issue which included extensive discussions in response to Market Participant proposals to designate the Millennium or Tetco M3 pipelines as the Zone G natural gas hub.[23] Following review of the issues raised and positions taken, AG found that the Millennium pipeline did not have a sufficient operating history and its current low prices driven by under-utilization were expected to be a short-term arbitrage opportunity and further found that neither line captured market dynamics in New York.[24] In addition, in its Final Report, AG developed a framework of selection considerations and produced charts tracking natural gas hub pricing against LBMP results to assess the natural gas hub that was most

[23] See Analysis Group ICAP presentation, "NYISO 2015/2016 ICAP Demand Curve Reset – Review of Natural Gas Trading Hub Recommendations" (dated June 2, 2016); see New York Independent System Operator, Inc., Capacity Market Design Team, ICAP presentation, "Requested Additional ICAP Demand Curve Sensitivities Regarding Gas Hubs" (hereinafter, "August Gas Hub Presentation") (dated August 25, 2016). The Tetco M3 hub is located at a compression station in Eastern Pennsylvania with the Tetco pipeline running through an area covering eastern Pennsylvania and New Jersey. Building a lateral pipeline to connect to Tetco and locating a viable generating facility site close enough to the pipeline and the New Jersey border to accommodate such a lateral are likely to be both prohibitively expensive and unduly restrictive. While Tetco M3 was previously designated as a hub in the past, its pricing was in close enough proximity to pricing on pipelines within New York that it was not necessary to challenge this designation. As reflected in the tables included in the Final Recommendations, there is now a major gap in pricing between Tetco and most of the New York pipelines (with the exception of the Millenium pipeline which notably was rejected as the choice for the Zone G natural gas hub despite repeated advocacy by a subset of parties because it does not have a sufficient history and its pricing is likely reflective of a short term arbitrage opportunity rather than a valid long term signal). (See Final Recommendations at 24, Appendix II.) Thus, the Tetco M3 pipeline can no longer be used as a reasonable proxy for New York pricing.

[24] See August Gas Hub Presentation at 6 (finding Millennium did not align well with decision criteria or fully capture market dynamics).

representative of, and thus should be utilized for, each zone.[25] Based upon its analysis of this issue, AG found that the Iroquios pipeline was sufficiently traded, had a strong correlation with market prices and had greater geographic proximity, and thus, the Iroquios 2 pipeline best reflected the expected long-run equilibrium between gas and electricity markets and should be designated as the natural gas hub for Zone G.[26] NYISO Staff concurred.[27]

Comparing the spot fuel price data to the LBMP data in Figure 13 of AG's Final Report, the Iroquois 2 pipeline has had a very strong correlation with Zone G pricing. Because this data reflects daily and forward market positions, it adequately accounts for other pricing trends that will evolve in the region over the long term.[28] Thus, to produce a Net CONE for an economically viable LHV Zone proxy unit, ENPM urges the NYISO Board to adopt AG and NYISO Staff's recommendation without modification.

Based on the factors that supported approval of a dual-fueled LHV proxy unit in the last reset process and in light of intervening facts and circumstances that have only served to further underscore the need for dual fuel capability in the Lower Hudson Valley, ENPM respectfully urges the NYISO Board to adopt the recommendations of the Analysis Group and NYISO Staff and submit tariff revisions to the FERC based on a dual-fueled Frame F

---

[25] See AG Final Report at 74-78.

[26] Id. at 76-78.

[27] See Final Recommendations at 22-24 (upon review of stakeholder recommendations to use Millennium, Tetco M3 "or an unspecified blend of gas hub prices" and based on relevant pricing data, rejecting proposals for a "blended" price and finding Consultants' recommended gas hubs should be endorsed).

[28] While the MMU has suggested that an undefined weighting of Tetco M3 and Iroquois 2 pricing should be utilized for Zone G (see MMU Comments at 3), this approach will artificially reduce the costs of the proxy unit making it appear able to secure Net E&AS Revenues that facilities operating in Zone G cannot actually earn. This over-estimate of Net E&AS Revenues will correspondingly produce an artificially lower Net CONE and reference point price for the LHV Zone. Because the MMU's recommendation will not produce an economically viable unit, it should not be adopted.

proxy unit equipped with SCR technology for the LHV Zone and providing for LHV Zone Net E&AS Revenues to be calculated using the Iroquois 2 natural gas hub.

Dated: October 3, 2016
Albany, New York

Respectfully submitted,

GREENBERG TRAURIG, LLP

Doreen U. Saia
Counsel to Entergy Nuclear Power Marketing, LLC
54 State Street, 6th Floor
Albany, New York 12207
saiad@gtlaw.com
Tel: (518) 689-1400

ALB 1964229v1