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**STERLING FOREST/HIGHLANDS COMMITTEE**

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Office of Electricity Delivery and Energy Reliability  
OE-20  
U. S. Department of Energy  
1000 Independence Avenue, SW  
Washington, DC 20585

Attn: Dr. Jerry Pell

**UNITED STATES DEPARTMENT OF ENERGY  
OE DOCKET NO. PP-362  
DOE/EIS - 0447**

**SCOPING COMMENTS FOR ENVIRONMENTAL IMPACT STATEMENT (EIS)  
RE: CHAMPLAIN HUDSON POWER EXPRESS (TRANSMISSION  
DEVELOPERS, INC.) APPLICATION FOR A PRESIDENTIAL PERMIT,  
AND APPLICATION FOR AMERICAN RECOVERY AND REINVESTMENT  
ACT FUNDING TO CONSTRUCT AND OPERATE A 1,000 MGW  
ELECTRIC TRANSMISSION CABLE FROM QUEBEC, CANADA, TO THE  
NEW YORK METRO REGION.**

Dear Dr. Pell:

The following written comments are to supplement the Sierra Club comments made at the July 13, 2010, Scoping Meeting held in Kingston, NY. This also supplements testimony provided by other Atlantic Chapter representatives of the Sierra Club, a national, state, and local grassroots membership organization committed to protecting the natural and human environment which we share.

**OVERVIEW**

To be funded with American Recovery and Reinvestment Act subsidies, the Champlain Hudson Power Express transmission project (the Project), was proposed to the US Department of Energy (DOE) on January 27, 2010, as a 420 mile-long submarine power cable from the Hertel Substation in Quebec, Canada, running under Lake Champlain and the Hudson River to the NY Metro region. The cable

system was to have had the capacity to deliver 2,000 megawatts (MGW) of power to be generated from new, companion wind and hydro sources in Canada which were to be constructed at some future date. At a stated cost of \$3.8 billion, the Project would have been able to transport 1,000 MGW to the NY Metro region, and 1,000 MGW to New England. During July, 2010, the Project surprisingly eliminated the New England component. The Project, thus has been reduced in half.

Two primary reasons are noted in the June 16, 2010, Federal Register for conducting this EIS: 1) the necessity of the Project to obtain a "Presidential Permit" since both the cable and electric power are to cross the international US-Canada border; and, 2) the EIS will also be used to satisfy NEPA requirements regarding the Project's application to obtain American Recovery and Reinvestment Act funding. Eligibility for that subsidy require development of renewable energy sources, and a construction start date commencing by September 30, 2011.

Remarkably, the Project seeks to enter an energy market that already has an oversupply of electricity at a time of contracting economic activity and in a business climate fostering energy efficiency and conservation initiatives that collectively are reducing the demand for existing supply.

The Project development appears to be dependent not on current or projected market conditions, but rather on federal loan guarantees of at least \$1.52 billion pursuant to provisions of the Energy Policy Act of 2005 (EPAAct), and pursuant to the American Recovery and Reinvestment Act of 2009 (the Recovery Act, better known as the Federal Economic Stimulus Package...). Those federal subsidies would underwrite at least 80 percent of the Project's cost. Additionally, the Project would be eligible for a plethora of other federal-state-local subsidies and business incentives such as state and county Industrial Development Agency sales tax exemption, property tax abatement, IRS accelerated and bonus depreciation allowances, job creation credits, brown field redevelopment grants, etc... It is possible that the collective public subsidy may equal or even exceed the total cost of the Project, all of which must be detailed in the EIS.

#### DETERMINATION OF NEED

Before the specifics of the Project are even considered, the EIS must establish the need for such a new source of long-distance power supply to the NY Metro region. NEPA requires a declaration of public need and the taking of a "HARD LOOK" at new proposals as well as at a full range of alternatives and strategies that could also satisfy the Project's stated purpose.

And, New York State regulations require an evaluation of impacts on the use and conservation of energy including a demonstration that the Project will satisfy generating capacity and other electric system needs in a manner consistent with the state energy plan. It does not matter if the proposal is for "green and clean" power, or for "dirty" fossil fuel power. It does not matter if the proposal

is funded by private investors or if the federal subsidies will fund a proposal with "free money." If there is no need, the "no action" option prevails.

Further, any proposal should serve the transmission/distribution requirements of the power grid which serves the entire state. The Project as proposed, however, will for the most part bypass existing power lines and interconnection possibilities, and will not integrate itself into the existing state-wide grid. New York power producers will effectively be excluded from use of the cable which will not modernize the existing state transmission infrastructure.

New York and New Jersey officials, regulatory agencies, distribution merchants and industry oversight entities like the New York Independent Systems Operator (NYISO), all clearly state that a lack of additional long-distance transmission is not an issue. The critical Metro NY-NJ concern is maintaining and upgrading local and neighborhood transformers and substations and power lines that interconnect with all generation sources.

There are always new demands for more or different sources of supply, especially for retiring and replacing existing power plants. But, there are always solutions anticipating those needs that are being prepared in an ongoing planning cycle of ten or more years out into the future. The state and NY Metro problems involve aging distribution infrastructure which caused the Queens, NYCity power outage crisis during the summer of 2006. No amount of extra, outside supply could have changed those events.

Currently, the Hudson Valley has six major power plants in addition to those in New York City and in North Jersey. They use a mix of gas, oil, coal, hydro and nuclear fuel. Two north-to-south long-distance transmission systems also serve the region. The NYS Power Authority Marcy-South power line from the EDIC/Utica substation to the Rock Tavern substation in Orange County is located west of the Hudson River. The Central Hudson to Con Ed complex from the Albany area to the Bronx is located east of the Hudson. All systems interface with the Metro NY load zone which is also supplied by transmission cables from Connecticut and New Jersey.

Most of the above plants are operating below capacity and have reserves immediately to ramp up production to meet seasonal peak demand. Further, seven proposals in recent years for new generating facilities in Rockland and Orange Counties alone never materialized due to unfavorable market conditions that did not justify the return on investment because of competition from existing sources including Demand Side Management achievements, and because additional supply could not be absorbed by the market.

As late as April, 2010, the NYISO, which manages the supply/reliability of electricity produced and traded among NYS merchants, has stated that there is no existing or anticipated need for additional power in NYS during the next 10-year planning cycle. In fact, the use of electricity in NYS starting in 2008 has dropped significantly. The NYISO has reaffirmed that the top priority in NYS is to modernize

the local utility distribution systems and the regional grid.

The EIS must evaluate the total consumption patterns within the state and the capacity of all supply sources, especially those that are within the NY Metro region including the following:

- the installation of the Cross Sound cable from New Haven, Ct., to Shoreham, Long Island;

- the installation of the Neptune cable from Sayreville, N.J., to Levittown, Long Island; and,

- the implementation of the State energy plan which promotes efficiency, conservation, improved building codes and decentralized solar and wind net-metering applications.

The EIS must evaluate the supply projects that are nearing approval and construction such as:

- the Cross-Hudson cable from Ridgefield, N.J., to the 49th Street substation in Manhattan which will link Con Ed with the existing NJ PSE&G/PJM power systems in place west of the Hudson River;

- the Transco Gas pipeline extension through North Jersey to lower Manhattan;

- the 1,000 MGW Cricket Valley Power Plant in the Town of Dover, Dutchess County, that will connect directly to the Con Ed transmission line to the Bronx;

- the 630 MGW Competitive Power Ventures Power Plant in the Town of Wawayanda, Orange County, that will connect directly to the Marcy-South power line; and,

- the 63 MGW hydro projects to be generated from existing New York City reservoir spillways in the Catskill Mountains that will connect directly to the Marcy-South power line.

The above generating facilities will use existing transmission infrastructure that will avoid costs for any new transmission line construction.

If there is increased demand and a need for additional supply, many alternatives exist beyond the reflexive response to increase generating capacity. The EIS must evaluate the impacts of the full range of alternatives that would obviate the stated purpose and need for the Project. The EIS must evaluate competing proposals/ technologies; efficiency and conservation initiatives; changing development/construction trends; and, changing economic/consumption conditions.

- The EIS must consider the example of efficiency represented by the Lovett power plant that demonstrates the importance of the NYS priority to modernize the local grid/distribution system.

During 2007, the Mirant-owned Lovett coal-fired power plant, located on the Hudson River in Rockland County, was under a consent decree to upgrade its emission system. Instead, Lovett petitioned the PSC to be decommissioned. Due to O&R Utility reconstruction of a major substation and local power lines, efficiencies were created which made up for the loss of the Lovett power production. The request was granted by the PSC, the plant has since been demolished, and no new power generation was needed as a replacement for Lovett.

- The EIS must evaluate the full range of Demand-Side-Management (DSM) strategies and technologies ranging from dynamic time-of-day pricing to various digital metering systems within a home that regulate appliance on and off cycles and sequential use, to grid-based, system-wide controls. The radio-controlled thermostats for cooling systems in large buildings that were activated by Con Ed to reduce NYC peak load during the July, 2010 heat wave is a good example of a relatively low-tech, low cost solution.

- The EIS must include the findings of the January 9, 2008, DOE report which shows that implementing the system-wide technology of digital time-of-day temperature and price metering could reduce peak electric loads by up to 15 percent a year and thus save over \$70 billion no longer needed to build new power facilities such as the proposed Champlain Hudson Power Express Project. Such a strategy would simultaneously remedy pollution, climate change emissions, supply concerns, and reduce consumer expenses.

- The EIS must evaluate the unused, available reserve capacity of all power plants supplying the NY Metro region. For example, the Bow Line power plant on the Hudson River is producing minimum power due to low demand and high costs. However, Bow Line can quickly generate its maximum capacity if needed at peak load times.

- The EIS must evaluate the New York City regulations that require the ability to produce 80 percent of peak load from generating facilities located within the City.

- The EIS must evaluate all of the alternate supply, efficiency, and conservation programs conducted by the NYS Energy Research and Development Authority (NYSERDA) which make the Project unnecessary.

- The EIS must examine the impact on reduced power consumption due to state and local improved building construction codes and code enforcement. A recent example was O & R Utilities contracting with Bechtold Co. to construct three power plants in anticipation of population growth in Orange County, the fastest growing county in the State. The population estimates were correct but the expected energy consumption per household plummeted due to improved building insulation practices. Those power plants, as a consequence, were never built. O & R, however, had to sue in State Supreme Court to have the contracts with Bechtold rescinded.

- The EIS must examine the impact of the Recovery Act's funding weatherization and other energy efficient programs designed to reduce

and conserve energy which conflict with the Project's application for funding from the same federal economic stimulus source to increase energy consumption.

- The EIS must evaluate the impact of all the solar energy products which are replacing traditional electric generation use and which also reduces the need for new transmission facilities. The Solar Energy Consortium in Kingston, NY, has created over 400 production jobs during 2010 alone. Commercial and residential net-metering programs, solar-thermal hot water systems, solar powered LED street and building lighting have not only produced renewable, "clean" power, but also have removed those sources from the power line, thus making more grid capacity available to other merchants.

- The EIS must evaluate the impact of decentralized, land-based and off-shore wind power which is close to points of consumption, and which uses existing transmission/distribution infrastructure.

- The greatest gain in energy supply in recent years has been through the development of "negawatts," the freeing up of existing power through reduced consumption supported by the State energy plan. The EIS must consider those cost effective outcomes in its full range of alternatives which support the "no action" or "no build" option, and which may demonstrate the Project to be unnecessary.

- One half of the original Project proposal, the 1,000 MGW cable to Bridgeport, CT, intended to supply the New England ISO, was aborted at the last moment due to the lack of need for that power. The EIS must examine the circumstances that caused the Project reduction and determine if those circumstances and lack of need also apply to the New York State portion of the Project.

#### UNIQUE TRANSMISSION-ONLY FUNCTION

The Project stands apart from traditional power merchants since it provides a specialized long-distance transmission-only function which is separate from but totally dependent on bulk power producers at the cable entry point, and on wholesale utility consumers at the cable exit point. The transmission cable is just like a giant household extension cord with plugs at each end.

The Project does not generate electricity nor does it serve as a utility which distributes electricity to retail customers. It has no control over the sources or the price or the end use of the power to be transported. The Project can take no responsibility for the fuel or methods needed to generate the electricity; for the conduct of the suppliers or of the consumers; for the reliability or need for the electricity; or, for the price of the electricity and tax costs which are passed on to the retail consumer.

The Project function is identical to that of the failed New York Regional Interconnect (NYRI) transmission proposal which was dismissed with prejudice on April 21, 2009, (Case No. 06-T-0650), by the New York State Public Service Commission (PSC). NYRI is the model for this Project with three differences: NYRI was an above-ground power line,

was located wholly within New York State, and wanted construction costs assessed to ratepayers; while this Project is a submarine/underground cable, is located in both Canada and New York State, and wants construction costs supported by US taxpayers through government subsidies and American Recovery Act guaranteed loans.

Both NYRI and this Project pose classic cases of segmentation within a deregulated energy market for the EIS process. Although treated as a separate entity, the transmission Project is totally dependent upon and cannot exist without production/supply and distribution components. The EIS, therefore, must consider in an equally thorough manner, all components as a single conjoined enterprise.

Further, the EIS must examine how the Project will interface with the regional transmission grid serving the entire state.

#### PROJECT SEGMENTATION AND RECOVERY ACT FUNDING

Neither the Project's transmission cable nor the Canadian hydro power facilities currently exist. Both are to be constructed when funding is secured. Although legally compartmentalized into transmission and hydro generation components, the Project's transmission function is inseparable from the Lower Churchill Falls dam/artificial impoundment construction and supply function. The financing considerations are equally conjoined. Further, the generation component in Canada may not be finalized without the transmission Project first being approved for American Recovery Act funding.

Since the funding streams for each component may be segregated for accounting purposes, and since each component supports the total funding required to develop the enterprise in common, the EIS should evaluate the cumulative impacts of both transmission and generating components as two steps of the same action, not as disconnected, unrelated actions.

Further, the EIS should evaluate the fungibility of all funding from all public and private sources, and detail how American Recovery Act subsidies will support construction of the underlying generation facilities in Canada, and how those facilities will compete with generating facilities in New York State.

#### PROJECT HAS NO ABILITY TO PRODUCE "RENEWABLE" ENERGY

The Project has applied for \$1.52 billion in Recovery Act loan guarantees, and states that it will transport the prerequisite renewable wind and/or hydro power into New York from facilities at Lower Churchill Falls, Canada. Those facilities are still to be constructed.

If and when new renewable energy becomes available, that electricity could enter the NYISO market via the existing transmission grid without this Project.

The proposed "renewable" supply will be transported from Lower Churchill Falls over the existing grid to the Hertel substation for conversion to the DC cable. That same electricity could connect with the New York and New England grids right now without any need for the cable at all.

The construction of the cable, however, would provide an exclusive route for any and all electricity that reached Hertel to be leap-frogged to the NY Metro region which would give that supply a special advantage over renewable and other power produced within NYS.

If the intent really is to promote renewable energy throughout the US and Canadian service areas, then future Canadian renewable energy should enter the US market via the conventional grid shared by all suppliers, and should compete on equal footing with NYS renewable energy producers.

Central to the promotion of the Project is the promise to import "green" renewable energy into the NYISO service area. But as a transmission-only facility, the Project has no ability to create/produce renewable or non-renewable energy, and has no control over the source or quality of the commodity it transports.

Further, the Project has never asserted that it will only transport renewable wind and hydro power over the useable life of the cable. It has not said that it would not transport non-renewable power from coal, nuclear or tar/oil sand sources, or that it may transport from all sources in some combination. It is unlikely that the Project can legally refuse to deliver energy from any source, a circumstance germane to its subsidy application.

The EIS must evaluate the delivery potential of all power from all sources and from all locations for cumulative environmental impact reasons, and for Recovery Act subsidy eligibility reasons.

**IS CHURCHILL FALLS HYDRO POWER "RENEWABLE" AND REALLY ELIGIBLE FOR AMERICAN RECOVERY ACT SUBSIDIES?**

All hydro power is not the same. "Renewable" hydro power is generally defined as power from free-running rivers such as that from Niagara Falls and the St. Lawrence River.

The Project has stated that the anticipated Hydro power would be from the Lower Churchill Falls project which may not be developed should the Champlain Hudson Power Express cable not first be approved.

Dams at Churchill Falls are yet to be built, and forests are yet to be cut down and flooded. What effect will the loss of forests and habitat have on the wildlife to be displaced, and on a net increase of greenhouse gases? What is the chance that methane and other climate changing chemicals will be introduced into the atmosphere as a result of the proposed flooding?



The hydro power is to be generated from artificially created impoundments, not from free-running streams. What effect on energy reliability would impoundment-generated power have during high heat, summer drought conditions causing high rates of evaporation and low water flow at the same time New York consumer demand for electricity is the highest?

The EIS must detail the sources and quality of the hydro power that is promised by the Project and evaluate whether or not those Canadian sources are really renewable and eco-friendly, both from an environmental perspective and as a precondition for Federal Recovery Act funding.

#### EXCLUSIONARY DESIGN AND ANTI-COMPETITIVE NATURE OF THE PROJECT

The Project is a 355 mile-long Direct Current (DC) transmission cable starting at the Hertel substation in Canada, 35 miles north of the Quebec-New York State (NYS) border. The cable runs the entire north-south length of NYS, terminating at a specialized converter station in Yonkers. At that point, the power is transformed from DC back to Alternating Current (AC), and enters the conventional distribution grid.

Transmission-only facilities like that of the Project are to transport power from all suppliers over the same shared line or cable. AC power allows entry/exit hookups throughout the grid. However, this DC cable has no access connections along the 355 mile intervening length, and essentially is a separate DC system from the existing AC grid. Further, the entry point at Hertel appears to be reserved to transport supply only from Lower Churchill Falls if and when that Canadian generation ever comes on line.

Most troubling is the Project design that blocks cable access to competing US/NYS power merchants who are prevented from using the cable to transport electricity generated and distributed within the state. Likewise, state producers are denied the ability to transport and sell NYS generated power via the cable into the Canadian market. The Project effectively is a one-way monopoly that channels trade-protected Canadian power into the high-use but already well-supplied NY Metro market at a disadvantage to NYS merchants.

It appears that the exclusionary design of the Project violates both the purpose of the Recovery Act to support US/NYS enterprise, and the priorities of the NYS energy plan, especially the task to upgrade the existing transmission/distribution grid within the NYISO service area.

The unfair trade advantage given to Canadian power producers by the Project design also is in conflict with DOE policy that requires cross border trade in electric energy between Canada and the USA to follow the same comparable open access and non-discrimination principles that apply to interstate electric transmission within the USA.

The EIS must evaluate the anti-competitive, monopoly aspects of the Project as they relate to DOE open access and non-discrimination trade policies, and to the related funding requirements of the Recovery Act. Further, the EIS must reconcile the policy contradictions and financial absurdity of Recovery Act funding that will promote competition with the existing grid rather than assist to upgrade that grid; that will give an advantage to imported "renewable" energy at the expense of domestically produced renewables; and, that will underwrite a very expensive transmission cable that NYS energy producers cannot use.

#### UNREALISTIC MARKET AND PROJECT EXPECTATIONS

The Project's claims defy market realities which demonstrate on a daily basis that a plentiful supply of power exists within the NY Metro region and throughout NYS. It takes no account of the collective actions by power merchants which continue to diminish a need for long-distance and local supplies. It ignores the grid modernization and efficiency priorities of NYISO and the State energy plan. It remains oblivious to a contracting economy and declining trends in overall energy use in NYS. The Project is cost prohibitive and cannot compete with existing merchants who can provide the same or more net electric power through a much lower cost structure. It cannot be constructed and import Canadian electricity without massive US and Canadian public subsidies. It would gain an incredibly unfair business advantage over its US market competitors who do not receive the same government subsidies.

The greatest business threat to new and existing energy merchants, however, is not the result of competition or favoritism among power merchants, or from revolutionary technologies, but from an economy in recession and the related steady reduction in energy consumption across all commercial sectors. Annual statewide use of electricity has declined during the past three years. Even then, seasonal spikes in usage will continue such as that currently being experienced throughout NYS due to the unusually high summer temperatures. NYS has set an all-time monthly record for electric consumption during July, 2010. No adverse delivery or supply problems have been noted, reaffirming the existence of sufficient supply and system capacity.

Not only are jobs and whole industries vanishing from the region, replacement jobs and replacement buildings are anticipated to use far less power than their predecessors. And, the new jobs that are being developed are in the decentralized solar and wind power fields which will further drive down the need for traditional electricity sources and transmission lines.

The lack of need for long distance power surely influenced the Applicant to reduce the Project in half by cancelling the New England segment during July, 2010.

The current economic and financial conditions are just like those faced by the NYRI transmission-only power line project during 2007, 2008, and 2009. NYRI banked on government stimulus subsidies and

special consideration that totally would have misapplied federal programs for funding. The plan was to protect investors by artfully shifting construction costs from investors to ratepayers via a special surcharge/fee rather than to pay from customary but doubtful revenue. The resulting delivery and total costs to customers would have sky-rocketed. When denied, NYRI's lack of a credible business plan no longer could be masked. Investors refused to risk their own money, and the NYRI transmission project folded.

#### VIABILITY OF PROJECT AND ABSENCE OF REALISTIC BUSINESS PLAN

The Project states that at a cost of \$1.9 billion, it would be one of the largest energy "investments" in NYS. It would cost twice as much to construct than that of a local power plant that could add the same amount of electricity into the NYISO service area. For instance, the Cricket Valley Power Plant will cost half as much to construct, is located 300 miles closer to the NY Metro region, will produce the same 1,000 MGW, and can connect to the existing Con Ed transmission lines at no extra construction cost. Added to the cost of the Project is the uncertain cost and uncertain completion date of the proposed Canadian power supply, as well as the uncertain eligibility of that power as a "renewable" source. The total costs very soon escalate ever upward.

The chicken-and-egg relationship between the transmission Project and the Lower Churchill Falls generating project must be evaluated in the EIS since the cable would not connect to an existing supply source. Is the construction of the cable really a device to justify construction of Canadian dams and artificial impoundments with US subsidies?

The lack of an available, legitimate renewable supply, and a lack of a demand for a new supply from any source at a reasonable price raises doubts about the viability of the Project with or without public subsidies.

It appears that market forces cannot justify this transmission-only Project. Just as with NYRI, private investors are unwilling to risk their own money on this power cable venture. The Project can go forward only with uncritical public incentives and funding. To that end, the Project is seeking fast-track approval for a Presidential Permit and related construction permits. Such authorization, in turn, underlies a second, more significant application for immense loan guarantees by the American Recovery and Reinvestment Act which requires both renewable energy production, and a construction start date by September 30, 2011. The loan guarantees by themselves would cover 80 percent of the Project cost and would expose the US taxpayer to at least \$1.52 billion in Project obligations.

The EIS must evaluate the risk of financial default requiring a US Government financial rescue. Is the Project cost-effective and viable at all in today's market? Will revenue be sufficient and sustainable to cover debt service and operating expenses without additional public

subsidies? If the Project is sound and such a smart plan, why do the investors need government guaranteed funds at all? What risk and exposure would the investors have in the event of default and bankruptcy?

The EIS must evaluate the total cost of the Project, the total cost of the tandem generating project upon which it depends, and the total public subsidies for which both projects are eligible. The EIS should consider the impact that the failure of either project would have on the other.

Further, the EIS must detail how subsidies awarded to this Project will absorb available finite public resources that will displace and/or delay renewable energy priorities of NYISO and job creation in solar/wind/smart grid programs promoted by the State energy plan.

#### NEGATIVE GROWTH ACTION ALTERNATIVE

The EIS must evaluate the effect of the economic recession on energy trends and on the transformation of industry and lifestyles that need less, rather than more, energy. With a protracted economic downturn in place, the EIS should add a "negative growth action alternative" as a companion scenario to that of the standard "no action" alternative. Such a scenario would address practical responses requiring system-wide adjustments to an economy having excess capacity and under-utilization of power in general. In fact, on May 14, 2010, the NYS PSC directed all utility companies to prepare austerity plans should the recession linger or even worsen.

An honest public policy reality check must take place throughout the electric power industry and must consider which facilities to close or to consolidate much like the review of unused military bases or of the elimination of excess hospital beds. In the case of this Project, if the required "hard look" is not taken, Recovery Act subsidies may be misallocated and lost while forfeiting the opportunity to fund more worthwhile energy initiatives that are in the public interest.

Respectfully submitted,



Jürgen Wekerle  
Chair, Sterling Forest/Highlands  
Committee, Sierra Club, Atlantic  
Chapter

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