

Draft National Interest Electric Transmission Corridor (NIETC)  
Designations;  
Comments Received in Public Meeting,  
New York, NY, Wednesday 23 May 2007

JOHN J. HALL  
19TH DISTRICT OF NEW YORK

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**Statement of Congressman John Hall**  
**Department of Energy Public Meeting to Consider the Draft NIETC Mid-Atlantic Area**  
**National Corridor Proposal**  
**May 23, 2007**

On April 26, Secretary of Energy Samuel Bodman announced the Department of Energy's proposal to establish two National Interest Electric Transmission Corridors (NIETCs) in an effort to establish a fast track for new power infrastructure. The proposed Mid-Atlantic Area National Corridor, under discussion today, would give special consideration to new power lines across the Eastern United States from Virginia and Ohio to New York while undermining the rights of those opposed to those proposals. The Department of Energy's Mid-Atlantic Area National Corridor is a flawed proposal rooted in poor public policy, and I strongly oppose it.

The Department of Energy was given the authority to establish NIETCs under section 1221 of the Energy Policy Act of 2005. Within these corridors, state authority over transmission lines may be preempted and new federal eminent domain authority could be used to obtain land for approved electric utility transmission projects.

The NIETC authority disturbs the fundamental balance between the desire to site new energy infrastructure and the ability of state governments, local authorities, and property owners to have a say over what gets built in their communities. Instead, it stacks the deck in favor of for profit energy interests while threatening to steamroll landowners who may be in the path of a power line, ignore communities that may favor defending environmentally sensitive areas over installing new infrastructure, and negate the objections of state governments. At its core, the NIETC authority is an unjust provision that favors the interests of energy companies over the rights of average citizens.

The intent of the provision, to fast track energy development by doing away with local objection, is evidenced by the facet of the authority that allows FERC to take over the licensing process for a project that a state fails to act on in a year. When considering the approval process for a massive project like the New York Regional Interconnect (NYRI), which I will discuss in a moment, it is important to keep in mind that completing adequate need assessments, public interest evaluation, public comment, environmental reviews, and other necessary study in the course of a year is an extremely difficult if not impossible challenge. If the Mid-Atlantic Area National Corridor proposal were to be adopted, companies wishing to avoid state requirements and local concerns would not have to exert too much effort to drag out the state approval process for a year and then shop for a more favorable venue at FERC.

The ability to bypass local opposition and look to FERC for approval would undoubtedly be attractive for the backers of a project like NYRI, which has already been the subject of significant concern in communities along its path. It is this project in particular that would be the biggest immediate beneficiary of the Mid-Atlantic Area National Corridor.

The NYRI proposal is ill conceived, unnecessary, and unwise. If allowed to go forward, the nearly 200 mile-long high voltage power line would run a 1200 MW cable on 135-foot tall towers along rail lines, through communities, and across environmentally sensitive areas here in the Hudson Valley.

This project could have a devastating impact on local communities, ignore the rights of landowners, and negatively impact environmentally sensitive areas like the Upper Delaware Scenic and Recreational River. A project of this scope and impact warrants increased regulatory scrutiny, greater opportunity for public review, and more detailed consideration of land and security impacts. Instead, the Department of Energy would give this type of project its own fast track process and completely ignore the will of the very communities NYRI would touch.

The fast track approval process associated with NIETC authority also limits debate over what should be one of the most basic considerations governing approval of any power line regardless of size: Does the public benefit? NYRI has yet to come forward with a decent explanation of where the power coming through this line will come from, how it will be generated, or how it's supposed to benefit anyone but NYRI investors. These critical questions must be answered for before any serious evaluation of public benefit can move forward, and I am deeply concerned that these considerations would fall by the wayside in a process governed by the NIETC framework.

This concern, shared by many of the residents of the communities NYRI would travel through, has deepened as a result of the Department of Energy's initial announcement that today's meeting would be the only opportunity for public comment on the Mid-Atlantic Area National Corridor. The choice of leaving work and traveling hours to attend this meeting or missing the opportunity to explain why the proposed corridor would open the door for a project that could have a drastic impact on local quality of life is really no choice at all for the homeowners, businesspeople, farmers, environmentalists, and community advocates whose lives may be dramatically impacted by NYRI. The announcement of a second meeting in Rochester did little to remedy this problem, since for many who have concerns about the NYRI proposal the distance is equal or greater than what they would have had to travel to be here today.

The communities that have the most at stake in this process deserve more. In the coming weeks, I will be holding a meeting in my district to hear the concerns of local officials, homeowners, and businesses. It is my hope that the Department of Energy will be able to attend to hear testimony firsthand.

In conclusion, I would also like to express my deeply held belief that the Department of Energy's efforts to push forward its NIETC proposals represent a fundamental misalignment of priorities. I wish that instead of putting so much time and effort into hastily paving the way for more massive infrastructure projects, the Department of Energy would show the same zeal for

real energy solutions by looking for ways to increase investment in wind energy, solar, low-head hydro, fuel cells, and a variety of other technologies.

Innovation in these areas would allow us to actually help meet New York's demand for energy, protect our environment, and invest in new jobs and technologies right here at home. Many of these technologies would also allow us to generate power on-site at our homes and businesses, saving money and eliminating the need for massive, damaging new transmission lines like NYRI.

I thank the Department of Energy for allowing me to submit testimony at this meeting, and hope that it will reconsider its proposal.



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## Comments on Mid Atlantic National Interest Electric Transmission Corridor Designation

Docket No. 2007-OE-01

Comments to the United States Department of Energy

*Comments by Citizens Campaign for the Environment*

May 23, 2007

Choosing how we produce electricity and ultimately how electricity is delivered to meet our nation's demand is a critically important environmental, economic, and public policy decision. Citizens Campaign for the Environment (CCE) is strongly opposed to the U.S. Department of Energy (DOE) proposal for the National Interest Electric Transmission Corridor (NIETC), because the policy, as drafted, does not adequately address demand reduction and conservation measures, and does not provide adequate opportunities for public and local government participation. Congestion relief is an obvious necessity, however meaningful local government and public input is imperative for achieving a locally driven sustainable energy future for our nation. ***CCE opposes any federal policy that is specifically designed to eliminate or limit public input and concern.***

The DOE "source and sink" approach to resolving energy congestion and constraint raises significant concerns regarding usurping states rights, circumventing public review and comment, and jeopardizing protected publicly valued lands such as forests, wetlands, farmland, preserved open spaces and scenic vistas. While the DOE claims that all these areas are protected under the National Environmental Policy Act and state environmental review, it is highly unlikely that these processes that provide for public review and participation will be given adequate time due to the unrealistic timetables set forth in the Energy Policy Act. ***CCE is strongly opposed to the DOE establishing corridor designations that threaten lands protected by local, state, or federal statute, such as forested areas, wetlands, nature preserves and other important ecologically significant areas.***

Public involvement in matters directly affecting quality of life, specifically public health and environment should be subjected to rigorous state and local review. Designating the NIETC beyond the areas of "critical congestion" subjects states and municipalities to arbitrary boundaries. NIETC boundaries force states, counties and townships to conform to federal demands regarding energy consumption and production and essentially changes existing review processes to meet expedited federal timelines. The DOE admits the agency does not have the time or resources to ensure that all proper steps are taken when energy proposals are brought before states and local governments. With this in mind,

***CCE urges the DOE to limit corridor designation to areas labeled as critically congested or constrained. Furthermore, CCE supports DOE empowering States to address transmission congestion and constraint in focused areas by retaining local authority in electrical generation and transmission infrastructure siting.***

The burden of proof rests upon the shoulders of the accuser. If the DOE believes focused congestion/constraint areas need to be addressed with the highest priority then states/localities should have incentives to exhaust all available demand reduction, conservation, and energy production programs available before federal intervention occurs. ***CCE requests DOE revise the Mid Atlantic NIETC to ensure adequate public participation, limit corridor designation to areas of congestion and constraint while protecting sensitive populations and ecosystem, and provide incentives for demand reduction and conservation.***

Thank you for your thoughtful review of our testimony today. CCE plans to submit formal comments.

Respectfully submitted,

Emmett Pepper  
Program Coordinator

Cc: Adrienne Esposito, CCE Executive Director

To whom it may concern,

I know that this public meeting is more to give us the illusion of democracy. I can't leave without putting in my two cents worth.

I live in Otisville Ny. My family is the fifth generation living there. Not only will my sons home and my home be in the way but our entire village is in jeopardy. If in fact this line is inevitable, I would plead with the powers that be to at least run the line underground so that we can continue to raise our families in our village. I know that the cost would be higher but at this point I think most people would understand that cost. Again my heart breaks at the idea of our entire village being destroyed. Please give this note you consideration.

Sincerely  
Jason Bluma



TESTIMONY OF MICHAEL J. BEHRMANN, ENVIRONMENTAL ADVOCATE FOR  
THE NEW YORK PUBLIC INTEREST RESEARCH GROUP  
BEFORE THE U.S. DEPARTMENT OF ENERGY ON  
DRAFT NATIONAL CORRIDOR DESIGNATIONS,  
PUBLIC HEARING IN NEW YORK CITY ON  
WEDNESDAY, MAY 23, 2007

Good afternoon, I am Michael Behrmann, Environmental Advocate for the New York Public Interest Research Group (NYPIRG). NYPIRG is the nation's largest statewide non-profit, non-partisan, environmental and consumer protection research and advocacy organization.

Thank you for the opportunity to speak on the proposed "Mid-Atlantic Area National Interest Electric Transmission Corridor." NYPIRG opposes:

1. The preemption of State authority to review and permit transmission line proposals within New York State; and
2. The potential delegation of eminent domain to private corporations to acquire land for electric transmission facilities.

First, New York State already reviews and sites electric transmission line projects within the state. The New York State Public Service Commission (PSC) has the necessary expertise to determine potential adverse impacts posed by major transmission line developments. The process established by the State Environmental Quality Review Act (SEQRA), provides state and local officials with the tools to evaluate potential local and regional impacts and should not be preempted by a federal approval. Instead DOE should give deference to the states. Local expertise often proves invaluable when determining project impacts and evaluating alternatives.

This proposal undermines the local and state review where proposed lines will have the most impact, and would be a gross injustice. New York State is implementing plans to decrease electricity use to below current levels, which is not reflected by DOE's proposal. Moreover, the New York Independent Systems Operator (NYISO) currently has the expertise to address reliability concerns and has been operating the competitive wholesale electricity market since New York restructured the utility market in the late 1990's.

Second, the DOE should not grant the use of eminent domain to any private corporation, as established under the Energy Policy Act of 2005, over states' objections. Granting the power of

eminent domain to transmission line permit holders would establish bad precedent and create a slippery slope.

In closing, NYPIRG respectfully requests DOE increase energy efficiency and distributed renewably generated power efforts in areas identified as “critical congestion areas” rather than usurping state power and granting private entities use of eminent domain. Thank you.

May 23, 2007



**Statement of Paul W. Miller  
Assistant Director of Planning  
County of Madison, New York**

**U. S. Department of Energy  
Public Meeting On  
Draft National Interest Electric Transmission Corridor Designations**

DOE claims that economic development considerations support designation of the Mid-Atlantic Area National Corridor, which is proposed to cover two-thirds of New York and significant portions of seven other states. In fact, economic development considerations in New York and elsewhere dictate that the Department focus its attention beyond the broad NIETC designation that subjects 47 of New York's 62 counties to the whims of merchant transmission corporations and significant adverse economic impact. Madison County believes that the economic interests of the region would be better served if the DOE would focus its efforts on new energy technologies, energy conservation, demand-side management, new in-zone distributed generation, and micro grids. These measures would bring new vitality for the nation's energy system and the economy rather than perpetuating the vulnerable system of huge transmission facilities strung across the countryside that we inherited from the last millennium.

The NIETC designations seek to move power from areas with an alleged surplus to areas with perceived shortages that will surely raise prices in those areas giving up power resources. The resulting increased power rates will have a negative effect on the economy of those regions giving up power.

DOE bases the NIETC designations on the proposition that consumers in the northeast metropolitan corridor are paying higher prices for electricity than consumers in upstate New York. DOE further contends that because high electricity prices add to the cost of living and the cost of doing business in an area, they will "retard the area's economic growth and competitiveness." This prediction is shown to be unlikely based on NYISO growth rates from its **2004 Load and Capacity Data Report** which predicts load growth, and therefore growth of the economy in the metropolitan region nearly twice that of the upstate region.

A Brookings Institution Study released this month documents the state of the economy in upstate New York and other areas that will lose power through the huge transmission lines that are likely to result from NIETC designations. The study lists 65 cities lagging

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behind the nation in economic development based on employment, business and income statistics. Twenty of the listed cities are in the designated northeast electric corridor and will likely face increased energy costs from the redistribution of electricity that NIETC designation envisions. Meanwhile, the NIETC designation will give unconscionable incentives to for-profit corporations like the New York Regional Interconnection, one of the transmission companies that has proposed a specific project in the designated northeast NIETC. NYRI has conceded that its proposed transmission lines would increase the rates of electric utility ratepayers throughout upstate New York where the line will be sited.

Proposed transmission lines like NYRI's threaten potential economic development that might occur in upstate communities. A prime example is that of a planned semiconductor and nanotechnology industrial center known as the Marcy NanoCenter in Oneida County, New York. This center, which has been in the planning stages since 1999, is anticipated to result in robust economic development and job creation in the region. NYRI's proposed power line would bisect the Marcy NanoCenter site right where micro-device manufacturing clean rooms and support structures would be located. New overhead transmission lines provide no electricity supply to upstate New York, increase competition for and the cost of existing upstate New York energy sources, degrade the environmental quality of the landscape and are negative economic forces in stagnant upstate economies.

Economic development considerations dictate against designation of the proposed Mid-Atlantic Area National Corridor that would encourage construction of transmission lines and adversely affect economic development for potentially hundreds of communities within the region.

A handwritten signature in black ink, reading "Paul W. Miller". The signature is written in a cursive style with a large, prominent "M".

Oral input

My name is Lee Runnalls. I am a resident of Otisville in Orange County, NY. I am a volunteer for a citizens group, SayNo2NYRI, Inc

The Department of Energy's draft "NIETC" designation is the first step toward giving private transmission companies like New York Regional Interconnect the right to take any private property within the corridor that could provide a right-of-way for its proposed line.

NYRI's proposed route would run about 190 miles and would lie **entirely** within the state of NY. It would use railroad rights-of-way to run its transmission line.

I might remind you that New York State played a pivotal role in our developing nation's economy. Its farms, factories and lumber used the railroads to move goods about the country – and the state played a major role in providing goods during the Civil War. Railroads connected cities, towns and villages decades before the automobile arrived. Communities grew around their train depots. Some of the finest examples of 19<sup>th</sup> & early 20<sup>th</sup> century architecture were built near the train stations to serve as hotels, boarding houses, & stores. Many of them remain in use today and are vital to character of each community.

NYRI's proposal strikes at the very heart of many communities in upstate NY. While train usage has dried up, the historic downtown areas of the communities provide much of the glue that still holds people to their communities.

The designation of an NIETC corridor and NYRI's plan to build on railroad rights of way would spell disaster for communities subject to eminent domain and the removal of the "heart" of communities like mine in Otisville.

Transmission lines with 120 foot high towers do not belong in hearts of our cities, towns and villages. They don't belong traversing school yards or parks.

In a public meeting in Ferndale, NY, NYRI's representative was questioned about what NYRI would do if the New York State PSC denied its application to build their line. The answer was very clear: it would seek to get federal approval for the route. The clear implication was that NYRI *would get* from Washington what it might not get from NY

Building more power lines while destroying our environment and our heritage is just the same old way of doing things.

While I appreciate that some areas claim to need cheaper electricity, the DOE should confine the corridor to the areas that claim to be experiencing the effects of congestion – that is, downstate New York.

My community and state will suffer irreparable costs if you designate this corridor. Please do not do so. You should leave such decisions to the State of New York.

Thank you.

**DOE Public Meeting on Draft NIETC Designation**  
**New York City**  
**May 23, 2007**

**Con Edison Statement**

My name is Deidre Facendola and I represent Con Edison and Orange & Rockland Utilities. Thank you for the opportunity to express our views regarding the designation of National Interest Electric Transmission Corridors. Estimates are that 290 GW of new energy supplies will be needed nationwide by the year 2030 --- after achieving 180 GW of energy efficiency. Our industry is heading into a construction cycle, where new assets are required to meet customer needs. It is important that we are able to get new resources, transmission, generation, and DSM, when and where needed. For this purpose, we believe Corridor designation could be useful to get transmission built.

We appreciate DOE's clarification that corridor designation is NOT a license to build transmission, or even that transmission will or should solve the identified congestion and we urge the DOE to continue to emphasize that alternatives may include energy efficiency, demand response, and local generation supply.

Eliminating congestion is a policy objective, but carries the risk that such relief will be short lived because of subsequent system changes. This is why it is vital to base investment decisions on sound economics, with robust analysis that considers alternatives. There must be no incentive that irrationally favors only transmission.

This clarification is useful for the following four reasons:

1. Only new generation and DSM can meet customer demand. Transmission alone does not create new additional sources of electric supply, and so we must not separate transmission from generation investment decisions. Doing so may cause generators to locate far from load and for local generation to retire. This could increase total customer costs and exacerbate identified congestion.
2. Long-haul transmission can reduce local reliability since remote generating sources not only increase the need for local voltage support, but also reduce local operating reserves and blackstart capability.
3. Moving natural gas and converting it to electricity locally is a viable alternative and has been the preferred solution in many areas, including New York City. Synergies exist among winter heating and summer electric needs, especially in the Northeast. Investment in new gas facilities, such as the Millennium Pipeline, coupled with additional clean, efficient gas-fired generation will continue to be a viable alternative to address congestion.
4. The designations must support public policy objectives, including goals in the Northeast to reduce greenhouse gases, promote renewable energy sources and increase efficiency and demand response programs, including use of advanced metering.

Lastly since qualifying for federal backstop siting is conditioned on reducing identified congestion, we encourage frequent review of the DOE study assumptions. We also note that the draft report does not include Northeast capacity market changes expected to encourage new local generation.

We applaud the proper use of backstop siting but caution against potential abuses and unintended consequences. We encourage the DOE to ensure its congestion report is accurate and to be very specific to state that generation and DSM alternatives must be considered, noting that siting transmission, while important, is only part of an array of solutions that could meet needs of customers in the 21<sup>st</sup> century.

# The Family Foundation School has big problems with the proposed NYRI power line.



## A closed campus and 120 lost jobs.

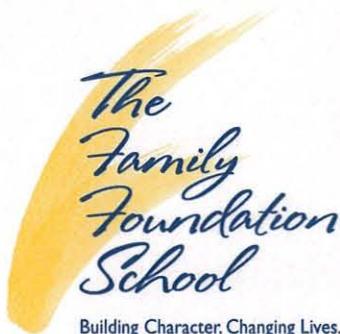
The problems begin with the Millennium Pipeline, which crosses our campus, coming within 1000 feet of our school building. That means if the power line is built as proposed—*parallel to the pipeline*—it, too, would cross our campus. With its towers looming some 12 stories into the air, the power line would effectively destroy our view of the beautiful Delaware River valley. The noise—the constant droning at 40 to 50 decibels—would destroy the tranquility of our mountain setting. The electromagnetic field, “possibly carcinogenic” according to the EPA, would destroy our wellbeing, if not our health. In short, the proposed NYRI power line would destroy The Family Foundation School.

That would mean a loss of 120-plus jobs in Hancock, and the end of one of the most unique and successful special needs schools in the northeast—one which, over the past 20 years, has helped thousands of troubled teens recover from drug and alcohol addiction and a range of emotional and behavioral problems.

Today this year-round, college-preparatory boarding school is home to more than 250 students who spend an average of two years here maximizing their academic potential and cultivating the values they need to lead happy and productive lives. Our rural campus and the preponderance of outdoor activities we offer these kids are absolutely essential to their recovery, and we’re not willing to see any of it—the school, the students or the work we do—sacrificed for a power line.

For more information on what we all stand to lose, visit [www.thefamilyschool.com](http://www.thefamilyschool.com). Or call or write:

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**United States Department of Energy**

**National Interest Electricity Transmission Corridor  
Designation – Comments of the City of New York**

**Public Hearing  
New York, New York**

**May 23, 2007**

I am Michael Delaney, Vice President of Regulatory Affairs in the Energy Department of the New York City Economic Development Corporation (NYCEDC). Acting on behalf of the City of New York (City) in this matter, the NYCEDC Energy Department has on two prior occasions filed extensive written comments with the Department of Energy concerning NIETC designations.<sup>1</sup>

The City of New York should receive priority in the final NIETC corridor designation process. The City has unparalleled commercial, financial, and general economic importance to the nation, and also has an unusual degree of dependence on electricity as opposed to other forms of energy such as motor fuels.

The City's comprehensive Energy Policy Task Force Report issued in 2004 recognized that addressing future electricity reliability, cost, and environmental concerns will require a multifaceted approach, including greater use of demand side measures, the introduction of additional generation facilities, and importantly, transmission system improvements.<sup>2</sup> Last month, Mayor Michael Bloomberg issued the comprehensive PlaNYC 2030 program to address the City's future infrastructure requirements and other needs. Among the needs cited in the PlaNYC report is the necessity for investments in more efficient energy resources, including new power plants and transmission facilities.

The conclusion of these and other similar analyses appears clear: future

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<sup>1</sup> *Comments of the City of New York Concerning Transmission Congestion Study and Designation of NIETCs* (filed March 6, 2006); *Comments of the City of New York on Designation Criteria for NIETCs* (filed October 10, 2006)

<sup>2</sup> *New York City Energy Policy Task Force Report* (2004), noting the need for additional transmission facilities at pp 13-15. The *Report* is accessible at: [www.nyc.gov/html/om/pdf/energy\\_task\\_force.pdf](http://www.nyc.gov/html/om/pdf/energy_task_force.pdf) - 2004-01-21

transmission development must form an important part of the overall energy supply solution for the City. This will mean both technological improvements to existing pathways and lines, and development of bulk transmission facilities themselves.

As was noted in PlaNYC, New York City is expected to reach a population of some nine million by 2030, and its total electric load is growing very rapidly. In fact, the Congestion Study issued by the Department that supported the draft NIETC designations cited a growth rate in the City of some 1.7% annually. In the most recent summers of 2005 and 2006, numerous all-time electricity and natural gas demand records were set by Con Edison.<sup>3</sup> These circumstances, particularly when coupled with very high prevailing prices for electrical energy and capacity here, warrant the highest DOE priority to help meet the transmission needs of the City.

The Department should in its final determination designate an NIETC corridor to New York City. Such a corridor would meet all of the noticed draft criteria for creation of an NIETC, and would have the following primary benefits:

- Increased reliability for the designated regions
- Heightened national and regional security
- Increased availability of economic electricity transfers from the PJM and upstate

New York markets to the New York City load pocket

- Reduced reliance on antiquated and inefficient generating plants that raise serious air quality issues in a densely populated urban environment

- Diversity of electric fuel sources for New York City, which at present is overly

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<sup>3</sup> These included a 2006 peak summer electric load of more than 13,100 MW, the highest electricity sendout, highest monthly and weekend electricity use, highest summer gas usage, and most of the highest demand days in the 124 years that the company has been in existence were experienced in the last two years. Source: Con Edison company news releases of July 27, August 1, and September 4, 2005, and August 1 and 2, 2006, accessible at [www.coned.com/newsroom](http://www.coned.com/newsroom)

reliant on an increasingly constrained natural gas supply system

Pursuant to § 1221(a) of the Energy Policy Act of 2005, the Department conducted a comprehensive nation-wide examination of electric transmission congestion, and has now proposed draft NIETC corridors. Following an extensive public involvement process, including technical conferences, the solicitation of multiple rounds of comments, and draft proposals, the Secretary is empowered to designate final NIETCs under a broad statutory standard, *i.e.*, for “any geographic area experiencing electric transmission capacity constraints or congestion that adversely affects customers....”<sup>4</sup> The critical areas of congestion are by definition the most serious, and are limited to only two regions. These critical areas are defined as “the Atlantic Coast from metropolitan New York southward through Northern Virginia,” and “Southern California.”

There is no area of the nation that more deservedly merits a DOE determination as a critical congestion area. The City’s importance in economic, financial and business activity is well recognized, and the City constitutes what can fairly be described as perhaps the most significant electrical load pocket in the country. Thus, national security concerns in the wake of the 9/11 attacks, the unique nature of electricity dependence in the nation’s financial and commercial capital, and fuel diversity and stability factors only serve to reinforce the critical need for one or more NIETC designations for the New York City area.

A final NIETC corridor designation by the Department of Energy affecting the City and its surrounding areas would be of material assistance, and would constitute perhaps the single step best calculated to meet the evident intent of the Energy Policy Act provisions addressing NIETC selections by the Secretary.

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<sup>4</sup> Energy Policy Act § 1221(a), codifying § 216 of the Federal Power Act (2005)

Very few entrepreneurial transmission projects have been undertaken in New York and elsewhere in the nation, clearly suggesting the need for another model to address the realities of a partially deregulated electricity marketplace. Bulk transmission system investment has in recent years been in relative decline compared to earlier periods, and has failed to keep pace with load growth and the increasing interdependence of the transmission resources in an era increasingly characterized by the presence of Independent System Operators and Regional Transmission Operators. The growth of these entities has been seen most prominently in the Northeast in recent years, and that growth was clearly not contemplated when the national transmission grid component elements were designed and built during an earlier era of long-term investments made by vertically integrated utilities.

As noted in the Congestion Study, an NIETC designation would essentially constitute a finding that the national interest would be benefited by eliminating or reducing congestion in certain key areas. It would thereby presumably have a salutary effect on the investment climate. An NIETC designation would in effect represent a finding that it is in the national interest to mitigate a particular constraint, or area of congestion.<sup>5</sup> And as the Congestion Study itself demonstrates rather conclusively when taken as a whole, such a designation or series of designations should begin in the City of New York.

### **Conclusion**

For all the foregoing reasons, the City urges the Department of Energy to designate final NIETCs that will address the most acute congestion needs as they are defined in the 2006 Congestion Study. As the lead federal agency for the formulation of a sound national energy policy, DOE is well positioned to play a key role in this area that remains fully

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<sup>5</sup> Congestion Report at p. 62

consistent with the proper jurisdictional scope of other parties, including the states. The City welcomes the leadership of the Department in the designation of transmission corridors that will enhance the public welfare both in the nation at large, and particularly in New York City as the nation's most critical financial and commercial center.

UNITED STATES DEPARTMENT OF ENERGY  
Docket No. 2007-OE-01, Draft Mid-Atlantic Area National Corridor  
Docket No. 2007-OE-02, Draft Southwest Area National Corridor

**COMMENTS OF PATRICIA L. ACAMPORA, CHAIRWOMAN  
NEW YORK STATE PUBLIC SERVICE COMMISSION**

May 23, 2007

The New York State Public Service Commission (Commission) appreciates this opportunity to offer comments on the Department of Energy's (Department) draft designation of National Interest Electric Transmission Corridors (National Corridors).<sup>1</sup> The Commission is the state agency responsible for the siting of electric transmission facilities within New York State. It is also responsible for ensuring the most cost-effective provision of electricity to consumers. The Department's Draft Mid-Atlantic Area National Corridor would encompass forty-seven counties within New York State, including all of New York City, Long Island, and large portions of central and northern New York State.<sup>2</sup> Accordingly, the Commission has a strong interest in this proceeding, and hopes that these comments will assist the Department in carrying out the important policies and purposes of the Energy Policy Act of 2005.

The Department has characterized its act of designating a National Corridor as the most significant stage of the entire process under section 216(a) of the Federal Power Act.<sup>3</sup> Designation of a National Corridor is significant because Congress did not create nationwide federal siting jurisdiction for electric transmission facilities. Instead, to preserve longstanding State jurisdiction and protect vital local interests, Congress gave the Federal Energy Regulatory

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<sup>1</sup> 16 U.S.C. §824p(a)(2).

<sup>2</sup> U.S.D.O.E. Docket Nos. 2007-OE-01 & 2007-OE-02, *Notice and Opportunity for Written and Oral Comment*, 72 *Federal Register* 25838, 25909 (May 4, 2007).

<sup>3</sup> 72 *Federal Register*, at 25850 (emphasis added).

Commission (FERC) “backstop” siting authority only within those areas designated as National Corridors. Congress thus recognized the importance of the designation process itself, because designation of a National Corridor will potentially change the balance of Federal and State jurisdiction in this critically important area.

Congress did not require the Department to designate any National Corridors. Instead, it authorized the Department to do so, and only in those areas "experiencing electric energy transmission capacity constraints or congestion that adversely affects consumers."<sup>4</sup> This express language of Section 216 recognizes that the mere existence of capacity constraints or congestion does not, *per se*, adversely affect consumers.

The Department has concluded, however, that “any congestion can adversely affect at least some consumers.”<sup>5</sup> The Department has also concluded that it may designate a National Corridor regardless of the magnitude or cost of such congestion and “without any additional demonstration of adverse effects on consumers.”<sup>6</sup> According to its draft designation, the Department may designate a National Corridor based on any transmission constraint (including the absence of a transmission line) that hinders the development or delivery of generation sources which are “in the public interest” without any demonstration of present or future congestion, and without any further showing of adverse effects on consumers.<sup>7</sup> The Department has also concluded that it may designate a National Corridor without considering whether new transmission is a cost-

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<sup>4</sup> 16 U.S.C. §824p(a)(2).

<sup>5</sup> 72 *Federal Register*, at 25844.

<sup>6</sup> 72 *Federal Register*, at 25844. The Department has also concluded that it need not develop “specific and finite set of criteria” for designating a National Corridor, but can instead do so “based on the totality of the information developed, taking into account relevant considerations, including the considerations identified in Section 216.”

<sup>7</sup> 72 *Federal Register*, at 25844. Without considering the benefits and costs of new transmission, how can DOE find that transmission of electricity from one or more generation sources is in the public interest?

effective solution (let alone the most cost-effective solution), without considering who will bear the costs for such new transmission, without examining the efficacy of non-transmission solutions, without evaluating the market impacts of the designation of a National Corridor, and without developing specific and finite criteria for designating National Corridors.<sup>8</sup>

The Department's rationale for this approach is essentially threefold: first, it reasons that a broad interpretation of the Department's discretion to designate National Corridors is consistent with Congressional concern about the need to strengthen transmission infrastructure.<sup>9</sup> However, Congress recognized that the need for new investment in transmission exists in some, but not all, areas of the country. Accordingly, the Department's National Corridor designation process is intended to identify specific areas where federal action may be needed because deficiencies in existing transmission infrastructure are adversely affecting consumers. The approach the Department has proposed appears to go beyond what Congress intended.

Second, the Department reasons it has broad discretion to designate National Corridors because FERC's permitting authority is limited under Section 216, and the designation of a National Corridor will not interfere with the States' ability to remedy congestion. The limits on FERC's permitting authority, however, may not adequately protect the States' interests. For example, nothing under Section 216 requires FERC to pick the optimum solution, and FERC has taken the position that it can override a State's lawful denial of a permit application.<sup>10</sup> As to the States' ability to remedy congestion, the very act of designating a National Corridor may cause

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<sup>8</sup> 72 *Federal Register*, at 25845-46.

<sup>9</sup> 72 *Federal Register*, at 25844.

<sup>10</sup> FERC Docket No. RM06-12-000, Order No. 689, *Regulations for Filing Applications for Permits to Site Interstate Electric Transmission Facilities*, at ¶¶ 30-31 (Issued November 16, 2006) [“[W]hen a State fails to act or rejects an application, it has withheld approval and the proposed facility would be subject to the Commission’s jurisdiction.”]

downstream project developers to abandon already-planned facilities. Such impacts should be considered before a National Corridor is designated in order to minimize disruption of existing markets.

Third, the Department has reasoned that designating National Corridors “does not finally determine or fix the substantive rights of anyone” but simply provides “an additional procedural option in the form of a potential Federal siting venue...”<sup>11</sup> In this regard, the Department has understated the importance of its role. As discussed above, because the designation of a National Corridor creates federal “backstop” siting authority, it is not a step which should be taken lightly.

Article 7 of the Public Service Law gives the Commission jurisdiction over the siting of major utility transmission facilities and establishes an effective process for review of proposed facilities. The “one-stop” licensing process available under Article 7 has functioned well in the past, and continues to work well for the siting of needed transmission facilities located within New York State. In view of this, federal concerns over unreasonable local obstacles to the siting of transmission facilities, especially those which address intra-state needs, are unwarranted in New York State. Because the siting process in New York works well, there has been no demonstrated need to designate any National Corridors within New York State.

Given the potential effects of the Department’s designation of a National Corridor on the balance of federal and state authority in this important area, and because the Department has not shown that the designation of a National Corridor is necessary in New York State, no such designation should be made at this time.

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<sup>11</sup> 72 *Federal Register*, at 25849.

**Comments on behalf of the  
Upper Delaware Preservation Coalition**

**DOE Hearings on Draft  
National Interest Electric Transmission Corridors**

Troy Bystrom  
May 23, 2007

My name is Troy Bystrom. I am Treasurer of the Upper Delaware Preservation Coalition, a non-profit organization made up of individuals located along the Delaware River who want to preserve the natural environment of the Upper Delaware River Valley.

UDPC is also a member of Communities Against Regional Interconnect, a coalition of eight New York counties and four other community interest groups.

I speak today on behalf of both organizations in opposition to the Department of Energy's draft designation of the Mid-Atlantic Area National Corridor.

Federal law requires that prior to the designation of any National Corridor, but especially a wide-ranging corridor that covers eight states and the District of Columbia, the potential environmental, land use, socioeconomic and regulatory impacts must be considered.

To trigger the requirements of the National Environmental Policy Act, an agency need only make a decision that allows other parties to take an action affecting the quality of the environment.

DOE's designation of a National Corridor is the initial step that will permit at least two actions affecting the quality of the environment: ONE, it will permit private transmission companies to seek approval from FERC to site their transmission facilities rather than state or local regulatory bodies; TWO, it will provide such companies with the federal eminent domain power to take private property for right-of-way over the objections of private property owners. As a result of these actions, the quality of the environment will change over hundreds of miles.

Also, there is no doubt that designation of the Mid-Atlantic Area National Corridor *in particular* will have significant impacts. For instance, the draft corridor would include a 190-mile aboveground transmission line route proposed by New York Regional Interconnect that, if constructed, would run through seven New York counties and 38 municipalities, and that would cross or run along side approximately 154 streams, 98 mapped state wetlands, 156 potential federal wetlands, 265 archaeological sites, 66 properties listed on the National Register of Historic Places, and a National Heritage Corridor as well as various state parks, forests, and forest preserves, agriculture districts, scenic byways, recreational trails, wildlife management areas, lakes, ponds, aquifers, and rivers, including a federally designated wild and scenic river. And this is just one transmission project that would be located within the vast area proposed as the Mid-Atlantic Area National Corridor.

Not only that, but NYRI has identified several areas where its proposed route would cross or run parallel to the federally designated Upper Delaware Scenic and Recreational River and within the boundaries of its protected management area. This river corridor was designated by Congress in 1978 for its exceptionally high scenic, recreational and ecological values and consists of the river itself as well as the D&H Canal, a National Historic landmark, and the Delaware Aqueduct, a National Civil Engineering Landmark.

This 73.4 mile river corridor is home to numerous threatened and endangered plant and animal species. It supports a world-class trout fishery and is recognized by the Audubon Society as an Important Bird Area. At least 300,000 fishermen, bird watchers and tourists visit the corridor each year.

NYRI's proposed route would add 65 to 135-foot high transmission support structures every 300 to 1500 feet within the scenic viewshed of this area. In some areas, the proposed line would be constructed less than a mile away from the river itself.

This is just one scenic and environmentally sensitive area that could be potentially impacted as a result of DOE's proposed corridor designations – hundreds of other such natural resources are located in the proposed wide-ranging Mid-Atlantic Area National Corridor that would cover nearly two-thirds of New York, all of New Jersey and a good portion of Virginia, Pennsylvania, Delaware, Maryland, West Virginia, Ohio and the District of Columbia.

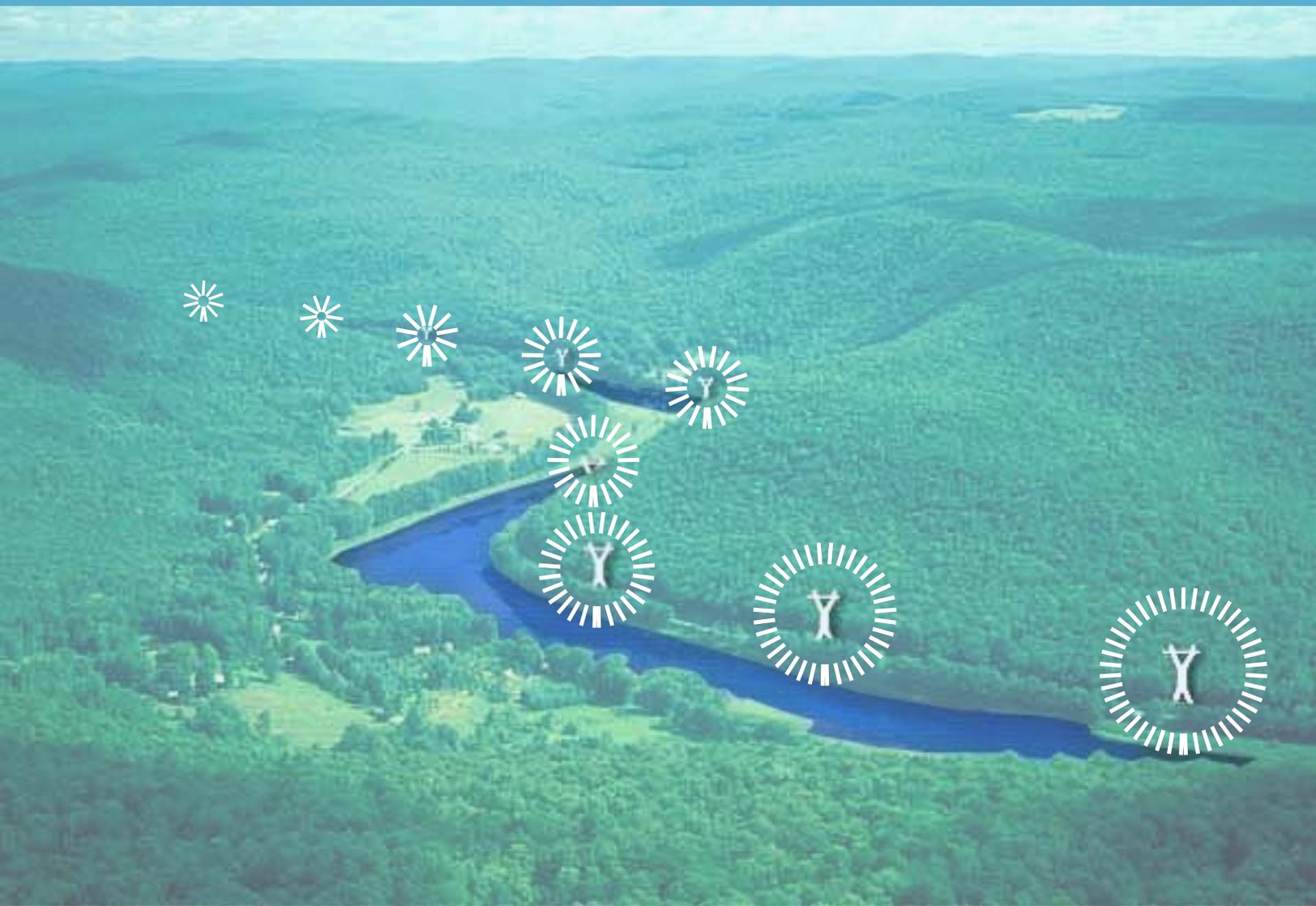
Environmental review of these impacts cannot wait until particular routes are sited. Moreover, federal law mandates that such review take place prior to final agency action. At that point, it will be too late to consider the impacts of and alternatives to the designation of a corridor that encompasses so many areas recognized as significant because of their environmental, historical, cultural, scenic and ecological values.

Attached: Report prepared by Columbia University

# A River Endangered

Proposed Power Transmission and Its Impact on Cultural History along the Upper Delaware River

Prepared for the Upper Delaware Preservation Coalition by the Columbia University Urban Design Research Seminar | Spring 2007



A publication of the Urban Design  
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Scenic & Recreational River: Proposed Transmission Route



## Developmental Threats Along the Upper Delaware River

During the last decade, the Upper Delaware “Wild and Scenic River” corridor has experienced increasing and problematic pressures for new development. Located within two and one-half hours from New York City, the corridor is the last in the metropolitan area to experience the effects of modern suburbanization. The local real estate market is being transformed by high prices closer in, as well as by demand from urban second home investors. New home development is threatening the fragile local ecologies and economies; and the potentials associated with “wild and scenic” qualities of the area are being weakened. For example, inadequate public oversight has led to the increasingly ubiquitous practice of “ridge-top cutting” along the river edges; and to the increasing disappearance of historic built and landscape resources. The negative effects of regionalization are also felt in other ways, most recently with the New York Regional Interconnect (NYRI) high-voltage power line proposal slated to run along the entire length of the “Wild and Scenic River.”

The Upper Delaware River, the longest free-flowing river in the Northeast, has not only been noted for its natural beauty, bald eagle habitat, and countless opportunities for recreation and enjoyment, but is also an important cultural landscape. The area has a rich history of human use and occupation dating from around 6,000 years ago, when primordial glaciers receded and native peoples populated the river valley. Today, while much of the Upper Delaware is a unit of the National Park system as a Wild and Scenic River,

almost all of the land in the river valley remains privately owned. Many residents reside in historically significant houses, and traces of the Upper Delaware’s past are everywhere. From vestiges of bluestone quarries at Pond Eddy to the famous Roebling Aqueduct at Lackawaxen to the historic downtown in Narrowsburg, opportunities for discovery abound.

New York Regional Interconnection, Inc. (NYRI), a private company with Canadian backers, has applied to the New York State and the federal governments to construct an electric transmission line between Marcy and New Windsor, New York. While there are multiple routes under consideration, many believe that NYRI wants to build its transmission line directly along the Upper Delaware, as NYRI has acquired the right-of-way along 73 miles of railroad on the Delaware from Hancock to Port Jervis. For NYRI, the river route is the cheapest route. For the cultural resources of the Upper Delaware, this plan would be nothing short of a disaster.

While the entire Upper Delaware River valley is rich in cultural resources, this report focuses on a limited area, from Narrowsburg in the north to Pond Eddy in the south. This area, as represented by the three historic settlements of Narrowsburg, Lackawaxen, and Pond Eddy, provide not only exceptional examples of cultural resources, but also a fair sampling of the wide range of sites to be found throughout the river valley.

# Upper Delaware River: Cultural History

## Historic Structures and Sites

European settlers came to the Upper Delaware beginning in the 1630s. The history of the area is long and varied, and has left hundreds of significant homes, churches, hotels, and other structures. The region's past is closely tied to the harvesting of natural resources and the development of transportation, and thus also has a significant industrial archeology. Vestiges of the D & H Canal, remnants of bluestone quarries (which supplied the principal material for New York City's sidewalks) and historic bridges still remain, representing important parts of our nation's history.

### Roebling's Delaware Aqueduct

The oldest existing wire suspension bridge in the United States, the aqueduct was begun in 1847 and designed by John Roebling, designer of the Brooklyn Bridge. Originally constructed for canal (water) traffic, it is now used as a vehicular bridge.

### Delaware & Hudson Canal

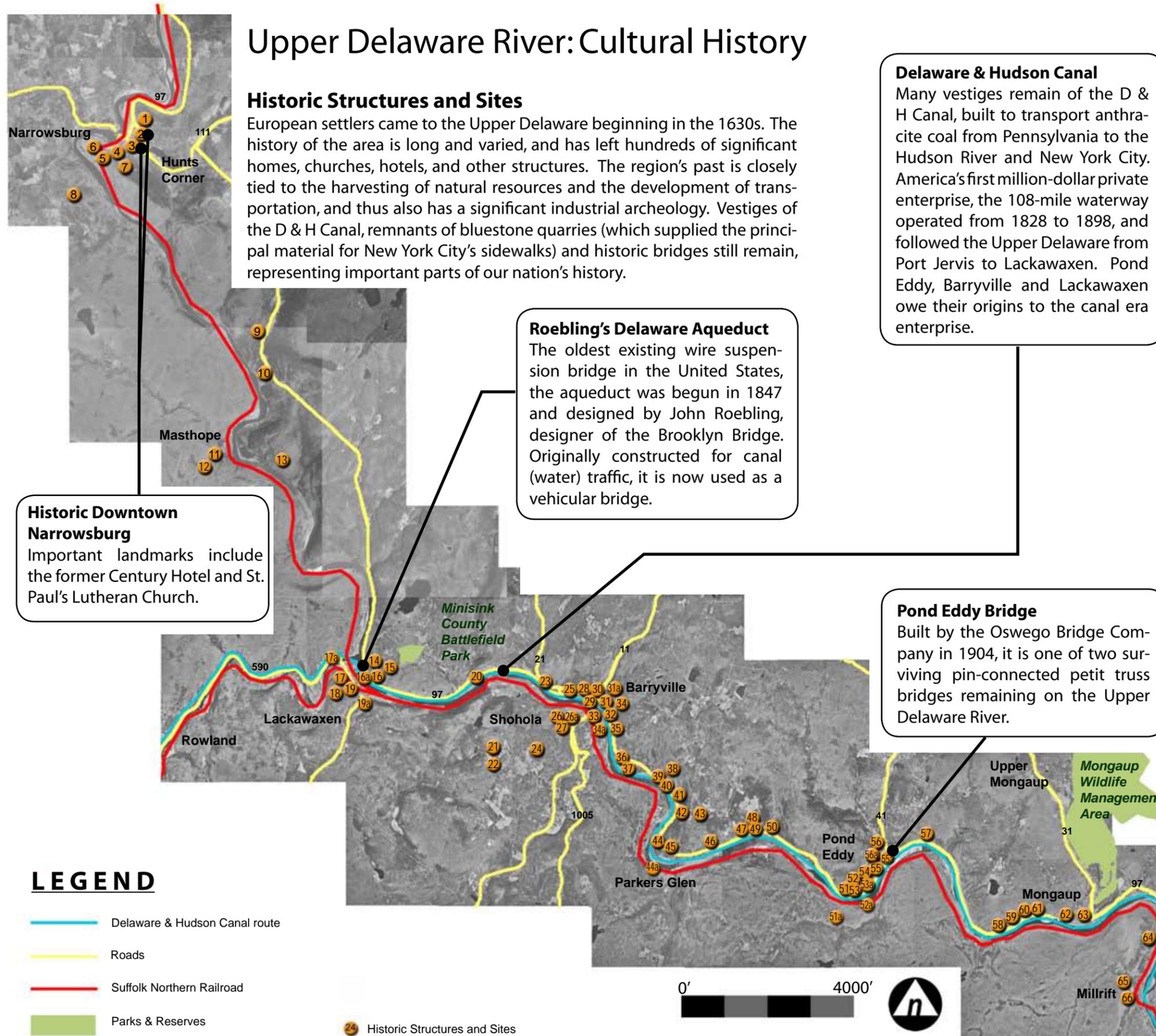
Many vestiges remain of the D & H Canal, built to transport anthracite coal from Pennsylvania to the Hudson River and New York City. America's first million-dollar private enterprise, the 108-mile waterway operated from 1828 to 1898, and followed the Upper Delaware from Port Jervis to Lackawaxen. Pond Eddy, Barryville and Lackawaxen owe their origins to the canal era enterprise.

### Historic Downtown Narrowsburg

Important landmarks include the former Century Hotel and St. Paul's Lutheran Church.

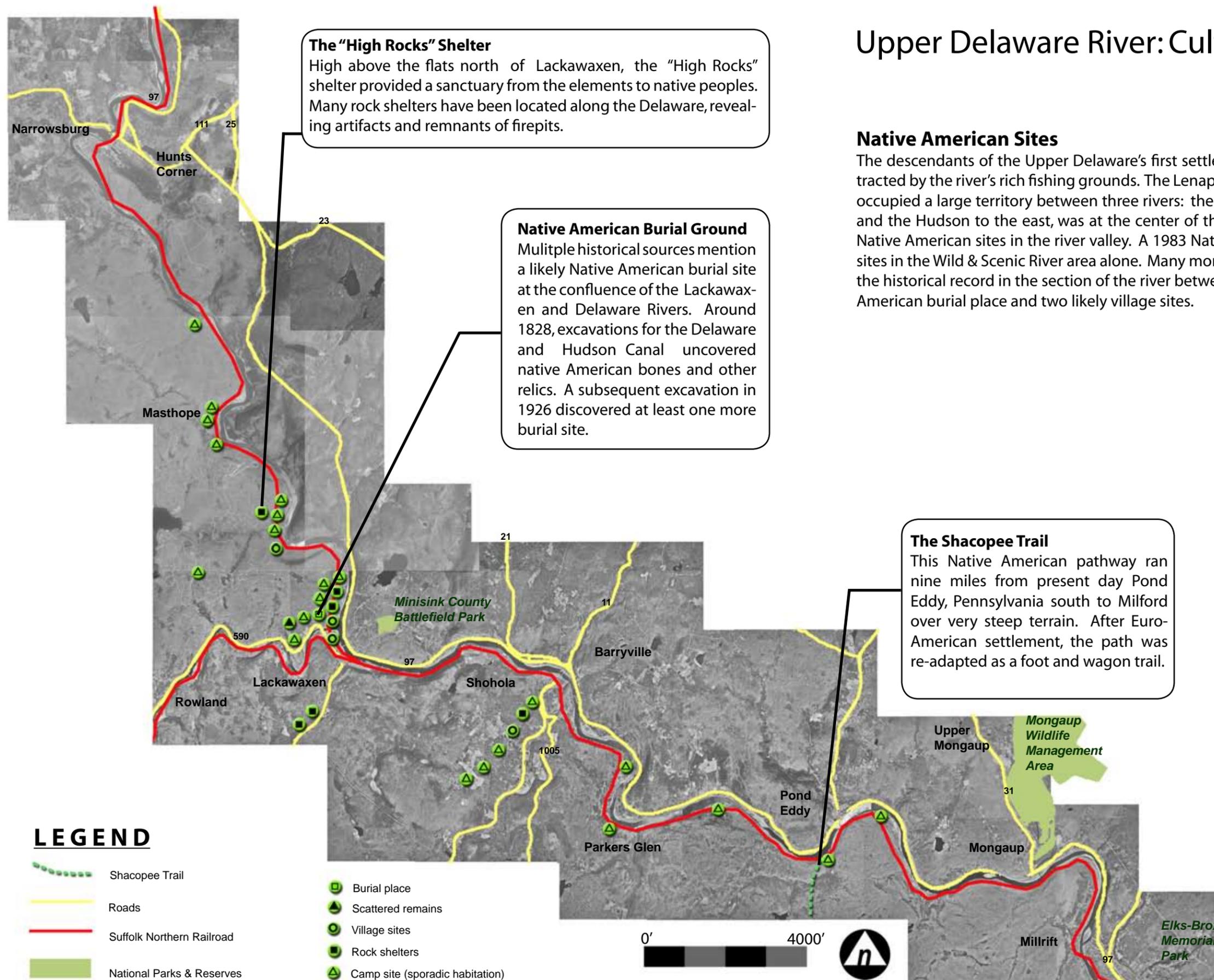
### Pond Eddy Bridge

Built by the Oswego Bridge Company in 1904, it is one of two surviving pin-connected petit truss bridges remaining on the Upper Delaware River.



|     | Closest Town  | Name                                   | Date if known  |
|-----|---------------|--|----------------|
| 1   | Narrowsburg   | M. Kirk House                          | 1840           |
| 2   | Narrowsburg   | Century Hotel                          | c. 1840s       |
| 3   | Narrowsburg   | St. Paul's Lutheran Church             | 1869           |
| 4   | Narrowsburg   | C & D Corner Service Station           | c. 1925-30     |
| 5   | Narrowsburg   | Erie RR Freight Depot                  | 1860           |
| 6   | Narrowsburg   | J & J Canoe Base and Restaurant        | c. 1859-64     |
| 7   | Narrowsburg   | United Methodist Church                | c. 1855        |
| 8   | Narrowsburg   | House                                  |                |
| 9   | Tusten        | Tusten Meeting House/Cemetary          | 1856           |
| 10  | Tusten        | Hankins House                          | 1845           |
| 11  | Masthope      | Masthope Plank House                   | c. 1848        |
| 12  | Masthope      | House                                  | c. 1840-50     |
| 13  | Tusten        | House                                  |                |
| 14  | Minisink Ford | D & H Company House                    | c. 1870-90     |
| 15  | Minisink Ford | House                                  |                |
| 16  | Minisink Ford | House                                  |                |
| 16a | Lackawaxen    | Roebling Aqueduct                      | 1904           |
| 17  | Lackawaxen    | Zane Grey Home                         | 1905           |
| 17a | Lackawaxen    | Erie Railroad Bridge                   | c. 1905        |
| 18  | Lackawaxen    | St. Mark's Church                      | 1848           |
| 19  | Lackawaxen    | D & H Company Office                   | c. 1855-60     |
| 19A | Lackawaxen    | St. Ann's Catholic Church              | 1864           |
| 20  | Minisink Ford | House                                  |                |
| 21  | Shohola       | Oelker/Ecker Boarding House            | 1890s          |
| 22  | Shohola       | Boarding House & Outbuildings          | 1850s          |
| 23  | Barryville    | Hansen House                           | c. 1835-40s    |
| 24  | Shohola       | St. Jacobi Evang. Luth. Church         | 1871           |
| 25  | Barryville    | Parker's Garage                        | c. 1930s       |
| 26  | Shohola       | Thomas-Gardner Store                   | 1849           |
| 26A | Shohola       | Rohman's Hotel                         | 1849           |
| 27  | Shohola       | House and Store                        | c. 1850-90s    |
| 28  | Barryville    | Methodist Episcopal Church             | 1902           |
| 29  | Barryville    | Riviera Theatre                        | 1850s          |
| 30  | Barryville    | Congregational Church                  | 1903           |
| 31  | Barryville    | Red's Garage                           | c. 1900-1910   |
| 31A | Barryville    | Worzeo House                           | c. 1880        |
| 32  | Barryville    | House                                  | c. 1875        |
| 32A | Barryville    | Old Barryville Town Hall               | 1867           |
| 32B | Barryville    | Lillian Wolff House                    | c. 1860        |
| 33  | Barryville    | Valley Brook Inn                       | c. 1875        |
| 34  | Barryville    | L.D. Fuller House                      | c. 1855        |
| 35  | Barryville    | Kerr House                             | c. 1865        |
| 36  | Barryville    | Johnson House                          | c. 1850s       |
| 37  | Barryville    | Johnson House Barn                     | c. 1900        |
| 38  | Handsome Eddy | Mrs. McPhilorny's House                | c. 1840-55     |
| 39  | Handsome Eddy | Corwin House                           | c. 1855        |
| 40  | Handsome Eddy | Corwin Barn                            | c. 1855        |
| 41  | Handsome Eddy | House                                  |                |
| 42  | Handsome Eddy | House                                  |                |
| 43  | Handsome Eddy | Hillside Gospel Chapel                 | 1893           |
| 44  | Handsome Eddy | House                                  |                |
| 44a | Parker's Glen | Historic Parker's Glen, PA             | c. 1800s       |
| 45  | Handsome Eddy | House                                  |                |
| 46  | Handsome Eddy | Wilson House                           | c. 1840        |
| 47  | Handsome Eddy | Van Tuyl Outbuilding                   | c. 18-1900s    |
| 48  | Handsome Eddy | Van Tuyl Farmhouse                     | c. 1840s       |
| 49  | Handsome Eddy | Van Tuyl Barn                          | 18-1900s       |
| 50  | Handsome Eddy | Donahue House                          | c. 1860s       |
| 51  | Pond Eddy     | (abandoned house)                      | c. 1850s       |
| 51a | Pond Eddy     | Bluestone Quarries                     | 1800s          |
| 52  | Pond Eddy     | Donald Kelly's House                   | c. 1850s       |
| 52a | Pond Eddy     | Historic Pond Eddy, PA                 | c. 1800s       |
| 53  | Pond Eddy     | Boarding House and Store               | 1893           |
| 53A | Pond Eddy     | Outbuilding                            | c. 1890s-1920s |
| 54  | Pond Eddy     | Nora Larson House                      | c. 1845-50     |
| 55  | Pond Eddy     | (abandoned house)                      | c. 1840s       |
| 55a | Pond Eddy     | Pond Eddy Bridge                       | c. 1904        |
| 56  | Pond Eddy     | Franciscan Fathers' Sacred Heart Chrch | c. 1910        |
| 56a | Pond Eddy     | Pond Eddy Methodist Church             | c. 1882        |
| 57  | Pond Eddy     | House                                  |                |
| 58  | Pond Eddy     | House                                  |                |
| 59  | Pond Eddy     | House                                  |                |
| 60  | Knight's Eddy | S.B. Farnham House                     |                |
| 61  | Mongaup       | E. Dee's Log Cabin                     | c. 1830-50     |
| 62  | Mongaup       | House                                  |                |
| 63  | Mongaup       | House                                  |                |
| 64  | Millrift      | Nearpass-Knickerbocker House           | c. 1815-20     |
| 65  | Millrift      | Millrift Schoolhouse                   |                |
| 66  | Millrift      | Millrift Museum                        | c. 1905        |

# Upper Delaware River: Cultural History



**The "High Rocks" Shelter**  
 High above the flats north of Lackawaxen, the "High Rocks" shelter provided a sanctuary from the elements to native peoples. Many rock shelters have been located along the Delaware, revealing artifacts and remnants of firepits.

**Native American Burial Ground**  
 Multiple historical sources mention a likely Native American burial site at the confluence of the Lackawaxen and Delaware Rivers. Around 1828, excavations for the Delaware and Hudson Canal uncovered native American bones and other relics. A subsequent excavation in 1926 discovered at least one more burial site.

**The Shacopee Trail**  
 This Native American pathway ran nine miles from present day Pond Eddy, Pennsylvania south to Milford over very steep terrain. After Euro-American settlement, the path was re-adapted as a foot and wagon trail.

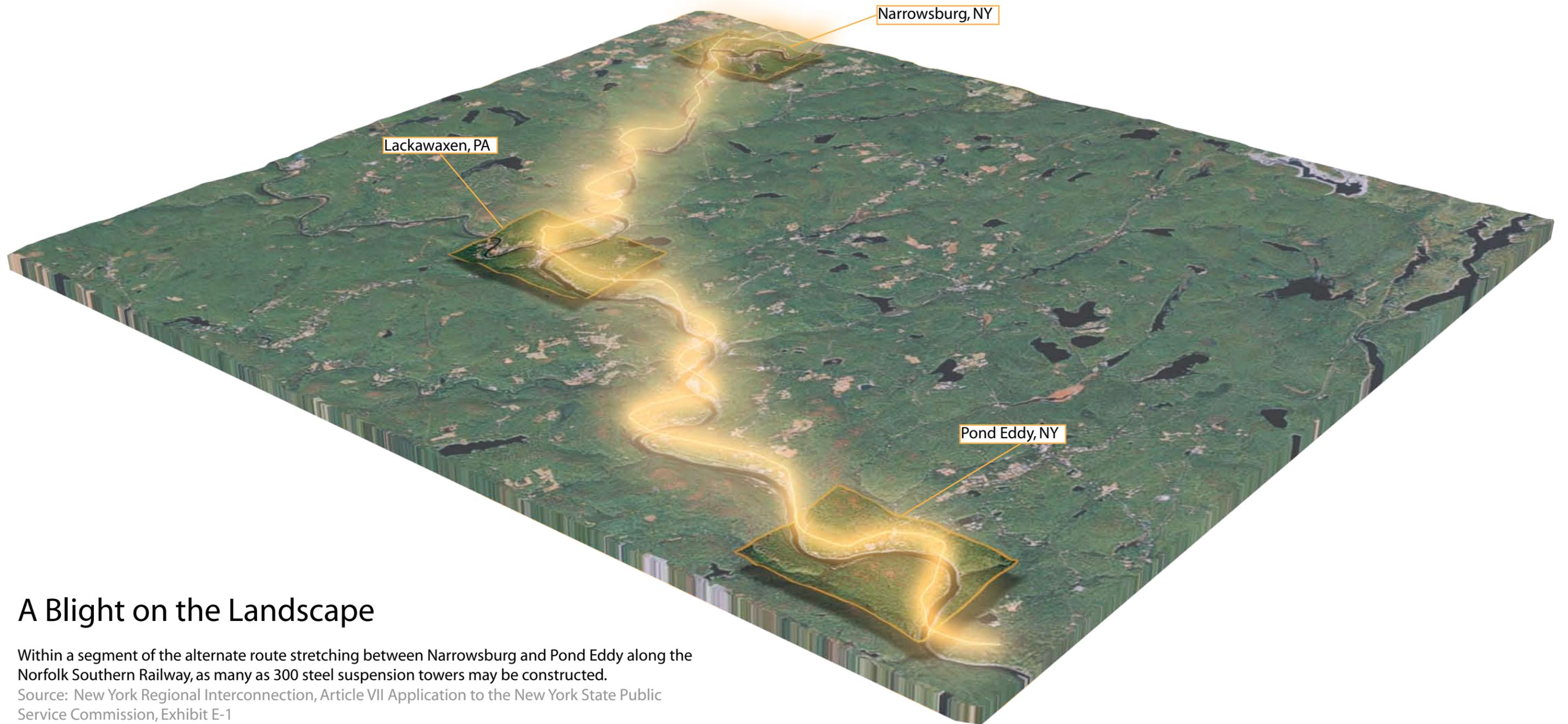
**Native American Sites**  
 The descendants of the Upper Delaware's first settlers occupied alluvial flatlands and rock outcroppings, attracted by the river's rich fishing grounds. The Lenape, or Delawares, as they were known by European settlers, occupied a large territory between three rivers: the Delaware River, flanked by the Susquehanna to the west and the Hudson to the east, was at the center of this territory. Historical records reveal a veritable trove of Native American sites in the river valley. A 1983 National Park Service study revealed upwards of 400 known sites in the Wild & Scenic River area alone. Many more may lie undiscovered. Our study area lists some sites in the historical record in the section of the river between Narrowsburg and Pond Eddy including a likely Native American burial place and two likely village sites.

**Mapping Source for Native American Sites:**

- Schrabisch, Max. *Archeology of Delaware River Valley*. Harrisburg: Commonwealth of Pennsylvania, 1930.

**Mapping Sources for Historic Structures Inventory:**

- Schwarz, Frank. (Lumberland Town Historian) *The Berne Church Historical Trail*. (Pamphlet)
- Upper Delaware National Scenic and Recreational River:



## A Blight on the Landscape

Within a segment of the alternate route stretching between Narrowsburg and Pond Eddy along the Norfolk Southern Railway, as many as 300 steel suspension towers may be constructed.

Source: New York Regional Interconnection, Article VII Application to the New York State Public Service Commission, Exhibit E-1



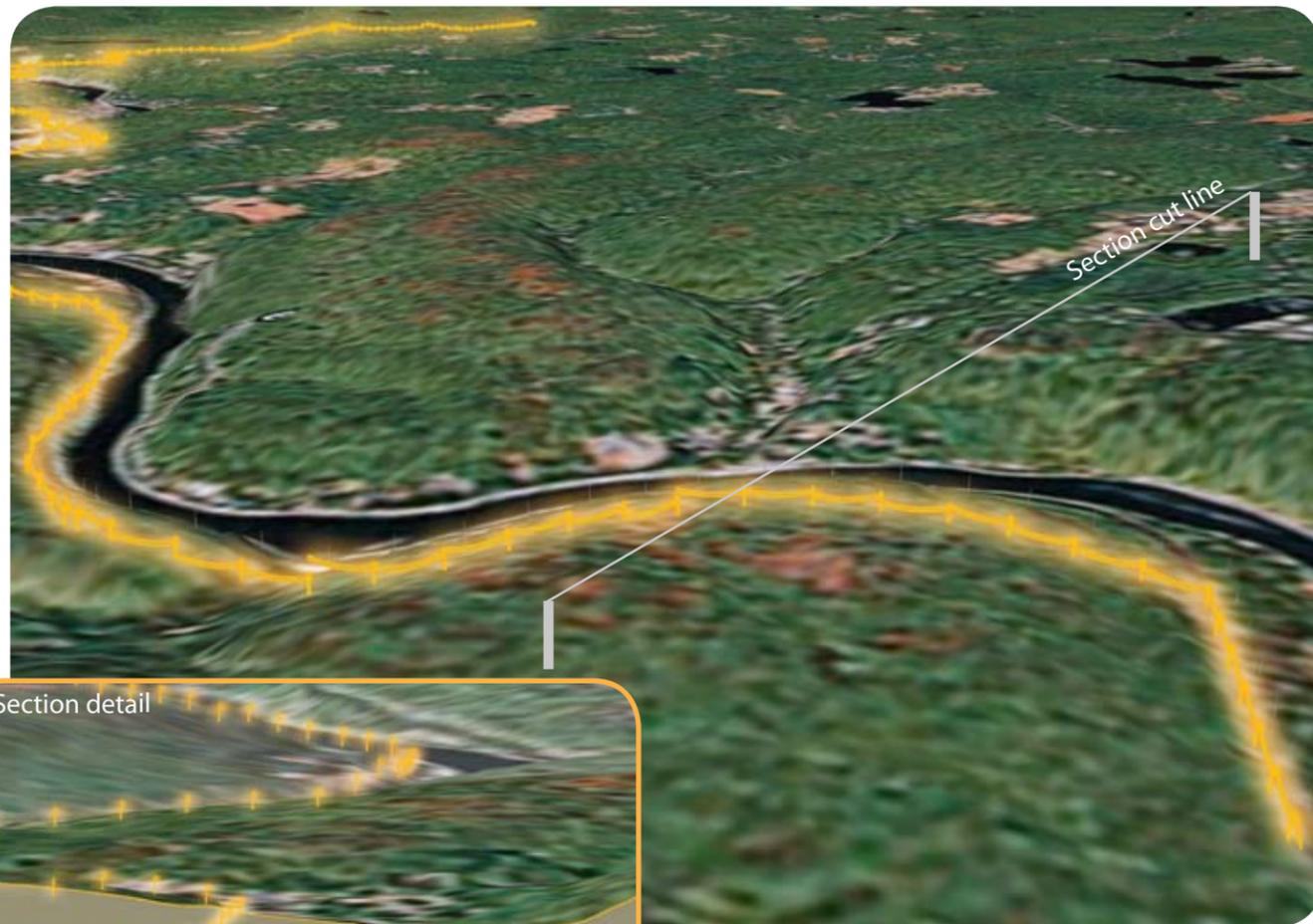
## Pond Eddy, NY Local Scale and View Impacts



Plan View, Narrowsburg to Pond Eddy



Pond Eddy showing potential route highlighted  
Views indicated at lower right



Aerial view of Pond Eddy with section inset at left



View above Pond Eddy looking west with high voltage power line superimposed, highlighted

## Endangered Views

Located by number on plan view at upper left



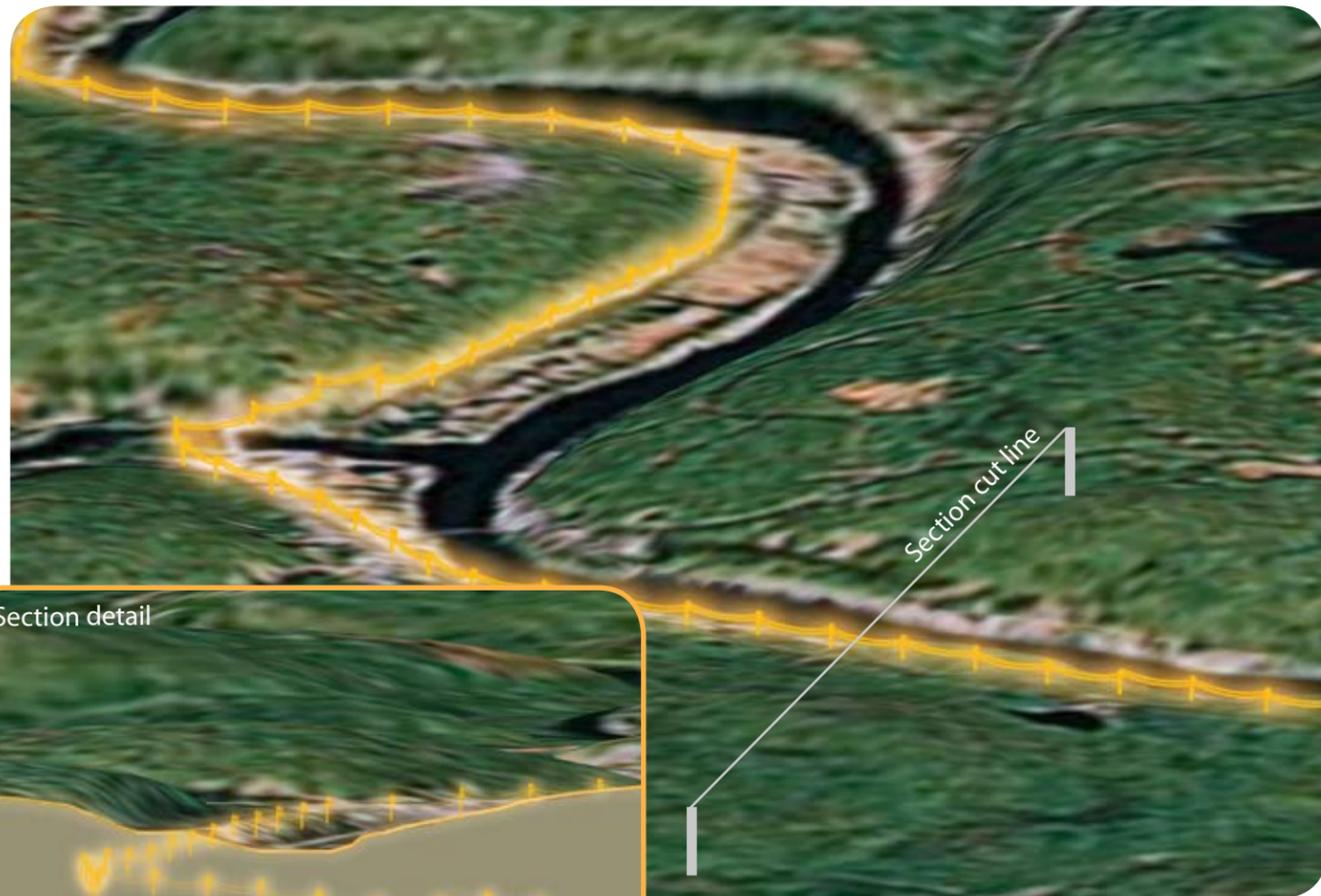
Lackawaxen, PA  
Local Scale and View Impacts



Plan View, Narrowsburg to Pond Eddy



Lackawaxen showing potential route highlighted  
Views indicated at lower right



Section detail

Aerial view of Lackawaxen with section inset at left



View at Roebing Aqueduct with high voltage power line superimposed, highlighted

Endangered Views

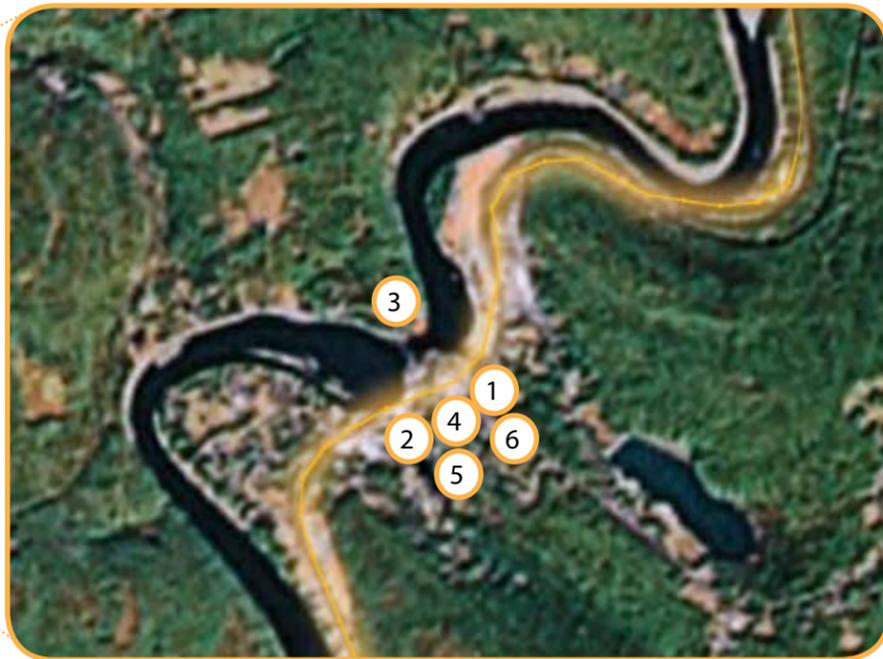
Located by number on plan view at upper left



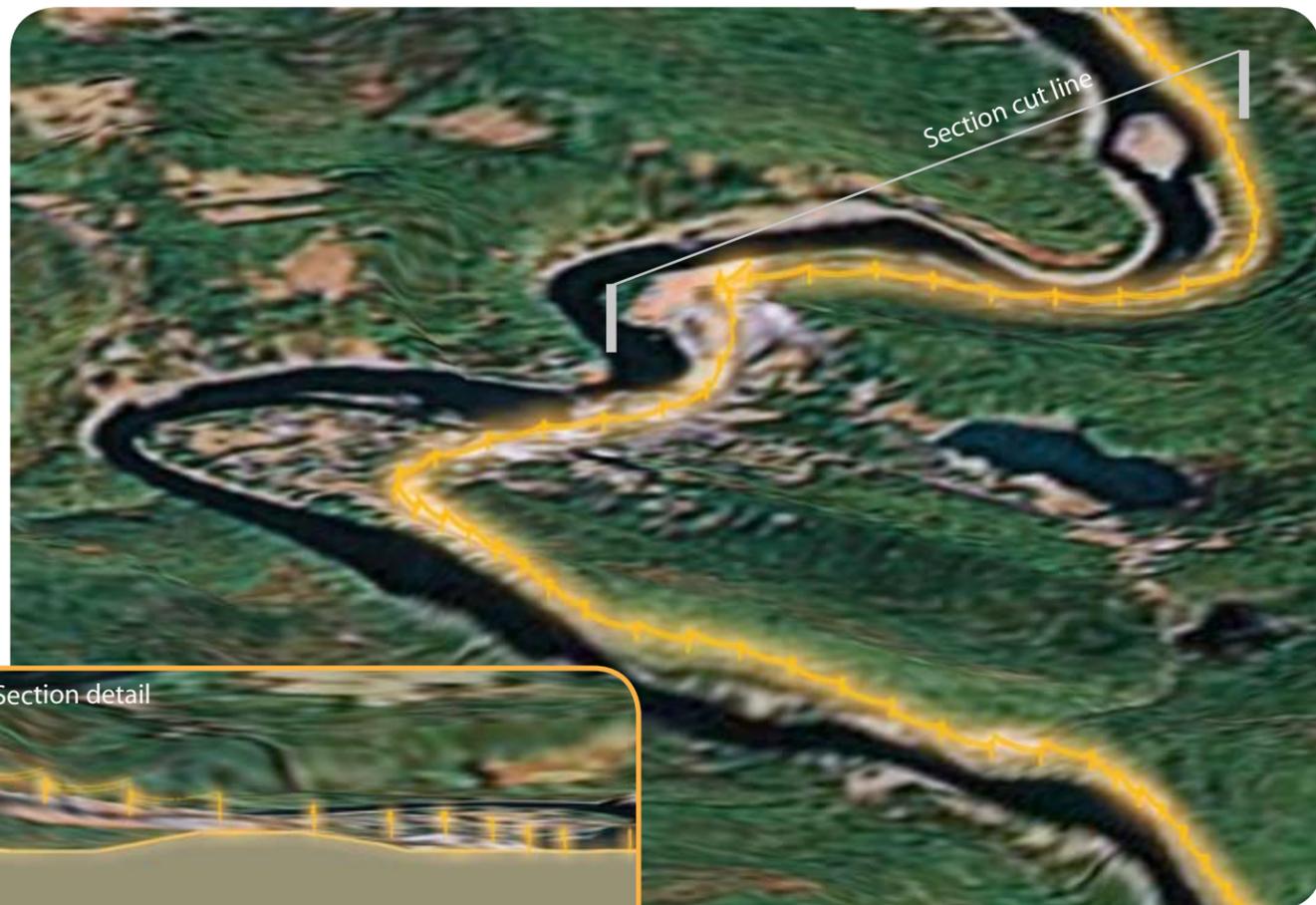
## Narrowsburg, NY Local Scale and View Impacts



Plan View, Narrowsburg to Pond Eddy



Narrowsburg showing potential route highlighted  
Views indicated at lower right



Aerial view of Pond Eddy with section inset at left



Section detail



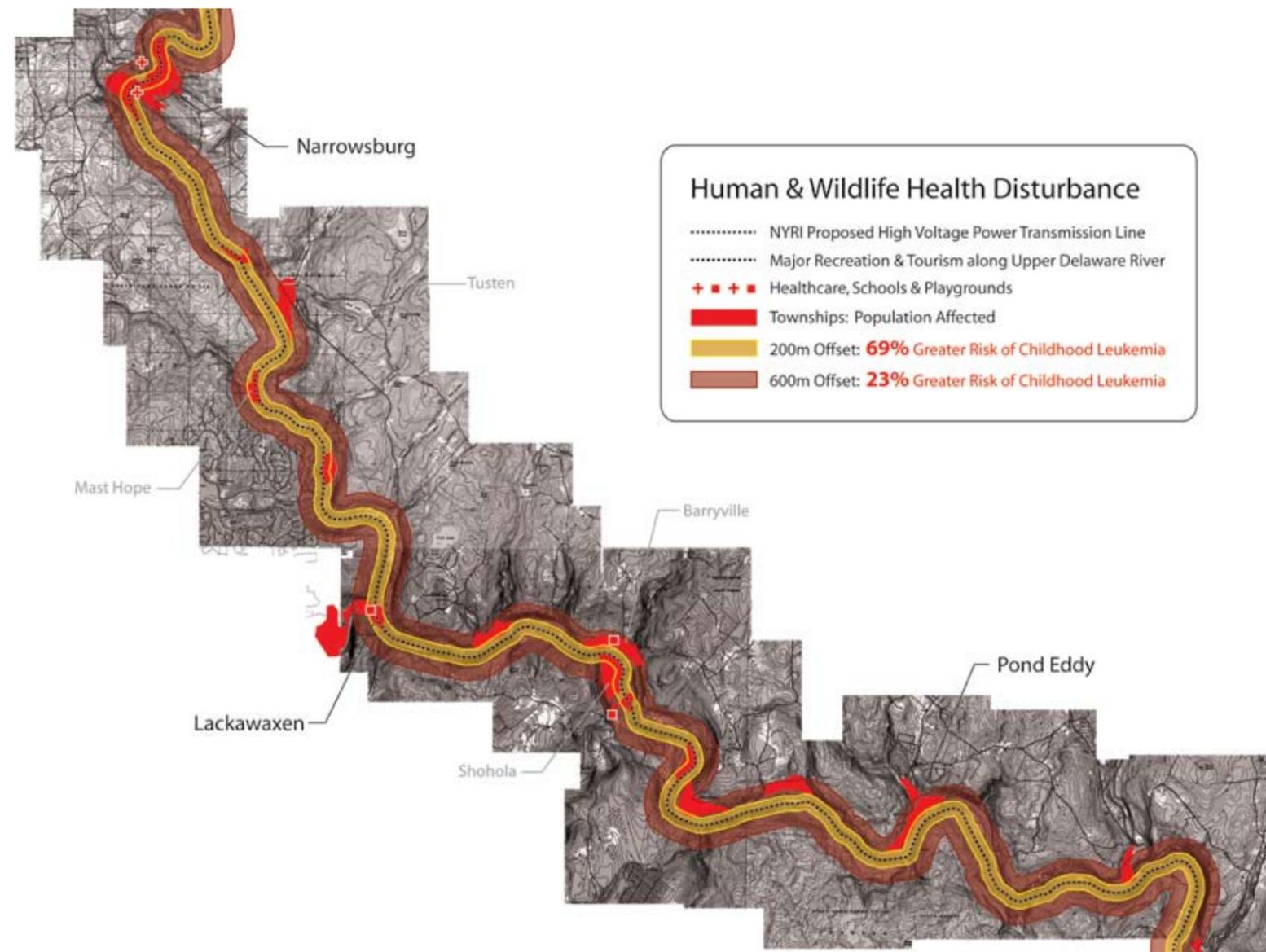
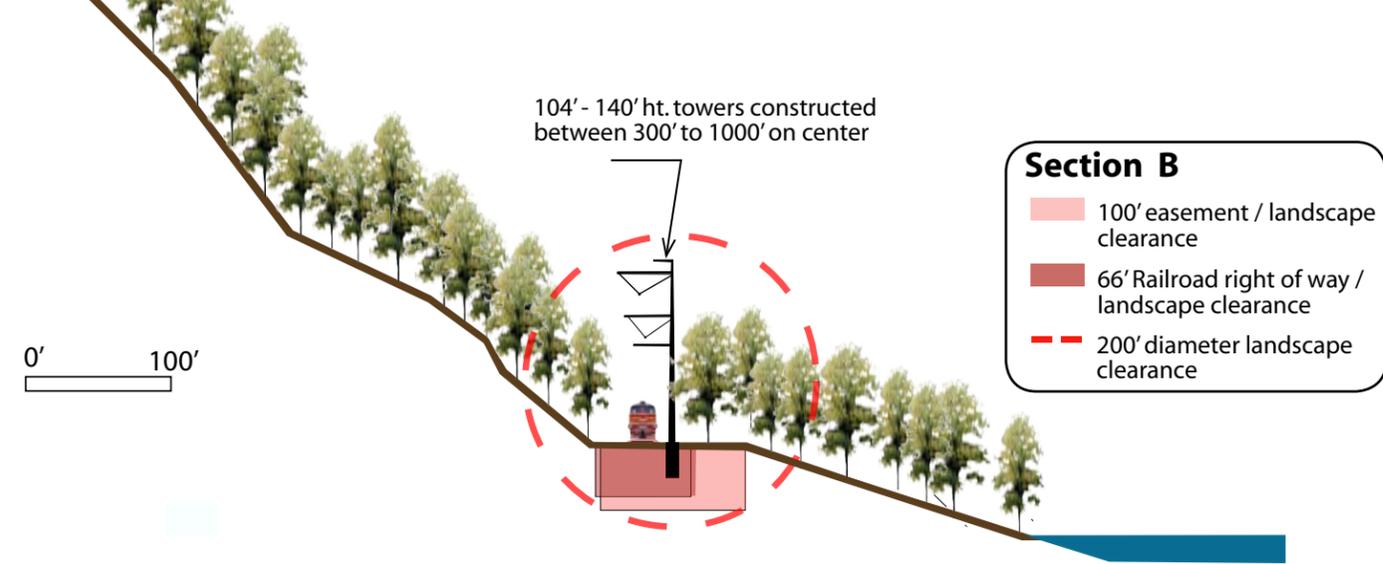
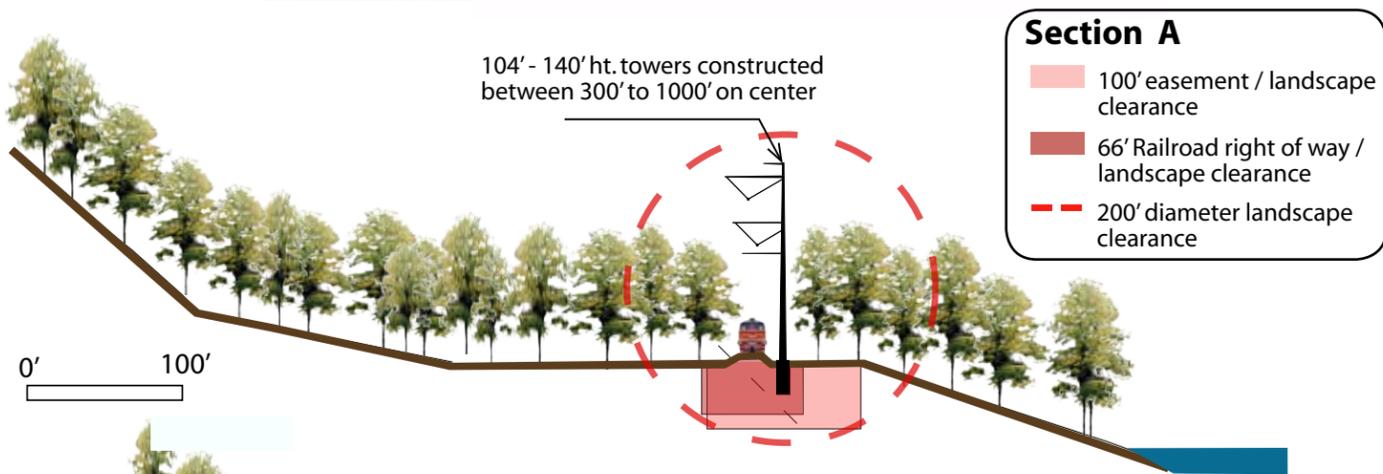
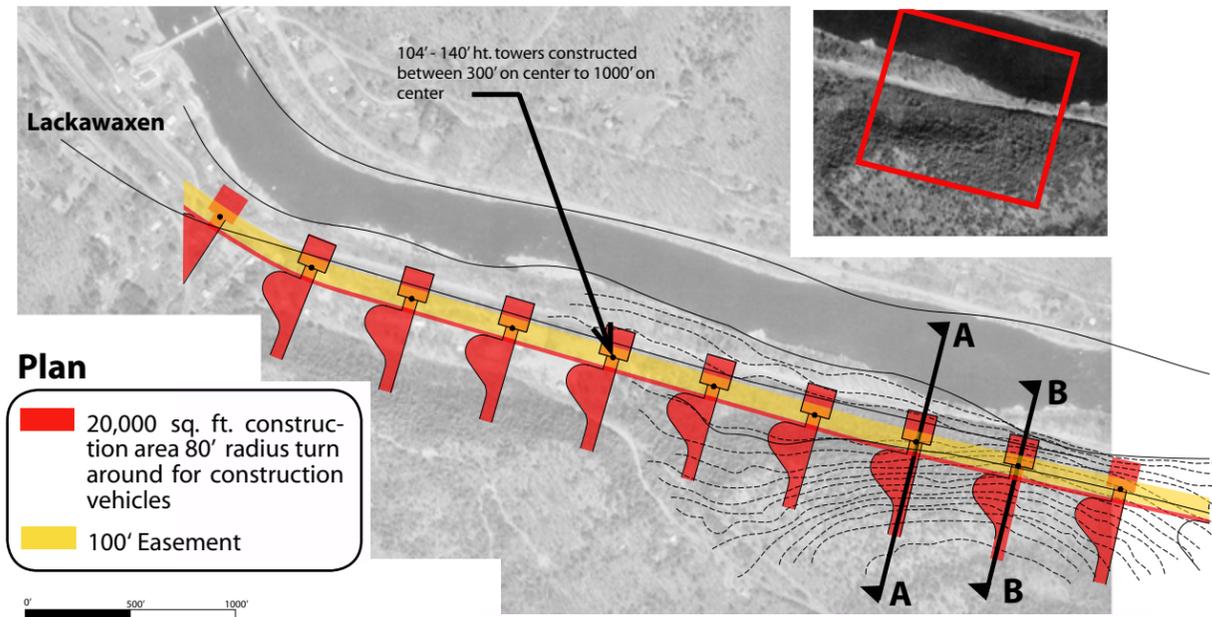
View along Main Street in Narrowsburg with high voltage power line superimposed, highlighted

## Endangered Views

Located by number on plan view at upper left



# Construction Disturbance Mapping

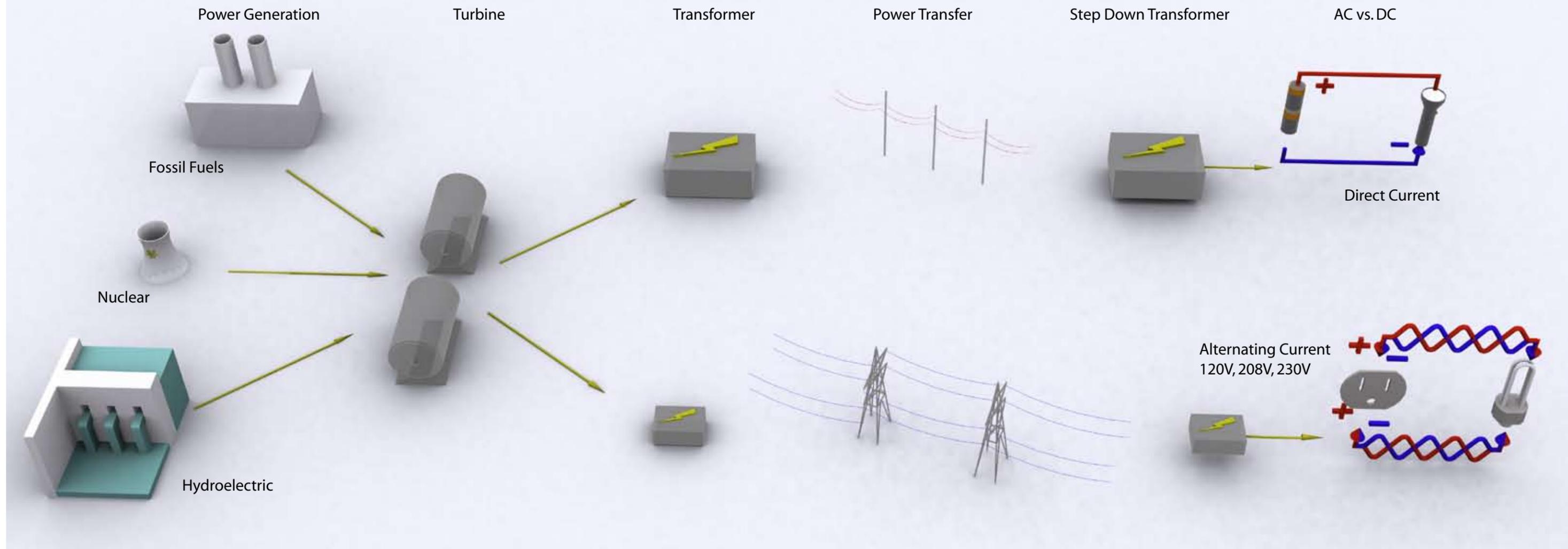


## Power Transmission Lines & Health

High-voltage power lines generate electromagnetic fields and cannot be proven absolutely safe. In 1979, Nancy Wertheimer of the University of Colorado found that proximity to power lines correlated with an excess of childhood leukemia. There has been an ongoing debate in the scientific community

as to whether the magnetic fields produced by overhead lines have ill effects on human health, but a 2005 study in the British Medical Journal indicates that children living within 600 meters of a high-voltage line had a 23% higher risk of leukemia, and those within 200 meters had a 69% greater risk. The

map above shows the two different "risk zones" of 200m and 600m away from the proposed siting of the NYRI power line along the railroad in Narrowsburg, New York Lackawaxen, Pennsylvania, and Pond Eddy, Pennsylvania.



## How We Power Our Lives

Every day, we go about our lives with relative ease thanks to a plethora of modern amenities. Lights, computers, and air conditioning are used daily without much thought about the real costs of generating and transmitting the required power. In order to fully understand the impact of power lines it is important to understand this process.

### Electric Power Process

The majority of the New York region's power is derived from three main production sources: fossil fuels, nuclear power, and hydroelectric generation (dams). All of these processes rely on spinning large turbines, which generate electrical current. Next, transformers convert that current into a suitable voltage for long-distance transmission. After traveling over transmission

lines, the high voltage power must be "stepped down" through a series of power substations and voltage boxes to meet industry standard 120V-240V Alternating Current.

### HVDC Current: The Good the Bad and the (Very) Ugly

High Voltage Direct Current (HVDC) has established itself as the method of choice for long distance transportation of electricity.

While the efficiency of Direct Current (DC) is good, the majority of the world's electric devices utilize Alternating Current (AC) power. As a consequence, large and unsightly voltage stations are required just to make the electricity usable. With cheap energy being produced far away from its main users in urban areas, transmission lines have become a ubiquitous fixture in the landscape. Usually, they are paraded through the most economi-

cally efficient pathway (i.e. through cheap land) instead of the most ecologically non-invasive one. The question then becomes: Why should this power be produced so far away?

In addition to power lines, power stations required for HVDC (direct current) are significantly larger than those required by their HVAC (alternating current) counterparts.

### Quick Facts

HVDC is only economical for distances over 189 miles and voltages more than 20 MW. The proposed NYRI line is only 185 miles long.

HVDC requires larger transformer stations to step up and step down voltage.

The majority of common electrical products use AC not DC.

HVAC would use 10% less copper and has less power loss by reducing voltage transformation

# Is NYRI Necessary?

Heading Off New York's Energy Crunch is a self-titled overview provided by New York Regional Interconnection to promote the benefits of transmission as an enabling infrastructure in New York State's power system. Perhaps more importantly, it seeks to establish that transmission is a key element in any long range energy strategy for the United States. (Source: NYRI Overview, Heading Off New York's Energy Crunch, May 2006.)

NYRI posits there are three necessary actions that will promote a power supply to sustain and promote continued growth and prosperity for New York State:

## Reduce Demand

NYRI describes reducing demand as an environmentally responsible element of any comprehensive energy strategy. However, the company states it is doubtful that additional improvements over those seen in the last 15 to 20 years in the efficiency of household and commercial electrical equipment will yield much more in the way of benefits. Instead, NYRI contends current and future developments in technology will make increased demands on our power supply.

## Create New Generation

NYRI states that new generation cannot be a sole solution. New generation alone would necessarily need to be close to the area of demand and therefore near densely populated urban areas, which could exacerbate land use and environmental concerns.

## Expand Capacity

NYRI states adding new capacity to the bulk power transmission system will tackle one of the root causes of the power crunch currently facing New York. According to NYRI, adding new transmission capacity would allow existing surplus power in the northern, central and western regions of New York State to reach high demand markets in the lower Hudson Valley and the southeast.

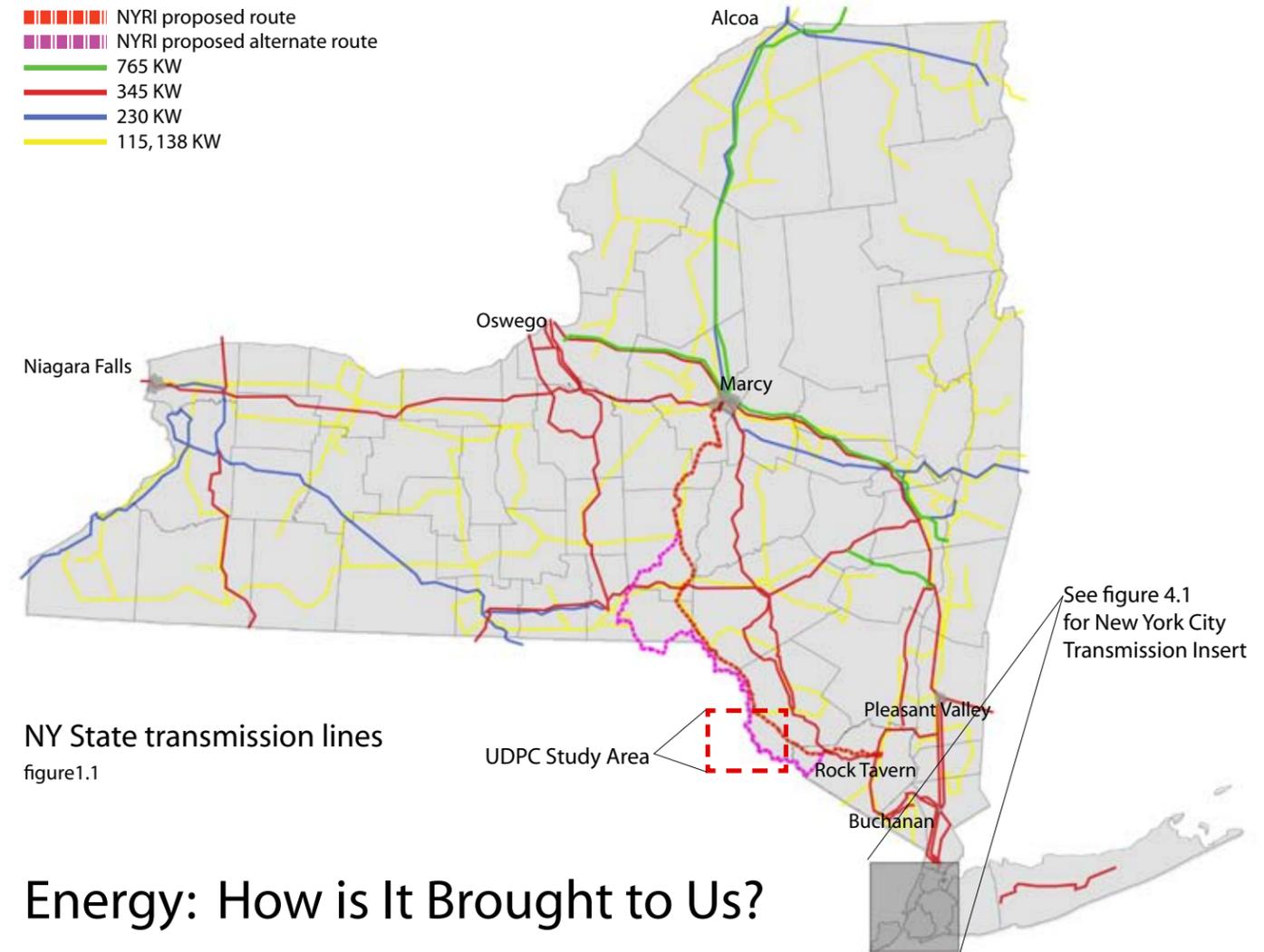
NYRI asserts a new transmission line will:

- Alleviate transmission bottlenecks that are responsible for high costs and adversely impact air quality in New York State.
- Reduce congestion, which will encourage investment in generation of electricity from renewable sources located upstate.
- Reduce New York State's overall energy costs.
- Reduce emission of greenhouse gases
- Provide the most cost-effective way to meet growing demand without constructing new plants within urban areas.

North America's electric system is facing challenges. There are major questions about how to allow a reliable, secure and affordable electric system to grow and prosper. It is important to understand how we situate ourselves in these challenges. What innovations might revolutionize the system while being low impact and respectful to our collective sense of significant and varied cultural and natural resources and values.

In May 2000, New York became the first state to offer incentive packages to developers who build environmentally sound commercial and apartment buildings. This innovative tax law is aimed at encouraging the housing materials and construction industries to adopt green practices on a large scale by providing tax credits to building owners and tenants who invest in increased energy efficiency, recycled and recyclable materials and improved indoor air quality. Residential and commercial buildings account for 37% of the energy consumed in the U.S. each year (primarily in the form of electricity). Making buildings more environmentally sound is a key step toward moving America's energy policy in a sustainable direction. It has the potential to set off a chain reaction through the building industry (Natural Resources Defense Council - New York's Green Building Tax Credit.)

Programs like these offer alternative solutions to large-scale transmission projects like NYRI. What else can be discovered when the entire system is considered?



# Energy: How is It Brought to Us?

The energy infrastructure for the United States is comprised of many components: a physical network of pipes for oil and natural gas, electricity transmission lines and other alternative means. There are:

- Approx. 5,000 power plants in the US
- Approx. 204,000 miles of transmission lines in North America (157,810 miles in the US, see figure 2.1)
- Over 16,000 generators with over 800,00 MW generating capacity.

When the National Energy Policy was drafted in 2001, there were plans for the electric transmission capacity to increase by 4% (equating to around 7,000 miles of power

lines over the next ten years.) That policy recognizes that more electricity is being shipped longer distances over a transmission system that was initially designed only to provide limited power and reserve sharing among neighboring communities (National Energy Policy, Chapter 7, 2001).

## Why the change?

For over a century, electric utilities in the United States were vertically integrated monopoly providers. Utilities were regulated by state public service commissions on a cost-of-service basis. The

four steps of providing electricity (generation, transmission, distribution and retail sales) were centrally managed. By the late 1980s, there was growing political enthusiasm for free energy markets. The idea that electric utilities should be deregulated and face competition was a major issue. The concept was to treat electricity not as a public good, but as a commodity provided by competitive business, resulting in lower rates for consumers. The system has since increasingly separated into three isolated segments: generation, transmission and distribution. (Source: A Failed Experiment, March 2007, Tellus Institute)

# Who is Minding the Store?

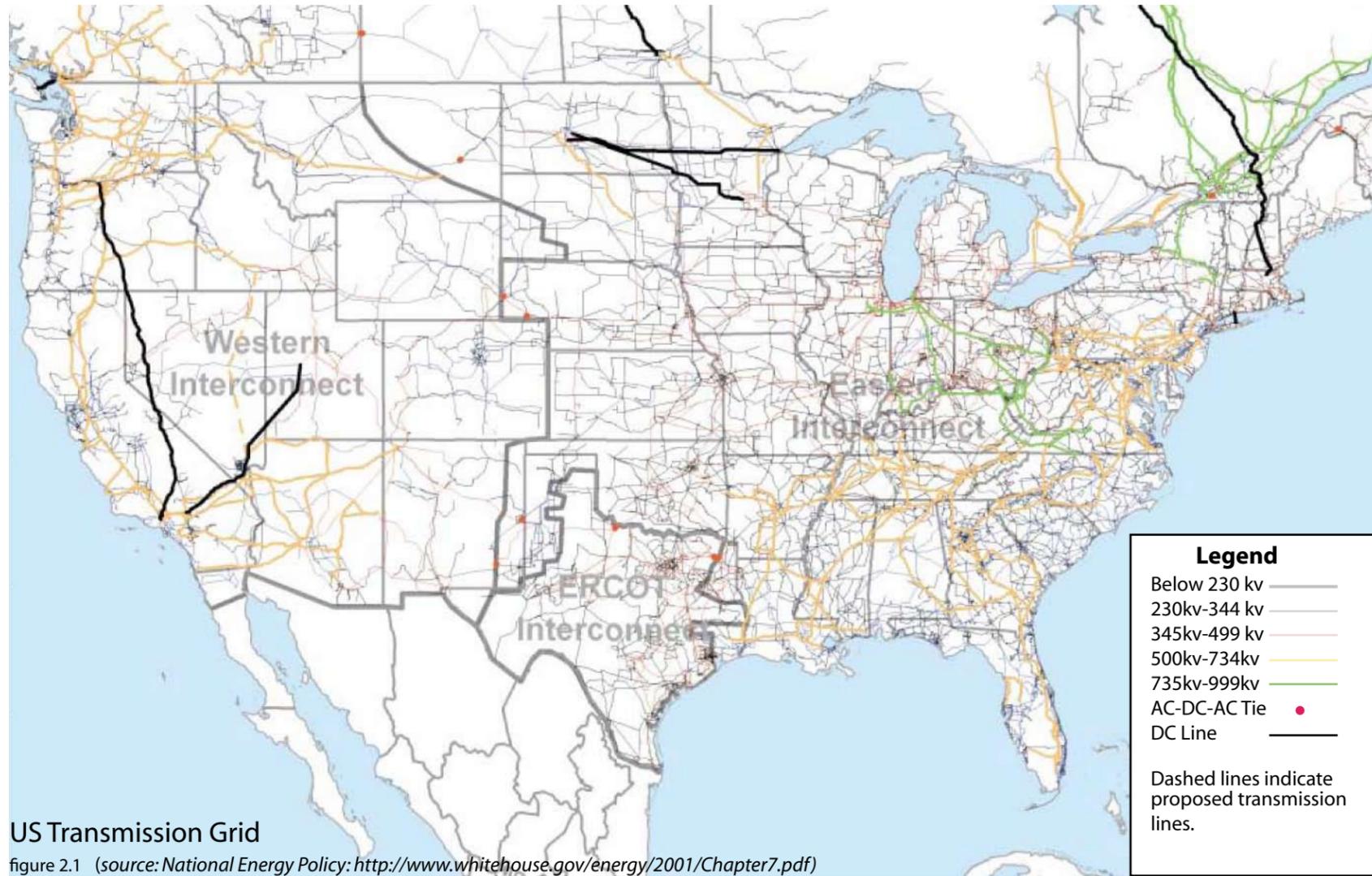
In 1996, to facilitate competition at the wholesale level, the Federal Energy Regulatory Commission (FERC) required transmission-owning utilities to “unbundle” their transmission and power-marketing functions, in order to provide nondiscriminatory, open access to their transmission systems by other utilities and independent power producers. Some states have required utilities to divest their generation assets as a part of restructuring.

These utilities currently supply only transmission and distribution service for customers who purchase electricity from other firms. Power marketers buy and sell power on wholesale markets and market electricity directly to customers.

*(Source: National Energy Policy, 2001)*

Currently, the North American transmission grid is not unified. It is comprised of four integrated transmission grids serving North America: Western Interconnection, Eastern Interconnection, Electric Reliability Council of Texas, and the Province of Quebec *(Source: PA consulting Group)*.

For all intents and purposes, these form four different grids. Transactions between them are limited because they are connected at only a few locations through interties. These break down into smaller regions (see figure 2.2) that are defined by transmission constraints. Overall reliability planning and coordination is provided

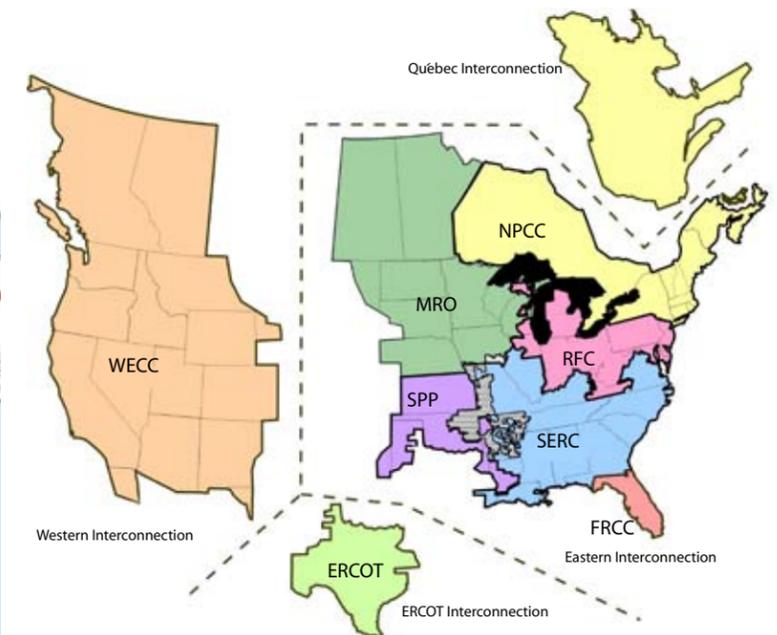


**US Transmission Grid**

figure 2.1 *(source: National Energy Policy: <http://www.whitehouse.gov/energy/2001/Chapter7.pdf>)*

by the North American Electric Reliability Council (NERC), which was formed in 1968 in response to the 1965 Northeast Blackout. NERC’s stated purpose is to improve the reliability and security of the bulk power system for North America by developing and enforcing reliability standards; monitoring the bulk power system; assessing future adequacy; auditing owners, operators, users for preparedness; and educating and training industry personnel.

**W**hile this may seem to indicate multiple layers of oversight, the National Energy Policy indicated the lack of enforceable reliability standards is also a critical issue. There is a need for appropriate regulatory oversight to minimize potential abuse of the market power established by deregulation.



**NERC Interconnections**

figure 2.2

The transmission grid in the United States is not a national unified grid. It is made up of four integrated transmission grids serving North America: Western Interconnection, Eastern Interconnection, Electric Reliability Council of Texas, and the Province of Quebec (see US Transmission Grid, figure 2.1). NERC (North American Electric Reliability Corporation) is a voluntary, self-regulatory non-profit organization whose members include utilities, transmission owners, providers, non-utility generators, power marketers, transmission customers, independent system operators (ISO) and the New York State Reliability Council. It works with eight Regional Reliability Councils to improve the reliability of the bulk power system. The councils are: Electric Reliability Council of Texas, Inc. (ERCOT), Florida Reliability Coordinating Council (FRCC), Midwest Reliability Council (MRO), Northeast Power Coordinating Council (NPCC), Reliability First Corporation (RFC), SERC Reliability Corporation (SERC), Southwest Power Pool, Inc. (SPP) and Western Electricity Coordinating Council (WECC). NERC is subject to audit by U.S. Federal Energy Regulation Commission (FERC). *(source: <http://www.nerc.com/>)*

## National Energy Policy

At the beginning of 2001, President Bush directed his newly formed National Energy Policy Development Group “to develop a national energy policy to help private sector [and as necessary state and local governments] promote dependable, affordable and environmentally sound production and distribution of energy for the future.” NEPDG issued a report to the President in May of 2001, which was soon after used as a basis for an energy bill passed by the House and executive orders signed by the President.

Subsequent groups have identified the key role of the energy policy as supporting economic growth by encouraging the provision of affordable, efficient and reliable energy services to the energy users. One such group, the National Energy Policy Initiative, states, “new energy technologies should be developed in response to market demand, not in response to politically driven preferences for particular fuels, industries or technologies.” *(Source: [www.nepinitiative.org](http://www.nepinitiative.org))*. Yet it is telling that the initial directive lists *business* as a primary recipient.

## Transmission Constraints: *The Appeal at the National Level*

Chapter Seven of the National Energy Policy (America's Energy Infrastructure, a Comprehensive Delivery System) recognizes that the combined effect of regional shortages of generating capacity and transmission constraints reduces the overall reliability of the electric supply. Moreover, this effect reduces the quality of the power provided to end users.

Other than noting there have been a large number of "merchant" power plant proposals by independent power producers to sell energy in the wholesale market in the last few years, issues with transmission draw more attention from the policy.

The NEP suggests that in a given region, transmission can substitute for generation, allowing regions to import power that otherwise would need to be generated with-

in the region. The NEP follows with the idea that transmission expansion may be more cost effective than generation additions, allowing regions better access to lower-cost generation. This commentary leads to the idea that transmission constraints are a main cause of limiting the power flows which result in consumers paying higher prices for electricity.

The NEP states that transmission constraints exist because there is a lack of sufficient investment in transmission and there continue to be issues with siting the transmission lines. The NEP offers two means to address these issues:

First, FERC is willing to consider innovative transmission pricing proposals to create incentives for investment by companies who operate transmission facilities.

Siting, the second issue, is currently under state oversight. The NEP indicates that it has national implications. One focus is to direct the development of legislation to grant authority to obtain rights-of-way for electricity transmission lines with the goal of creating a reliable national transmission grid. These types of measures imply a political preference towards transmission.

*The Federal Energy Regulatory Commission (FERC) is an independent agency that regulates the interstate transmission of electricity. In 2005, the Energy Policy Act expanded the authority of FERC to:*

- oversee the reliability of the nation's electricity transmission grid
- implement tools, including penalty authority, to prevent market manipulation
- provide rate incentives to promote electric transmission investment
- supplement state transmission siting efforts in NIETCs.
- review holding company mergers and acquisitions and public utility acquisitions of generating facilities.

### DOE Congestion Report

In August 2006, the Department of Energy authored a congestion study suggesting that if a geographic area experiences electric energy transmission capacity constraints or congestion that adversely affects consumers, then that area can be deemed a National Interest Electric Transmission Corridor (NIETC), which gives private companies the right to seize property and site transmission lines over state and local objections.

Does this allow private corporations too much leeway in determining what is in the public good? Should there be a greater focus on sustainability and reliable efficiency within the network of generation, transmission and distribution?



**Constraints in NY Region**  
(Source NYSIO, Department of Energy Congestion Study 2006)  
figure 3.1

## Disagreements: *Applications Not Yet Balanced*

### A Failed Experiment

An article from the Tellus Institute, *A Failed Experiment, Why Electricity Deregulation Did not Work and Could not Work* (March 2007), describes the purposes of deregulation for the electric utility industry and some of its recent effects. Deregulation was expected to deliver lower rates, and better efficiency but has it really just led to new opportunities for profit without regard for the public interest?

The electricity grid was built to connect neighbor to neighbor, not move large blocks of power from one region to another. In a market-driven industry, electricity suppliers want a wide market to maximize profits. This encourages building more transmission lines that can lead to excessive construction or congestion of existing lines, neither of which are economically beneficial overall.

Under what is called "least cost planning," there is a certain level of transmission that is optimal; exceeding the amount is inefficient and not cost-effective. The Tellus Institute contends that what is often called a decline in transmission infrastructure may in fact be an inappropriate use of the existing infrastructure. The principal concern raised by the Tellus Institute is over reliance on the idea of the "market." All markets behave similarly: If supply is tight, then prices are higher for the demand market. In the case of electricity, this can lead to market manipulation through strategic bidding (bidding the price above a competitive level which is in the interest of the generation owners) or capacity withholding.

### Capacity to Play the Market?

Con Edison recently filed papers with FERC that stated manipulation of a wholesale electricity market cost New York consumers approximately \$157 million in the summer of 2006. The New York Independent System Operator (NYISO), with FERC approval, created an "installed capacity auction market" allowing companies serving consumer demand to purchase electricity for a capped rate. It pays all sellers of the electricity the same price. If the seller withholds capacity, it can constrain supply and raise the price of the other

segments of its output. The inflated price of the cap can outweigh the loss from the capacity withheld.

When capacity was added in the New York City market in the summer of 2006, there was an expectation that this cap would be reduced. However, it was not because market rules allow for withholding of capacity to drive up prices. NYISO has no way to prevent withholding of capacity, and there is no effective review of "market-based rates" in place. Also, there is no way for consumers to recover any overcharges. (*Public Utility Law Project of New York is a consumer advocacy group in utility and energy related matters.*)

This issue demonstrates the disagreements concerning rate caps and withholding between generation and transmission owners in the New York City area. More importantly, it illustrates a redundancy inherent in the electricity supply system for the state. It also indicates that the regulatory framework is providing a stable environment neither for the energy business nor for environmental and consumer protection. FERC regulates interstate wholesale markets. State and local agencies regulate retail markets. The regulatory framework governing electric power markets is clearly under stress. Efforts to loosen regulation and increase competition are not producing the anticipated results and stated goals.

Transmission issues are exacerbated by multiple players who are only concerned with their piece of the industry. Evidence of companies engaging in capacity withholding and overloading capacity to create the impression of constraints demonstrate that "transmission corridors" are not necessarily the national interest, but are clearly in the interest of private companies.

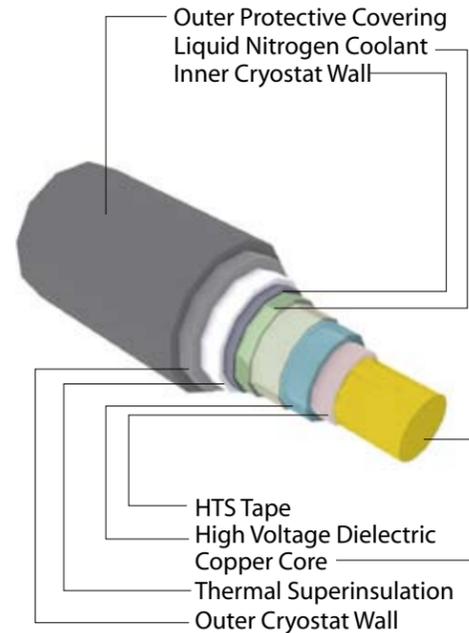
Before allowing the use of eminent domain for the creation of an NIETC, public-private partnerships must strengthen the effectiveness of the regulatory framework for a clear understanding of who is "minding the store," and for the consumer to receive the maximum benefit of economic and environmental value.

## Electricity in the Next Century

Will the economic life of any new equipment, which may have a life span of 20 to 40 years, include the latest technologies to address future innovations? Can an electro-mechanical electric grid keep pace with innovations and demands of the digital and telecommunications network?

More power flowing through existing assets may be the best option. High Temperature Superconductivity (HTS) cables retrofitted to the existing Marcy-South line would

provide this additional capacity while respecting local land use concerns. The technology could increase the line's capacity and absorb the increase of energy production. Distributed energy technologies could also be employed to reduce "upstream" needs for electric generation, transmission and distribution by decreasing peak demand. Only by addressing multiple technological innovations will the goal of the National Energy Policy be met: To provide an affordable, efficient, and reli-

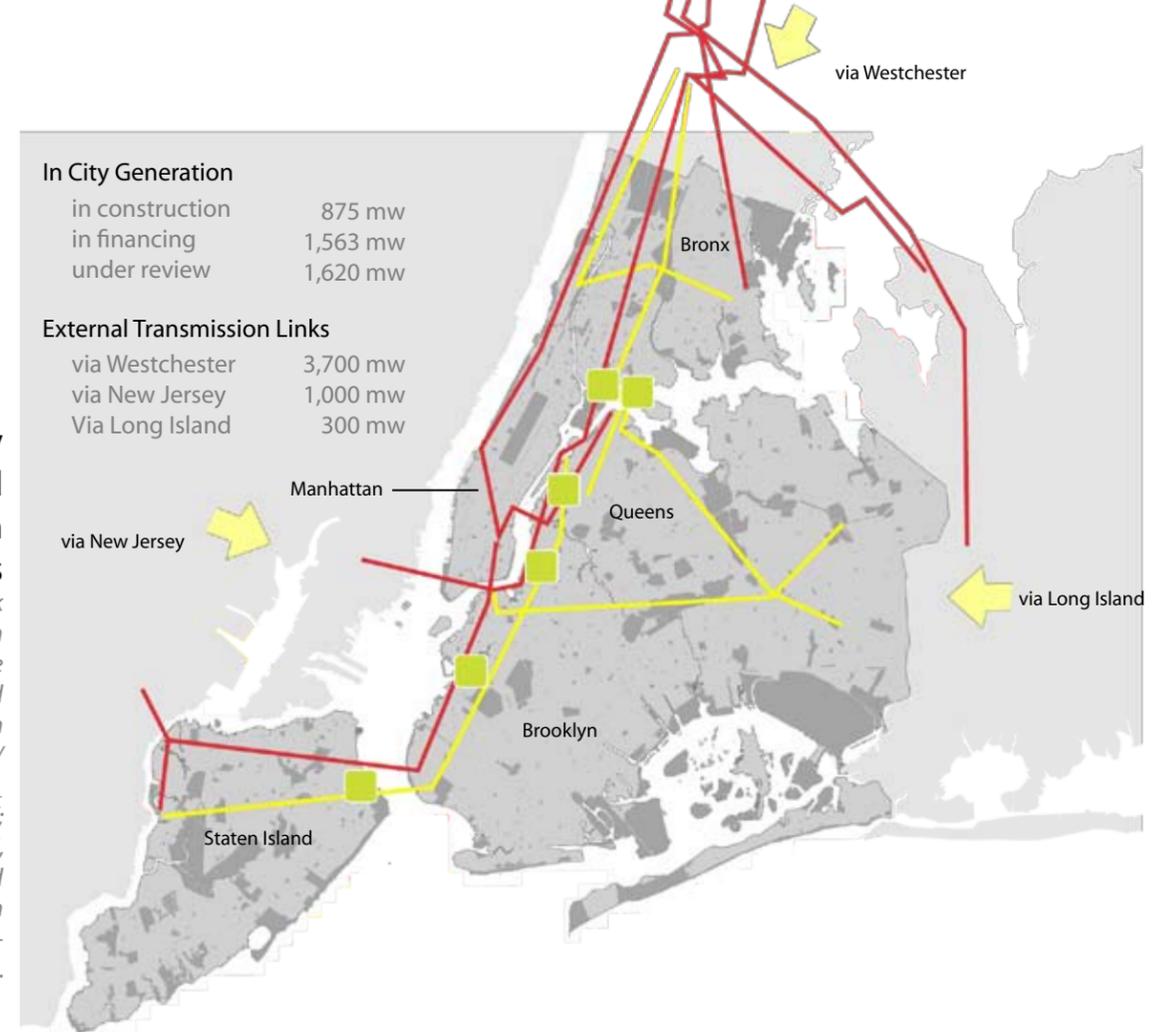


able product to energy users. The following discusses alternatives to the addition of new transmission corridors.

### NYC In-City Generation and Transmission Links

Source: New York City Energy Policy: An Electricity Resource Roadmap. Retrieved March 18, 2007 from [www.nyc.gov/html/om/pdf/energy\\_task\\_force.pdf](http://www.nyc.gov/html/om/pdf/energy_task_force.pdf); Power Now! Small, Clean Plants. Retrieved March 18, 2007 from [www.nypa.gov/facilities/powernow.htm](http://www.nypa.gov/facilities/powernow.htm).

figure 4.1



## What is New York City's True Energy Demand?

"In 2003, New York City's forecasted peak electricity demand was 11,020 megawatts. By regulation and for reliability purposes, 8,816 MW, or 80% of that forecasted peak load, had to be supplied by capacity available in-city. The available electricity supply capacity in the city exceeded the 80% requirement by only 71 MW."

Due to reliability concerns, the New York State Reliability Council and the New York Independent System Operator mandate that 80% of the City's peak load be met with in-City resources. (Source: NYC Leading by Example NYC Energy Policy, January 2004).

In 2004, a city commissioned task force examined the state of New York City's energy policy and arrived at a comprehensive program of action, which included recommendations for alternative energy supply, distributed resources, energy delivery, and initiatives of New York City agencies. Identified measures include:

- Enhancing the city's menu of energy efficiency programs
- Developing pilot energy educational programs
- Tying economic development & investment to energy efficiency
- Including clean on-site gen-

eration strategies as part of a least cost resource plan to supply the electricity needs of city agencies

- Seeking direct incentives and low-cost financing for peak load management enabling technologies
- Incorporating high-performance design strategies into city led capital projects for long-term value

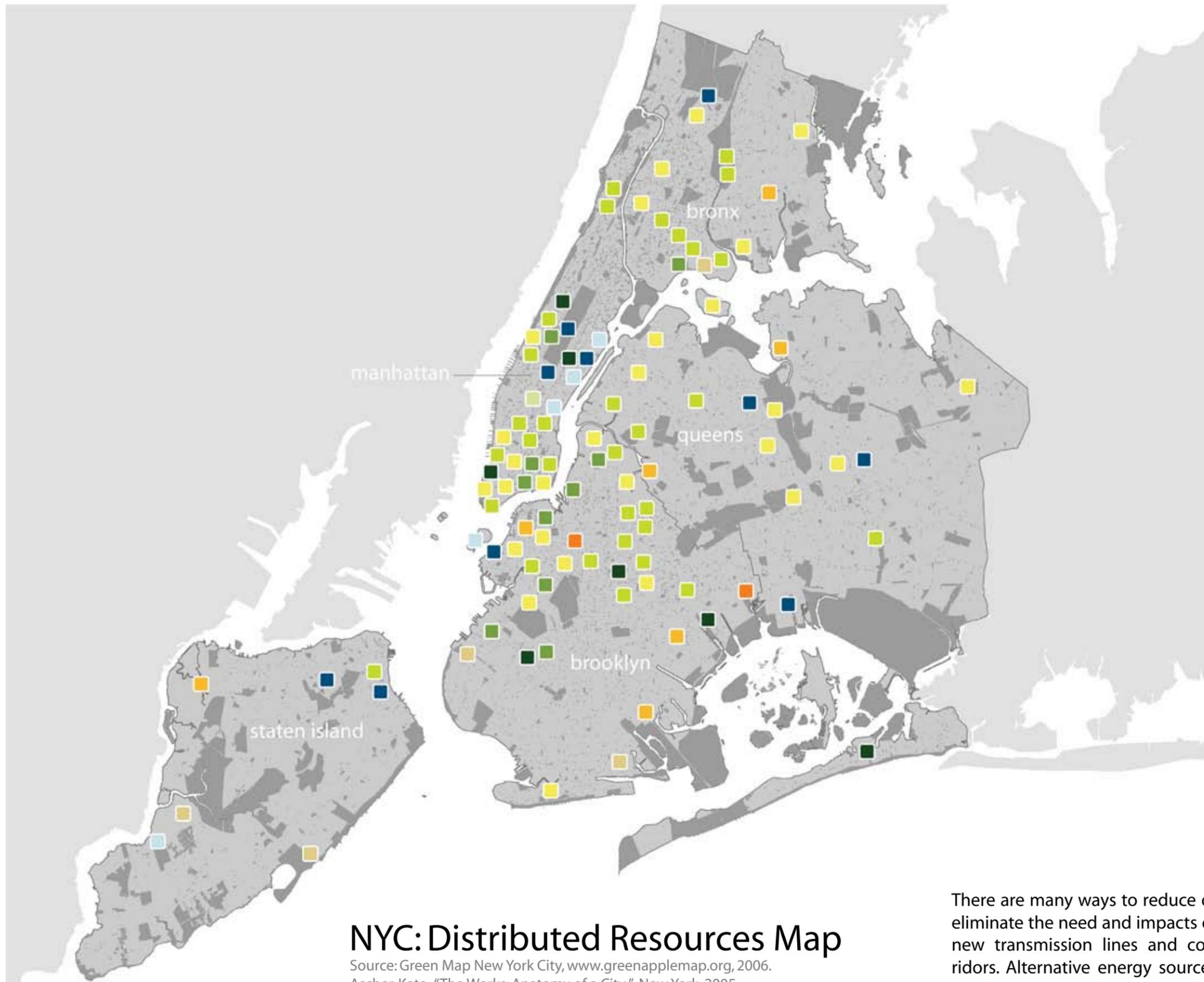
Furthermore, the city government, the consumer of nearly 10% of the entire load used in New York City, should be challenged to serve as a model for energy efficiency.

## NYC: Alternatives to New Transmission Corridors

"With appropriate policies and incentives, distributed resources are often the most readily available, cost-effective, and underutilized clean energy resources that can potentially reduce or defer the amount of required new electric supply from generation and transmission systems. While it can take many years to plan, design and build electric generation plants, most distributed resources can be deployed within a year." (NYC Energy Policy, January 2004).

According to New York City's energy policy, distributed resources include:

- **Energy Efficiency** targets permanent demand and energy usage reductions by the design, application and installation of energy efficient building materials and equipment.
- **Fuel Switching Applications** refer to the use of steam and gas chillers in lieu of electrically driven chillers for air conditioning systems in large buildings.
- **Thermal Energy Storage** encourages off-peak production and integration of chilled water storage and ice storage into air conditioning distribution systems.
- **Clean On-Site Generation** includes cogeneration and clean distributed generation, such as microturbines and fuel cells, often located at or near the intended place of use. Cogeneration has efficiencies of 70% to 95%, compared with national averages of 30% efficiency in conventional large generation plants.
- **Renewable Energy** is produced via landfill gas, solar photovoltaics, solar thermal, and wind power. Renewable energy promises environmental benefits, diversity of energy sources, and reduced reliance on fossil fuels for power generation.



## NYC: Distributed Resources Map

Source: Green Map New York City, [www.greenapplemap.org](http://www.greenapplemap.org), 2006.  
 Ascher, Kate. "The Works: Anatomy of a City." New York, 2005.

### 1. Energy Efficiency

- building envelopes (e.g. green roofs)
- lighting and appliance usage
- green businesses
- building commissioning (i.e. a/c systems)
- fuel switching applications (e.g. natural gas)
- public facilities (opportunities)

### 2. Thermal Energy Storage

- new building design (LEED)
- passive thermal control (i.e. a/c, heating)

### 3. Clean On-Site Generation

- co-generation
- clean distributed generation
- fuel cells
- microturbines

### 4. Peak Load Management

- business schedules: incentives for peak load management
- energy usage trading market

### 5. Renewable Energy

- solar photovoltaics
- solar thermal
- geothermal
- bio-based energy
- human-source (e.g. metro-turnstyles)
- wind energy

There are many ways to reduce or eliminate the need and impacts of new transmission lines and corridors. Alternative energy sources are being pursued in many forward-looking regions implementing advanced technology, regulatory, and conservation measures.

As New York City strives toward a vision of taking greater responsibility to meet its own energy demands, alternatives to long-distance transmission are documented in the New York City Energy Policy Task Force Report (2004).

The above map indicates a cross-section of distributed resources in use by forward-looking business, residents, and government agencies in effort to reduce or eliminate the upstream impact of new power transmission.

# NYC: How are Distributed Resources Used?

Source: Green Map New York City, [www.greenapplemap.org](http://www.greenapplemap.org), 2006.  
Ascher, Kate. "The Works: Anatomy of a City." New York, 2005.

resource  
1



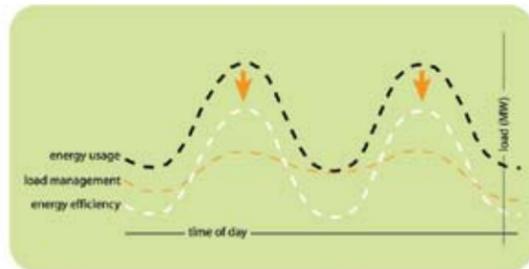
Annapolis, MD: [www.arundel.blogspot.com](http://www.arundel.blogspot.com) + [www.epa.gov](http://www.epa.gov)

A **Green Roof**, consisting of vegetation and soil planted over a waterproof membrane, is an application used in industrial facilities, residences, offices, and other commercial property. Green roofs are widely used for stormwater management, energy savings, and aesthetic benefits.

resource  
2

More and more, **green businesses, venture capitalists and entrepreneurs** are taking on pilot projects to include energy efficiency and green materials in their facilities. The **NYC city government**, a consumer of nearly 10% of power used in NYC, has been challenged to be a model for energy efficiency for the city.

resource  
3



**Peak Load Management** aims to encourage temporary electricity demand and consumption adjustments according to wholesale capacity and local grid conditions. In times of peak demand, customers are asked to curtail their energy consumption or generate on-site power.

resource  
4



Brooklyn, NY: Distributed Energy [www.foresterpress.com](http://www.foresterpress.com)

The Clinton Hill Apartments in Brooklyn are the nation's largest residential microturbine-operated facility. **On-Site Co-generation** produces electricity and hot water from direct heat or steam in an efficient manner and will reduce Clinton Hill energy costs and usage by 40%.

resource  
5



New Haven, CT: Fuel Cells [www.nickelinstitute.org](http://www.nickelinstitute.org)

**Fuel Cells**, another form of on-site generation, is a device that converts the chemical energy of a fuel, often natural gas or hydrogen, directly into electrical energy. The generation is connected to the distribution level of the grid located at or near the intended place of use.

resource  
6



New York, NY: Geothermal Townhouse, Photo: Paul Warchol

In cold weather, renewable **geothermal heat** warms underground pipes filled with circulating water, which then transfers heat into the building. In hot weather, the circulating fluid 'removes' the heat from the building and transfers it into the earth.

resource  
7

**Bio-based Renewable Energy** includes biodiesel, anaerobic digesters (often from landfill gas), and biomass, which includes plant-based fuels like ethanol. The Oakwood Beach Wastewater Treatment facility, near the Fresh Kills landfill, uses anaerobic digesters to create power from waste. [www.greenapplemap.org](http://www.greenapplemap.org).

resource  
8



Bahrain World Trade Center: [www.bahrainwtc.com](http://www.bahrainwtc.com)

**Wind Power Renewable Energy**, operates 24 hours a day to produce clean, quiet and efficient energy. Wind power is now incorporated into both advanced urban high performance building design and for power generation in more localized residential locations.

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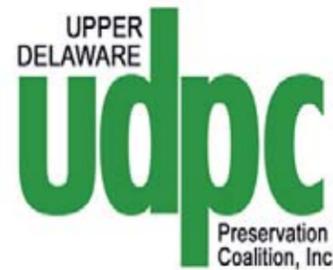
Urban Design Team: Michael Bello, Dynelle Volesky Long, David Lukmire, and Christopher Reynolds; Professor Richard Plunz.

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### Spring Semester 2007

Urban Design Team: Tonja Adair, Michael Bello, Jay S. Lim, Dynelle Volesky Long, David Lukmire, and Christopher Reynolds; Professor Richard Plunz.

# Looking Forward: Valuing the Upper Delaware River



*Prevent the destruction of the Upper Delaware River Valley...help now!*

Name: \_\_\_\_\_  
 Business: \_\_\_\_\_  
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 \_\_\_\_\_  
 City, State, Zip: \_\_\_\_\_  
 Email: \_\_\_\_\_  add me to your mailing list

\$10  \$25  \$100  \$500

Other Contribution: \_\_\_\_\_

We thank you for your contribution!

“Why have we not taken care of those places? They are a first and great part of our lives. Love, struggle, work, children — all came to us there.”

*Zane Grey, Lackawaxen, Pennsylvania 1929*



Pond Eddy Bridge, circa 1904. National, New York and Pennsylvania Registers of Historic Places.

Prepared for the **Upper Delaware Preservation Coalition**  
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