

NYISO Questions to Stakeholders – Demand Curve Reset Issues

The questions below were discussed at the January 25th ICAPWG meeting. NYISO staff is interested in stakeholder views on these issues. Please e-mail comments to Peter Lemme (plemme@nyiso.com) by COB February 8th. Please identify in the document whether you want the comments to be kept confidential or want them to be posted.

Demand Response as Peaking Unit

- 1. How does the use of demand response comport with the tariff? Please specify if your answer is different if the demand response is provided by a generating unit(s), or load reduction.***

In the Transmission Owners' view, the use of demand response, whether provided by a generating unit or load reduction, is fully consistent with the tariff.

The relevant tariff language states that the demand curve will be based on “the current localized levelized embedded cost of a peaking unit,” which the tariff defines as “the unit with technology that results in the lowest fixed costs and highest variable costs among all other units’ technology that are economically viable.” (Services Tariff Sheet 157.) To the extent that a demand response resource is dispatched at higher prices than peaking generation units, and can be developed while incurring lower fixed costs than would be incurred to develop peaking generation units, a demand response resource seems to be just what was envisioned by a peaking unit. If the demand response resource is economically viable, it would be the economically viable technology with the lowest fixed costs and highest variable costs.

Tariff-based objections to the use of demand response seem to focus on the use of the word “unit” in the definition of “peaking unit”. The tariff does not define the term “unit,” but there seems to be little doubt that a behind-the-meter generating unit or other forms of capacity qualify as a “unit.” It is hard to envision an argument to the contrary and supplier representatives at the last ICAP WG meeting seemed to acknowledge that such resources would qualify.

Regarding whether the term “unit” should include load reduction, the tariff’s definition of “peaking unit” was inserted at the direction of FERC and was taken verbatim from a 2005 FERC order on this issue. (113 FERC ¶61,271 at p.12.) Therefore, in order to determine what the term “unit” was intended to mean, it is reasonable to refer to that order to review FERC’s rationale for directing the ISO to use this terminology. While FERC does not explicitly address the eligibility of load reduction, we do not see anything in that order that is intended to preclude the ISO from basing the cost of developing new capacity on the costs associated with developing new load reduction providers. Moreover, FERC stated, “Peaking units, by nature, operate the fewest hours out of a given year in comparison with all other units,” which once more is consistent with basing the demand curve on the cost of developing a load reduction resource that operates less often than traditional peaking generation. Therefore, we conclude that the tariff permits

load reduction resources to be considered, as long as they are shown to be economically viable.

2. *Should load reduction demand response be considered?*

Yes. There is no reason for the ISO to preclude consideration of types of resources that may be economic, and which if economic, would meet the criterion established in the tariff for the peaking unit (i.e., that it have the lowest fixed costs and highest variable costs). As noted above, FERC chose the phrase “peaking units” intentionally to allow consideration of a broad range of capacity types.

3. *Should demand response using behind-the-fence generation be considered?*

Yes, for the reasons given in the answer to question 2.

4. *If behind-the-fence generation is considered, should there be a distinction between emergency generation, baseload generation, and cogeneration?*

Yes, these should be considered separately. Among all resources using technologies that are economic, the peaking unit should be the resource whose fixed costs are lowest and whose variable costs are highest. The operating characteristics of the types of behind-the-fence generation mentioned in the question are quite different, so some of them might be economic (and therefore would be eligible for consideration as the peaking unit) while others might not be (and would therefore be ineligible). Moreover, among the resources that are economic, some might have relatively high fixed costs and relatively low variable costs, which would make them ineligible to be the peaking unit, while others might have lower fixed costs and higher variable costs than traditional generating units (i.e., generating units that are not “behind the fence”).

5. *Significance of run hours - can demand response meet expected annual deployments, as determined in the IRM study, if the duration of those deployments is significantly greater than past experience?*

There is no reason to assume, without any supporting evidence, that demand response cannot operate as often as needed. Certain types of demand response resources, such as behind-the-fence generation in parts of the state, may be subject to emissions restrictions that would preclude them from operating as often as needed, but that should be demonstrated, not assumed. Other types of demand response resources, such as load reduction, might incur additional costs if they were called upon more frequently than is the current practice, but again that should be demonstrated, not assumed; and in the event that is demonstrated, the ISO should attempt to estimate the additional costs that would be incurred in order to gain the ability to call upon those resources more frequently to the extent appropriate, instead of simply assuming that those costs would be so high as to cause those resources to be uneconomic.

At the last ICAP WG meeting, a supplier representative asserted that if the demand curve were based on the cost of developing demand response resources, the ISO would have to

assume that those resources would operate for hundreds, if not thousands, of hours per year. We do not understand the basis for these assertions, and they appear to be wholly inconsistent with the approach the ISO has taken in the past to choosing the resource that the demand curve is based upon and beyond the current tariff obligations of SCR resources. Furthermore, such a high maximum run time is also substantially more than the number of hours that a peaking generator would run. If the fixed costs associated with developing a demand response resource—or any other kind of resource—are low enough, that resource can be economic even if it operates for just a few hours each year, because the capacity payments it receives will be high enough to cover almost all of the fixed costs of developing that resource. So the ISO should not make arbitrary assumptions that a resource must operate more than a minimum number of hours to be economic. Instead, consistent with past practice, the ISO’s assessment of whether a resource is economic should depend upon how large a capacity payment, in conjunction with net energy revenues earned when the resource operates, would be necessary to induce entry of that resource under equilibrium conditions, and how that capacity payment compares to the amount that would be required to induce entry of other resources under equilibrium conditions.

6. *Are there other types of demand response that should be considered?*

Other than load reduction and behind-the-meter generation, we cannot think of other types of DR to consider.

7. *If demand response technology(ies) were to be used as the peaking unit, what process should the NYISO use to determine which technology(ies) to use?*

The ISO should estimate the capacity payments that would be required to induce development of resources using different demand response technologies and compare them to the capacity payments that would be required to induce development of other kinds of resources to determine whether those demand response technologies are economic or not. If some of those demand response technologies turn out to be economic, then the ISO should compare their fixed and variable costs to the fixed and variable costs of other types of resources that are economic, and select as the peaking unit the technology whose fixed costs are lowest and whose variable costs are highest.

8. *Should a group of different technologies be considered? If so, what is the process for determining the mix of such technologies?*

In 2005, the Transmission Owners proposed that the ISO calculate an average of the cost of new entry for resources using various technologies that it had found were economic, and base the demand curves on that average cost of new entry, instead of basing the demand curves on the cost of new entry for a single such technology (the “peaking unit”). The rationale was that the process of estimating the cost of new entry for a given technology involves estimates of a number of factors, each of which is subject to error, and that by calculating the cost of new entry for several technologies and averaging them, we could reduce the amount of error.

The 2005 FERC order referenced above rejected our proposal and directed the ISO to base the demand curves on the cost of new entry calculated for a single peaking unit. Consequently, barring a change in the tariff, it is clear to us that the ISO is precluded from basing the demand curve on the average cost of new entry calculated for a group of different technologies, as we had proposed. While we still believe that our proposal has merit and warrants consideration at some point in the future, at this point in the development of the demand curves for 2011-14, we do not think it would be fruitful to consider the tariff changes that would be required.

NYC Tax Abatement

1. Name the types of taxes imposed on generators for which there is an opportunity to receive an abatement.

New merchant generators in NYC will be subject to real property taxes on the land, building and equipment components of their facilities as well as sales tax on construction materials and mortgage recording tax on the financing of the facilities. The current combined City and State mortgage recording tax is 2.8% of the financed amount of the project; the combined City and State sales tax is currently 8.875%.

The New York Industrial Development Agency (NYCIDA) has the ability to abate the City's real property taxes (on both the land, building, and equipment components of a project) and both the City and State portions of the sales tax. The NYCIDA can also provide a deferral of both the City and State portion of the mortgage recording tax for the life of the project. The NYCIDA has the authority to match or exceed the tax benefits formerly provided by the City's Industrial and Commercial Incentive Program (ICIP).

In addition, there may be generators that have qualified for ICIP by filing the appropriate documentation and will receive the ICIP benefit as long as the plant is in operation by the end of 2013.

2. How should the opportunity for new generation to receive some form of tax abatement be quantified? If the answer to the foregoing question varies depending on the type of tax, identify the specific tax in the answer.

NYC real property taxes should be projected according to the NYC Department of Finance assessment methodology for utility property and equipment: It is our understanding that the NYC Department of Finance uses the Reproduction Cost New Less Depreciation (RCNLD) method. Mortgage recording and sales taxes are static taxes applied to applicable costs at financing and construction. Because these taxes are charged at different points in the lifetime of the generator, the full value of all abatements/deferrals should be considered on a net present value basis, using the cost of capital of merchant generation.

The tax regimes of neighboring states, counties and cities should also be taken into consideration given the opportunity. For example, one of the key strategies recommended in the Transition Report on Energy & Utilities for New Jersey Governor-elect Christie is to “[b]uild a new industry around providing energy to NYC” and it has been reported in that the City of Bayonne is providing economic development benefits in the form of a property tax abatement to the proposed 512 MW Amerada Hess Plant which would interconnect with Zone J.

3. For tax abatements that are discretionary, what process does the governmental entity use to prioritize requests for tax abatements?

The NYCIDA, with few limitations, can provide the tax incentives described above to all projects that support the economic development policy goals of the City of New York. Criteria commonly used to measure the accomplishment of these goals are: The direct and indirect fiscal impact of the project as well as job creation and retention. Benefits are predicated on significant capital investment in New York City and development commitments of ten years or more.

4. Could an historical average tax abatement approach work?

- a. Requires tax abatement information on new NYC projects.**
- b. Should historical average consider just CTs or all technologies?**

Because of recent legislative changes and annual adjustments in NYC and NY State tax rates, historical average tax abatements are not necessarily good indicators of the value of future tax abatements for new generators. Moreover, because of recent negative load growth as well as a shortage in financing capital, there has not been recent merchant development.

5. If Demand Response is considered, what forms of tax abatement, if any, exist? Specify the name of the tax in the response. If for a load reduction demand response proxy “unit”, should all forms of tax abatement be considered or just those that might be uniquely applicable to the load reduction?

Insofar as the TOs are aware, there are no existing forms of tax relief available in NYC that are directly applicable to demand response.

Impact of Deliverability

1. If considered, how would System Deliverability Upgrades identified within a Class Year be used to quantify the impact of deliverability?

Deliverability upgrades and their associated costs should not be included in the calculation of net CONE because there is no need to implement deliverability upgrades at this time to ensure deliverability of capacity through the current Capacity Zones.¹ Generation representatives have asserted that, despite this fact, costs of those upgrades

¹ Capacity is currently deliverable at the point where 100% of net CONE intersects the supply curve.

should nevertheless be included in calculation of the current net CONE for those locations because upgrades may be necessary at some point in the future. This is incorrect, and it is inconsistent with the basic philosophical approach underpinning the development of net CONE, which is that it represents what the cost of developing capacity would be over the three year demand curve update period, reflecting forecasted conditions over that period.²

If net CONE includes deliverability upgrade costs in the absence of any reliability need for such upgrades, the result will be needless and excessive capacity revenues for those generators that are currently deliverable or built within the deliverable locations.

The lack of transmission capability needed to support the deliverability of existing surplus capacity needs to be addressed by considering the adjustment of the zero crossing point of the demand curve. Paying for surplus supply that is physically unable to provide a service for which they are being paid is no longer appropriate.

2. Given that existing Deliverability rules were developed based on developers (suppliers) paying for upgrades in return for the ability to offer capacity, what is the rationale for additional cost recovery based on deliverability charges?

Deliverability requirements are intended to provide incentives for generation developers to locate in areas of the electric grid where their capacity is deliverable, all other things being equal. Conversely, deliverability requirements also serve as a disincentive to generation developers seeking to locate in grid locations that are not deliverable, and assure that resources receiving capacity revenues are indeed used and useful. The cost of deliverability upgrades should not be included in the calculation of net CONE for the reasons given in the answer to question 1.

3. What would be the impact of a Lower Hudson Valley Zone?

Stakeholder discussions regarding the parameters for when establishing a new Capacity Zone is needed (e.g., a Lower Hudson Valley Capacity Zone), and when an established Capacity Zone can be appropriately eliminated, would be highly disruptive to the Demand Curve Reset process, and should not be filed with FERC as part of the triennial demand curve reset process. Furthermore, the NYISO's 2010 Criteria for New Capacity Zones project has not yet begun, so it seems inappropriate to initiate discussions on this issue separately and prematurely. Any Capacity Zone development should be fully vetted by Market Participants and require a Section 205 filing.

² NERA, "Demand Curve Reset Update: Financial Assumptions," Jan. 18, 2007, p. 18, available at http://www.nyiso.com/public/webdocs/committees/bic_icapwg/meeting_materials/2007-01-18/ICAPWG_NYISO_DC_Reset_Financial_Assumptions_11807.pdf.