



June 18, 2009

VIA HAND DELIVERY

Kimberly Harriman, Esq.
New York State Department of Public Service
Agency Building 3
Empire State Plaza
Albany, NY 12223

Re: Stimulus Funding for Phasor Measurement Unit Development

Dear Ms. Harriman:

The New York State Reliability Council (NYSRC)¹ is writing to express its support for a state request for funding for further studies and development of Phasor Measurement Units (PMU) to enhance the reliability of the New York State bulk power electric system.

Background

Following the August 14, 2003 blackout, the NYSRC formed the Defensive Strategies Working Group (DSWG) to explore ways to mitigate the impact of major disturbances² on the New York Control area (NYCA). The DSWG is made up of representatives of the NYSRC, the New York Transmission Owners, the New York Independent System Operator (NYISO), the Northeast Power Coordinating Council (NPCC), and the New York Department of Public Service. The DSWG has no study capability of its own, but monitors and comments on relevant studies performed by other

¹ The NYSRC was formed and approved by the Federal Energy Regulatory Commission in 1999. It is the successor to some of the functions of the New York Power Pool. The NYSRC's primary responsibilities include the development of reliability rules that must be complied with by the New York Independent System Operator ("NYISO") in its operation of New York State's bulk power system, and by the NYISO's market participants. The NYSRC also is responsible for determining the annual installed reserve requirement ("IRM") necessary to meet resource adequacy criteria for the New York Control Area.

² A "major disturbance" may involve cascading multiple element outages originating outside of the New York Control Area (NYCA) or events within the NYCA that are beyond those normal contingencies that the system is planned for or operated to. An example would be a simultaneous outage of two circuits on separate towers.

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organizations, including NPCC's Dynamics Working Group (SS-38). NPCC's studies focus on the Northeast while the DSWG's focus is on preventing future blackouts for all or substantial portions of New York State.

Underfrequency load shedding (UFLS) is the first line of defense within the NPCC (and New York) for mitigating the impact of major disturbances. The SS-38 working group has recently completed studies to determine modifications to the UFLS program required to arrest frequency decline within sub areas or islands within the NPCC. However, the concept assumes that the system will form islands or other separation modes automatically to protect healthy portions of the system from areas experiencing major difficulties or collapse. At present, there is no protection system in place within the NPCC (or New York) that orchestrates these separations in an organized manner. The DSWG is focusing on ways to remedy this situation.

Implementation of classic "out of step" protection schemes, using impedance based relays on the transmission lines, provide one possible approach. However, the emergence of real time phasor measurement technology may offer substantial simplifications related to implementation of "out of step" schemes as well as improved security and dependability. The simplification offered by the use of PMU's may ultimately afford substantial cost savings over the use of impedance based transmission relays.

Application for DOE Stimulus Funding

The NYSRC Executive Committee understands that the New York Transmission Owners, the NYISO and NYSERDA are working with the Department of Public Service to develop proposals for federal stimulus funding, and that consideration is being given to request funds associated with the application of PMU's to enhance the reliability of the New York electric power system. Several studies are in progress by EPRI to explore the potential benefits afforded by the use of phase angle information provided by the PMU's. Early applications involve improved visualization of the operational state of the New York system and surrounding areas. Now, with the emergence of real time PMU sampling and processing technology, some strategically located PMU's may be used as a portion of a real time special protection system to enhance the reliability of New York's bulk power system. The objective is to determine the best way to utilize synchro phasor technology to enable "controlled separations" (formation of electrical islands) around and/or within the NYCA to minimize any adverse impact resulting from major disturbances.

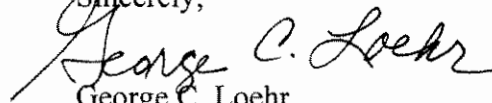
This application of PMU's is just a portion of a larger proposed use of PMU's to perform other vital functions associated with enhancing the reliability of the New York electric system. The work proposed by the NYSRC DSWG includes dynamic studies, implementation studies and system installation and demonstration.

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NYSRC Recommendation

The NYSRC believes that a program including further study, demonstration and implementation of PMUs has the potential for improving the reliability of the bulk power electricity system in New York and throughout the United States. The NYSRC, therefore, supports a request by New York State for federal stimulus funding to support a PMU program. To the extent it would be helpful, the NYSRC's DSWG is willing to work with the New York Transmission Owners, the NYISO and NYSEDA in the oversight and implementation of a PMU program in New York State. Please feel free to use this letter in support of a State application for PMU stimulus funding.

Sincerely,



George C. Loehr

Chairman

New York State Reliability Council

Executive Committee

cc: Mark R. Torpey
Randy Bowers
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