



CALPINE CORPORATION

May 30, 2012

Gil C. Quiniones
Co-Chair, Energy Highway Task Force
President and Chief Executive Officer
New York Power Authority
123 Main Street, 16th Floor
White Plains, N.Y. 10601-3170

Re: The New York Energy Highway Request for Information

Dear Mr. Quiniones:

On behalf of Calpine Corporation ("Calpine"), we are pleased to respond to the New York Energy Highway RFI ("Submission"). Calpine believes its unmatched history of constructing and operating one of the largest fleets of gas turbines in the world uniquely positions Calpine to deliver new and/or repowered energy and capacity by utilizing the economies of scale from our New York portfolio.

Calpine values its current relationship with the state of New York and we look forward to expanding that relationship. After your review and consideration of our Submission, we stand ready to discuss our thoughts and views. If you have any questions or comments regarding the Submission, please feel free to contact Champe Fisher or Steve Schleimer.

Sincerely,

Calpine Corporation, North
Champe Fisher, Vice President
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Calpine Corporation, North
Steve Schleimer, Vice President
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Calpine Corporation

SUBMISSION

TO

**The New York Energy Highway
("Energy Highway")**

In Response to the Energy Highway's

April 11, 2012 RFI

May 30, 2012

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Respondent Information

Company Name: Calpine Eastern Corporation
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Calpine Corporation Contact Information:

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Calpine Corporation is the largest independent wholesale power company in the U.S. measured by annual power production. It owns and operates primarily natural gas-fired and geothermal power plants in North America with a significant presence in major competitive wholesale power markets in California, Texas, Midwest and the Mid-Atlantic region of the U.S.

Since its inception in 1984, Calpine has been a leader in environmental stewardship. By investing in clean power generation, Calpine has become a recognized leader in developing, constructing, owning and operating an environmentally responsible portfolio of power plants. Our portfolio is primarily comprised of two types of power generation technologies: natural gas-fired combustion turbines, which are primarily combined-cycle plants, and renewable geothermal conventional steam turbines. We are among the world's largest owners and operators of industrial gas turbines as well as cogeneration power plants. The Geysers Assets located in northern California represent the largest geothermal power generation portfolio in the U.S. and produced a significant portion of all renewable energy in the state of California. Calpine sells wholesale power, steam, capacity, renewable energy credits and ancillary services to our customers, including utilities, independent electric system operators, industrial and agricultural companies, retail power providers, municipalities and power marketers. We purchase natural gas and fuel oil as fuel for our power plants, engage in related natural gas transportation and storage transactions, and we purchase electric transmission rights to deliver power to our customers. We also enter into natural gas and power physical and financial contracts to hedge certain business risks and optimize our portfolio of power plants.

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Our portfolio, including partnership interests, includes 92 operating power plants, located throughout 20 states in the U.S. and Canada, with an aggregate generation capacity of 28,155 MW and 584 MW under construction. Our generation capacity includes approximately 5,286 MW of baseload capacity from our Geysers Assets and cogeneration power plants, 16,393 MW of intermediate load capacity from our combined-cycle combustion turbines, and 6,476 MW of peaking capacity from our simple-cycle combustion turbines and duct-fired capability, which includes approximately 4 MW of capacity from solar, photovoltaic power generation technology located in New Jersey included in our North segment. Calpine operates an aggregate generation capacity of 6,919 MW with an additional 584 MW under construction in the West, 7,239 MW in Texas, 7,914 MW in the North and 6,083 MW in the Southeast. Our Geysers Assets, included in our West segment, have generation capacity of approximately 725 MW from 15 operating geothermal power plants, and we have begun expansion efforts to increase our generation capability at our Geysers Assets.

Calpine is a member of the NYISO and owns, operates and maintains five generating power plants totaling 352 MW in the state of New York. In New York Zone J, Calpine owns the Kennedy International Airport Power Plant (Borough of Queens). On Long Island Zone K, Calpine owns four generating power plants, the Bethpage Power Plant (Nassau County), the Bethpage Peaker (Nassau County), the Bethpage Energy Center 3 (Nassau County) and the Stony Brook Power Plant (Suffolk County).

Calpine has, under a combination of mid- to long-term agreements, contracted the majority of the output associated with each of these power plants. These power plants sell capacity, energy, ancillary services and other energy products to the following customers:

- Long Island Power Authority
- New York Power Authority
- The Port Authority of New York and New Jersey
- State University at Stony Brook

Any remaining capacity and energy not under contract is sold into the NYISO capacity and energy markets.

Calpine's engineering and construction accomplishments include:

- Successfully completed and commissioned over 23,600 MW of natural gas-fired technology plants since 1999
- Developed, engineered, procured, constructed, and commissioned over 98 gas turbines since 1999
- Completed over 50 projects under a number of different project delivery methods including EPC, modified EPC, and Calpine construct

- Actively growing the fleet, including:
 - York Energy Center, online in early 2011, three months ahead of schedule
 - Russell City Energy Center and Los Esteros Critical Energy Facility upgrade, which are on or ahead of schedule

Project Description

In response to the Energy Highway's RFI for submissions to provide proposed projects for generation, transmission or combination to be considered by the Task Force, Calpine is well positioned to offer for consideration multiple new and/or repowered generation options at Calpine's existing New York assets. However, given confidentiality restrictions and the Task Force's desire to make all initial RFI responses public Calpine is limited in its ability to fully respond to the RFI. To the extent possible, Calpine will provide as much information as possible to help the Task Force as it moves forward to develop an Action Plan.

Calpine is uniquely positioned to further develop its existing asset footprints to provide the state of New York with its objectives for dependable, environmentally friendly power, increased efficiency and operational flexibility necessary to meet the demands of serving load as well as reacting to the variability in market and physical conditions. Calpine's intent is to provide the state of New York with the ability to integrate new and/or repowered generation into its resource pool with the ability to provide:

- Highly efficient responsive combined cycle capacity and energy
- Fast start capability
- Flexibility to balance future renewable resources from wind and solar
- Automatic Generation Control
- Start/stop scheduling decisions
- Choice to use the capacity to provide energy or ancillary services
- Black Start capability (optional)
- Performance guarantees

Multiple configurations can be evaluated ranging from 50 MW natural-gas fired simple cycle units to 275 MW natural gas-fired combined cycle units (fuel-oil optional).

Typical construction timelines for the above proposed options range from 8 to 21 months depending on the size and scope of project.

Project Justification

A Calpine new and/or repowered project will address the State's objectives and goals by providing:

- Dependable energy infrastructure for economic growth
- Increasing efficiency of power generation in densely populated urban areas
- Increasing aging power plant efficiency and making them more environmentally friendly
- Create Jobs and opportunities for New York

A Calpine new and/or repowered project will provide cleaner, more efficient generation that will displace energy produced from less efficient generation thus reducing the amount of emissions in the state of New York. In addition, a Calpine project will provide construction and operations jobs, increased property tax revenue, and will benefit the community as a result of the 8 or 21 months of construction spending to occur at the construction site and over the life of the project. Assuming a conservative 1.5x multiplier effect for a larger Calpine project investment in New York, the value to the local economy would be over \$700 million.

Financial

Calpine has successfully raised capital across a wide range of markets, including high yield, term loan and bank markets. As a result, Calpine has a successful history of financing projects in the energy sector. In 2011 alone, Calpine closed financing on over \$1.1 billion in project financings for the construction of new power projects and the expansion of existing power projects. Calpine has an equally successful track record in private-public partnerships and is open to exploring a partnership with the Energy Highway.

Permit/Approval Process

Calpine is a long-time owner and operator of existing generation in the state of New York. Calpine has a proven track record of successful community relations for both its operating assets and more recently during the development of the Bethpage Peaker and Bethpage Energy Center 3 units. For a new and/or repowered project, Calpine will work closely with the Energy Highway from the start of development all the way through construction, to ensure that members of the community are well informed and have a chance to fully participate in the relevant permitting aspects of a new and/or repowered project.

Calpine proposes that Calpine and the Energy Highway work in a coordinated fashion to ensure that a high degree of community acceptance is maintained and that local concerns are appropriately addressed. Calpine has experience in working successfully with various community relation staffs, and is confident that

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a new and/or repowered project can be executed with a high degree of community acceptance.

Calpine has developed a comprehensive list of known consents or permits required for power plant construction and operation. Calpine will manage the permitting and development of the Project and will coordinate applications to the appropriate Town, County, State and Federal agencies.