To: New York Independent System Operator, Inc. ("NYISO")

From: Howard Fromer, Director of Regulatory Affairs

Date: August 24, 2020

Re: **Comments on Proposed Installed Capacity Demand Curve Parameters for the 2021/2022 through 2024/2025 Capability Years – NYISO Staff Draft Recommendations**

TigerGenCo, LLC, the owner of the Bayonne Energy Center peaking plant ("Bayonne"), submits the following Comments on the *Proposed NYISO Installed Capacity Demand Curves for the 2021-2022 Capability Year and Annual Update Methodology and Inputs for the 2022-2023, 2023-2024, 2024-2025 Capability Years* issued by the NYISO Staff on August 5, 2020 ("Draft Staff Report"). The Draft Staff Report largely adopts the inputs and recommendations contained in the Interim Final Report of the NYISO's Independent Consultants ("Consultant") issued that same day. Of greatest concern to Bayonne, Staff is proposing to adopt a Net Energy and Ancillary Services ("Net E&AS") revenue estimation model that was never benchmarked and which, as discussed below in more detail, Bayonne believes is significantly overstating expected earnings from the proxy peaker in Zone J, and likely throughout NYCA. The result of this overestimation of earnings is reduced Reference Point Prices for the proxy plant compared to a model that properly reflected the earnings a developer of the proposed proxy plant could reasonably expect to earn.

Bayonne is a 644 megawatt ("MW") nameplate dual-fuel generating facility comprised of eight simple-cycle aero-derivative units totaling 512 MW, which commenced commercial operation in 2012, as well as two additional simple-cycle aero-derivative units totaling 132 MW, which commenced commercial operations in 2018. The plants are located in Bayonne, New

Jersey and radially connected to Consolidated Edison's Gowanus 345 kV substation in Brooklyn, New York. Each of the10 units is separately bid in, scheduled and dispatched by the NYISO.

Over the past many weeks, as the results of the Consultant's analysis began to be shared with market participants, Bayonne became increasingly concerned that the Energy and Ancillary Services estimation model they were using to predict earnings from the proxy plant was producing results that exceeded what Bayonne had seen over the same three year historic period being evaluated by the Consultants, even after adjusting for difference between the proxy plant specifications and Bayonne's units. Accordingly, we engaged our energy manager to benchmark the Consultant's model against Bayonne's actual results. To our knowledge, Bayonne is the only peaking plant to have been built in New York City in the last decade, and its efficient technology (the Siemens aero-derivative unit used at Bayonne was chosen as the proxy plant technology in the 2013 DCR proceeding) and the fact that it provides operational experience from 10 distinct units make it an ideal candidate on which to perform such a benchmarking exercise.

In order to perform this benchmarking study, a number of input assumptions to the Consultant's model needed to be changed to reflect the actual pricing and cost inputs for Bayonne as well as technical parameters to more accurately reflect the operating characteristics of Bayonne as compared to the newer Siemens aero-derivative unit examined in the model. The changes made are detailed below:

1. **Price and Cost Input Data**
   a. Replaced New York City Zonal LBMPs with Bayonne Nodal LBMPs
   b. Set Level of Excess Adjustment factors with a value of 1 to force the model to produce Net E&AS revenues based on historic LBMPs

c. Set RGGI prices equal to $0/ton through December 2019 to match New Jersey not being part of RGGI

d. Updated the model's generic NYC S&P gas inputs with S&P gas prices that reflect gas prices available to Bayonne

2. **Unit Technical Parameters**

a. Adjusted Net Plant Output for Summer and Winter

b. Adjusted Summer and Winter Heat Rates

c. Adjusted Variable O&M

d. Adjusted EFORd

3. **General Model Parameters**

a. Adjusted NYC Fuel Transaction Cost to reflect Bayonne's actual costs

b. Eliminated NYC Gas Tax because Bayonne is not located in NYC

The benchmarking study only included the adjustments to the inputs described above to more accurately reflect Bayonne. It did not include any changes to the code and dispatch logic in the consultant's model.

Bayonne's benchmarking analysis showed that the model did substantially overstate their expected earnings. In particular, we saw huge excursions in the winter months, with January of 2018 and 2019 producing the majority of the three-year overestimation. Further investigation into January 2018 and 2019 found that the most significant variances were between the DAM energy margins produced by the Consultant's model and Bayonne's actual revenues over the Martin Luther King ("MLK") holiday weekend in both 2018 and 2019. In fact, we found that roughly 18% of the DAM energy margins produced over the entire three-year period analyzed in the August 5th Reports came from just these two four-day holiday weekends. (The impact was an

even higher 23% for the Zone J Proxy unit.) This finding highlighted a clear concern about whether the model is misrepresenting operation on these and potentially other weekends. Further review identified that there is an error in the model's assumptions for natural gas prices available over weekends and holidays.

The Net E&AS model is designed to use the day ahead gas price for a delivery day to compare to the LBMPs for that delivery day. The rationale provided by the Consultants was that they assumed that on average the proxy unit owner would have bids that represented the delivery day gas costs and therefore using the quoted hub gas cost for that day results in the best estimate of the proxy unit's operating costs and expected net revenues. The Consultant's model relies on spot natural gas prices obtained through the S&P Global Market Intelligence service ("S&P"). To achieve the delivery day treatment of gas costs the model takes the S&P spot natural gas day ahead prices entered and shifts them forward to reflect next day delivery.

The way the model operates over the weekend is represented as burning gas priced at the Friday delivery day price. This is not a correct representation. Weekend gas is bought as a strip along with gas for the first delivery day after the weekend and the pricing for this gas is shown for the delivery date following the weekend. On a normal weekend, this means that the weekend gas and Monday gas are priced at the quoted Monday delivery day price. On a three-day holiday weekend, such as the MLK weekends that resulted in a significant misstatement of earnings, the Saturday through Tuesday package is priced at the Tuesday delivery day price. The Net E&AS model, as currently programmed, is incorrectly pricing this weekend package at the Friday delivery day price.

Our energy manager reached out to S&P Global and they confirmed that the price over the weekend is reflected in the price for the first non-holiday weekday after the

[4]

weekend. Specifically, they wrote: *"Looking at a Friday price in our product <u>DOES NOT</u> indicate a delivery date of Monday. That Friday price they see is for delivery on that Friday. Trades I enter on a Friday into our database will go into the product as the Monday delivery date, which includes the weekend. For holiday packages, such as the MLK holiday on 1/15/18, the price listed on Tuesday 1/16/18 is the holiday/weekend package, and that price in our product reflects packages that were traded 1/13/18 to 1/16/18." (Emphasis in original.)*

The Consultant's model current treatment provides erroneous revenue results over the weekend that are particularly evident in the significantly overstated 2018 and 2019 MLK weekends where the natural gas prices erroneously assumed in the model at the Friday delivery day price were very low compared to the LBMPs which spiked over the weekend. For example, MLK weekend 2018 assumed the New York City peaking proxy plant could purchase natural gas at approximately $3/MMBtu while the average zonal New York City LBMPs spiked to over $145/MWh on average over the weekend as a cold spike hit the region. MLK 2019 had similar price differences between the Friday and Tuesday natural gas prices and high LBMPs over the weekend. This was the case in the Zone K, the Lower Hudson Valley zones and the Rest-of State zones as well. As a result, the model dispatched the proxy peaking plants over the entire weekend both years and assumed DAM energy margins that dramatically overestimated what a generator would have actually received based on its true cost of weekend gas. The model assumed the Friday gas price when in fact the S&P spot natural gas prices that were reported for the following Tuesday, the next trading day, is the price that the model should be using for the entire long holiday weekend. This is because the natural gas price reported on the next trading day after a weekend represents the natural gas packages that were traded across the entire weekend strip. Actual market data used by Bayonne's energy manager, and obtained through

Platts, confirmed that the daily gas average price available to Bayonne over the MLK weekends were very close to the S&P price reported on Tuesday after the holiday.

After identifying the weekend natural gas price error in the Consultant's model, Bayonne's energy manager ran a case with potential fixes to this error. Specifically, it ran the model after updating weekend natural gas prices to reflect the next trading day. Therefore, for most weekends the Saturday through Monday strip assumed the S&P natural gas price reported on Monday instead of Friday. Likewise, if there was a holiday where natural gas prices were not reported by S&P, the next trading day was assumed for the holiday. To effectuate this update, Bayonne's energy manager simply populated all weekends and holidays with the correct S&P reported gas price in the model input files. The results of this case showed significant improvements in the Bayonne benchmark and substantially reduced the overstatement of revenue. This error must be fixed for the model to produce more reasonable estimates of Net E&AS revenues.