

STATE OF NEW YORK DEPARTMENT OF PUBLIC SERVICE

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PUBLIC SERVICE COMMISSION

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*Secretary*

December 6, 2011

SENT VIA ELECTRONIC FILING  
Kimberly D. Bose, Secretary  
Federal Energy Regulatory Commission  
888 First Street, N.E.  
Room 1-A209  
Washington, D.C. 20426

Re: Docket No. EL12-9-000 - TC Ravenswood, LLC, v. New York Independent System Operator, Inc. and New York State Reliability Council, LLC

Dear Secretary Bose:

For filing, please find the Answer of the New York State Public Service Commission in the above-entitled proceeding. Should you have any questions, please feel free to contact me at (518) 473-8178.

Very truly yours,

A handwritten signature in black ink, appearing to read 'David G. Drexler'.

David G. Drexler  
Assistant Counsel

Attachment

**UNITED STATES OF AMERICA  
BEFORE THE  
FEDERAL ENERGY REGULATORY COMMISSION**

TC Ravenswood, LLC,	)	
	)	
v.	)	Docket No. EL12-9-000
	)	
New York Independent System	)	
Operator, Inc.	)	
	)	
New York State Reliability	)	
Council, LLC	)	

**ANSWER OF THE NEW YORK STATE  
PUBLIC SERVICE COMMISSION**

**INTRODUCTION**

On November 8, 2011, TC Ravenswood, LLC (TC Ravenswood) filed a complaint against the New York Independent System Operator, Inc. (NYISO) and the New York State Reliability Council, LLC (NYSRC) concerning TC Ravenswood's intent to discontinue the provision of black start service from TC Ravenswood's generating units in New York City (NYC), which are used to restore electric service in a timely and reliable manner following a major system interruption, such as a blackout (TC Ravenswood Complaint). As a result, the termination of black start service may compromise system reliability. The TC Ravenswood Complaint raises various legal arguments related to the New York State Public Service Commission's (NYPSC)

Declaratory Ruling, issued September 28, 2011, which clarified that TC Ravenswood was obligated to obtain the NYPSC's consent, pursuant to Section 70 of the New York State Public Service Law (NYPSL), prior to discontinuing black start service.<sup>1</sup>

Notwithstanding the importance of black start service to ensure reliability, the TC Ravenswood Complaint seeks a determination that the NYPSC is preempted under the Federal Power Act (FPA) from regulating black start service in this manner. TC Ravenswood also requests that FERC enjoin the NYISO and NYSRC from pursuing the provision of black start service from TC Ravenswood's Units. TC Ravenswood argues that it is not required to provide black start service under the NYISO's Market Administration and Control Area Services Tariff (Services Tariff), and that the NYPSC Declaratory Ruling is preempted under the FPA. TC Ravenswood further requests fast track processing of its complaint because "the dispute involves service that could be presently occurring," and the NYISO has indicated that TC Ravenswood must schedule and perform its annual black start tests by April 30, 2012.

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<sup>1</sup> Case 11-E-0423, Consolidated Edison Company of New York, Inc. - Petition for Declaratory Ruling, Declaratory Ruling Regarding Blackstart Service (issued September 28, 2011) (NYPSC Declaratory Ruling). The NYPSC Declaratory Ruling is included in the record as Ex. TCR-3. The NYPSC uses the term "Blackstart" synonymously with "black start" or "Black Start."

On November 21, 2011, the NYPSC filed a Notice of Intervention and Motion for Extension of Time to respond to the TC Ravenswood Complaint. The Federal Energy Regulatory Commission (FERC) issued a Notice of Extension of Time (Notice) on November 25, 2011, granting the NYPSC's request, and establishing a deadline of December 6, 2011, for responding to the TC Ravenswood Complaint. The NYPSC hereby submits its Answer to the TC Ravenswood Complaint, pursuant to Rule 213 of the Commission's Rules of Practice and Procedure (18 C.F.R. §§385.213), and the Commission's Notice.

The NYPSC respectfully requests that FERC deny the TC Ravenswood Complaint. As discussed more fully below, the FPA reserves authority to the NYPSC to ensure the adequacy of black start generation facilities, which are necessary to ensure reliable provision of retail service over the distribution system following blackouts or other major service interruptions. As described in the attached testimony of Edward C. Schrom, Jr. (Exhibit [Ex.] PSC-1), NYC has unique needs for in-city black start service that must be addressed in any request by TC Ravenswood to abandon black start service under the NYPSL. In addition, TC Ravenswood's claims of insufficient cost recovery are misplaced and premature, given that the NYPSC has not yet received a request for additional compensation. In the event TC Ravenswood is obligated to continue to provide black start

service, it may pursue appropriate means for recovering the costs associated with providing the service.

#### BACKGROUND

As the NYPSC Declaratory Order stated:

[t]he continued provision of Blackstart Service is essential to ensure that the transmission and distribution system, as well as electric service to wholesale and retail customers, can be restored in a timely and reliable manner following a system outage. The termination of Blackstart Service by an existing provider is likely to adversely affect the restoration of the electric system and electric service necessary for the provision of safe, adequate and reliable service after an outage. Restoring electric service in a safe, reliable, and expeditious manner furthers the public interest by providing services essential to health, safety, and the general welfare.<sup>2</sup>

Based on findings that these matters fall within the NYPSC's "authority under the PSL, and are not preempted under the FPA," the NYPSC Declaratory Ruling clarified that existing Black Start Service providers must obtain the NYPSC's consent under the NYPSL prior to discontinuing the provision of black start Service.<sup>3</sup>

TC Ravenswood has not sought or obtained the NYPSC's consent, despite notifying the NYISO that TC Ravenswood's Units would cease providing black start service on September 30, 2011. In reliance upon the NYPSC Declaratory Ruling, however, the

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<sup>2</sup> NYPSC Declaratory Ruling, pp. 12-13.

<sup>3</sup> NYPSC Declaratory Ruling, p. 13.

NYISO informed TC Ravenswood, in a letter dated October 28, 2011, that the NYSRC "continues to treat TC Ravenswood's Units 10, 20, and 30 as black start facilities that must successfully conduct an annual black start test" in accordance with applicable NYSRC reliability rules.

### DISCUSSION

I. The Commission Should Deny The TC Ravenswood Complaint Because The FPA Reserves Jurisdiction To The NYPSC To Ensure Adequate Black Start Generation Facilities That Are Needed For Reliability and Local Distribution Purposes

TC Ravenswood claims that the FPA preempts the NYPSC from regulating black start service from TC Ravenswood's generating units. According to TC Ravenswood, black start service is a "wholesale service" exclusively regulated by FERC, and FERC has "occupied this field" by adopting "rates, terms and conditions for Black Start Service." These terms and conditions, TC Ravenswood argues, include a FERC "mandate" that the provision of black start service is strictly "voluntary," and therefore the NYPSC cannot compel TC Ravenswood to provide such service.

Contrary to TC Ravenswood's claims, the FPA reserves authority to the States to regulate the adequacy of generating facilities that are needed to serve critical black start reliability functions, especially as they pertain to the local

distribution system. This authority allows the NYPSC to determine whether a generating unit should be authorized to discontinue providing Black Start Service, or should continue to provide that Service. The NYPSC's exercise of this authority does not infringe upon FERC's jurisdiction over the sale of electric energy at wholesale in interstate commerce, or the terms or conditions for those sales.<sup>4</sup>

The FERC and NYPSC have separate jurisdictional responsibilities and authority over Black Start Service, and both should be recognized. The FPA reserves authority to the NYPSC to determine the adequate levels of Black Start generation facilities needed to provide safe, adequate and reliable service, and to direct the provision of that service. The FPA limits FERC's jurisdiction in those respects, but establishes a clear role for FERC where Black Start Service involves "the

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<sup>4</sup> The NYPSC Declaratory Ruling observed that:

there appear to be elements of Blackstart Service that are separate and distinct from wholesale sales of energy. Further, Blackstart Service need not necessarily be characterized as a 'wholesale' service since Con Edison is obtaining the service for its own use in reenergizing the electric system and restoring electric service. Con Edison is, in effect, the 'consumer' of Blackstart Services.

These factors suggest that a NYPSC-approved tariff covering certain aspects of Black Start Service would be legally binding, although the NYPSC reserves taking a position on such matters until an adequate record is before it. NYPSC Blackstart Ruling, p. 24.

transmission of electric energy in interstate commerce and the sale of such energy at wholesale in interstate commerce.”<sup>5</sup>

While FERC observed that TC Ravenswood has complied with the NYISO tariff provisions for notifying the NYISO and market participants that TC Ravenswood intended to terminate black start service,<sup>6</sup> those tariff provisions cannot be read to preempt the NYPSC’s jurisdiction over generation facilities, reliability, resource adequacy, or local distribution facilities.<sup>7</sup> The NYISO’s notification process can, and should, be read consistent with the NYPSC’s process whereby a generator must obtain the NYPSC’s consent prior to terminating black start service.

**A. The FPA Explicitly Reserves Jurisdiction Over The Adequacy Of Black Start Generating Facilities To The States**

The NYPSC Declaratory Ruling explained that the provision of black start service requires that “certain electric generation facilities interconnected with New York’s electric system have installed the necessary equipment whereby those generators may be restarted following a blackout, without first

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<sup>5</sup> 16 U.S.C. §824(a).

<sup>6</sup> Docket Nos. ER11-42000-000, et al., TC Ravenswood, LLC, Order on Waiver requests and Request for Settlement Conference (issued September 27, 2011).

<sup>7</sup> See, 16 U.S.C. §§824(b)(1) and 824o(i).



drawing power from the electric system.”<sup>8</sup> This service is “one of the essential tools through which the electric transmission and distribution system is restored to operation in a timely and reliable manner after a blackout occurs.”<sup>9</sup>

Under the FPA, ensuring the adequacy of generation facility service, including the capability to provide black start services, is a matter reserved to the States. While the FPA provides FERC with jurisdiction over “the transmission of electric energy in interstate commerce and the sale of such energy at wholesale in interstate commerce,” the FPA specifies that federal regulation can “extend only to those matters which are not subject to regulation by the States.”<sup>10</sup> In particular, the FPA explicitly limits FERC’s jurisdiction over “facilities used for the generation of electric energy.”<sup>11</sup> When the FPA was amended in 2005 to provide FERC with jurisdiction to establish reliability standards, FERC was specifically denied authority to “order the construction of additional generation...capacity or

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<sup>8</sup> NYPSC Declaratory Ruling, p. 1.

<sup>9</sup> NYPSC Declaratory Ruling, p. 1; Ex. PSC-1, pp. 4-7.

<sup>10</sup> 16 U.S.C. §824(a).

<sup>11</sup> 16 USC §824(b)(1).

to set and enforce compliance with standards for the adequacy...of electric facilities or services."<sup>12</sup>

Thus, the FPA prevents FERC from asserting jurisdiction over generation facilities, except under limited circumstances,<sup>13</sup> and reserves authority over those facilities to the states. Therefore, authority to prescribe the location and amount of black start generating facilities that are necessary, and must be provided for safe, adequate, and reliable service, rests with the NYPSC, and there is no basis for FERC to preempt State jurisdiction as claimed by TC Ravenswood.

Notwithstanding the reservations of authority to States, and the absence of federal authority to override the States, TC Ravenswood presumes FERC possesses authority to compel service from generating facilities and essentially argues

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<sup>12</sup> 16 U.S.C. §824o(i)(2).

<sup>13</sup> An example of the limited circumstances under which FERC may regulate generation facility service, and compel a service from a facility, is in situations where the FERC, upon complaint of a State Commission, finds that the interstate service of a public utility is inadequate or insufficient and establishes the "proper, adequate, or sufficient service to be furnished."<sup>13</sup> Even in this limited instance, the FPA explicitly provides that the FERC "shall have no authority to compel the enlargement of generating facilities for such purposes, nor to compel the public utility to sell or exchange energy when to do so would impair its ability to render adequate service to its customers."<sup>13</sup> Thus, the FPA provides clear limitations on FERC's authority over generation facilities and the ability to compel service from such facilities. In other words, States may mandate generation service because FERC cannot.

that FERC intentionally declined to exercise that authority in Order No. 888, where FERC characterized its oversight of black start service as "voluntary" on the part of generation facility owners.<sup>14</sup> However, the description of black start service as "voluntary" in Order No. 888 appears to reflect the limitations on FERC's authority to compel such service under the FPA, rather than an intentional approach by FERC that considered the reliability implications and prevents a generating facility from ever having to provide the service on an involuntary basis, as suggested by TC Ravenswood. Because FERC is prohibited from compelling a generating facility to provide black start service, that service, as described under Order No. 888 and incorporated in FERC-approved tariffs, could not be anything more than "voluntary." To the extent FERC has mandated a purely voluntary system, we believe this would raise serious issues as to how FERC would give appropriate consideration to potential adverse public interest consequences resulting from such a purely voluntary system.

TC Ravenswood argues further, based on its incorrect jurisdictional presumption, that the "voluntary" description of black start service under Order No. 888 is tantamount to a "term or condition" established by FERC, and thus preemptive of State

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<sup>14</sup> TC Ravenswood Complaint, p. 23.

action that would compel the service on an involuntary basis. However, determining in the first instance whether a service should be provided, either voluntarily or involuntary, is a different matter than determining what terms or conditions shall apply once the service is actually rendered. While TC Ravenswood concedes that the NYPSC has jurisdiction related to the "direct regulation of electrical generating facilities," rather than "practices affecting wholesale rates," this distinction would be rendered meaningless by acceptance of TC Ravenswood's argument that compelling service would be a practice affecting rates.<sup>15</sup> The NYPSC's authority to compel the provision of black start service on an involuntary basis is a separate jurisdictional matter from the compensation for the provision of that service. Because Conn. Dep't. of Pub. Util. Control v. FERC involved the approval of an Installed Capacity Requirement that could be achieved through other means than building new generation facilities and thus, was not a "direct regulation" of those facilities, that case can be distinguished from the circumstances involving black start service, where FERC "mandating" that the service only be provided "voluntarily" would constitute direct regulation of generation facilities. Given that the FPA reserves jurisdiction over generation

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<sup>15</sup> TC Ravenswood Complaint, p. 29.

facilities to the States, the NYPSC possesses the requisite authority to compel the provision of black start service, if necessary.

**B. The FPA Provides For Concurrent Federal and State Jurisdiction Over Reliability, And Explicitly Allows New York To Establish More Stringent Reliability Standards For Greater Reliability**

Black Start Service is an essential reliability function provided by generation facilities, so that service can be restored following a blackout or major system interruption. While the NYISO maintains a black start plan for reenergizing the bulk power system across the State, Con Edison also maintains a local restoration plan that allows it to bring its local transmission and distribution systems on-line more quickly and in parallel with the NYISO.<sup>16</sup> Con Edison's local restoration plan therefore results in greater reliability in NYC than the NYISO's restoration plan alone would otherwise provide.<sup>17</sup> This recognizes the unique needs of NYC to restore service as expeditiously as possible following a blackout, rather than awaiting restoration until the NYISO is able to implement its process.

The FPA provides FERC with authority to approve reliability standards proposed by the Electric Reliability

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<sup>16</sup> Ex. PSC-1, pp. 3-4.

<sup>17</sup> Ex. PSC-1, pp. 5-6.

Organization (designated as the North American Electric Reliability Corporation). However, under the FPA, States retain authority to "ensure the safety, adequacy, and reliability of electric service within that State, as long as such action is not inconsistent with any reliability standard." Moreover, the FPA explicitly provides that the State of New York "may establish rules that result in greater reliability within that State, as long as such action does not result in lesser reliability outside the State than that provided by the reliability standards."<sup>18</sup> The FPA, therefore, provides for state jurisdiction involving reliability, particularly in New York. The question presented to the NYPSC is, therefore, whether there is adequate remote restart capability of generation facilities for reliability purposes in New York City. That question should be presented to the NYPSC as part of a TC Ravenswood petition to terminate black start service.

**C. The FPA Provides For State Jurisdiction Over The Distribution System**

FERC should also reject providing the relief TC Ravenswood seeks because it would be inconsistent with the FPA limitations over local distribution facilities. Because the FERC does not have jurisdiction "over facilities used in local

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<sup>18</sup> 16 U.S.C. §824o(i)(3).

distribution,"<sup>19</sup> matters involving the distribution system are reserved to the States. This reservation of authority is also recognized under Section 215 of the FPA, which allows FERC to regulate the "reliable operation" of "the bulk power system."<sup>20</sup> The term "bulk power system" is defined as "facilities and control systems necessary for operating an interconnected electric energy transmission network (or any portion thereof); and ... electric energy from generation facilities needed to maintain transmission system reliability. The term does not include facilities used in the local distribution of electric energy."<sup>21</sup> Accordingly, FERC's authority under Section 215 does not allow FERC to regulate facilities used in the local distribution of electric energy.

As noted above, black start service at issue is essential to restoring service to retail end-use consumers over the local distribution system following a blackout. Therefore, a FERC decision that the NYPSC cannot regulate certain aspects of black start service, which is needed for ensuring safe,

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<sup>19</sup> 16 U.S.C. §824(b)(1).

<sup>20</sup> 16 U.S.C. §824o(i)(1).

<sup>21</sup> 16 U.S.C. §824o(a)(1).

adequate, and reliable service over the local distribution system, would be inconsistent with the FPA.

**II. The Commission Should Deny The TC Ravenswood Complaint Because TC Ravenswood's Claims Of Rate Preemption And Insufficient Cost Recovery Are Misplaced And Premature**

Under FPA Section 205, rates for interstate electricity transmission and the wholesale sale of electric energy, as well as "all rules and regulations affecting or pertaining to such rates or charges," must be just and reasonable.<sup>22</sup> Under Section 206, FERC can regulate "any rule, regulation, practice, or contract affecting such rate[s] ..."<sup>23</sup> However, this authority cannot override the prohibition under FPA Section 201(b) against direct regulation of generation facilities. Thus, FERC's authority to set rates and regulate practices affecting rates is separate and apart from State authority to regulate generation facilities.

As a result, FERC's rates must reflect State regulation of generation facilities. As the D.C. Circuit Court of Appeals held in Conn. Dep't of Pub. Util. Control v. FERC, "State[s] ... retain the right to forbid new entrants from providing new capacity, to require retirement of existing

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<sup>22</sup> 16 U.S.C. §824d(a).

<sup>23</sup> 16 U.S.C. §824e(a).



generators, to limit new construction to more expensive, environmentally-friendly units, or to take any other action in their role as regulators of generation facilities without direct interference from [FERC]."<sup>24</sup>

Because FERC has already provided a means for compensating black start providers through the NYISO tariff, the Commission should reject TC Ravenswood's claims that compelling Blackstart Service constitutes a confiscatory taking and deprivation of property.<sup>25</sup> While it is currently unclear whether the provision of Blackstart Service will be compelled, and if so, for how long, any party potentially aggrieved by an obligation to provide the service may seek appropriate compensation. The NYPSC notes that the NYISO tariff already identifies several of the cost-based elements that may be included in the rate for Blackstart Service. To the extent TC Ravenswood is not adequately compensated for aspects of black start service that fall outside of FERC's purview, the NYPSC has stated its willingness to ensure Blackstart Service providers

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<sup>24</sup> Conn. Dep't of Pub. Util. Control v. FERC, 569 F.3d 477, 481 (D.C. Cir. 2009). FERC may only set prices to "incentivize" entry or retirement of generation as long as such prices do not amount to a requirement for (or prohibition against) generation. Setting prices at such levels is lawful because it does not rise to the level of "direct regulation" of generation facilities. Conn. Dep't of Pub. Util. Control v. FERC, 569 F.3d 477, 481-482 (D.C. Cir. 2009).

<sup>25</sup> See, FERC Docket ER06-310-000 et al..

are provided just and reasonable compensation for their important reliability services.<sup>26</sup>

In support of its argument that FERC's ratemaking authority preempts the NYPSC Declaratory Ruling, TC Ravenswood cites several cases decided under the Natural Gas Act. These cases, however, are not analogous to the FPA in these circumstances, given the reservations of state authority that are unique to the FPA. Similarly, none of the cases cited by TC Ravenswood under the FPA involve Black Start Service and support the proposition that FERC has exclusive jurisdiction over such Service.<sup>27</sup> Moreover, none of the cases address FERC's limited jurisdiction over generation facilities, reliability, or adequacy under the FPA.<sup>28</sup>

Contrary to TC Ravenswood's arguments, the NYPSC has not "trapped costs" allowed by FERC or established any rate that interferes with the FERC-approved tariffs. As a result, the line of cases cited by TC Ravenswood, including Nantahala Power & Light Co. v. Thornburg, 476 U.S. 953 (1986), and Mississippi Power & Light Co. v. Mississippi, 487 U.S. 354 (1988), are not

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<sup>26</sup> NYPSC Declaratory Ruling, p. 25.

<sup>27</sup> TC Ravenswood Complaint, pp. 26-29.

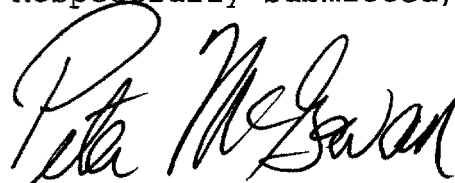
<sup>28</sup> See, Connecticut Department of Public Utility Control v. Federal Energy Regulatory Commission, 569 F.3d 477 (D.C. Cir. 2009).

applicable. Because the cases cited by TC Ravenswood are inapposite to the circumstances presented with black start service, FERC should reject TC Ravenswood's arguments.

**CONCLUSION**

In accordance with the foregoing discussion, the Commission should deny the TC Ravenswood Complaint.

Respectfully submitted,



Peter McGowan  
General Counsel  
Public Service Commission  
of the State of New York

By: David G. Drexler  
Assistant Counsel  
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Albany, NY 12223-1305  
(518) 473-8178

Dated: December 6, 2011  
Albany, New York

UNITED STATES OF AMERICA  
BEFORE THE  
FEDERAL ENERGY REGULATORY COMMISSION

TC Ravenswood, LLC,	)	
	)	
v.	)	Docket No. EL12-9-000
	)	
New York Independent System	)	
Operator, Inc.	)	
	)	
New York State Reliability	)	
Council, LLC	)	

TESTMONY OF EDWARD C. SCHROM, JR.

1 Q: Could you please state your name, employer and business  
2 address?

3 A: Edward C. Schrom, Jr., New York State Department of Public  
4 Service (Department), Three Empire State Plaza, Albany, New  
5 York, 12223.

6 Q: What is your job title?

7 A: I am currently an Electric Operation Specialist in the Bulk  
8 Electric Systems Section, Office of Electric, Gas and Water.

9 Q: What are your job responsibilities in that role?

10 A: My responsibilities include regulatory oversight of the day-  
11 to-day operations of the transmission system and the local  
12 utility system. In order to carry out those  
13 responsibilities, I am familiar with the New York Public  
14 Service Commission's reliability and safety requirements for  
15 wholesale generating facilities, as well as for distribution

1 and transmission facilities. I am also familiar with the New  
2 York Independent System Operator, Inc. (NYISO) black start  
3 restoration plan, as well as each of the individual New York  
4 Transmission Owners' (NYTO) black start restoration plans.

5 Q: How long have you been employed by the Department, and served  
6 as an Electric Operation Specialist?

7 A: I have been employed by the Department for over 33 years,  
8 including over 10 years in my current position.

9 Q: What is your educational background and profession  
10 experience?

11 A: I received a degree in Electrical Engineering from Rochester  
12 Institute of Technology in Rochester, New York. I am a  
13 licensed Professional Engineer in the State of New York.

14 Q: What is the purpose of your testimony?

15 A: The purpose of this testimony is to provide pertinent  
16 information to the Federal Energy Regulatory Commission  
17 concerning Consolidated Edison Company of New York, Inc's.  
18 (Con Edison) transmission and distribution system, including  
19 Con Edison's individual black start restoration plan as a  
20 NYTO.

21 Q: Could you please describe Con Edison's system?

22 A: Yes. Con Edison serves approximately 3,381,000 customers in  
23 its service area. These customers include direct end-use  
24 customers, marketers, and the New York Power Authority.

1 Power is dispatched from generators located in the Con Edison  
2 service area by the NYISO control center, and that power is  
3 then delivered to Con Edison's transmission system and  
4 ultimately distribution system. Generators in the Con Edison  
5 service area are generally connected to the transmission  
6 system. Power from the transmission system is delivered to  
7 the ultimate end-use customers through step-down transformers  
8 which serve the lower voltage system. This past summer, Con  
9 Edison's service area experienced a summer peak load of  
10 13,185 MW. Those customers consuming the load included  
11 high-rise office buildings, high-rise apartment complexes,  
12 financial institutions, and large commuter railroads.

13 Q: Why does Con Edison have its own black start program?

14 A: Con Edison developed its own black start program because of  
15 the unique characteristics of its system. Con Edison  
16 operates an underground cable system in a very densely  
17 populated city and its boroughs. Con Edison's transmission  
18 system and parts of its distribution system consist of high  
19 pressure oil-filled cables buried below the streets. Con  
20 Edison, through lessons learned from the 1965 blackout, made  
21 it a requirement to have its own black start capability for  
22 generators located within its service areas.

23 Q: What is the importance of Con Edison's local black start  
24 restoration plan?

1 A: When a blackout occurs like that in August 2003, Con Edison  
2 operators learned that every utility surrounding them was  
3 black. They instituted their black start program, which was  
4 to have every generator identified in its black start program  
5 start-up their black start generators. By doing so, the  
6 fossil-fueled units were restarted and boilers could be relit  
7 so that high-pressure steam could be produced, and within  
8 hours the generators could be started and pick up local load  
9 in the Con Edison service territory. By restarting those  
10 black start generators just after the blackout occurred,  
11 boilers were not forced to cool down waiting for power to  
12 come from northern New York State. As steam reached  
13 appropriate pressures, the generators energized the  
14 transmission system, and then some distribution load, as  
15 appropriate, was connected to the generators.

16 Q. Could you please describe NYISO's statewide restoration plan?

17 A: The NYISO control area initiates black start service from the  
18 west and north portions of that State, namely the Niagara  
19 Falls and St. Lawrence hydro projects, and slowly moves  
20 across the State by picking up load and generation as it  
21 comes across the State, and lastly moves southward to pick up  
22 load in New York City.

23 Q: What happens if Con Edison waits for its transmission system  
24 to energize from the north?

1 A: If Con Edison were to wait for their transmission system to  
2 energize from the north, the boilers for the in-city  
3 generation would cool down and take longer to bring up to  
4 steam pressure to begin generating again. This would mean it  
5 would be a longer wait time for Con Edison to energize its  
6 local distribution system and to resume service to end-use  
7 customers. This would represent a health and safety concern  
8 to the Con Edison service area given the large number of high  
9 rise buildings and the populations dependence on mass transit  
10 system.

11 Q: Is it important to have certain generation with black start  
12 capability in New York City close to the load?

13 A: Yes. Large generators are needed to restart Con Edison's  
14 network systems which contain large blocks of load. The  
15 generators are large masses that are rotating and can take  
16 the "inrush current" from restarting customer loads which are  
17 highly inductive, and the large motor loads which have high  
18 inrush currents. The inertia of the generator is able to  
19 overcome the sudden load (i.e., the dead mass) that will  
20 attempt to drag or slow down the generator. If this were  
21 done only with transmission ties, there would be a good  
22 chance that the load and generator could trip and take longer  
23 for the system to be brought back. Therefore, it is  
24 important that generation facilities with black start



1 capability are located in close proximity to load centers.

2 There are many Institute of Electrical and Electronic  
3 Engineers (IEEE) papers that discuss system stability impacts  
4 to serving load on long transmission lines. For example, the  
5 June 1999 paper entitled Improving Grid Behavior by Carson W.  
6 Taylor provides a good description of previous blackouts and  
7 system stability. Another good article is entitled  
8 Undervoltage Load Shedding - Part 1, written by Charles  
9 Mozina, and is available through [electricenergyonline.com](http://electricenergyonline.com).

10 Q: Would the loss of one generating unit or a group of units  
11 lengthen the time restarting the system?

12 A: Yes, but the impact on the length of time to restore the  
13 system would depend on the location, the amount of generation  
14 involved, and other case-specific information. If generation  
15 owners with black start units terminate providing black start  
16 service, it will mean their units do not maintain a generator  
17 on site to start the unit and to be ready to pick up load.  
18 The unit would cool down and take longer to bring back up to  
19 temperature, stretching the time to bring the entire system  
20 back many more hours and possibly days.

21 Q: What happened in the case of the Blackout of 2003?

22 A: In the case of NYC and the boroughs, there was no mass  
23 transit system to transport people in the City of New York,  
24 because it had no electricity to operate. Some of the ill

1 effects, for example, were experienced in high rises and  
2 office buildings, which are sealed, and had no air  
3 conditioning or cooling to support the people in the building  
4 and people were forced to leave. In addition, people could  
5 not re-enter the buildings because fire laws do not allow  
6 people to occupy buildings which have no fire systems or  
7 lighted escape routes. This meant more people on the street.  
8 Elderly people occupy large high rises in the city and were  
9 forced to leave those high rise structures. By having a  
10 local black start plan, Con Edison was able to get its system  
11 back up faster than waiting for northern New York power  
12 coming down to provide power to steam plants.

13 Q: Could Con Edison restart its system from just using the  
14 transmission system?

15 A: Yes, but not very well. Because Con Edison's distribution  
16 system has large blocks of loads that would be dead in a  
17 blackout and lack diversity, restarting the system would be  
18 more time consuming and take longer. The chances for a  
19 stable restart are harder with a long transmission line  
20 between the generator and the load. Previously written IEEE  
21 papers, which I cited above, have documented the problems  
22 associated with a loss in system stability that may arise  
23 where a generator is located remotely from load.


24 Q. Does this conclude your testimony?

1 A. Yes.


**AFFIDAVIT**

STATE OF NEW YORK    )  
                                  )    ss.  
COUNTY OF ALBANY    )

Edward C. Schrom, Jr., being first duly sworn, on oath states that he is the witness whose testimony appears on the preceding pages entitled "Testimony of Edward Schrom"; that, if asked the questions which appear in the text of said testimony, he would give the answers that are therein set forth; and that affiant adopts the aforesaid testimony as his sworn, answering testimony in this proceeding.

  
\_\_\_\_\_  
Edward C. Schrom, Jr.  
Electric Operation Specialist  
New York State Department  
of Public Service  
3 Empire State Plaza  
Albany, NY, 12223

Subscribed and sworn to before me, a Notary Public in and for Albany County, New York, this 6th day of December, 2011.

  
\_\_\_\_\_  
David Drexler  
Registration # 02DR6041385  
My Commission expires: 5/8/14

CERTIFICATE OF SERVICE

I hereby certify that I have this day served the foregoing document upon each person designated on the official service list compiled by the Secretary in this proceeding.

Dated: Albany, New York  
December 6, 2011



David G. Drexler  
Assistant Counsel  
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