Consumer Impact Analysis: Impact of 2017/2018 ICAP Demand Curves on Annual Capacity Costs

Tariq N. Niazi
Senior Manager, Consumer Interest Liaison
New York Independent System Operator

Installed Capacity Working Group
November 9, 2016

DRAFT – FOR DISCUSSION PURPOSES ONLY

Background/Overview

- The previous presentations (August 2, 2016 and September 27, 2016) focused on providing the potential annual capacity cost impacts of including or excluding dual fuel capability and selective catalytic reduction (SCR) emissions control technology in the peaking plant designs for the NYCA and the G-J Locality ICAP Demand Curves
- The current presentation is focused on presenting the NYCA-wide annual capacity cost impacts of NYISO staff's final ICAP Demand Curve recommendations along with the latest 2017/2018 ICAP Load Forecast values compared to the current 2016/2017 ICAP Demand Curves

Analysis Assumptions Underlying Bar Graph (Slide 6)

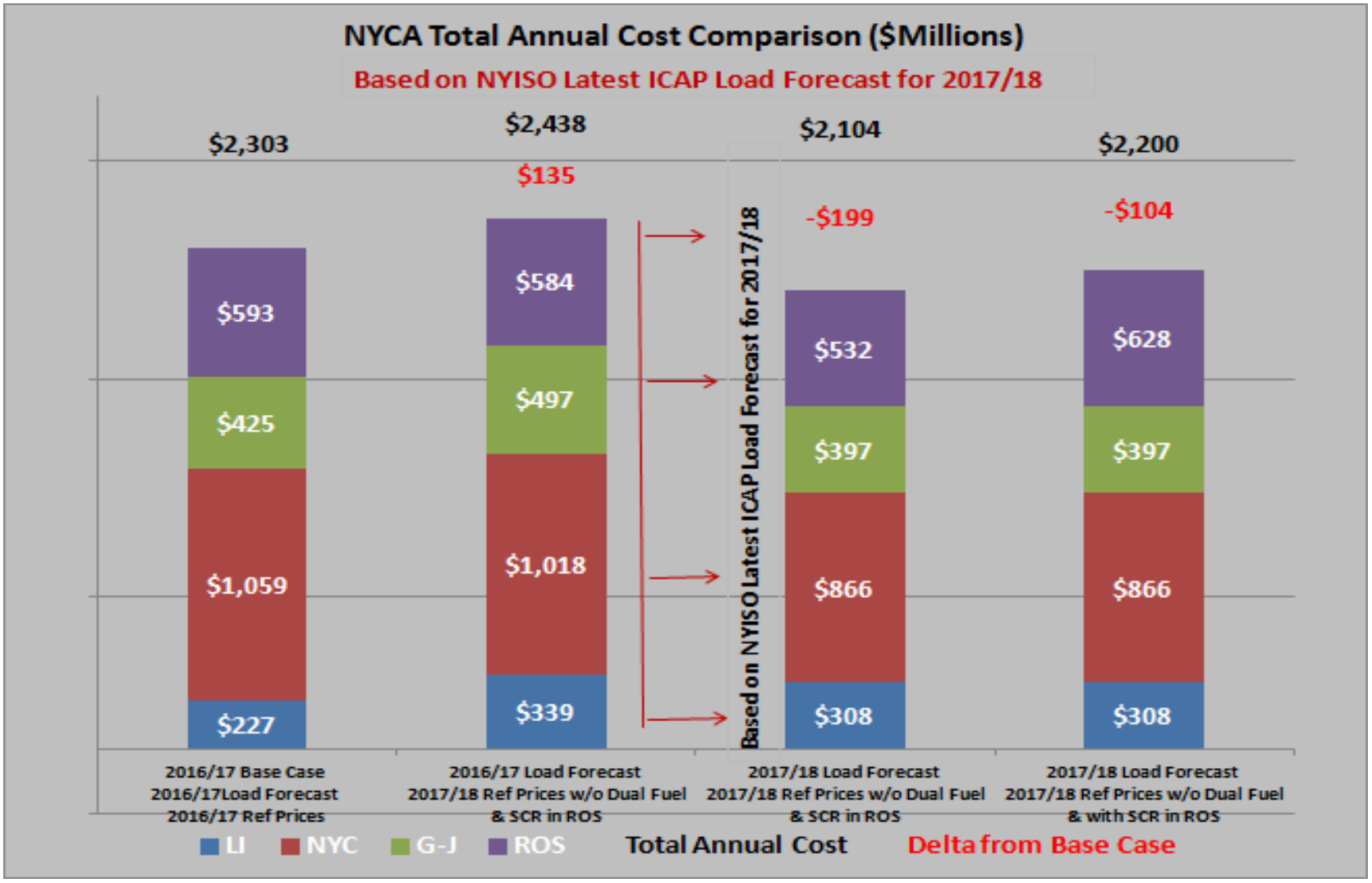
- The analysis presented assumes no changes in plant additions or retirements, the current IRM/LCRs (2016/17) and no changes in exports or imports
- <u>First Bar (2016/2017 Base Case):</u>
- Load forecast
  - *2016/17 Capability Year*
- IRM/LCR Percentages
  - *2016/17 Capability Year*
- ICAP Demand Curve Reference Point Value
  - *2016/17 Capability Year, as approved by FERC during the 2013 DCR*
    - NYC: With Dual Fuel/SCR
    - LI: With Dual Fuel/SCR
    - G-J: With Dual Fuel/SCR
    - ROS: W/O Dual Fuel and W/O SCR
- Supply
  - *Summer: October 2016 ICAP Market Results*
  - *Winter: April 2016 ICAP Market Results*
- ICAP/UCAP Locational Derating Factor
  - *Summer: 2016 Capability Period*
  - *Winter: 2016/17 Capability Period*

Analysis Assumptions, Contd.

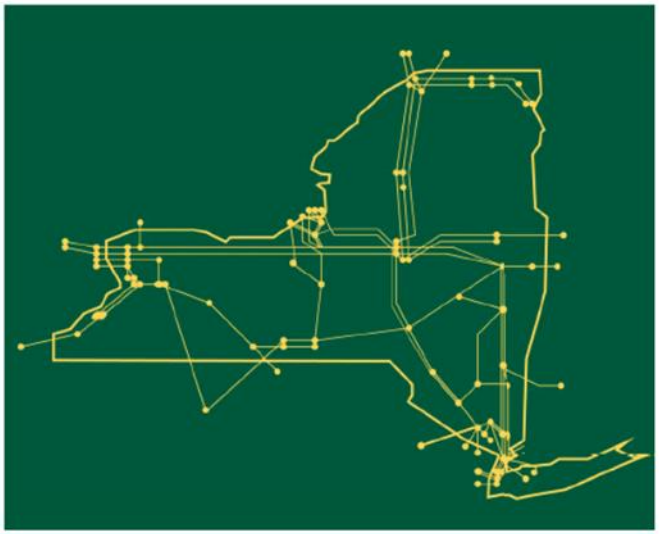
- **Second Bar:**
- **Same assumptions as First Bar, except**
- **ICAP Reference Point**
  - ***2017/18 Capability Year (based on the values provided in the independent consultant's final report date September 13, 2016)***
    - **NYC: With Dual Fuel/SCR (NYISO Staff's Recommendation)**
    - **LI: With Dual Fuel/SCR (NYISO Staff's Recommendation)**
    - **G-J: With Dual Fuel/SCR (NYISO Staff's Recommendation)**
    - **ROS: W/O Dual Fuel and W/O SCR (Alternative Proposed by Certain Stakeholders)**
- **Third Bar:**
- **Same assumptions as Second Bar, except**
- **Load forecast**
  - ***2017/18 Capability Year***
    - 2017 forecast presented on October 5, 2016 to the NYSRC-Installed Capacity Subcommittee
- **Fourth Bar:**
- **Same assumptions as Third Bar, except**
- **ICAP Reference Point**
  - ***2017/18 Capability Year***
    - **NYC: With Dual Fuel/SCR (NYISO Staff's Recommendation) [Same as Third Bar]**
    - **LI: With Dual Fuel/SCR (NYISO Staff's Recommendation) [Same as Third Bar]**
    - **G-J: With Dual Fuel/SCR (NYISO Staff's Recommendation) [Same as Third Bar]**
    - **ROS: W/O Dual Fuel and With SCR (NYISO Staff's Recommendation)**

Explanation of Bar Graph

- The first bar on Slide 6 (from left) shows total NYCA-wide annual capacity costs ($2,303 million) for the 2016/2017 Capability Year based on the current 2016/17 ICAP Demand Curves and the 2016/17 load forecast
- The second bar shows an increase of $135 million in total NYCA-wide annual capacity costs for the 2017/2018 Capability Year based on the 2017/18 ICAP Demand Curve reference point prices that include dual fuel and SCR for all Localities and a gas-only unit without SCR for NYCA. All other assumptions, including the 2016/17 load forecast are the same as Bar 1
- The third bar shows a decrease of $199 million in total NYCA-wide annual capacity cost for the 2017/2018 Capability Year based on the 2017/2018 ICAP Demand Curve reference point prices that include dual fuel and SCR for all Localities and a gas-only unit without SCR for NYCA. The third bar also uses the NYISO's latest ICAP load forecast for 2017/18 in place of the 2016/2017 load forecast used in Bars 1 and 2. All other assumptions are the same
- The fourth bar shows a decrease of $104 million in total annual NYCA-wide capacity cost for the 2017/2018 Capability Year based on the NYISO's latest ICAP load forecast for 2017/2018 and the 2017/18 ICAP Demand Curve reference point prices that reflect NYISO staff's final recommendations (SCR for all locations and dual fuel for all Localities, but a gas-only unit for NYCA)



The New York Independent System Operator (NYISO) is a not-for-profit corporation responsible for operating the state's bulk electricity grid, administering New York's competitive wholesale electricity markets, conducting comprehensive long-term planning for the state's electric power system, and advancing the technological infrastructure of the electric system serving the Empire State.



www.nyiso.com