

STATE OF NEW YORK
PUBLIC SERVICE COMMISSION

At a session of the Public Service
Commission held in the City of
Albany on October 15, 2009

COMMISSIONERS PRESENT:

Garry A. Brown, Chairman
Patricia L. Acampora
Maureen F. Harris, abstained
Robert E. Curry, Jr.
James L. Larocca

CASE 09-E-0592 - Petition of Stephentown Regulation Services LLC
for Authority Pursuant to PSL Section 69 and
for Lightened Regulation

CASE 09-E-0628 - Petition of Stephentown Regulation Services LLC
for a Certificate of Public Convenience and
Necessity for Authorization Pursuant to PSL
Section 68 to Construct and Operate an Energy
Storage Facility of up to 20-megawatts and
Related Facilities to be Located in the Town of
Stephentown, Rensselaer County

ORDER GRANTING A CERTIFICATE OF PUBLIC CONVENIENCE
AND NECESSITY, APPROVING FINANCING AND,
PROVIDING FOR LIGHTENED REGULATION

(Issued and Effective October 16, 2009)

BY THE COMMISSION:

INTRODUCTION

By petition filed August 4, 2009 (and supplemented on August 5, 2009) Stephentown Regulating Services LLC (SRS or the Company) requested an order approving financing for proposed facilities and providing for lightened regulation of the Company as an electric corporation. By separate filing of August 17, 2009, SRS submitted a petition for a Certificate of Public Convenience and Necessity (CPCN), pursuant to §68 of the Public Service Law (PSL), authorizing the construction and operation of

an energy storage project proposed to be located in the Town of Stephentown, Rensselaer County.

On October 1, 2009, SRS moved, pursuant to 16 NYCRR §21.10, to expedite the process for considering its request that a CPCN be issued authorizing it to construct and operate its energy storage project. Pursuant to 16 NYCRR §21.10(a), SRS filed proof that it made the requisite newspaper publication of notice of its motion on September 28, 2009. Comments on the motion were due October 8, 2009, 10 days following publication. No comments have been received.

A notice of the petition for lightened regulation was published in the State Register on August 19, 2009 in conformance with §202(1) of the State Administrative Procedure Act (SAPA). The SAPA §202(1)(a) period for submitting comments in response to the petition expired on October 5, 2009. No comments have been received.

On October 1, October 2, and October 9, 2009, the Company provided supplemental information in response to inquiries of the Staff of the Department of Public Service (Staff). The supplements provided details of the design and management of the proposed facilities, substation and transmission interconnection facilities, additional technical specifications and maintenance information regarding the energy storage facilities proposed for the project, and additional details of proposed facilities operation, inspection and maintenance.

THE PETITIONS

The Company is a Delaware limited liability corporation and is a subsidiary of Stephentown Holding, LLC. The petitions state that SRS will purchase, develop, construct, finance, own, operate and manage the proposed energy storage

facilities. Stephentown Holding, LLC is wholly owned by Beacon Power Corporation, which is a publicly-owned Delaware corporation that is an industry leader in the development of energy storage flywheel facilities. The Company intends to commence construction as soon as possible.

Description of Project

SRS proposes to site, install and operate an interconnected system of energy storage devices utilizing flywheels, control equipment and substation switchgear, to convert transmission level electrical energy to kinetic rotary energy for short term storage and use. The facilities will be installed at a seven acre site in the Town of Stephentown, Rensselaer County, at a property which adjoins electric transmission facilities owned and operated by Niagara Mohawk Power Corporation d/b/a National Grid (Niagara Mohawk), and electric distribution facilities owned and operated by New York State Electric and Gas (NYSEG). The interconnected system of 200 energy storage flywheels is structured in a series of 20 pods, each comprised of 10 individual flywheel devices, linked to control equipment in a Smart Energy Matrix Container structure, and a series of Pump House Containers, which include coolant pumping, low voltage switching and related equipment. Other facilities at the site include a cooling and chilling system, mid-level voltage transformers, and associated controls. Site security is provided by perimeter fencing and enclosed structures to house most equipment.

The flywheels are designed to spin at very high rotation speeds, utilizing power from the transmission system to start and maintain the spinning mass, which can quickly be used to support and regulate voltage and frequency variations on the transmission system. The individual flywheel devices are 100 kW units which will be installed in concrete structures buried at

the site, in an interconnected array which can be ramped up or down in increments to the maximum of 20 megawatts (MW) as needed to provide voltage or frequency stability. The substation facilities will include switches and transformers that increase voltage from site power at 13.8 kV to 115 kV, to enable interconnection to the operating voltage of the #993 transmission line of Niagara Mohawk, which connects the Stephentown substation to the Greenbush substation in the Town of East Greenbush, Rensselaer County. In addition to the underground flywheels, the project will include an access road, underground electrical collection lines, an interconnection substation, approximately 600 feet of overhead 115 kV transmission interconnection line, a stormwater collection system, a water supply well and wastewater collection system, and a centrally located operations, maintenance and visitors' facility. SRS indicates that it may pursue a project modification to establish an interconnection of one to five of the 10-flywheel pods to the NYSEG distribution system which adjoins the facility site. Pad-mounted transformers and underground distribution lines to the site perimeter would be installed for temporary connection to the NYSEG facilities enabling earlier start-up of a portion of the facilities' capacity.

Temporary and permanent stormwater and erosion control features will minimize construction impacts of the facility site. Following construction, disturbed areas will be restored, with a landscaped area along the site frontage on Grange Hall Road. There are no significant site constraints or environmental conditions at the facility site that warrant detailed mitigation measures beyond those specified in Special Use Permit approvals granted by the Town of Stephentown following reviews conducted by that host Town and the Commission

pursuant to the State Environmental Quality Review Act (SEQRA).¹ The transmission interconnection facility, however, is located in close proximity to a protected tributary to the Kinderhook Creek. Staff has advised SRS that a final 115 kV facility alignment which avoids disturbance of the bed and banks of this trout stream should be developed to minimize effects on the protected resource, and that final construction plans should document appropriate protection measures.

The Company has committed to comply with the requirements of our regulations regarding the protection of underground facilities (16 NYCRR Part 753); the Company also certified that they would become a member of Dig Safely New York, and would require all contractors, excavators and operators associated with their facilities to comply with the underground facility protection regulations. SRS has also committed to comply with the requirements of our regulations regarding identification and numbering of above ground utility poles (16 NYCRR Part 217).

In its petition, the Company provided details and descriptions of its proposed electric facilities, including features for facility security and public safety; a plan for quality assurance and control measures for facility design and construction; utility notification and coordination plans for work in close proximity to other utility transmission and distribution facilities; vegetation and facility maintenance standards and practices; emergency response plans for construction and operational phases; and complaint resolution measures. Facility design is proposed to conform to the National Electric Safety Code, as well as other relevant codes

¹ Cases 09-E-0592 and 09-E-0628, Stephentown Regulating Services LLC, Notice of Determination of Significance (issued September 24, 2009), where it was decided that the proposed action would have no significant adverse impacts on the environment.

and standards applicable to facility siting, construction and operation.

In supplemental information submitted in response to DPS Staff information requests, the Company indicated that the 115 kV interconnection facilities would be designed and constructed to the standards and specifications of Niagara Mohawk, the interconnecting utility, and that upon completion, the transmission and interconnection facilities would be owned, operated and maintained by Niagara Mohawk. In addition, the project intends to offer capacity, voltage support and ancillary services to the New York Independent System Operator (NYISO) markets. SRS has likewise indicated that temporary interconnection of a limited portion of facility capacity to the NYSEG distribution system would be designed, constructed and maintained to the appropriate standards and specifications of that utility company. SRS will not be a retail provider.

The Public Interest

The Company proposes to provide:

"ancillary Regulation and Frequency Response Service using an innovative flywheel-based energy storage technology that is manufactured by Beacon Power. Beacon Power's flywheels are designed to store excess energy when the generated power supply exceeds demand and conversely deliver it back to the grid when demand exceeds supply. Using a 25 kW-h/100 kW flywheel system, SRS will be able to achieve full up or down power less than four seconds after receiving a control signal. The Facility will be the first full-scale flywheel energy storage project in the world that participates fully in an Independent System Operator's Regulation ancillary services market." (August 17, 2009 Petition, page 2.)

The Company's petition indicates that the Federal Energy Regulatory Commission (FERC) recognizes the rate and reliability benefits of grid-interconnected energy storage facilities, and opened the NYISO market to energy storage facilities on May 15, 2009. NYISO now provides a tariff for Limited Energy Storage Resources (LESRs), including short-term energy storage facilities such as flywheels, batteries, and vehicle-to-grid technologies. LESRs can provide regulation service by rapidly charging or discharging in response to regulation control signals. This regulation response, the company states, enables NYISO to improve control performance and grid reliability by correcting imbalances.

The Company suggests that by providing near-instantaneous response to control signals the proposed facilities will enable efforts of the NYISO to meet appropriate system control performance criteria as wind and other intermittent generation penetration increases in the New York Control Area in response to the New York State Renewable Portfolio Standard. The regulation control response provided by LESRs, the Company maintains at page 9 of its petition, will occur "up to one hundred times faster than traditional generation resources." Thus, the Company claims, these regulation benefits are provided without any incremental greenhouse gas, particulates or other air emissions. SRS also suggests that NYISO recognizes that benefits to ratepayers will result from operation of LESRs, such as the proposed facilities, by introducing new competition in the Regulation Service market, by reducing operating costs of traditional generators, and by avoiding air emissions.

Financing and Lightened Regulation

SRS claims that it should be lightly regulated in a manner similar to the regulatory oversight that has been applied

by the Commission to other competitive providers engaged in the sale of electric energy and other products exclusively at wholesale. It argues that its circumstances resemble those at issue in the AES and Carr Street Orders,² and that it is entitled to the lightened regulation applied there.

SRS recognizes that, pursuant to PSL §69, authorization is necessary for an electric corporation to enter into a debt arrangement for a period greater than a year. Financing for the project, in the amount of \$69.3 million, will be provided through a loan of approximately \$43 million from the Federal Financing Bank (FFB) and guaranteed by the United States Department of Energy (DOE). The expected loan term is approximately 20 years from the loan's closing date. Additional equity commitment of approximately \$26 million will be provided from Stephentown Holding Company LLC funded by Beacon Power and other potential third party investors, through private investments, inter-company finance and public offerings. SRS reports that the 20-year FFB loan will be used solely to pay for eligible project costs and that the interest rate is in negotiations. SRS notes that Stephentown Holding Company LLC and Beacon Power will guarantee SRS's obligations to FFB and the DOE.

SRS argues that the proposed financing creates no risk to New York ratepayers, but rather all risk is placed on SRS. SRS notes that revenues from energy sold into the competitive electric market will support the cost of operating the facility and loan repayment to DOE. The loan from FFB will be secured by the assets of the facility and the DOE and FFB will be in a

² Case 99-E-0148, AES Eastern Energy, L.P., Order Providing for Lightened Regulation (issued April 23, 1999)(AES Order); Case 98-E-1670, Carr Street Generation Station, L.P., Order Providing for Lightened Regulation (issued April 23, 1999)(Carr Street Order).

first lien position on all facility assets and any other assets and collateral determined to be necessary to secure the loan.

DISCUSSION AND CONCLUSION

Public Convenience and Necessity

We are authorized to grant CPCN to an electric corporation pursuant to PSL §68, after due hearing and upon a determination that the construction of electric plant is necessary and convenient for the public service. Our rules establish pertinent evidentiary requirements for a CPCN application (16 NYCRR §21.3). The rules require a description of the plant to be constructed and of the manner in which the cost of such plant is to be financed, evidence that the proposed plant is in the public interest and is economically feasible, and proof that the applicant is able to finance the project and render adequate service.

The Company intends to provide electric energy storage and frequency stabilization to the wholesale competitive market and has proposed to site the facilities to avoid significant adverse impacts while enhancing electric transmission system operation in New York State. The facilities are based on advanced technology, providing clean and electricity services to the wholesale energy market. Further, the proposed facilities also address objectives identified in the 2002 State Energy Plan which include stimulating economic growth, increasing energy diversity, and promoting a cleaner, healthier environment. The proposed facilities will reportedly provide benefits that include positive economic impacts and enhanced environmental quality (including potential reduction of emissions from fossil-fuel burning power plants).

In addition, SRS has secured funding from the FFB and guaranteed by DOE as well as from funds provided by its parent

companies and other private equity sources to develop the proposed facilities with minimal risk to utility ratepayers or the residents of the host community. Therefore, the facilities appear to be economically feasible and in the public interest.

The Company has committed to complying with the relevant design, construction and operational requirements of the National Electric Safety Code, other applicable engineering codes, standards and requirements, and the standards and policy requirements of Niagara Mohawk. The Company has proposed plans for addressing coordination with, and avoiding interference with, other utility providers in their facility design, construction and operations controls, and for responding to complaints and inquiries. The Company has generally developed appropriate emergency response measures and facility maintenance standards for the life of the electric plant.

Staff concerns regarding the facility interconnection and operation include potential effects on the local Niagara Mohawk transmission and NYSEG distribution systems. Detailed interconnection designs at either the transmission or distribution voltages have not been finalized with the interconnecting utilities. Therefore, it is appropriate that our approval be conditioned on the preparation of final design and mitigation measures necessary to ensure that the commitments by the Company to minimize conflicts with existing facilities and resources are reflected in final construction plans and procedures. In the event that SRS proposes to interconnect a portion of its facilities to the NYSEG distribution system adjoining the site, additional details including system protection and relay equipment which meet the facilities requirements of the interconnecting utility are necessary. SRS will be required to provide additional plans and documentation of coordination with NYSEG prior to initiating construction of

any distribution interconnection facilities whether on or off the site of the SRS facilities.

Based on the Company's representations and commitments to adopt and enforce reasonable measures within the proposed area of operations, the evidence presented in the petition and supplements, we conclude that the Company will provide safe, reliable and adequate service. The applicant states that the substation design and accessibility, and constructability and operability of the collection lines will meet appropriate utility standards. The interconnection to the transmission system will meet the requirements of Niagara Mohawk, and all appropriate reliability criteria to provide safe and reliable operation of the transmission grid. The enhanced monitoring, inspection and maintenance provisions recommended by Staff are reasonable and will be adopted as conditions of our approval. The conditions we will impose will help to ensure that the Company's commitments are kept and enable us to make the required statutory findings.

The Company satisfied the requirements of PSL §68 by filing a copy of its Certificate of Formation as an exhibit to its petition. Moreover, responsible company officials have verified that the Company has secured all municipal consents necessary for the use of town property that are required by law.

Accordingly, we grant SRS's motion for an expedited proceeding. A hearing having been held in this proceeding on October 15, 2009, we find, as required by PSL §68, that the construction of the proposed Project is necessary and convenient for the public service.

Lightened Regulation

The lightened regulatory regime that the Company requests be applied to its wholesale electric operations is similar to that afforded to other comparably-situated wholesale

generators participating in competitive electric markets. Its petition is therefore granted, to the extent discussed below.

In interpreting the PSL, we have examined what reading best carries out the statutory intent and advance the public interest. In the Carr Street and AES Orders,³ it was concluded that new forms of electric service providers participating in wholesale markets would be lightly regulated. Under this realistic appraisal approach, PSL Article 1 applies to SRS because it meets the definition of an electric corporation under PSL §2(13) and is engaged in the manufacture, conveying, transportation, sale or distribution of electricity under PSL §5(1)(b). The Company, therefore, is subject to provisions, such as PSL §§ 11, 19, 24, 25 and 26 that prevent producers of electricity from taking actions that are contrary to the public interest.⁴

All of Article 2 is restricted by its terms to the provision of service to retail residential customers, and so is inapplicable to wholesale generators like SRS. Certain provisions of Article 4 are also restricted to retail service.⁵

It was decided in the AES and Carr Street Orders that other provisions of Article 4 would pertain to wholesale

³ Case 98-E-1670, Carr Street Generating Station, L.P., Order Providing For Lightened Regulation (issued April 23, 1999) (Carr Street Order); Case 99-E-0148, AES Eastern Energy, L.P., Order Providing For Lightened Regulation (issued April 23, 1999) (AES Order).

⁴ The PSL §18-a assessment is applied against gross retail revenues. As long as CPP remains exclusively a wholesaler, there are no retail revenues and no assessment is collected.

⁵ See, e.g., PSL §66(12), regarding the filing of tariffs, required at our option; §66(21), regarding storm plans submitted by retail service electric corporations; §67, regarding inspection of meters; §72, regarding hearings and rate proceedings; §75, regarding excessive charges; and §76, regarding rates charged religious bodies and others.

generators.⁶ Application of these provisions was deemed necessary to protect the public interest. The Article 4 provisions, however, were implemented in a fashion that limited their impact in a competitive market, with the extent of scrutiny afforded a particular transaction reduced to the level the public interest required. Moreover, wholesale generators were allowed to fulfill their PSL §66(6) obligation to file an annual report by duplicating the report they were required to file under federal law. This analysis of Article 4 applies to SRS.

Regarding PSL §70, it was presumed in the AES Order that regulation would not "adhere to transfer of ownership interests in entities upstream from the parents of a New York competitive electric generation subsidiary, unless there is a potential for harm to the interests of captive utility ratepayers sufficient to override the presumption."⁷ Wholesale generators were also advised that the potential for the exercise of market power arising out of an upstream transfer would be sufficient to defeat the presumption and trigger PSL §70 review.⁸ SRS may avail itself of this protection.

Turning to PSL Article 6, several of its provisions that adhere to the rendition of retail service do not pertain to the Company because it is engaged solely in the storage and

⁶ PSL §68 provides for certification in connection with the construction of electric plant (unless such plant is reviewed pursuant to PSL Article VII) or with electricity sales made via direct interconnection with retail customers. PSL §69, §69-a and §70 provide for the review of security issuances, reorganizations, and transfers of securities, works or systems.

⁷ AES Order, p. 7.

⁸ In this context, under PSL §66(9) and (10), we may require access to records sufficient to ascertain whether the presumption remains valid.

wholesaling of electricity.⁹ Application of PSL §115, on requirements for the competitive bidding of utility purchases, is discretionary and will not be imposed on wholesale generators. In contrast, PSL §119-b, on the protection of underground facilities from damage by excavators, adheres to all persons, including wholesale generators.

Most of the remaining provisions of Article 6 need not be imposed generally on wholesale generators.¹⁰ These provisions were intended to prevent financial manipulation or unwise financial decisions that could adversely impact rates charged by monopoly providers. So long as the wholesale generation market is effectively competitive, however, wholesale generators cannot raise prices even if their costs rise due to poor management. Moreover, imposing these requirements could interfere with wholesale generators' plans for structuring the financing and ownership of their facilities. This could discourage entry into the wholesale market, or overly constrain its fluid operation, to the detriment of the public interest.

As discussed in the Carr Street Order, market power issues may be addressed under PSL §110(1) and (2), which afford us jurisdiction over affiliated interests. SRS does not indicate that it plans to affiliate with a power marketer, foreclosing that avenue to the exercise of market power. Consequently, we will not

⁹ See, e.g., PSL §112, regarding enforcement of rate orders; §113, regarding reparations and refunds; §114, regarding temporary rates; §114-a, regarding exclusion of lobbying costs from rates; §116, regarding discontinuance of water service; §117, regarding consumer deposits; §118, regarding payment to an authorized agency; §119-a, regarding use of utility poles and conduits; and, §119-c, regarding recognition of tax reductions in rates.

¹⁰ These requirements include approval of: loans under §106; the use of utility revenues for non-utility purposes under §107; corporate merger and dissolution certificates under §108; contracts between affiliated interests under §110(3); and electric, gas, and water purchase contracts under §110(4).

impose the requirements of Article 6 on the Company except for §119-b; we will conditionally impose §110(1) and (2) to the extent necessary. SRS is reminded, however, that it remains subject to the PSL with respect to matters such as enforcement, investigation, safety, reliability, and system improvement, and the other requirements of PSL Articles 1 and 4, to the extent discussed above and in previous orders.¹¹ Included among these requirements are the obligations to conduct tests for stray voltage on all publicly accessible electric facilities,¹² to give notice of generation unit retirements,¹³ and to report personal injury accidents pursuant to 16 NYCRR Part 125.

Financing Approval

Approval of SRS financing plans is appropriate under lightened regulation. The scrutiny applicable to monopoly utilities may be reduced for lightly-regulated companies like SRS that operate in a competitive environment. As a result, we need not make an in-depth analysis of the proposed financing transactions. Instead, by relying on the representations SRS made in its filing, prompt regulatory action is possible.¹⁴

The proposed financing appears to be for a statutory purpose and does not appear contrary to the public interest, and

¹¹ See, e.g., Case 05-E-1095, TransCanada Power (Castleton) LLC, Declaratory Ruling on Transfer of Ownership Interests and Order Providing for Lightened Regulation (issued January 26, 2006).

¹² Case 04-M-0159, Safety of Electric Transmission and Distribution Systems, Order Instituting Safety Standards (issued January 5, 2005) and Order on Petitions for Rehearing and Waiver (issued July 21, 2005).

¹³ Case 05-E-0889, Generation Unit Retirement Policies, Order Adopting Notice Requirements for Generation Unit Retirements (issued December 20, 2005).

¹⁴ Because a PSL §69 approval of a securities issuance is a Type 2 action for the purposes of the State Environmental Quality Review Act, 16 NYCRR §§7.2(a) and 7.2(b)(2)(v), no further review is required under that statute.

is approved up to a maximum amount of \$69.3 million in federal loans, private investments, intercompany financing and private offerings. Given that SRS does not provide retail service, it is afforded the flexibility to modify, without our prior approval, the identity of the financing entities, payment terms, and amount financed under the transactions, up to the \$69.3 million limit.¹⁵ Affording them this financing flexibility avoids disruption of their financing arrangements and enables them to operate more effectively in competitive wholesale electric markets, thereby promoting the efficient development of these markets. Captive New York ratepayers cannot be harmed by the terms of this financing because SRS bears all the financial risk associated with this financial arrangement.

The Commission orders:

1. The motion for an expedited proceeding on the non-contested application of Stephentown Regulation Services LLC (the Company) is granted.

2. A Certificate of Public Convenience and Necessity is granted to the Company, authorizing the Company to construct and operate the Stephentown Regulation Facility, the electric plant described in its petition and in this Order, subject to the conditions set forth below.

3. The Company shall obtain all necessary federal, state, and local permits and approvals, and shall implement appropriate mitigation measures defined in such permits or approvals.

¹⁵ See, e.g., Case 03-E-1181, Dynergy Danskammer LLC and Dynergy Roseton LLC, Order Authorizing Entry Into Credit Facility and Issuance of Secured Notes (issued November 26, 2003); Case 01-E-0816, Athens Generating Company, L.P., Order Authorizing Issuance of Debt (issued July 30, 2001).

4. The Company shall submit final Site Plans and construction drawings for the project components, substation switchyard, access roads, and on-site electric lines associated with the Stephentown Regulation Facility, to the Staff of the Department of Public Service (Staff) for review and acceptance before the start of construction.

5. All electric transmission line plans and drawings shall be provided to Staff for review and comment and then submitted to Niagara Mohawk Power Corporation d/b/a National Grid (Niagara Mohawk) for approval.

6. (a) Before commencement of construction of the substation and transmission line or interconnection, not including minor activities required for testing and development of final engineering and design information, the Company shall provide to Staff for review and acceptance: final design plans and profile drawings of the substation and the transmission interconnection; and proof of acceptance of the design by the Niagara Mohawk; plans shall indicate right-of-way location and limits, location of access for construction and operation, any existing or planned structures and facilities of the Company or others, any plans for clearing or grading the site, measures to control stormwater, and measures to protect water resources within or adjoining the facility location; plan and profile figures of the transmission line and right-of-way shall be at the following scales: profile at 1 inch = 100 feet and vertical 1 inch = 50 feet; and plan view at scale of 1 inch = 100 feet.

(b) The Company shall provide electromagnetic field and electrostatic field calculations for the transmission line at the facilities' maximum output, the maximum input, and maximum conductor capability at winter normal ratings; the calculations shall be conducted out to 500 feet from either side of the facility center line; a report signed by an engineer

licensed in the State of New York shall be provided, and which contains all assumptions and work papers used in making the calculations;

(c) The Company may seek provision of construction power from NYSEG, but no other services shall be offered or allowed.

7. (a) The interconnecting transmission line shall be designed and constructed to meet or exceed the National Electric Safety Code (NESC) requirements and the Niagara Mohawk Standards for Construction.

(b) The transmission line shall be constructed such that the line clearance to ground will exceed the maximum height for 795 ASCR conductors to allow adequate clearance for a tractor trailer beneath the conductor operating at a temperature of 257 degrees Fahrenheit.

8. The authorized electric plant shall be subject to inspection by authorized representatives of Staff pursuant to §66(8) of the Public Service Law.

9. The Company shall incorporate, and implement as appropriate, the standards and measures for engineering design, construction, inspection, maintenance and operation of its authorized electric plant, including features for facility security and public safety, utility system protection, plans for quality assurance and control measures for facility design and construction, utility notification and coordination plans for work in close proximity to other utility transmission and distribution facilities, vegetation and facility maintenance standards and practices, emergency response plans for construction and operational phases, and complaint resolution measures, as presented in its petition, its Environmental Impact Statement and this Order.

10. The Company shall file on or before January 1st of every year a complete copy of its site emergency plans including specific contact information; the Company shall work cooperatively with Staff in developing emergency operating plans; a complete copy of emergency operating plans shall be provided to Staff for review and comment one month prior to the initiation of facility operation.

11. The Company shall file with the Secretary to the Commission, within three days after commencement of commercial operation of the electric plant, an original and three copies of written notice thereof.

12. The Company shall design, engineer, and construct facilities in support of the authorized electric plant as provided in the System Impact Study (SIS) approved by the New York Independent System Operator (NYISO), the Transmission Planning Advisory Subcommittee (TPAS), the NYISO Operating Committee, and the NYISO Class Year 2009 Annual Transmission Reliability Assessment Study, and in accordance with the applicable and published planning and design standards and best engineering practices of NYISO, Niagara Mohawk, the New York State Reliability Council (NYSRC), Northeast Power Coordinating Council (NPCC), North American Electric Reliability Council (NERC) and successor organizations, depending upon where the facilities are to be built and which standards and practices are applicable. Specific requirements shall be those required by the NYISO Operating Committee and TPAS in the approved SRIS and by the Interconnection Agreement (IA) and the facilities agreement with Niagara Mohawk.

13. The Company shall work with Niagara Mohawk, and any successor Transmission Owner (as defined in the NYISO Agreement), to ensure that, with the addition of the electric plant (as defined in the Interconnection Agreement (IA) between

the Company and Niagara Mohawk), the system will have power system relay protection and appropriate communication capabilities to ensure that operation of the Niagara Mohawk Transmission System is adequate under NPCC Bulk Power System Protection Criteria, and meets the protection requirements at all times of the NERC, NPCC, NYSRC, NYISO, and Niagara Mohawk, and successor Transmission Owner (as defined in the NYISO Agreement). The Company shall ensure compliance with applicable NPCC criteria and shall be responsible for the costs to verify that the relay protection system is in compliance with applicable NPCC, NYISO, NYSRC and Niagara Mohawk criteria.

14. The Company shall operate the electric plant in accordance with the IA, approved tariffs and applicable rules and protocols of Niagara Mohawk, NYISO, NYSRC, NPCC, NERC and successor organizations. The Company may seek subsequent review of any specific operational orders at the NYISO, the Commission, the Federal Energy Regulatory Commission, or in any other appropriate forum.

15. The Company shall be in full compliance with the applicable reliability criteria of Niagara Mohawk, NYISO, NPCC, NYSRC, NERC and successors. If it fails to meet the reliability criteria at any time, the Company shall notify the NYISO immediately, in accordance with NYISO requirements, and shall simultaneously provide the Commission and Niagara Mohawk with a copy of the NYISO notice.

16. The Company shall file a copy of the following documents with the Secretary to the Commission:

- (a) all facilities agreements with Niagara Mohawk, and successor Transmission Owner throughout the life of the plant (as defined in the NYISO Agreement);

- (b) the SIS approved by the NYISO Operating Committee;
- (c) any documents produced as a result of the updating of requirements by the NYSRC;
- (d) the Relay Coordination Study, which shall be filed not later than four months prior to the projected date for commencement of commercial operation of the facilities; and a copy of the manufacturers' "machine characteristics" of the equipment installed (including test and design data);
- (e) a copy of the facilities design studies for the Electric Plant, including all updates (throughout the life of the plant);
- (f) a copy of the IA and all updates or revisions (throughout the life of the plant); and
- (g) if any equipment or control system with different characteristics is to be installed, the Company shall provide that information before any such change is made (throughout the life of the plant);

17. The Company shall obey unit commitment and dispatch instructions issued by NYISO, or its successor, in order to maintain the reliability of the transmission system. In the event that the NYISO System Operator encounters communication difficulties, the Company shall obey dispatch instructions issued by the Niagara Mohawk Control Center, or its

successor, in order to maintain the reliability of the transmission system.

(a) After commencement of construction of the authorized Electric Plant, the Company shall provide Staff and Niagara Mohawk with a monthly report on the progress of construction and an update of the construction schedule, and file copies of current construction progress reports during all phases of construction. In the event the Commission determines that construction is not proceeding at a pace that is consistent with Good Utility Practice, and that a modification, revocation, or suspension of the Certificate may therefore be warranted, the Commission may issue a show cause order requiring the Company to explain why construction is behind schedule and to describe such measures as are being taken to get back on schedule. The Order to Show Cause will set forth the alleged facts that appear to warrant the intended action. The Company shall have thirty days after the issuance of such Order to respond and other parties may also file comments within such period. Thereafter, if the Commission is still considering action with respect to the Certificate, a hearing will be held prior to issuance of any final order of the Commission to amend, revoke or suspend the Certificate. It shall be a defense in any proceeding initiated pursuant to this condition if the delay of concern to the Commission:

1. arises in material part from actions or circumstances beyond the reasonable control

of the Company (including the actions of third parties);

2. is not in material part caused by the fault of the Company; or

3. is not inconsistent with a schedule that constitutes Good Utility Practice.

- (b) The Company shall file with the Secretary to the Commission, no more than four months after the commencement of construction, a detailed progress report. Should that report indicate that construction will not be completed within twelve months, the Company shall include in the report an explanation of the circumstances contributing to the delay and a demonstration showing why construction should be permitted to proceed. In these circumstances, an order to show cause will not be issued by the Commission, but a hearing will be held before the Commission takes any action to amend, revoke or suspend the Certificate.
- (c) For purposes of this condition, Good Utility Practice shall mean any of the applicable acts, practices or methods engaged in or approved by a significant portion of the electric utility industry during the relevant time period, or any of the practices, methods and acts which, in the exercise of reasonable judgment in light of the facts known at the time the decision was made, could have been

expected to accomplish the desired result at a reasonable cost consistent with good business practices, reliability and safety. Good Utility Practice is not intended to be limited to the optimum practice, method, or act, to the exclusion of all others, but rather to be acceptable practices, methods, or acts generally accepted in the region in which the Company is located. Good Utility Practice shall include, but not be limited to, NERC criteria, rules, guidelines and standards, NPCC criteria, rules, guidelines and standards, NYSRC criteria, rules, guidelines and standards, and NYISO criteria, rules, guidelines and standards, where applicable, as they may be amended from time to time (including the rules, guidelines and criteria of any successor organization to the foregoing entities). When applied to the Company, the term Good Utility Practice shall also include standards applicable to an independent power producer connecting to the distribution or transmission facilities or system of a utility.

- (d) Except for periods during which the authorized facilities are unable to safely and reliably convey electrical energy to the New York transmission system (e.g., because of problems with the authorized facilities themselves or upstream

electrical equipment) the Company's electric plant shall be exclusively connected to the New York transmission system over the facilities authorized herein.

18. The Company shall work with Niagara Mohawk system planning and system protection engineers to discuss the characteristics of the transmission system before purchasing any system protection and control equipment related to the electrical interconnection of the Project to the Niagara Mohawk transmission system. This discussion is designed to ensure that the equipment purchased will be able to withstand most system abnormalities. The technical considerations of interconnecting the electric plant to the Niagara Mohawk transmission facility shall be documented by the Company and provided to Staff and Niagara Mohawk prior to the installation of transmission equipment. Updates to the technical information shall be furnished as available (throughout the life of the plant).

19. The Company shall work with Niagara Mohawk engineers and safety personnel on testing and energizing equipment in the authorized substation. A testing protocol shall be developed and provided to Niagara Mohawk for review and acceptance. A copy shall be provided to Staff following Niagara Mohawk approval. The Company shall make a good faith effort to notify Staff of meetings related to the electrical interconnection of the Project to the Niagara Mohawk transmission system and provide the opportunity for Staff to attend those meetings. The Company shall provide a copy of the testing design protocol to Staff of the Bulk Electric System Section at least 30 days prior to planned facility energization.

20. The Company shall call the Bulk Electric System Section within six hours to report any transmission related

incident that affects the operation of the Electric Plant. The Company shall submit a report on any such incident within seven days to the Bulk Electric System Staff and Niagara Mohawk. The report shall contain, when available, copies of applicable drawings, descriptions of the equipment involved, a description of the incident and a discussion of how future occurrences will be prevented. The Company shall work cooperatively with Niagara Mohawk NYISO and the NPCC to prevent any future occurrences.

21. The Company shall make modifications to its Interconnection Facility, if it is found by the NYISO or Niagara Mohawk to cause reliability problems to the New York State Transmission System. If Niagara Mohawk or the NYISO bring concerns to the Commission, the Company shall be obligated to address those concerns.

22. If, subsequent to construction of the authorized electric plant, no electric power is transferred over such plant for a period of more than a year, the Commission may consider the amendment, revocation or suspension of the Certificate.

23. In the event that an equipment failure of the authorized Electric Plant, including the loss of one or more flywheel units, causes a significant reduction in the capability of such Plant to deliver power, the Company shall promptly provide to Staff (Bulk Electric System Section) and Niagara Mohawk copies of all notices, filings, and other substantive written communications with the NYISO as to such reduction, any plans for making repairs to remedy the reduction, and the schedule for any such repairs. The Company shall report monthly to the Staff and Niagara Mohawk on the progress of any repairs. If such equipment failure is not completely repaired within nine months of its occurrence, the Company shall provide a detailed report to the Secretary to the Commission, within nine months and two weeks after the equipment failure, setting forth the

progress on the repairs and indicating whether the repairs will be completed within three months; if the repairs will not be completed within three months, the Company shall explain the circumstances contributing to the delay and demonstrate why the repairs should continue to be pursued.

24. Within 60 days after the issuance of this Order, the Company shall file with the Secretary to the Commission, Operation and Maintenance Plan(s) for the Electric Plant.

25. The Company shall file a report with the Secretary to the Commission, regarding implementation of the Special Protection System which is designed to mitigate possible overloads from certain transmission outages, as well as copies of all studies (now underway) that support the design of such system. In addition, the Company shall provide all documentation for the design of special protection system relays, with a complete description of all components and logic diagrams. Prior to commencement of operations, the Company shall demonstrate through appropriate plans and procedural requirements that the relevant components of the Special Protection System will provide effective protection.

26. The Company shall provide annual operating reports summarizing facilities operations, performance, maintenance, and outage history; reports of any incidents involving site security, effects on transmission or distribution facilities of the interconnecting utilities related to operation of the Company's facilities, or changes to plans for facilities operation, maintenance, emergency plans or procedure shall be provided by January 1 of each year, or within 30 days of any significant incident regarding reliability of the interconnected utilities or public safety.

27. Upon the determination by the Director of the Office of Electric, Gas, and Water that a potential safety

problem exists with one or more flywheels, the Director may notify and order the company to shut down any one or more specific flywheels in response to that safety issue and the company shall immediately stop operating those units until the safety issue is resolved and the Director withdraws the order to cease operations.

28. The Company and its affiliates shall comply with the Public Service Law in conformance with the requirements set forth in the body of this Order.

29. The financing arrangements described in the Petition filed in this proceeding and discussed in the body of this Order are approved, up to a maximum of \$69.3 million.

30. The Secretary in her sole discretion may extend the deadlines set forth in this order.

31. This proceeding is continued pending compliance with ordering clauses.

By the Commission,

(SIGNED)

JACLYN A. BRILLING
Secretary