NRG Comments on the NYISO Draft Recommendations for the Demand Curve Reset

NRG provides these comments to the NYISO Staff Recommendations Initial Draft Report. NRG has already provided comments on the Analysis Group Draft Report. Since the Final Analysis Group report did not make any significant changes to the draft report, and since NYISO largely agrees with the AG Final Report, the initial concerns NRG raised still remain. In particular, NRG is concerned with the assumptions of optimal dispatch and optimal market offers assumed in the net EAS revenue model, the intraday fuel prices used, and the cost of capital and amortization period that do not adequately reflect the risks associated with project development in NY.

These comments are meant to address specific aspects of NYISO's Draft Recommendation that were not addressed in earlier comments.

(1) NYISO should support the Analysis Group (AG) recommendation that the F Class Frame unit, *with* Selective Catalytic Reduction (SCR) *and* Dual Fuel (DF) capability, represent the peaking plant technology.

SCR

NRG agrees with both the AG report and the NYISO recommendation that SCR be assumed as part of the proxy unit technology. Given current siting and permitting challenges in NY, and potential retrofit costs stemming from future regulations, it would be imprudent to build a unit without SCR in NY. It is also highly unlikely that a unit would receive a permit under the Article 10 siting process without including emission controls.

Dual Fuel

The AG report states that "*adding DF capability would expand the geographical flexibility for power plant siting, by supporting the siting of plants on (and obtaining gas supply from) the distribution systems of LDCs*" (p. 33).

However, NYISO maintains that in Zones C and F, "*there is a lack of mandatory dual fuel requirements or other factors (such as a need for siting flexibility by assuming interconnections to the LDC system) which would mandate dual fuel technology*" (NYISO Staff Recommendations Initial Draft p. 8).

- NYISO argues that there is likely sufficient gas supply upstate, lessening the need for dual fuel resources. While some areas of upstate NY may have gas pipelines that are not fully utilized, the ROS region includes areas with significant pipeline constraints. For example, the Tennessee pipeline is fully utilized throughout the year. Generators located in upstate NY that take gas service from Tennessee (e.g. the Capital Region) and purchase capacity released gas in the secondary markets (like peakers) are competing with various NY generators, as well as New England generators for the same limited gas supply. Pipeline siting challenges and a lack of new pipelines in NY means that *new* resources will be competing for the already limited supply of gas purchased via capacity release, and shipping on fully utilized pipelines. It is highly unlikely that a peaking unit shipping on a fully utilized and fully subscribed pipeline, with 100% of Winter Operating Period days with gas restrictions, and almost as Summer Operating Period days with gas restrictions, would choose to site without dual fuel. If secondary capacity release gas is

available, new generators will be competing for supply in an already-limited gas market. If generators are shipping interruptible, then gas is likely to be restricted. These issues are even more relevant, since the upstate proxy unit is assumed to be sited in Zone F.

Winter Days - (%) Restricted

Restriction Point Highly Utilized TGP Paths	Percentage Days Restricted (November - March)	Percentage Days Restricted (November - March)	Percentage Days Restricted (November - March)
	2013/2014	2014/2015	2015/2016
Sta. 200	30.46%	22.52%	64.47%
Sta. 245	100%	100%	100.00%
Sta. 261	30.46%	32.45%	68.42%
Sta. 267	2.65%	5.29%	30.92%
Sta. 315 BH	100%	100%	76.32%
Sta. 321	94.70%	94.71%	86.18%
MLV 336	50.33%	73.51%	57.24%
MLV 355 BH	70.20%	5.96%	9.21%
Sta. 1 BH	50.99%	11.26%	84.21%
Mahwah	49.67%	64.24%	92.76%
Rivervale	80.79%	80.79%	66.45%

Source: Kinder Morgan Pipeline Operations Update, May 10, 2016. Note that the relevant points for NY are on the 200-line, especially Station 245. Restrictions can include some paths used to ship secondary (capacity release) gas.

Summer Days – (%) Restricted

Restriction Point Highly Utilized TGP Paths	Percentage Days Restricted (April - Sept)
	2015
Sta. 200	16.39%
Sta. 245	98.91%
Sta. 261	95.08%
Sta. 267	1%
Sta. 315 BH	64.48%
Sta. 321	60.11%
MLV 336	4.92%
MLV 355 BH	15.85%
Sta. 1 BH	48.64%*
Mahwah	95.08%
Rivervale	48.64%

Source: Kinder Morgan Pipeline Operations Update, October 8, 2015. Note that the relevant points for NY are on the 200-line, especially Station 245. Restrictions can include some paths used to ship secondary (capacity release) gas.

- In addition, NYISO argues that there is no dual-fuel requirement upstate, even for units located behind an LDC. Indeed, National Grid's Gas Tariff states that customers (upstate and downstate) under SC9 and SC14 may elect to curtail their operation when requested rather than be subject to the tariff provisions requiring alternate fuel. *However, the customer MUST curtail - i.e. take no gas service for the applicable interruption period.* [See National Grid Gas Tariff Special Provisions Section 3.4].

- Importantly, the AG net EAS revenue calculations assume gas is always available, and do not account for any days with restricted gas services – e.g. there are no Operational Flow Orders (OFOs), restrictions, or curtailment days assumed on any pipelines or LDCs.

- **Since the net EAS revenue calculation does not assume any days with gas unavailability, and the unit is assumed to site either directly on an interstate pipeline *or behind an LDC*, then it follows that the proxy unit must be assumed to be dual fuel.**

(2) At a minimum, the effective tax rate assumed outside of NYC should remain at 0.75%.

AG reviewed Industrial Development Agency (IDA) data of 11 natural gas plant PILOT Agreements. While the median value was 0.83%, plants in more recent years (1999-2004) typically had values much higher than the median value (ranging from 0.28% to 2.01%, with a median value closer to 1.0%). NYISO stated that it plans to expand its analysis to examine additional units beyond those included in the original list. Expanding the list beyond the natural gas plants to other types of units in the State that are much older is not relevant. Looking to the PILOT Agreements for units outside of NY is also not an accurate comparison, since the goals of individual states vary, as do their tax policies.

Property tax data for recent plants support an effective tax rate that is higher than 0.75%.

(3) Level of Excess – Adjustment Factor (LOE-AF) Methodology

NRG believes that the LOE-AF should be dropped altogether. Using historical revenues and the CARIS database to project what revenues would be under a system at tighter conditions does not make intuitive sense and distorts the net EAS revenue calculations.

If NYISO will not abandon the artificial and distorting LOE-AF, then NRG recommends that NYISO reevaluate the financing assumptions used in calculating the cost of new entry. Among other concerns NRG raised in its earlier comments – i.e. regarding the specific risks associated with investing in the NY electricity market – the LOE-AF is another factor unique to NY. Since there are concerns that the net EAS revenues are already overstated, using the LOE-AF to *increase* the revenues received by the proxy unit further strains the link between NYISO's CONE calculations and the costs and risks actual project developers face. In fact, the LOE-AF introduces even more uncertainty, this time associated with the demand curve net EAS model itself. To account for this additional risk, the financing parameters should be adjusted to increase the overall cost of capital to get to an after-tax WACC that better reflects the risks associated with merchant investment in NY.