

The New Capacity Zone and Proposed Transmission Upgrades

A Summary of the Issues

Prepared by Citizens for Local Power (February 14, 2014)

The Problem

Demand for electricity is greatest in the southeastern portion of the state — New York City, Long Island, and Westchester, alone, account for over half of New York's demand — while much of the supply is located to the north and west of the state. During times of *peak demand*,¹ when the weather is very hot or very cold, transmission lines running through the Hudson Valley are unable to carry enough supply from upstate sources to meet downstate needs, creating transmission “bottlenecks” or congestion. This raises the price of electricity as older, less efficient (and more polluting) plants downstate are powered up to meet the extra demand.

The Regulatory Response

The Federal government and the State government have offered separate and redundant approaches to addressing the transmission constraints: The “new capacity zone” (NCZ), ordered by the Federal Energy Regulatory Commission (FERC); and Alternating Current (A.C.) transmission upgrades, proposed by the Governor's 2012 Energy Highway Blueprint.

The New Capacity Zone (NCZ)

Plan Summary:

The NCZ, which is expected to go into effect on May 1, 2014, seeks to attract investment in electricity generation in the Hudson Valley by grouping our region into the same “capacity zone” as New York City, where the price of wholesale energy is much higher. Currently, the state is divided into three capacity zones: New York City, Long Island, and Rest of State (which includes the Hudson Valley.) Each capacity zone is required by federal law to have a sufficient reserve of supply at peak times, when demand exceeds what transmission can provide from elsewhere in the state. For example, New York City must have enough generating capacity to meet 83% of its peak demand for electricity within its capacity zone. Because peak demand in New York City is the highest in the state, the *capacity price* of electricity (a component of the supply price on our utility bills) is also highest because of the added cost of maintaining sufficient reserve capacity in the zone—capacity that is only used occasionally, but is needed then. New York City rate-payers pay much more for maintaining peak electricity capacity in this zone than we do in the Hudson Valley, where the required reserve capacity can currently be sourced from anywhere in the state except New York City and Long Island.

This will all change under the NCZ: The Hudson Valley will be incorporated into the same capacity zone as New York City (see attached map), and will have to source 88% of its capacity from within the new zone.² The price of electricity will rise, too. According to the FERC, this price increase will make it more profitable for investors to add generating capacity where it is needed most and reduce transmission congestion. It will also raise electricity rates charged to residents and industries in our region.

¹ Peak demand or peak load describe a period in which electrical power across the entire system is expected to be provided for a sustained period at a significantly higher rate than average supply level, (e.g., on very hot or very cold days, when demand for cooling and heating increase substantially.) In 2012, New York State average peak demand during times of temperature extremes was 32,439 MW, compared with 18,538 MW on an average day—an enormous spike in demand. Data from NYISO, *Power Trends 2013*:
http://nyssmartgrid.com/wpcontent/uploads/2013/05/Power_Trends_2013_May_2013_FINAL.pdf

² Under the NCZ, New York City must still source 83% of its capacity from within its old zone, now nested in the new capacity zone, but the NCZ will still help the city lower prices if it encourages new generation in the Hudson Valley.

Concerns:

- 1) **Rates in the Hudson Valley will rise:** In its comments to the FERC in August 2013, the NY Public Service Commission (PSC) stated that the NCZ could raise electricity rates by as much as 25%, costing rate-payers in the new zone over half a billion dollars in a three-year period.³ The New York Independent System Operator (NYISO), the organization that manages the grid and administers wholesale energy markets in New York, claims that the impact will be less, in the ranges of 2-10%, if certain mitigating measures are included.⁴ NYISO cautions, however, that the modeling upon which its estimate will be based is not yet complete. According to Central Hudson-Fortis, the rate increase will be around 6.5%, taking into account mitigating measures adopted thus far. While there is a difference of opinion on the precise number, there is agreement that rates will increase in our area under the NCZ.
- 2) **The NCZ is unnecessary:** The PSC argues that the FERC has failed to consider the State's proposed transmission upgrades, which makes the NCZ unnecessary. These upgrades are expected to increase the capacity of transmission lines to carry 1,000 MW of additional lower-cost power from the north and west to meet downstate needs, eliminating bottlenecks in transmission. According to the PSC, the NCZ will also likely do nothing to increase investment in new capacity because of investor concern that the state's transmission upgrades will put downward pressure on wholesale electricity prices and make their investments less profitable. The NCZ will serve only to increase profits for existing capacity generation owners at ratepayers' expense.
- 3) **A significant rate increase will cause hardship for our communities:** Rate increases cause disproportionate harm to low-income and fixed-income ratepayers who are struggling to pay their bills. These increases can also put residents' welfare at risk if they can no longer afford to pay those bills. In the Central Hudson-Fortis service area, the percentage of customers whose electricity has been shut off for not paying their bills has risen from 1.89% in 2005 to 5.99% in 2012.⁵ The NCZ will exacerbate this problem, and will pose a similar danger to businesses that are already operating on a narrow profit margin (small businesses and area farms, for example).
- 4) **The NCZ is inequitable:** The NCZ boundaries have very little to do with where the areas of greatest peak demand are located. Rather, the boundaries are determined by where the constrained transmission segments are located and by the boundaries of the utility service areas. Thus, Sullivan County is included in the NCZ even though its annual per capita household consumption is only 13% of Westchester's consumption. Ulster County's per capita household consumption is about 21% of Westchester's.⁶ Portions of Greene County – which is not even in the Hudson Valley – are included in the NCZ simply because they are part of the Central Hudson-Fortis service area. These counties will face a rate increase to address a problem had proportionately little to do with creating.
- 5) **The NCZ will only encourage more fossil fuel-powered generation:** If the NCZ encourages any investment in generating capacity at all, it is very likely to be in fossil fuel-based generation, which can be powered up instantly to meet peak demand during times of temperature extremes. Investment incentives would be better directed at encouraging microgrids, distributed renewable generation, and demand-reduction programs to reduce peak demand and grid dependence while increasing local resilience to power outages.

Possible Benefits:

One potential benefit of the NCZ is that the high price of electricity may incentivize energy efficiency and conservation, but there are other ways to achieve these goals.

Status:

The NCZ is scheduled to go into effect on **May 1, 2014**. All issues relating to the NCZ have not yet been resolved;

³ “Order Accepting Proposed Tariff Revisions and Establishing a Technical Conference,” FERC, Docket No. ER13-1380-000, August 13, 2013.

⁴ Presentation by Thomas Rumsey, NYISO Vice President for Marketing and Communications, at “New Power Grid Issues in the Hudson Valley,” sponsored by Citizens for Local Power and the Towns of Marbletown, Rochester, and Rosendale at the Marbletown Community Center on Jan. 29, 2014.

⁵ “Shut Off Rates-Rising Again, Years into Great Recession,” Public Utility Law Project, <http://utilityproject.org/campaigns/shut-offs-rising-again-years-into-great-recession/>

⁶ Only 3,771 kWh compared with per capita consumption in Sullivan County is 3,771 kWh; in Westchester, 28,318 kWh; and in Ulster County, 7,461 kWh. Source: Mid-Hudson Regional Sustainability Plan, 2012: p.5-7.

the FERC is convening a technical conference on February 26 to examine whether Long Island should also be included in the New Capacity Zone; this would reduce the rate impact on the Hudson Valley by one or two percentage points. A request by NYISO to phase in the NCZ over three years to reduce the impacts on consumer rates was rejected by the FERC on January 28. The NYS Public Service Commission and Central Hudson-Fortis, both Intervenor in the FERC regulatory proceedings, have protested the imposition of the NCZ, and the ruling is now in rehearing. There is no statutory requirement to complete the rehearing within a particular time frame; however, the NCZ will be implemented May 1 whether or not the rehearing is complete. Should the FERC ruling be postponed or overturned, customers will be refunded the costs incurred as a consequence of the NCZ.⁷

Electricity Transmission Upgrades

Plan Summary:

As part of Governor Cuomo's *New York State Energy Highway Blueprint*, the Public Service Commission (PSC) was tasked with "initiating Alternating Current transmission upgrades to increase the capacity to move excess power from upstate to downstate" to relieve "existing bottlenecks." A.C. transmission, as distinguished from Direct Current (D.C.) transmission, allows for a two-way flow of electricity and is considered the backbone of the power grid. Unlike D.C. transmission lines, A.C. allows for interconnecting generation sources at multiple points along transmission, and also provides improved system reliability. The transmission upgrades are expected to result in at least 1,000 additional MW of electric transmission to areas of high demand in the southeastern portion of the state. Of the many proposals submitted by developers, four are currently under review by the PSC, in a comparative process, with the goal of accepting one of them. Three plans (one from Transco, which represents New York's transmission-owning companies and includes Central Hudson-Fortis; one from Florida-based NextEra; and one from New York City-based New America Transmission LLC) would upgrade transmission in Columbia and Dutchess Counties. These plans, as originally submitted, called for construction of new, taller towers and expansion of the existing right-of-way. A fourth plan, from Boundless Energy, proposes to address the same congestion problem by upgrading transmission lines in Ulster County and tunneling under the Hudson near Newburgh. According to this plan, no new towers or widening of corridors would be required. The projected cost of the project is also lower under the Boundless proposal than under the other three proposals. It is likely that one of the four proposals will be accepted.

Concerns:

Costs of transmission upgrades: The costs of transmission upgrades to address transmission constraints will be recouped through consumer electricity rates, and the estimated costs across the four proposals vary considerably, ranging from under \$270 million (Boundless Energy)⁸ to \$840 million (Transco).⁹

Environmental and view shed impacts: A coalition of communities and organizations in Dutchess County have voiced strong concerns about the three proposals to upgrade transmission on that side of the river. An expansion of transmission infrastructure beyond current areas of disturbance in the utility right-of-way would adversely impact natural and agricultural resources and sensitive ecosystems. New, higher towers and/or an expanded footprint would also harm scenic view sheds important to community character and the tourism economy. (New towers ranging from 115-165 feet in height are under consideration in proposed plans for Dutchess and Columbia counties.)

Reduction in property values: An expansion of transmission infrastructure beyond the current footprint and/or a significant increase in height and/or number of transmission towers would negatively impact

⁷ Communication with Adria Woods, Office of Energy Market Regulation, Federal Energy Regulatory Commission, Feb. 11, 2014.

⁸ Communication with John Dodson, PE, Boundless Energy, Feb. 10, 2014.

⁹ Communication with John Maserjian, Director of Media Relations, Central Hudson-Fortis (Transco member), Feb. 10, 2014.

property values in the vicinity of, and/or within sight distance of, transmission infrastructure.

Land acquisition through eminent domain: Use of eminent domain to obtain additional lands for transmission upgrades has not been ruled out; however, PSC Chairwoman Audrey Zibelman has stated that the Commission prefers projects that remain within the existing right-of-way, and Governor Cuomo proposed in his 2014 State of the State address that the PSC looks to expedite transmission projects that do not stray from the existing right-of-way.

Possible Benefits:

Lower cost power: Upgrades will increase access by the Hudson Valley and New York City area to lower cost power from upstate sources, relieving transmission constraints. The extent to which electricity rates are positively impacted will depend upon the cost of the transmission upgrades, which will be recouped through consumer rate increases.

Enhanced support for renewable generation: According to the Governor's Energy Highway Blueprint, transmission upgrades will support the development of upstate renewable energy projects; however, none of the current proposals being considered mention support for renewable energy development.

Status:

The PSC is receiving public comments on the first phase of its review process (“scoping”); no deadline has been set yet. On **February 20**, the PSC will meet to review the process. For a chart showing the tentative timeline, see <http://www.dps.ny.gov/ACTransmission/>.

(Current estimate is between 3 & 7.5 years to complete the project; however, the February 20 meeting may result in a shorter process.)

by **Citizens for Local Power**

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