

Request for Information for NY Energy Highway

Respondent Information

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

New Athens Generating Company, LLC (NAGC)
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- *Brief (no more than one page) summary of Respondent's background and relevant experience*



NAGC is the owner of a 1,080 MW combined cycle generating facility (Athens or the Facility) located in the town of Athens, New York, 30 miles south of Albany in Greene County. Since commercial operations in 2004, Athens has demonstrated its capability in the state of New York by producing efficient, low-emission, reliable energy with advanced frame combustion turbine technology. The Facility has three independent power trains consisting of Siemens 501G combustion turbine generators. The power trains utilize natural gas in combined-cycle configuration, providing efficient low cost energy to the State of New York. NAGC sells its electricity in the competitive market and is strategically positioned to boost electric reliability in the Capital Region, Mid-Hudson Valley, Southeastern New York and the New York City regions. NAGC is owned by MACH Gen, LLC and managed by Competitive Power Ventures, Inc. headquartered in Silver Springs, Maryland. The Facility is operated and maintained by a dedicated local staff sourced by NAES Corporation of Issaquah, Washington.

Project Description

- *Type of proposed project (generation, transmission or combination)*

The proposed project utilizes a combination of generation and transmission components called an Enhanced Special Protection System (ESPS). Special Protection Systems (SPSs) are utilized across the United States and in New

York. They consist of a combination of hardware and software designed to allow more efficient utilization of energy transfers on the electrical grid and relevant transmission lines by increasing a transmission line's operating rating without increasing reliability risk. SPSs typically give the transmission system operator the direct and automated ability to disconnect a generation facility from the transmission grid when the transmission grid is at risk of being overloaded. SPSs have been in successful use for a long time at numerous locations in New York, and elsewhere throughout the United States and the world. NAGC and National Grid installed a SPS at Athens in 2008, which has operated successfully at 100% reliability since it was installed. In response to a request from National Grid, NAGC is willing to fund an enhancement to this existing SPS, called the ESPS, which will add further redundancy and reliability by adding additional power supply feeds and also have redundant vendor equipment from different vendors to minimize like-kind component failure. In return for NAGC's investment and commitment, we are requesting that National Grid allow the ESPS to remain in operation for as long as it may take for other transmission system upgrades to be put into service so as to allow at least the same amount of power to flow on the Leeds-Pleasant Valley 345 kV lines as can be done with the ESPS in operation.

- *Size of proposed project, with expected capability in energy and capacity*

The ESPS will allow the continuation of the increase in the power flows on each of the Leeds – Pleasant Valley circuits by 330 MW. This equals the amount of energy transfer that the current SPS facilitates. Therefore, up to 660 MW of additional generation capacity can continue to be made available. This equates to a maximum increase of approximately 5.7 million MWH/year of relatively low-cost energy, which could continue to transfer on those lines in the downstate direction.

- *Proposed Project location (NYISO zone, town, county)*

The proposed project location will include some equipment at NAGC in zone F in Athens, Greene County, New York and some equipment at the Leeds Substation in Leeds, Greene County, New York.

- *Fuel source and availability of fuel/infrastructure, as appropriate*

The fuel source is natural gas for the combined cycle units at NAGC through its existing interconnection to the Iroquois Pipeline in Athens, New York. There is no need for additional fuel infrastructure.

- *Earliest date project can be operational*

The ESPS could be operational within approximately 12 months. NAGC is prepared to proceed with this project immediately upon finalization and execution of an amended and restated agreement with National Grid.

- *Experience, market availability and suitability of project technology*

All components of the proposed ESPS project will use well proven, commercially available, off-the-shelf technology from established suppliers similar to those currently used in the existing NAGC SPS system. This current system has operated continuously and reliably since January 8, 2008.

Project Justification

- *How the proposed project could address the State's objectives and goals*

The proposed project will maintain the current level of power flow and service to all of New York's electrical customers, providing reliability to the system and helping to maintain relatively low-cost energy to customers. The

ESPS will enhance the reliability of the existing SPS at Athens, and can serve as a bridge to installation of other transmission system upgrades that require considerably more time for approval and construction.

The proposed project will address the following State objectives and goals in this way:

Reduce constraints on the flow of electricity to, and within, the downstate Area

The ESPS will allow the continuation of an increase in the power flows on each of the Leeds – Pleasant Valley circuits by 330 MW. This is the same increased amount that the current NAGC SPS facilitates. Therefore, up to 660 MW of additional generation capacity can continue to be made available, and a maximum increase of approximately 5.7 million MWH/year of relatively low-cost energy could continue to be transmitted on those lines in the downstate direction where energy is needed most.

The projected benefits of an ESPS are profound and well documented. The NYISO’s own recently published 2011 Congestion Assessment and Resource Integration Study (CARIS) report highlights that the continued presence of the existing NAGC SPS would yield a net savings of \$199 million statewide as referenced in table 2 on page 13 of the 2011 CARIS Report.

These significant economic benefits for New York are created from reductions in transmission system congestion combined with a decrease in power generation costs. In essence, facilities that produce lower cost power across New York would be allowed to increase their outputs because they would be less constrained by certain physical transmission constraints, like transmitting energy to downstate NY, which will occur without the ESPS in operation.

Assure that long-term reliability of the electric system is maintained in the face of major system uncertainties.

The Athens Facility provides a nominal 1080 MW of highly reliable, natural gas fueled, low emission generation capacity. In consideration of the uncertainty of permitting, cost and schedule surrounding the construction of new transmission facilities between Leeds and Pleasant Valley, the ESPS can help maintain maximum utilization of the existing system and of clean low-cost generators like Athens until a larger transmission facility is approved and built. That is, the ESPS will provide significant benefits until the time if, and when, the power flow capability of the Leeds-Pleasant Valley lines might be increased with new or upgraded transmission facilities equivalent to or larger than the existing transfer capacity to currently provided by the ESPS.

RFI responders should address how proposed projects would:

Create jobs and opportunities for New Yorkers.

The Task Force is particularly interested in proposed projects that offer substantial direct and indirect job creation and economic development potential.

NAGC employs 31 full-time employees locally, and utilizes the goods and services from approximately 100 vendors located in New York State. Additionally, during scheduled maintenance outage periods, NAGC utilizes the services of as many as 250 contractors to support the work. Many of those contractors require the use of local restaurants, hotels, and other local services.

Contribute to an environmentally sustainable future for New York State.

The Task Force encourages proposed projects that contribute to reduced emissions from the power sector, are consistent with the goal of alleviating disproportionate pollution and other burdens on Environmental Justice

Communities and help to reduce the carbon footprint of electricity consumed in New York, regardless of where electricity is produced. The proposed projects should make optimal use of existing rights-of-way and previously disturbed land areas.

The NAGC facility provide a nominal 1080 MW of highly reliable, natural gas fueled, low emission generation capacity. The ESPS will allow the continuation of the increase in the power flows on each of the Leeds – Pleasant Valley circuits by 330 MW. This equals the amount of energy transfer that the current SPS facilitates. Therefore, up to 660 MW of additional generation capacity can continue to be made available. This equates to a maximum increase of approximately 5.7 million MWH/year of relatively low-cost energy, which could continue to transfer on those lines in the downstate direction.

The existing NAGC SPS always has made, and the ESPS will continue to make, optimal use of existing rights-of-way and previously disturbed land areas.

Apply advanced technologies that benefit system performance and operations.

The need for large capital investments in the bulk transmission system presents the opportunity to take advantage of new communications and operations equipment—such as the Smart Grid and other technologies. Application of Smart Grid technologies, energy storage technologies and others that are intended to reduce losses may help reduce peak demand strains on the system, integrate intermittent resources, such as wind, and improve overall reliability.

The proposed NAGC ESPS, as well as our existing SPS, can truly be characterized as real-life, successful application of “Smart Grid” technology. The existing SPS utilizes state-of-the-art, well-tested hardware and software designed to intelligently and reliably access real-time inputs from the transmission grid, and the NAGC Facility, in order to bring about the most efficient use and highest reliable energy transfers of the overall power system.

The result of existing NAGC SPS system is a continuous increase in the loadability ratings on the Leeds to Pleasant Valley lines, with the commensurate significant decrease in congestion. Thereby, this system facilitates the flow of additional relatively low-cost energy to the downstate zones. All of these SPS Smart Grid benefits are attained with no need for additional rights-of-way. Further, as part of the existing SPS project, NAGC also previously self-funded a large shunt-capacitor installation located at Consolidated Edison’s Millwood Substation. It is designed to significantly improve the operating voltages there and at neighboring facilities throughout the Lower Hudson Valley. The proven success of the Millwood shunt-capacitor facility, in combination with the existing SPS, has resulted in substantial reductions in power losses around the area, as well as further increases in the NYISO’s transmission system transfer limits on the transfer of power to downstate consumers.

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

Consideration of infrastructure improvements must include an evaluation of the impacts of those improvements on the ratepayers.

The ratepayer impacts of the NAGC ESPS will be uniformly beneficial, as has already been proven to be the case with the existing SPS. The New York State benefit to both upstate and downstate customers has been overwhelmingly positive. The future operation will assure continuation of the ability to transfer as much as 5.7 million MWH/year of additional relatively low-cost energy to downstate consumers.

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

The New York Independent System Operator (NYISO) has developed procedures to assess the reliability impacts of new generation, merchant transmission and transmission owner expansion/reinforcement project proposals. Proposed projects will be expected to go through the NYISO interconnections process. Projects that demonstrate the ability to proceed through the NYISO System Reliability Impact Study/System Impact Study (SRIS/SIS) process with minimum reliability impacts have greater potential to address the concerns raised above within the desired time frame.

NAGC has discussed the proposed ESPS with the NYISO and has been informed that no interconnection studies, or votes at committee meetings, are required. This is because the ESPS will simply add redundancy to the existing SPS, which has built in redundancy and has operated at 100% reliability. Rather, the NYISO has requested, and NAGC has already agreed, to give them and their Market Participants progress reports on the ESPS as may be appropriate during its implementation.

Financial

- *Prospects of a private-public partnership*

NAGC will fund all of the proposed project's costs. Therefore, the ESPS will not require the formation of any partnerships outside of our agreement with National Grid. However, it may be possible that some other parties may be interested in discussing potential joint arrangements with NAGC. We remain open to the consideration of any such proposals which others may wish to offer.

- *General financial structure and funding options*

NAGC will fund all of the proposed project's costs in accordance with the payment plan as determined in our amended and restated agreement with National Grid currently in negotiations.

Permit/Approval Process

- *Federal, State and local permits needed to develop and operate the project*

No additional Federal, State, or local permits are expected to be required. Project review and approval by FERC may be required.

- *Permitting status, including NYISO interconnection status*

No additional permits or interconnection approvals will be needed for the ESPS project aside from: routine technical reviews as may be requested by the Northeast Power Coordinating Council (NPCC); typical, routine construction permits as may be required for the standard NYISO; and, National Grid installation, commissioning and testing activities.

- *Key uncertainties in federal, State and local project permitting, and suggestions for how such uncertainties can be addressed*

As described in the two items above, NAGC confirms that there are no permitting uncertainties related to the ESPS.

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

The current agreement NAGC has with National Grid for the existing SPS is currently in negotiation and eventually will be amended and restated with a new longer term operability period to align with the eventual implementation of larger transmission upgrade for the corridor between Leeds and Pleasant Valley. FERC most likely will have to approve the amended agreement. However, as was true for the existing SPS, that approval should be a routine matter.

Additional Information

To the extent practicable, the following areas should be addressed:

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 components of the ESPS will be located in the control room at the existing NAGC facility and within the existing structures at the Leeds Substation. No new rights-of-way will be needed, and no land will be disturbed.

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*

The ESPS could be operational within approximately 12 months. NAGC is prepared to proceed with this project immediately upon finalization and execution of an amended and restated agreement National Grid. Since NAGC will provide all of the funding, no delays for implementation are expected to occur.

Interconnection

- *Potential interconnection point(s)*

The ESPS will be interconnected to the same interconnection points that are used by the existing NAGC SPS- the NAGC power plant, and the Leeds and Pleasant Valley lines and substations.

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

The existing NAGC SPS has proven in service to be a perfectly reliable and extremely low-cost way to continually increase transmission transfer limits. Its design was carefully developed, as will similarly be done for the ESPS. Therefore, we expect the results to be identical.

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

By the NYISO's own analysis, and through actual operating experience, NAGC's energy and capacity, partially by virtue of its existing SPS, is proven to be fully deliverable to the bulk electric system. The ESPS will simply add redundancy to the existing SPS, there will be no change in deliverability.

Technical

- *Anticipated life of facility components*

The ESPS is typically designed for a period of 30 years or more, however the goal for the ESPS is to remain in successful operation until a larger transmission project is installed to alleviate congestion between Leeds and Pleasant Valley.

- *Quality and duration of original equipment manufacturer warranties*

Warranties will conform to current best practices in accordance with National Grid recommendations, with a minimum of one year from the date of installation of the new equipment.

Construction

- *Opportunities for New York-based manufacturing and/or assembly of equipment*

NAGC in coordination with National Grid will solicit New York based manufacturing and assembly where possible.

- *Description of potential contractual arrangement(s) during construction*

National Grid will perform the construction as part of the NAGC amended and restated agreement with National Grid.

- *Availability of labor, materials and installation equipment*

National Grid will provide the labor, materials and equipment as part of the NAGC amended and restated agreement where such components and labor are generally and routinely available in New York.

- *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*

The decommission activities are minimal and would be performed by National Grid at Athens expense with no environmental impact.

Operational

- *Projected or guaranteed project availability and/or energy production over project life*

The existing NAGC SPS is proven to operate successfully with 100% availability and reliability. The ESPS will simply add redundancy to the existing SPS, it is not expected to change this situation. Further, one of the ESPS's benefits is projected to be the continuation of ability to ship as much as 5.7 million MWH/year of additional relatively low-cost energy to downstate consumers by facilitating the increased power flows on each of the Leeds – Pleasant Valley circuits by 330 MW.

- *Safety and emergency considerations*

Not applicable

Socio-Economic

- *Potential benefits to and adverse impacts on the local economy*

The benefit created ensures the long term viability of the NAGC facility to operate successfully in Athens, New York, preserving jobs and ensuring all of the economic benefits NAGG brings to New York and Greene County.

- *Potential impacts on real estate and property values*

Not applicable

- *Impact on jobs, such as retention, creation of new jobs (temporary and permanent) and retraining opportunities*

NAGC employs 31 full-time local employees. During periods of scheduled maintenance outages, the facility utilizes up to 250 contractors to perform the work. The ESPS preserves the long term viability of NAGG and retains employees at the site.

- *Public safety concerns*

Not applicable

- *Tourism impacts*

Not applicable

- *Aesthetic issues*

Not applicable

- *Estimated impacts on real estate and property values*

Not applicable

- *Environmental Justice Considerations*

Not applicable

- Smart growth considerations

Not applicable

Financial

- *The likely financial plan and potential funding sources that would be needed for project success, including long-term contracts, structure and duration required*

The ESPS will be fully funded by NAGC. The ESPS has no known financial impediments to success. However, in return for NAGC's investment, we request that the ESPS be kept in operation for as long as it may take for other power system upgrades to be put into service on the Leeds-Pleasant Valley lines to, at a minimum, match the power flow allowed by the ESPS in operation.

- *Name of potential Project Sponsor(s), if applicable, and Sponsor(s) financial commitment to the project*

NAGC will fund all of the proposed project's costs. Therefore, the ESPS will not require the formation of any partnerships outside of our agreement with National Grid. However, it may be possible that some other parties may be interested in discussing potential joint arrangements with NAGC. We remain open to the consideration of any such proposals which others may wish to offer.

- *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*

The NAGC facility provide a nominal 1080 MW of highly reliable, natural gas fueled, low emission generation capacity. The ESPS will allow the continuation of the increase in the power flows on each of the Leeds – Pleasant Valley circuits by 330 MW. This equals the amount of energy transfer that the current SPS facilitates. Therefore, up to 660 MW of additional generation capacity can continue to be made available. This equates to a maximum increase of approximately 5.7 million MWH/year of relatively low-cost energy, which could continue to transfer on those lines in the downstate direction.

- *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.*

The ESPS will be fully funded by NAGC. The ESPS has no known financial impediments to success. However, in return for NAGC's investment, we request that the ESPS be kept in operation for as long as it may take for other power system upgrades to be put into service on the Leeds-Pleasant Valley lines to, at a minimum, match the power flow allowed by the ESPS in operation.

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

NAGC plans to continue its participation in the relevant NYISO competitive power markets as appropriate.

- *Risks of price changes due to changes in prices for commodities, manufacturer quotations and other materials and services*

NAGC will absorb any equipment cost overruns as necessary related to commodity price risk.

- *Anticipated incentives, such as applicable tax incentives and impact on pricing*

Not applicable

- *Options to reduce pricing and pricing uncertainty*

Not applicable

Environmental

- *Environmental benefit to region*

Long term NAGC operations in Greene County positions a best-in-class, low emissions producing, advanced frame combined cycle power plant to remain in operations.

- *Projected reductions in greenhouse gases*

Long term NAGC operations in Greene County positions a best-in-class, low emissions producing, advanced frame combined cycle power plant to remain in operations.

- *Wetlands, streams, forests and other natural areas that would be disturbed by the project*

Not applicable

- *Environmental impacts of construction and operation*

Not applicable

- *Proposed mitigation measures*

Not applicable

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)*

Not applicable

Public Outreach and Stakeholder Engagement

- *Anticipated stakeholder groups and affected individuals*

NAGC has already offered to prepare this ESPS proposal jointly with other entities, and has discussed aspects of it with them. To date this includes a Transmission Owner and an independent transmission project developer. Those parties have not yet accepted our offer to collaborate with us on the Task Force's RFI process. Nevertheless, we remain open to inquiries by any party who may have an interest in helping with the implementation of an ESPS. In addition, it may be there are other stakeholder groups who might be interested in the NAGC ESPS because of the benefits it can provide, such as lower power costs and fewer emissions.

- *Potential issues to be addressed*

NAGC stands ready to address all relevant issues brought to our attention. We are not currently aware of any issues aside from those already discussed with interested parties. Potential issues may include the proven performance of the existing NAGC SPS and the uncertainty of the permitting, cost and cost surrounding the construction of new transmission. The ESPS can help maximize utilization of the existing system for the foreseeable future until such a time if, and when, the power flow capability of the Leeds-Pleasant Valley lines might be increased.

- *Public outreach plan*

NAGC is prepared to reach out to any and all public parties interested in the ESPS, and will do so if, and when, their interests become known. We also welcome any suggestions from the Energy Highway Task Force, or any other entity, as to interested parties.