

Position Paper I:
**Transmission
Infrastructure
Investment**

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New York State is faced with myriad energy-related issues: high prices; overdependence on natural gas as a generating fuel; rising demand; a weakening economy; an aggressive 15 x 15 energy efficiency/clean energy initiative; long distances between demand centers and generating assets; limited penetration of renewable energy sources; and aging infrastructure, to list some of the most challenging. These issues are interrelated, exceedingly complex and have been exacerbated through decades of inattention or competing interests.

Further complicating the difficulty in resolving these complex issues is the realization that stakeholders who hold strikingly different viewpoints regarding potential solutions are passionate about the issues' resolution. As a result, to be viable and politically feasible, solutions must be considered holistically -- with the interests of the state's energy consumers, along with the impact on the state's overall economic competitiveness, foremost in mind, while striving to accommodate these diverse interests to the greatest extent possible.

This Position Paper was produced as part of a series to extend Central Hudson's views on the necessary components of the critically important State Energy Plan now under development in Albany; in this installment: investment in the state's bulk power system is explored.

Background

One of New York State's greatest assets in attracting new employers and jobs is its electric system infrastructure. The system was built by regulated utilities in a grand demonstration of the effectiveness of regulation's ability to oversee and mandate necessary private sector investments that serve and benefit both the customer and the shareholder.

The integrity of these privately owned, well-managed assets is key to the state's future economic vibrancy and security in a global era that is based on an electronic economy. Increased trading and marketing in electricity markets is expanding the use of the nation's electric transmission grid. Built originally to serve existing and future loads, interconnect neighboring utilities, and support reliability, the grid also is now also being used to support a larger number of wholesale transactions across regions. Our state's delivery utilities continue to actively invest in the transmission system in order to meet these needs, but New York has reached a critical crossroads in the need to construct the transmission system of the 21st century.

Clearly, everyone would agree that a strong, reliable bulk power system infrastructure is essential to meeting the current and future energy needs of New York's businesses and residents. Such a system is needed to:

- Deliver a safe, reliable supply of electricity
- Meet increased customer demand in an electronic economy
- Minimize congestion costs
- Support economic development initiatives to attract employers and jobs
- Integrate renewable energy projects into the grid
- Provide greater access to Canadian and other imports
- Achieve 15 x 15 strategy public policy initiatives
- Integrate cost-effective new technologies; and
- Provide more flexibility for re-routing power if problems occur on the grid.

Although well maintained by the utility owners, the bulk power system infrastructure is both aging and increasingly insufficient in terms of meeting New York's energy needs with maximum efficiency. The typical transmission line in our state is now more than 40 years old, and components – not surprisingly – are nearing the end of their useful lives. Routine maintenance requirements and equipment failures are increasing, along with attendant costs and resulting downtime.

The system, which was never designed to support the current market model, is woefully constrained. During a time that the global economy has advanced through rapid developments in electronic technology, it should make no New Yorker proud to realize that the last significant expansion of our state's bulk power system was the addition of the Marcy-South line in 1987 – nearly a quarter century ago!

What Must Be Done

The State Energy Plan must contain provisions to re-invigorate the bulk power system (230 kV and above) in New York State. Make no mistake: this is a massive undertaking that will require years to plan and complete, and will require the unified support of many stakeholders who will need to build consensus even amongst the most parochial and passionate of interest groups. Yet the aging bulk power system infrastructure must be rebuilt, modernized and expanded to meet the future energy needs of New York State. Work must begin as soon as possible to avert increasing operating and maintenance costs, as well as the increasing risk of failures; and it must be completed by the utilities who have a proven track record, vested interest and the local brand identity to make it happen.

Such infrastructure investments will result in a more dependable energy “backbone” for the state, and will provide the long-term benefits of reduced congestion costs, lowered maintenance expenses, improved technology and more efficient market capabilities. These investments will be best made by the owners of the transmission assets, and must be prompted through the expectation of a reasonable rate of return for those owners, who are in the best position to accomplish this important and massive undertaking. These assets are the property of the transmission owners; they have the obligation to maintain the system’s integrity and reliability; and they have the planning expertise and technical/construction skill sets to complete the task.

This sound, sensible approach to public policy is consistent with the New York State Public Service Commission’s directive to the transmission owners to maintain strong, reliable energy infrastructure, and is clearly in the best interest of New York and its economy. Its inclusion in the State Energy Plan is critical; such an approach will enable New York State, through its planning process, to address the social issues of improved efficiency and environmental stewardship. Furthermore, it is consistent with FERC policy, which encourages the rebuilding and modernization of existing transmission facilities and the construction of new ones to maintain a reliable system and to lower congestion costs. The New York Independent System Operator’s Comprehensive Reliability Planning Process also assumes that investment in transmission infrastructure is integral to the continued reliable operation of the bulk power system.

New York State could decide to displace the regulated transmission owners in this endeavor, to varying degrees, by increasing the role of the New York Power Authority. This could be supported on the basis of its tax exempt-financing capability,



which produced a lower financing cost to consumers, all else being equal. However, the “discipline of the bottom line” should not be underestimated in its ability to motivate performance.

Still, a much more compelling consideration must be the State’s priorities. New York State already has outstanding far more debt, including a great deal issued by its approximately 700 authorities, than any other state on a per capita basis. And, its fiscal situation is extremely strained. Issuing more debt, directly or indirectly through authorities, must be carefully prioritized. The Governor and the Legislature, rather than each individual governmental authority and department, must determine how New York’s finite debt capacity is best allocated. We believe spending much of that finite capacity for electric transmission is unwise because there are many other areas where an attractive private sector alternative is not available, as is the case here.

Action Plan

The transmission owners are currently working together to assess the operating performance; evaluate the integrity and remaining life of their bulk power system transmission facilities; and develop long-range, prioritized plans/schedules for rehabilitation to assure a continued high level of reliability. Central Hudson’s President and Chief Operating Officer is overseeing this important statewide initiative because we recognize the need to accomplish this important work on behalf of New York’s future. (Few industries are as tied to the local economy as is the local electric utility; the utilities that serve New York have spent more than a century ensuring that a dependable energy infrastructure was ready to meet the needs of our state’s businesses and residents – we are uniquely suited to continue in that important role.)

Due to the interconnected nature of the bulk power system, a jointly developed and executed bulk power system assessment and long-range rehabilitation plan is preferable. The State Energy Plan must promote a systematic, sensible approach to the rehabilitation of the bulk power system, and projects must be prioritized on a statewide basis to minimize risk of outages due to premature failures. Furthermore, approved projects must be coordinated to minimize overlapping outages through development of an optimized plan.

In order to be optimally responsible and effective, the plan must reflect reliability considerations; minimize the impact on congestion costs; and accommodate new generation projects, especially renewables. To the extent practicable, existing rights-of-way must be fully utilized to mitigate environmental and community impacts. Synergies of transmission replacement and expansion to maximize throughput in existing corridors must be fully explored.

It is obvious that these measures must balance the cost effectiveness of upgrading/expanding/modernizing versus wholesale replacement or entirely new projects, which typically require the development of new Rights of Way. Included in this analysis must also be an integration of the output of renewable energy projects, specifically upstate wind, and address other public policy goals. Obviously, all prudently incurred costs to design, study, pre-certify, and permit transmission facilities should allow full recovery through delivery rates in order to provide certainty for the transmission owners.

The transmission owners can produce the best outcome for consumers. They own/maintain the transmission infrastructure and possess the skills and expertise to rebuild/replace these assets on a prioritized basis to maintain the high level of reliability that customers expect. In addition, the transmission owners are committed to working closely with the NYISO in a transparent process that will produce credible, objective results.

A National Perspective

Recognizing the nationwide nature of the transmission system, it's relevant to address developments elsewhere. According to Energy Finance Daily, a 2007 report completed by Black and Veatch concluded that 60 percent of all generation, transmission and distribution infrastructure is

nearing the end of its service life, while in some cases, 20 to 25 percent is past or well past its intended usefulness.

According to the Edison Electric Institute, reversing an earlier trend of declining transmission investment, from 1999 to 2003, annual transmission investment by investor-owned utilities increased 12 percent annually and totaled nearly \$18 billion over the period. From 2004-2008, investor-owned utilities are planning to invest \$28 billion in transmission infrastructure, a 60-percent increase over the earlier five-year period.

New York cannot be left behind in this effort to provide 21st-century infrastructure. Central Hudson believes strongly that the State Energy Plan must strategically confront and resolve any FERC/PSC jurisdictional issues. If the State truly wants to incent funding partners to invest in the future of New York's economy through investment in its energy infrastructure, then the FERC determined return must be applied; utility companies must be allowed to recover the FERC ROE through the bundled retail rates that are



set by PSC if a vibrant investment climate is to evolve here. Otherwise, the capital to fund these projects will simply flow to other states where such rates are being authorized. Robust investment facilitates the construction of new transmission projects to support wholesale markets and improve reliability; these investments will occur elsewhere if we do not attract them here to New York

Customer Impacts

It must be acknowledged that the cost of rebuilding/replacing infrastructure will place continued upward pressure on customer bills, in a time of high energy costs and difficult economic circumstances. Customers will, however, benefit in the long run as the rebuilt system will:

- Maintain the expected high level of reliability
- Increase throughput, optimizing statewide generation dispatch
- Reduce congestion costs and losses
- Reduce maintenance/repair costs
- Provide for the integration of upstate renewable and Canadian hydro energy
- Modernize the system through application of cost effective advanced technologies
- Dampen supply price volatility by providing increased access to supply
- Mitigate environmental impacts.

Summary

It is a well-established tenet of economic development that infrastructure is a critical facilitator of growth and higher standards of living. Transportation, water, and other public infrastructure are vital, but none more so than high-quality electric supply. Transmission facilities are the critical link in assessing that high-quality supply.

The State Energy Plan must endorse the need to revitalize New York's bulk power system, and the current transmission owners have the expertise and wherewithal to accomplish this important work. However, the transmission owners need regulatory certainty and support to raise the capital necessary to produce these future benefits for the next generation of New Yorkers.