RFI Response in Support of New York Energy Highway Initiative

Executive Summary

Saranac Power Partners, L.P., owner and operator of the Saranac Power Plant located in Plattsburgh, NY, fully support this initiative to upgrade and modernize New York State's electric power system. It is our firm belief that any improvements to the transmission network that help to reduce congestion and to the market conditions promote efficient use of existing facilities will benefit all customers and generators alike.

We trust that you will find our responses to your information requests sufficient to meet your current needs and would be more than happy to address any follow up questions that the task force may have. We are hopeful that this task force is successful in achieving its stated objectives as we are among the number of power plants facing many economic uncertainties that could very well cause us to prematurely retire which would cause measurable impacts to the community in which we operate.

In closing, we wish to draw your attention to a current market inefficiency that we believe is worthy of consideration as part of this initiative: The day ahead market in New York is divided into three areas: New York City, Long Island, and "rest of state" (ROS). Generators from all across New York bid against each other in this ROS region from Dunkirk, to Lockport, to Plattsburgh, to Newburgh, and all points in between. Generation is awarded strictly on price, so there are certain areas that are frequently insufficiently served by this process, as all ROS generators cannot deliver power to all areas of the state. In response, load serving entities must subsequently dispatch local generation for reliability purposes with all reliability uplift costs spread across the state, not just to the load serving entity.

Generators dispatched for reliability are regulated to collect only their costs going forward. The reimbursed costs do not include any debt service, depreciation or property taxes. This is an unsustainable business model for generators that are dispatched for reliability repeatedly, due at least in part, to the inefficiency of the dispatch award process. Furthermore, in our particular situation, our plant is a combined cycle gas plant with a flexible steam host that when combined can operate as a highly efficient co-generation facility with reasonable operation flexibility on a planned and repetitive basis. Unfortunately the hourly day-ahead market dispatch is neither planned nor repetitive giving rise to material loss of efficiency (loss of steam host and punitive start/stop costs) as well as high short term gas prices.

Our recommendation is for The Energy Highway Task Force to study natural gas fired plants that run frequently for reliability purposes and evaluate if a power purchase agreement with a more planned operation cycle would lower overall costs to the rate payers of New York. With a planned monthly generation profile, reliability generators could purchase longer term natural gas at much lower prices than the very costly intra-day gas markets that they are forced to rely on under current dispatch conditions. Also with a structured dispatch plan, the parties would be able to optimize the production profile that would maximize the fuel efficiency and provide for more attractive co-gen operations.

There are also other economic drivers to consider as well, as certain unique suppliers meet the same criteria as buyers in the Recharge New York program. Co-generation plants that are steam hosts to adjacent facilities would save their customers money by being able provide steam from a continuously operating power plant instead of an auxiliary boiler.

Also, depending on location, continuous dispatch of these reliability plants would give NYISO, NYPA, and the load serving entities more flexibility in moving power around to different parts of the state as well.

Current State of Reliability Dispatch

The day ahead bidding process for the day ahead market is:

- Generators submit a day ahead bid.
- Generators are notified if they are awarded dispatch or not.
- If supplemental resources are required, specific generators are asked to provide supplemental resource bids.
- Supplemental resource bids are awarded.
- Natural gas generators that are dispatched as a supplemental resource must then procure the natural gas for the next day's run.

Supplemental resource bid requests usually come late in the day, requiring purchase of the most expensive natural gas.

One of the things the NYISO has recognized is that coordination can be improved between the day ahead bid timing and the natural gas purchase timing. The newly formed NYISO Electric Gas Coordination Working Group is addressing this issue. Even with natural gas prices at an all-time low, the inter day and intraday prices are at least $1 per mmBTU higher than index prices.

Reliability bids are heavily scrutinized. NYISO won a FERC case that determined that reliability generators are only entitled to their costs going forward, through the NYISO reference price procedures. This process is far from perfect; however the NYISO recognizes this and has formed a Market Monitoring Reference Price Task Force. This Task Force is developing a new Technical Bulletin to address reference price issues. Reliability generators are only covering operating costs. Reliability compensation does not include reimbursement for debt service, depreciation, or property taxes.

Since day-ahead bidders are not guaranteed to run, and their costs are so heavily mitigated, they cannot take the risk to purchase cheaper gas before they are dispatched. The NYISO adds to the inefficiency by making the gas cost a direct pass through during reliability dispatches. There is

no incentive in the system for reliability generators to lower costs. Since reliability uplift costs are spread statewide, there is no incentive for the load serving entity to lower costs as well.

The day ahead market in New York is divided into three areas: New York City, Long Island, and "rest of state" (ROS). Generators from all across New York are bidding against each other in this ROS region from Dunkirk, to Lockport, to Plattsburgh, to Newburgh, and all points in between. Generation is awarded strictly on price, so there are certain areas that are frequently insufficiently served by this process, as all ROS generators cannot deliver power to all areas of the state.

A load serving entity can dispatch a local generator for reliability; however, all reliability uplift costs are spread across the state, not just to the load serving entity. Even if the specific generator is obviously needed, there is no incentive for the load serving entity to negotiate a power purchase agreement, as they are not charged the full uplift.

These same factors also affect the ROS capacity market. Excess generation in one part of the ROS negatively effects generation in other parts of the ROS, even though the capacity cannot reach all parts of the ROS. Most of the generation in New York State cannot reach Plattsburgh, yet our bid price and capacity prices are suppressed by this inefficient capacity zoning. The zoning does not allow Saranac to bid into the NYC capacity market; we would contend it is unfair for us to have to bid against remote generators that cannot supply our load serving entity.

Saranac Power Partners Background

Saranac Power Partners, L.P. owns and operates the plant. The general partner of Saranac Power Partners, L.P. is Saranac Energy Company, Inc., which is an indirect subsidiary of CE Generation, LLC ("CE Gen"). CE Gen, in turn, is equally owned by MidAmerican Geothermal, LLC, an indirect wholly owned subsidiary of MidAmerican Energy Holdings Company ("MEHC"), and TransAlta (CE GEN) USA, Inc., a wholly owned subsidiary of TransAlta Corporation. MEHC is a consolidated subsidiary of Berkshire Hathaway Inc. Saranac Power Partners L.P. Plant in Plattsburgh, NY is a natural gas fired co-generation plant with 255MW nominal capacity utilizing a 2-on-1 Combined Cycle configuration consisting of two General Electric Frame (GE) 7EA combustion turbines rated at 89MW, two Deltak heat recovery steam generators (HRSG), one General Electric condensing steam turbine generator rated at 77MW and balance of plant equipment. All three Units are located indoors, including the HRSGs. The condenser is a 25 cell air cooled galvanized tower. Each cell is cooled by a 100hp fan.

The Saranac Plant is on approximately 6.4 acres of land bordering a Georgia Pacific mill to the east, and the city of Plattsburgh to the south in Clinton County, New York. The plant is located in NYISO Zone D. Zone D is the only zone in the state that has a higher peak load in winter than summer.

The plant gas is supplied from the North Country Gas Pipeline, which is owned by Saranac. The Pipeline connects to the TransCanada gas pipeline at Napierville, Quebec, approximately 22 miles north of the plant. The pipeline serves NYSEG and Georgia Pacific as well as Saranac.

This facility was constructed in 1993 and 1994 and began commercial operation in 1994; the electrical sales contract with NYSEG expired June, 2009. The plant now operates as a merchant facility and is operating in cyclic service, almost daily, instead of continuous base load. The plant has been very proactive in researching and developing the new operating guidelines, and has worked with the NYISO to meet their needs. We have hosted visits from the NYISO twice in the last year.

Originally, steam for Georgia Pacific (GP) and Pactiv was supplied by the cogen plant. Saranac exports steam to customers for building heat and paper machine rolls under a contract for 144,000 pounds per hour. Now that we operate intermittently, we must run the plant's auxiliary boiler at increased cost to our customers, since they have to pay for the natural gas to run the boiler. GP operates a toilet paper manufacturing plant and borders the eastern perimeter of the Saranac Plant. Pactiv is manufactures cardboard products.GP employs about 220 people and Pactiv employs about 120 people.

Saranac's safety record is among the best in the industry. We have had only one lost time accident in the history of the plant. We are in the OSHA VPP program volunteering to work with OSHA as an active partner. We have recently successfully completed working with the NYDEC to establish cold weather start up limits. We have also recently successfully completed an NPCC audit of NERC standards. One of our core values is to be in compliance with all regulations and be the type of people you want to do business with.

Saranac Operations in the Day Ahead Market

In the summer of 2009, Saranac's power purchase agreement with NYSEG expired. Since then, Saranac has been bidding into the NYISO day ahead market. The table below shows the dispatch statistics since being in this market.

	Starts	Run Days	Days in Period	% Days Run	Avg mW/Hr When Running
Summer 2009 (four months)	**60**	**70**	**123**	**57%**	**84**
Winter 2009-10	**90**	**121**	**181**	**67%**	**99**
Summer 2010	**80**	**90**	**184**	**49%**	**73**
Winter 2010-11	**85**	**143**	**181**	**79%**	**110**
Summer 2011	**64**	**65**	**184**	**35%**	**50**
Winter 2011-12	**100**	**117**	**181**	**65%**	**100**
Total	**479**	**606**	**1034**	**59%**	**93**

The NYISO reliability dispatch rules are very inefficient. Frequent stops and starts raise our fuel rates. Natural gas plants dispatched for reliability are put into service using the highest natural gas prices. We are proposing that there is cost justification in our specific case for a power purchase agreement that would lower costs to all New York State. Even with natural gas prices at an all-time low, the inter day and intraday prices are at least $1 per mmBTU higher. The problems are exacerbated in Zone D, as this zone is the only winter peaking zone in the state, and winter intraday gas prices have been the highest during the year.

In our specific case, there are other significant economic development drivers. We are the steam supplier for the neighboring Georgia Pacific and Pactiv facilities. If we had a power purchase agreement, we could shut down the auxiliary boiler as steam would be constantly available from the plant. This would lower costs for our customers substantially.

Running Saranac continuously would allow Saranac to supply the Plattsburgh / Northern Vermont load pocket. This would allow more North Country wind power and hydro power from St. Lawrence to go downstate. A Saranac PPA could ensure that there is always flow from NY to Vermont over the PV-20 transmission line. Providing consistent power into Vermont up north would allow for increased flow into New York farther south, as the two ISO's try to remain balanced.

ISONE has been studying reliability issues in northern Vermont and New Hampshire. Their proposed solution is to install a special protection system (SPS) at the Sandbar substation. This substation is on the Vermont end of the PV-20 line that runs under Lake Champlain to the NYPA Plattsburgh substation. This SPS would be designed to cut off flow to New York if there were voltage issues in Vermont. If installed, reliability studies in New York would have to be revised, as flow from Vermont over PV-20 could be completely cut off. A Saranac PPA could guarantee

flow into Vermont, thus eliminating millions of dollars in reliability costs in New York and Vermont.

Another concept would have a hydro AC/DC converter station located in Plattsburgh with Saranac tying in.

Since starting the cyclical operations, Saranac's emissions have actually increased. The bulk of emissions occur during startup. When base loaded, we had very few starts. The table below shows NOx emissions for the month of December, comparing the base load year of 2008 with the reliability dispatch of 2011.

- Total Power Produced (mW/hrs) 75% less power produced
- Total NOx Emitted Almost 50% of the NOX emitted
- Total CO emitted 25% MORE CO produced

If we had a power purchase agreement we would be more than willing to work with NYSERDA with smart grid or carbon capture initiatives, such as synthetic trees.

Specific Answers to New York Energy Highway Task Force Criteria

The Energy Highway Task Force asked responders to address how a power purchase agreement for Saranac would accomplish the following:

Create jobs and opportunities for New Yorkers –

Our proposal would provide stability for the future of the plant and Plattsburgh businesses that depend on it. Reliability uplift costs will be reduced statewide if we had a purchase agreement. Steam costs to Georgia Pacific and Pactiv would be reduced substantially, helping keep those jobs in Plattsburgh.

Contribute to an environmentally sustainable future for New York State –

Significant reliability infrastructure expenditures (new transmission lines or generation) would be required if Saranac ceased operations. In addition, significant new reliability costs would be eliminated in New York and Vermont if Saranac had continuous operations. Continuous operations of Saranac would allow more to be transmitted downstate.

Apply advanced technologies that benefit system performance and operations –

Continuous operation of Saranac could eliminate the need for ISONE / VELCO to install the special protection system at Sandbar. Saranac would be willing to participate in any smart grid initiative. Saranac would also consider the installation of automatic generator control.

Maximize New York State electric ratepayer value in the operation of the electric grid –

Current reliability dispatch is inefficient. Significant reliability infrastructure expenditures (new transmission lines or generation) would be required if Saranac ceased operations. New expenditures could be avoided if Saranac ran continuously. Guaranteed dispatch would allow for the purchase of longer term natural gas, improved heat rates through continuous operation, and would eliminate start charges.

Adhere to market rules and procedures, and make recommendations for improvement as appropriate. –

This proposal recommends a thorough evaluation of what resources are dispatched regularly for reliability. Excessive reliability dispatches, and the associated uplift, show the inefficiency of the current bid selection and dispatch process. Mitigating reliability bids penalizes resources that the state needs. The current system could force us to file to mothball or close a facility that the NYISO runs 59% of the year.

Increase efficiency of power generation, particularly in densely populated urban areas. –

Significant reliability infrastructure expenditures (new transmission lines or generation) would be required if Saranac ceased operations. Continuous operations would result in a lower heat rate, lower natural gas costs, and elimination of start charges.

Respondent Information Requested

- **Respondent's name, address and primary contact information including name, title, address, telephone and email**

    - **Name –** Saranac Power Partners LLP

    - **Respondent's background and relevant experience –** Cogen plant in Plattsburgh generating power for the last 18 years.

- **Project Description**

    - **Type of proposed project (generation, transmission or combination)** – Generation contract for existing facility. No new capital expenditures or transmission is required.

    - **Size of proposed project, with expected capability in energy and capacity** – Saranac's capacity is approximately 278 mW in winter and 244 mW in summer. Minimum generations is approximately 72mW.

    - **Proposed project location (NYISO zone, town, county)** – We are located in NYISO zone D, in the town of Plattsburgh, NY in Clinton County.

    - **Fuel source and availability of fuel/infrastructure, as appropriate** – We use natural gas delivered from the TransCanada pipeline in Napierville Quebec via our North Country Gas Pipeline to our plant in Plattsburgh,

    - **Earliest date project can be operational** – Now.

    - **Experience, market availability and suitability of project technology** – We have demonstrated performance since the plant started.

- **Project Justification**

    - **How the proposed project could address the State's objectives and goals described above** – Lower costs for all of New York State compared to current operation. Continuous service to the North Country load pocket, freeing up wind and hydro power to go downstate. See detail above in Task Force Criteria section.

- **Financial**

    - **Prospects of a private-public partnership** – We already have agreements with the Clinton County IDA and several taking jurisdictions and maintain good relations with them.

- **General financial structure and funding options** – None required.

- **Permit/approval process**

  - **Federal, State and local permits needed to develop and operate the project** – We already have all necessary permits and work well with all agencies.

  - **Permitting status, including NYISO interconnection status** – We have an existing interconnection agreement with NYSEG.

  - **Key uncertainties in federal, State and local project permitting and suggestions for how such uncertainties can be addressed** – None.

- **Other considerations, if applicable**

  - **Issues or challenges the proposal faces and suggestions for how these issues and challenges can be addressed for the project and future projects** - None

Additional Information

- **Property**

  - **Ownership of the potential project location(s), and the extent to which the project would utilize existing rights-of-way and/or previously disturbed land –** The property is owned by the Clinton County Industrial Development Corp. and operated by Saranac Power Partners. No new land acquisitions are required.

- **Projected in-service date and project schedule**

  - **Timeline for development and financing of the potential project, culminating in the commercial operation of the project, that includes preliminary engineering and licensing, detailed engineering and design, permitting, procurement of major equipment, construction, testing and commissioning** – We can start immediately.

- **Interconnection**

  - **Potential interconnection point(s)** – We interconnect at the North End Substation on the NYSEG system.

  - **Respondent's assessments of why such interconnection point(s) are optimum, from both an economic and reliability perspective** - NA

  - **Respondent's assessment of whether the energy and/or capacity is deliverable to the bulk electric system**. Yes

- **Technical**
    - **Anticipated life of facility components** – 20+ years
    - **Quality and duration of original equipment manufacturer warranties** - NA
- **Construction**
    - **Opportunities for New York-based manufacturing and/or assembly of equipment** – NA, already constructed.
    - **Description of potential contractual arrangement(s) during construction** - NA
    - **Availability of labor, materials and installation equipment** - NA
    - **Potential decommissioning options for removal of a project at the end of its life cycle, including designation of a potential responsible party from a cost and environmental perspective** – Already exists.
- **Operational**
    - **Projected or guaranteed project availability and/or energy production over project life** – We have consistently been over 95% available.
    - **Safety and emergency considerations** – We are in the OSHA Voluntary Participation Program and have demonstrated a great safety record.
- **Socio-economic**
    - **Potential benefits to and adverse impacts on the local economy** – Adverse impact to Plattsburgh area if plant closes. Loss of 22 jobs at Saranac, 220 at GP, and 120 at Pactiv.
    - **Potential impacts on real estate and property values** - none
    - **Impact on jobs, such as retention, creation of new jobs (temporary and permanent) and retraining opportunities** – Improved probability of retaining Georgia Pacific and Pactiv jobs.
    - **Public safety concerns** - none
    - **Tourism impacts** - none
    - **Aesthetic issues** - none

- **Estimated impacts on real estate and property values** – If Saranac closed, approximately $1 million of tax revenue would be lost. Losing GP and Pactiv would have a larger negative impact.

- **Environmental Justice considerations** - none

- **Smart growth considerations** - Would avoid a large expenditure for new transmission or generation.

- **Financial**

  - **The likely financial plan and potential funding sources that would be needed for project success, including long-term contracts, structure and duration required** – No funding is required.

  - **Name of potential Project Sponsor(s), if applicable, and Sponsor(s) financial commitment to the project** – see attached ownership structure

  - **Projected amounts of energy and capacity to be produced or delivered; identification of potential ancillary services and environmental attributes that may be available for sale or delivery** - 278 mW in winter and 244 mW in summer. Minimum generations is approximately 72mW. We currently provide voltage support services and could install automatic generator control if requested.

  - **Potential sources of project revenue—as examples, whether the project is currently or expected to be in a New York State Public Service Commission (PSC) proceeding or whether it would require a power purchase agreement with a creditworthy counterparty, or would rely on power merchant sales** – We are requesting a power purchase agreement.

  - **Projected range of pricing for project products (i.e., energy, capacity, ancillary services and environmental attributes, if applicable)** - Negotiable

  - **Risks of price changes due to changes in prices for commodities, manufacturer quotations and other materials and services** – We currently provide power for reliability with natural gas being a pass through. Since we have no guarantee to run, we only purchase gas when we are dispatched. This results in the purchase of very expensive inter-day or intraday gas.

  - **Anticipated incentives, such as applicable tax incentives and impact on pricing –** If we had a power purchase agreement, power would be produced at lower costs than present. A change in contract status would trigger a reopening of the PILOT agreement.

- **Options to reduce pricing and pricing uncertainty** – A power purchase agreement would lock in longer term, less expensive natural gas. It would also eliminate start charges and lower steam costs to Georgia Pacific.

- **Environmental**
  - **Environmental benefit to region** - Most emissions occur during startups. If we ran continuously, emissions would be reduced.
  - **Projected reductions in greenhouse gases** – Dependent on the amount of power produced.
  - **Wetlands, streams, forests and other natural areas that would be disturbed by the project** – Already build. The project actually created a new wetlands area.
  - **Environmental impacts of construction and operation** - None
  - **Proposed mitigation measures** - NA
- **Project contract/request for proposal (rfp) status**
  - **Whether or not the project has been submitted to a New York State agency or authority in response to a Request for Proposals ("RFP") (identify the name of the agency or authority, name of the RFP and date of issuance)** - No
- **Public outreach and stakeholder engagement**
  - **Anticipated stakeholder groups and affected individuals** – The Mayor of Plattsburgh, Supervisor of the Town of Plattsburgh, General Manager of Georgia Pacific, State Senator Betty Little, State Legislator Janet Dupree, North Country Chamber of Commerce President Garry Douglas all recognize the importance of Saranac Power Partners to the community.
  - **Potential issues to be addressed** - None
  - **Public outreach plan** – None required.

Recharge New York

Before the Energy Highway Task Force was created, Saranac was developing a proposal to be a supplier for the Recharge New York program, using the criteria that NYPA uses to select purchasers of the power. Saranac feels that the economic drivers used to select purchasers of the power also apply to Saranac as a supplier of power.

Allocations of RNY power will be made through a competitive application process. All RNY applications will be evaluated in consideration of the program's legislative criteria.

RNY applicants will be evaluated based on the following legislated criteria:

- **Significance of the cost of electricity to applicant's total cost of doing business and the impact an RNY allocation will have on the applicant's operating costs –**

  A power purchase agreement would provide stability for the future of the plant that New York State obviously needs. Reliability uplift costs will be reduced statewide if we had a purchase agreement. Steam costs to Georgia Pacific and Pactiv would be reduced

- **New capital investment resulting from an RNY allocation in New York State –**

  Significant reliability infrastructure expenditures (new transmission lines or generation) would be required if Saranac ceased operations.

- **Type and cost of buildings, equipment and facilities to be constructed, enlarged or installed –**

  Significant costs would be incurred if Saranac ceased operations. Generation or transmission upgrades would be required.

- **Extent to which an RNY allocation would be consistent with existing regional economic development strategies and priorities –**

  Saranac is the steam provider for Georgia Pacific and Pactiv. Saranac manages the North Country Gas Pipeline for NYSEG and Georgia Pacific. Saranac pays close to a million dollars in property taxes.

- **Applicant's payroll, salaries, benefits and number of jobs at the facility receiving an RNY allocation –**

  Saranac pays roughly $1.6m for wages for 22 Saranac employees (includes overtime). Saranac pays almost $1m in property taxes for Saranac alone.

- **Number of jobs created or retained within New York State** –

  22 at Saranac, 220 at Georgia Pacific, 120 jobs at Pactiv, and may other service jobs in the Plattsburgh area.

- **Applicant's risk of closure, curtailing facilities or operations, relocating out-of-state, or losing jobs in the state -**

  Without this program there is a risk that Saranac may be forced to mothball or close. If Saranac ceased operations, Georgia Pacific would be forced to purchase our boiler or install another at a cost of over $1m, which might in turn force them to close. Pactiv, with no steam host would probably be forced to close as well.

- **Significance of applicant's facility to the local economy –**

  Saranac is the lynchpin of Plattsburgh industry. We supply steam to Georgia Pacific and Pactiv. We also own and operate the North Country Gas Pipeline with NYSEG and Georgia Pacific being the customers.

- **Extent of applicant's investment in energy efficiency measures** –

  Inclusion in this program would allow us to shut down the auxiliary boiler, making steam production more efficient with fewer emissions at a lower cost for Georgia Pacific. Inclusion in this program would lower heat rates and allow the purchase of longer term, cheaper natural gas.

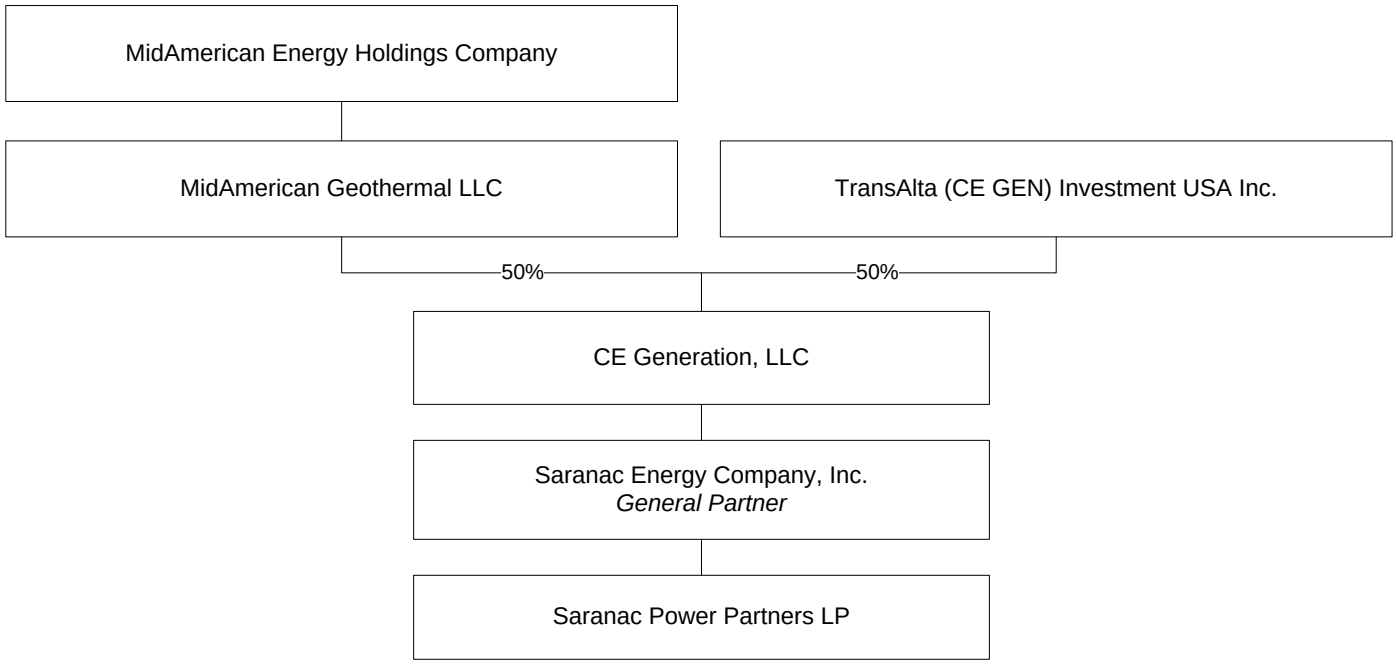
- **Whether applicant receives a NYPA hydropower allocation or benefits supported by the sale of NYPA hydropower** - NA

- **The extent to which an RNY allocation will result in an advantage relative to the applicant's competitors within the state**

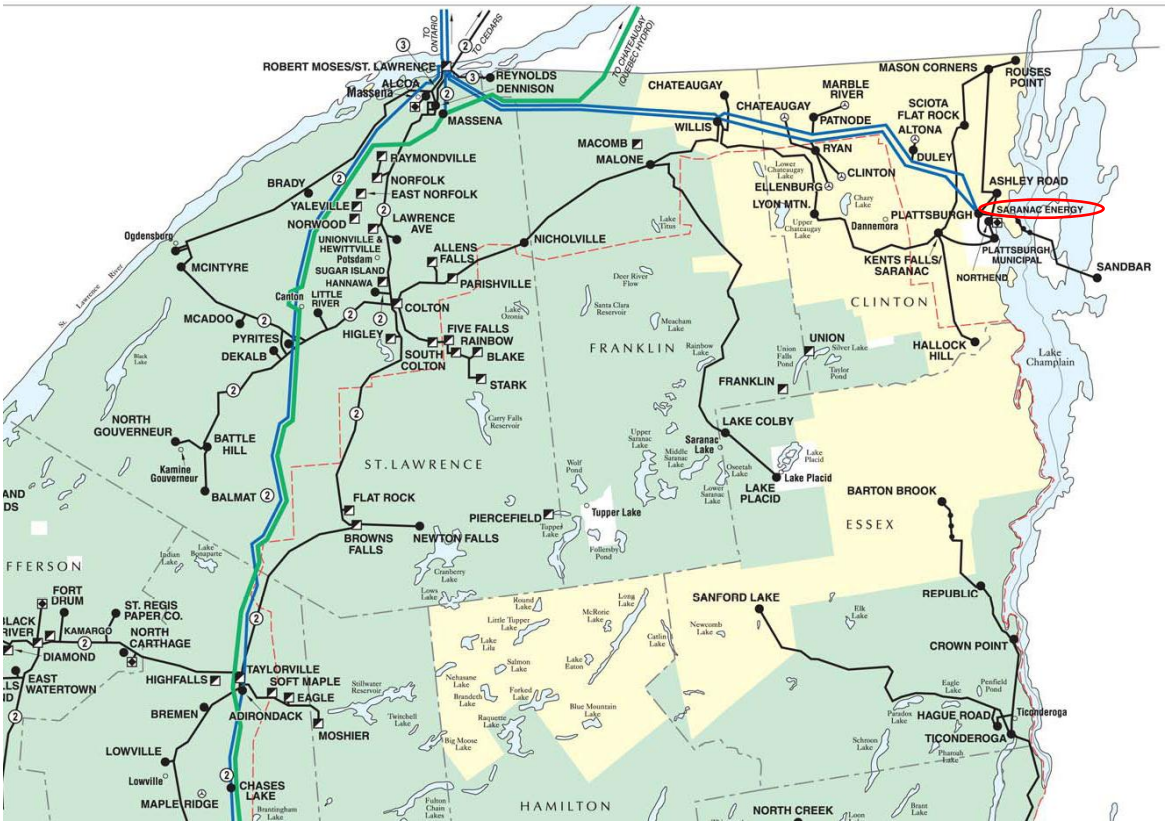
  This unit is run almost exclusively for reliability needs because of its remote location. Inclusion in this program would have no effect on competition.

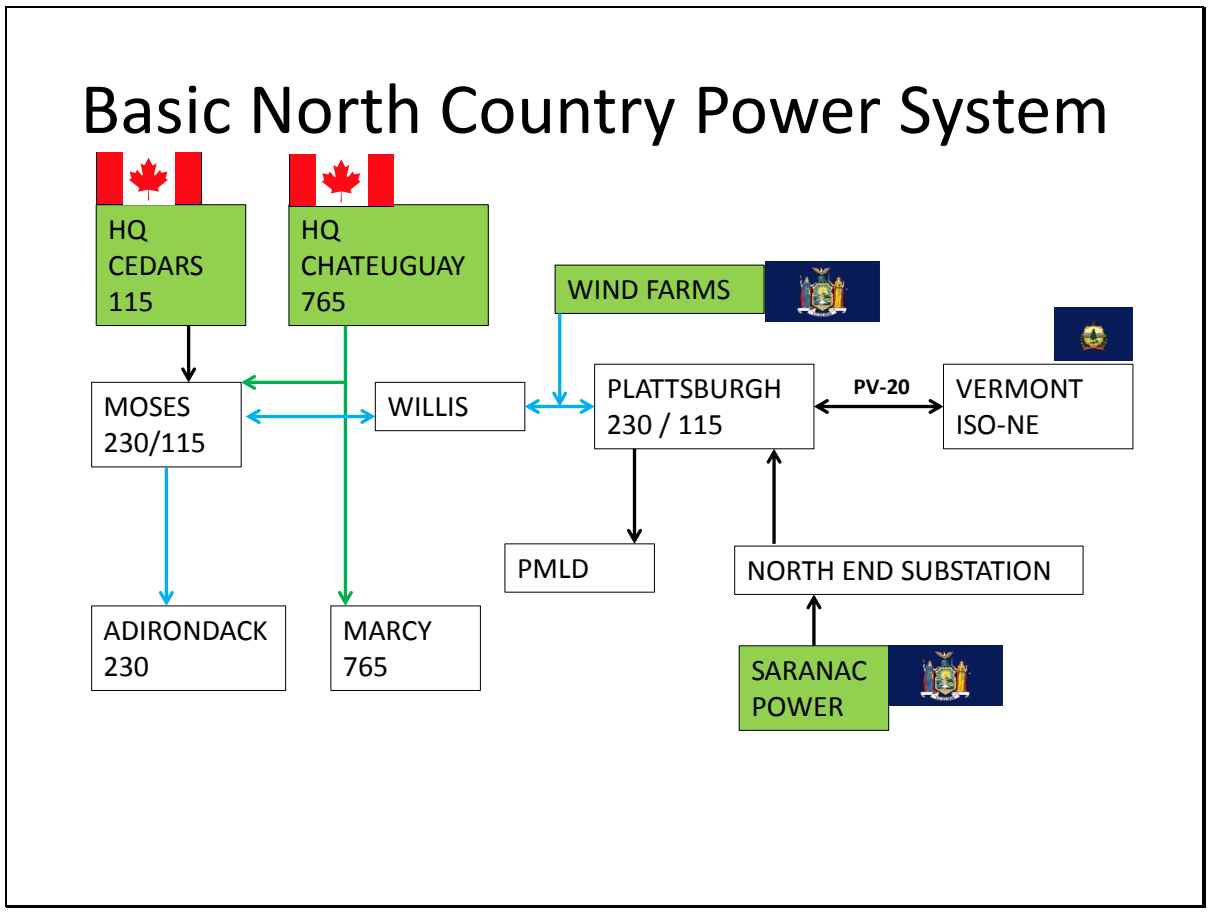
- **If applicant is a not-for-profit, the significance of the critical service or substantial benefits being provided to the local community where the facility is located** - NA

Saranac Ownership Structure



North Country NYISO Electric System Map





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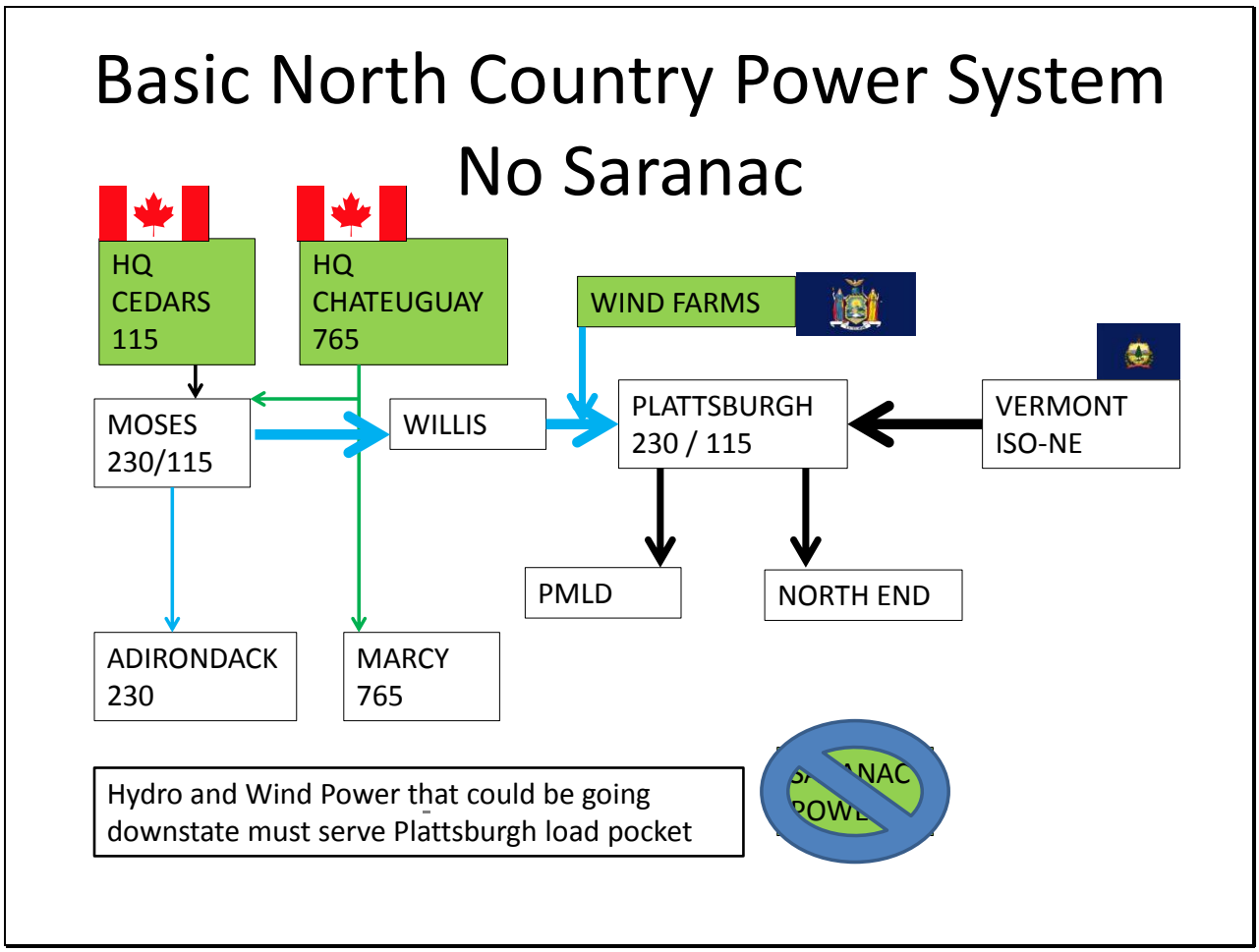
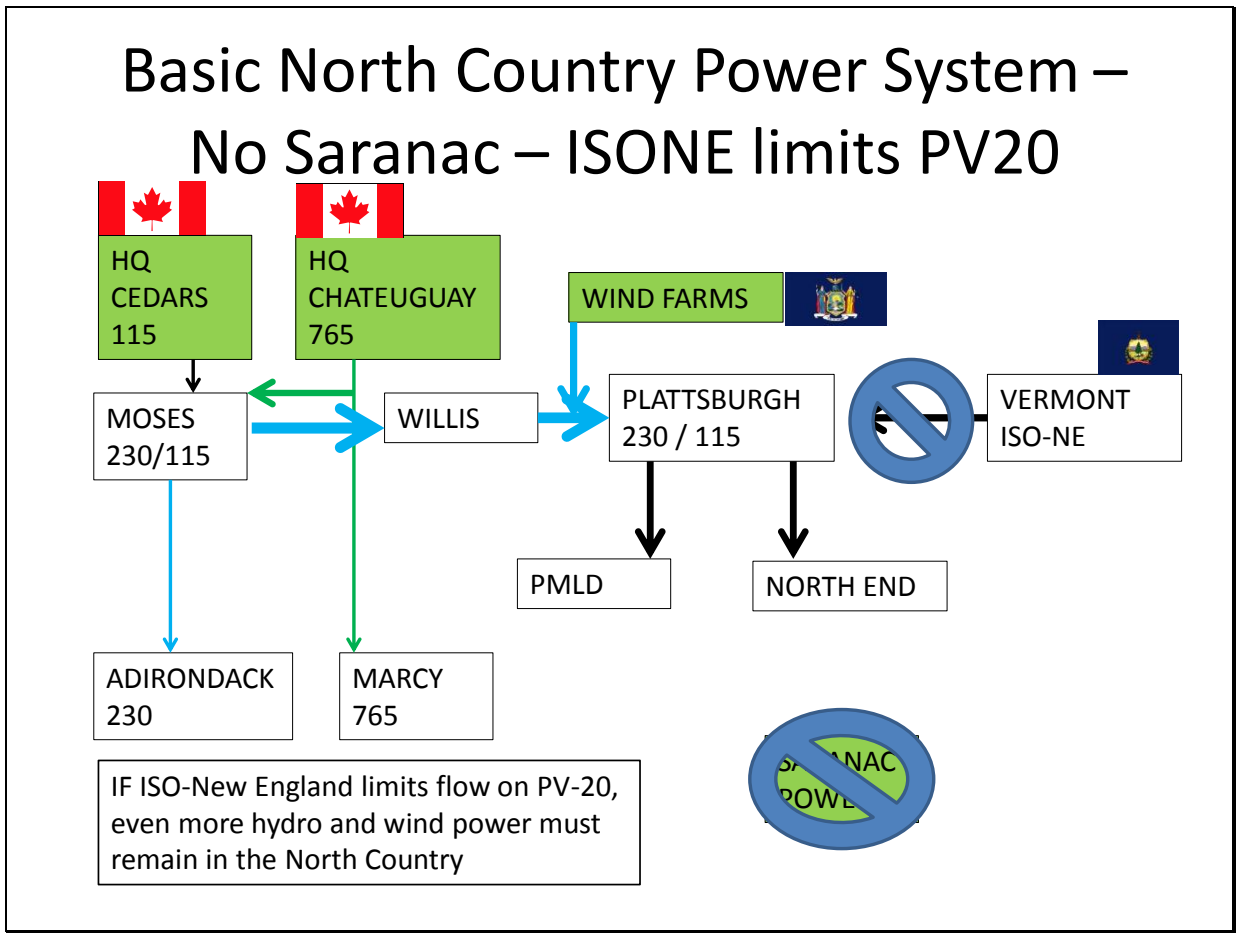
Blue is 230 kV
Black is 115 kV



Very difficult for NYISO to deliver power to Vermont over PV-20.

Wind power and Quebec must serve Plattsburgh load pocket instead of going down state.

Green is 765 kV
Blue is 230 kV
Black is 115 kV



A special protection system on PV-20 that eliminates flow to New York will make the Plattsburgh / North Country situation worse

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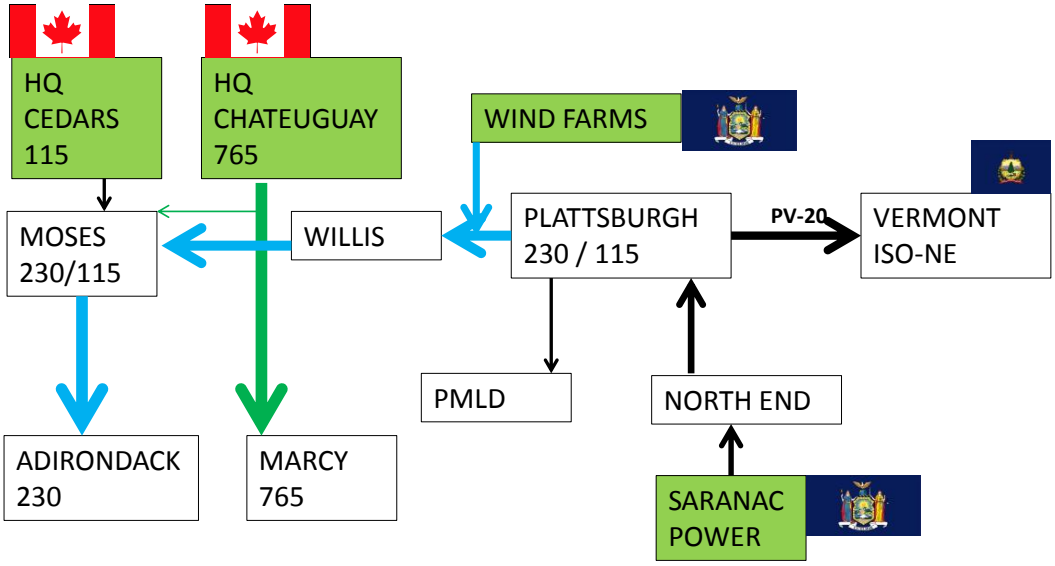
Blue is 230 kV
Black is 115 kV

Basic North Country Power System – Saranac Min Gen PPA



Saranac running at minimum generation 24/7 maximizes hydro and wind power available to send downstate and could guarantee power flow into Vermont. This would eliminate reliability problems in both New York and NE, and allow more power flow into NY from NE further south where it is needed.

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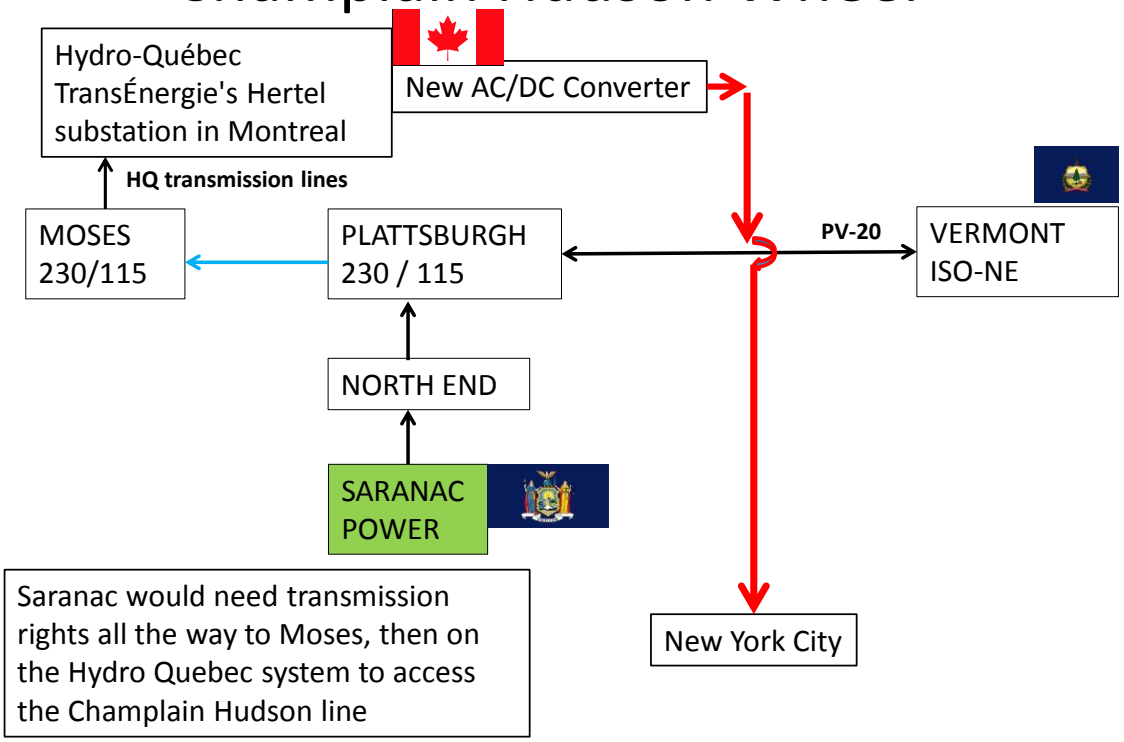
Blue is 230 kV
Black is 115 kV

Basic North Country Power System – Champlain Hudson Wheel



Basic North Country Power System – Champlain Hudson Converter in NY