

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

Public Service Electric and Gas Company)	
)	
v.)	Docket No. EL18-143-000
)	
Consolidated Edison Company of New York, Inc.)	

**MOTION TO INTERVENE AND PROTEST OF
THE NEW YORK INDEPENDENT SYSTEM OPERATOR, INC.**

In accordance with Rules 211, 212 and 214 of the Federal Energy Regulatory Commission’s (“Commission”) Rules of Practice and Procedure,¹ and the Commission’s May 4, 2018 *Notice of Complaint* and May 16, 2018 *Notice of Extension of Time*, the New York Independent System Operator, Inc. (“NYISO”) moves to intervene and protests the May 3, 2018 complaint (“Complaint”) filed by Public Service Electric and Gas Company (“PSE&G”) against the Consolidated Edison Company of New York, Inc. (“Con Edison”) in this proceeding.

The Complaint concerns two transmission lines, the B3402 Hudson-to-Farragut line (“B line”) and the C3403 Marion-to-Farragut line (“C line”), which are jointly owned by PSE&G and Con Edison. The B and C lines interconnect New York City and Northern New Jersey. PSE&G alleges that underwater portions of the B and C lines may have been permanently damaged by a collapsed pier, which caused the B line to leak dielectric fluid. Even though PSE&G admits the leak in the B line has been repaired, the Complaint requests that the Commission compel Con Edison to cooperate in the removal of both the B and C lines because removing them from

¹ 18 C.F.R. §§ 385.212 and 385.213 (2017).

service would purportedly be consistent with “Good Utility Practice” and reduce the risk of further costs to PSE&G’s customers.

The NYISO protests PSE&G’s request because removing the B and C lines would undermine resilience in both New Jersey and New York. PSE&G has not demonstrated that there is any imminent need for the drastic Commission action that it proposes. PSE&G has overlooked the B and C lines’ ability to provide emergency support from New York to the PJM Interconnection, LLC (“PJM”) region in an emergency, and PSE&G’s Complaint is based on a myopic review of expected benefits to its customers that does not accurately account for the benefits PSE&G receives from its interconnections with New York. The Commission should deny the Complaint.

I. COMMUNICATIONS AND CORRESPONDENCE

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II. MOTION TO INTERVENE

The NYISO is the independent body responsible for providing open access transmission service, maintaining reliability, and administering competitive wholesale markets for electricity,

capacity, and ancillary services in New York State. In particular, the NYISO is responsible for coordinating the operation of the New York State transmission system with neighboring systems, including interregional transmission facilities such as the B and C lines. The NYISO is also responsible for maintaining, and works actively to bolster, the resilience of its system. PSE&G's Complaint directly impacts the NYISO's area of responsibility by threatening to reduce the resilience of the interconnected New York and PJM transmission systems. The NYISO, therefore, has a unique interest in this proceeding that cannot be adequately represented by any other entity and, consequently, should be permitted to intervene with all the rights of a party.

III. PROTEST

A. Removing the B and C Lines Would Undermine Resilience in both New Jersey and New York

PSE&G argues that the B and C lines should be removed because they are no longer being used to provide firm transmission service, are not needed for reliability, and could leak dielectric fluid again. The two lines previously supported a five-decade long wheeling arrangement between PSE&G and Con Edison, the implementation of which was later taken over by PJM and the NYISO. The wheel ended in April 2017.

It is true that the B and C lines are not currently being used to support long-term firm transmission service. The same statement could be made for the vast majority of the transmission lines that interconnect PJM and the New York Control Area ("NYCA").² The Complaint ignores the fact that the B and C lines support grid resilience by providing opportunities for operational flexibility and emergency service in both the NYCA and PJM.

² The NYISO is only aware of long-term firm transmission service reservations on some of the Scheduled Lines that interconnect the NYISO and PJM.

The Commission has proposed to define “resilience” as “[t]he ability to withstand and reduce the magnitude and/or duration of disruptive events, which includes the capability to anticipate, absorb, adapt to, and/or rapidly recover from such an event.”³ As discussed in the attached affidavit of Wesley J. Yeomans, the B and C lines, which together represent more than 1,200 MW of emergency transfer capability,⁴ have traditionally supported the resilience of the transmission system in both New Jersey and New York, and will continue to do so if they are placed back in service.

The NYISO recently stated in its written response to the Commission’s generic resilience inquiry in Docket No. AD18-7-000 that interregional transmission facilities play a vital role in maintaining both reliability and the resilience of interconnected transmission grids. The NYISO’s response urged the Commission to “recognize the critical importance of maintaining and enhancing grid interconnections.”⁵ It added that such connections “support and bolster reliability and resilience by creating a larger and more diverse resource pool available to meet needs and address unexpected and/or disruptive events *throughout* an interconnected region.”⁶ Moreover, PJM’s response in Docket No. AD18-7-000 stated:

The more diverse resource pool available through interregional interconnections provides both economic and resiliency benefits, especially during stressed operating conditions such as sustained heat waves or cold snaps. System operators can also rely on interregional operational processes to request emergency energy assistance, if necessary, to support reliability. These interregional practices bolster the resiliency of the interconnected grid during stressed system conditions and can

³ *Grid Resilience in Regional Transmission Organizations and Independent System Operators*, 162 FERC ¶ 61,012 at P 23 (2018).

⁴ The combined, continuous Summer rating of the B and C lines is 846 MW, but their combined four hour emergency Summer rating is 1,203 MW.

⁵ *Response of the New York Independent System Operator, Inc.*, Docket No. AD18-7-000 (March 9, 2018) (“NYISO Resilience Response”) at 10.

⁶ NYISO Resilience Response at 10-11 (emphasis in original).

avoid the need for taking more severe operating actions that may otherwise be needed to support reliability.⁷

PJM likewise observed in its response in the Commission’s generic resilience proceeding that PJM “recognizes the benefit to coordination and sharing” and works closely with its neighbors, including the NYISO, to maintain reliability and manage emergencies.⁸ A primer on the advantages of interconnections which is posted on PJM’s website explains that “[i]nterconnection is like a two-way street allowing those who are connected to the grid to share resources back and forth as needed” and “if one area is short on resources, resources can be brought in from a different area, even miles away, to ensure grid reliability. Using a highway metaphor, the interconnected grid offers many different paths to transport power from an area where it is available to an area where it is needed.”⁹

Mr. Yeomans’ affidavit explains that New York City and the adjacent interconnected portions of Northern New Jersey are major metropolitan load centers that have traditionally required substantial local generation resources to meet local reliability needs. The two areas have also been closely interconnected and provided support to each other going back at least as far as the 1965 blackout. As the North American Electric Reliability Corporation stated in its report on the August 14, 2003 blackout:

After the blackout of 1965, the utilities serving New York City and neighboring northern New Jersey increased the integration between the systems serving this area to increase the flow capability into New York and improve the reliability of the system as a whole. The combination of the facilities in place and the pattern of electrical loads and flows on August 14 caused New York to be tightly linked electrically to northern New Jersey and southwestern Connecticut, and moved

⁷ *Comments and Responses of PJM Interconnection, L.L.C.*, Docket No. AD18-7-000 (March 9, 2018) (“PJM Resilience Response”) at 51.

⁸ PJM Resilience Response at 51-52.

⁹ See <https://learn.pjm.com/electricity-basics/interconnection-advantages.aspx>

previously existing weak spots on the grid out past this combined load and network area.¹⁰

The B and C lines are uniquely situated to allow local generation in New York City and New Jersey to better support the other area during unexpected emergency conditions or disruptive events. The B and C lines can thus allow the NYISO and PJM to respond to and recover from disruptive events in a way that enhances resilience.¹¹ In particular, as discussed below in Section III.D, the current Joint Operating Agreement (“JOA”) between the NYISO and PJM establishes a procedure under which the NYISO could use the B and C lines to assist PJM in an emergency.

Removing the B and C lines from service, as PSE&G proposes, would unquestionably undermine resilience by weakening the interconnections between densely populated Northern New Jersey and New York City. Given the increasing focus of the Commission and other policy makers on bolstering resilience, the Commission should not seriously consider eliminating transmission lines that connect these two load centers. To the contrary, the Commission should strongly encourage PSE&G to work with Con Edison to *restore* the B and C lines to service as soon as possible, with the Summer capability period now upon us.

B. The Complaint Does Not Demonstrate an Imminent Risk that Must be Addressed

The PSE&G Complaint argues that the B and C lines need to be drained of dielectric fluid and permanently removed from service¹² due to the risk that another dielectric fluid leak

¹⁰ NERC Report “Technical Analysis of the August 14, 2003 Blackout: What Happened, Why, and What Did We Learn?” issued July 15, 2004, at 87.

¹¹ See Yeomans Affidavit at PP 5-6.

¹² See Complaint at 2 and 12 where PSE&G states that the lines should be drained of dielectric fluid and removed.

could occur, but the facts stated in the Complaint do not support PSE&G's argument. The Complaint indicates that, over the many decades that the B line has been in service, it has experienced one minor leak,¹³ which occurred at a weld joint after the B line was covered with thousands of pounds of debris from a collapsed pier. In its Complaint, PSE&G repeatedly states that it does *not* believe there is any active leak in the B line¹⁴ and PSE&G concedes that the functioning of the B line was and is *not* impaired by the leak that occurred.¹⁵ The Complaint does not present *any* evidence whatsoever that there has ever been a leak in the C line. Yet, PSE&G seeks the Commission's assistance in its efforts to permanently remove the B and C lines from service. PSE&G's request is based on speculative concerns that there could be another dielectric fluid leak at an unspecified point in the future. PSE&G's Complaint does not demonstrate an imminent risk of another leak.

Con Edison's Chief Mechanical and Civil Engineer, Luciano Villani, explains in his affidavit, which accompanies Con Edison's Answer, the actions Con Edison has taken to locate and repair the leak in the B line and to test and re-test both the B and C lines to ensure that neither transmission facility is leaking. Mr. Villani details how the B line was repaired and explains that the C line was never damaged and has never leaked. Mr. Villani concludes that both lines are in satisfactory condition and should be placed back in service. The NYISO agrees with Con Edison that the B and C lines should be returned to service because they provide significant resilience benefits to New York City and to Northern New Jersey. Consistent with

¹³ The leak that was found in the B line leaked just over one gallon of dielectric fluid per day, was located on a weld joint, and may have taken years to actually discover. See Exhibit No. PS-2 at P 16.

¹⁴ See Complaint at 3, 24; Exhibit No. PS-1 at p. 2; Exhibit No. PS-2 at PP 21, 24, 28.

¹⁵ See Complaint at 24 ("The leak in the B and C lines that PSE&G and Con Edison repaired did not impair the function of the B and C lines."—this quote from PSE&G's complaint erroneously suggests that there has been a leak in the C line. PSE&G has offered no facts to support the suggestion that a leak occurred on the C line.)

the discussion below, the NYISO is not opposed to the B and C lines being replaced at the end of their useful lives, when replacement facilities are available.

C. PSE&G Has Repeatedly Identified the Removal of the B and C Lines as a Business Opportunity

PSE&G has stated in its Complaint and in other recent pleadings that it perceives a business opportunity in removing the B and C lines from service and replacing them with facilities over which a greater degree of operational control can be exercised. In footnote 15 on page 29 of its Complaint PSE&G states “PSE&G is not abandoning its easement rights and will consider another potential project that does not use dielectric fluid and that allows its customers to realize the commercial value associated with the lines.”

PSE&G previously presented its proposal to “realize the commercial value associated with the lines” on page 24 of its February 23, 2018 *Comments in Support of the New Jersey Board of Public Utilities Complaint* in Docket No. EL18-54. PSE&G’s comments in support of the rejected New Jersey BPU complaint asked the Commission to instruct PJM and NYISO to modify their tariffs as follows:

The PJM and NYISO tariffs could be modified to allow controllable interties to be treated as separate interfaces with their own set of energy market proxy buses and with the capability of holding firm capacity injection and withdrawal rights. PJM and NYISO could then be allowed to offer these rights to market participants through an open season or other mechanism. To the extent that revenues from providing such services were in excess of the cost of service associated with the facilities comprising the controllable interface, those amounts could be used to offset transmission upgrade costs for internal facilities supporting injections and withdrawals. This approach would also afford transmission owners - particularly PSE&G and Con Edison - the opportunity to enhance the capability of existing interties between constrained areas such as the A, B/C⁷² and J/K lines. This would allow the full commercial value of the interregional facilities to be realized.

Footnote 72 of PSE&G’s comments stated:

[T]he B and C lines are currently the subject of cleanup efforts in the Hudson River associated with the discharge of dielectric fluid in the vicinity of the lines

near the New Jersey shore. In this connection, PSE&G has advised Con Edison, PJM and NYISO of its intention to retire the existing facilities due to the stress experienced by the oil-filled pipe cable from the deposit of debris on the lines when components of a sea wall and pier in the area collapsed. Creating a mechanism to enable recognition of the commercial value of PJM/NYISO controllable lines could provide a means to fund replacement of the facilities that PSE&G is planning to retire.

The NYISO and PJM have previously explained why it would not be appropriate to develop distinct prices and schedules for the A/B/C or J/K lines unless and until significant upgrades are made to the existing facilities.¹⁶ PJM's stakeholders (including PSE&G representatives) recognized the need for greater controllability than is presently possible over the B and C lines in 2015.¹⁷

The Commission should not permit PSE&G's commercial interest in allowing "the full commercial value of the facilities to be realized" to result in the removal of the B and C lines from service prematurely. Any discussion between the NYISO, PJM and their stakeholders of how, when and whether to replace the B and C lines should occur after the B and C lines are returned to service. The B and C lines should be used to provide open access transmission service in accordance with the NYISO's Joint Operating Agreement with PJM until such time as an agreement is reached and upgraded replacement transmission facilities are available and ready to be installed.

¹⁶ Most recently, the NYISO and PJM addressed this issue in the joint *Answer of New York Independent System Operator, Inc. and PJM Interconnection, L.L.C.*, Docket No. ER17-905 at pp. 19-20 (March 10, 2017).

¹⁷ See Phase Angle Regulator Task Force, *Final Proposal Report*, PJM Interconnection, L.L.C., 1-2 (September 1, 2015), <http://www.pjm.com/~media/committees-groups/committees/mrc/20151001/20151001-item-07-partf-final-report.ashx>

D. The B and C Lines Are Capable of Providing Support from New York to PJM in an Emergency

Section 4.2 of the May 22, 1975 *Interconnection Agreement between Con Edison and PSEG* allowed PSE&G to send up to 400 MW of power to Con Edison on the A line and to use the Con Edison transmission system to return the power to PSE&G on the B line “whenever major bulk-power facility outages in the northern portion of the PS system impair the reliability of service in that area...” This provision required Con Edison to provide assistance to PSE&G in an emergency using the B line. Con Edison’s obligation to return the energy on the B line was only limited by Con Edison’s inability to achieve the transfer due to outages on its own system.

PSE&G’s right to receive an emergency wheel of up to 400 MWs on the B line was also reflected in the NYISO’s JOA with PJM until the 1,000 MW wheel ended on April 30, 2017. The authority granted to the NYISO and PJM under the currently effective JOA would still allow them to transfer power from New York to PSE&G over the B and C lines in an emergency.

The JOA permits all of the Phase Angle Regulators (“PARs”) and transmission lines at the PJM/NYISO border to be used to address emergency conditions. Section 35.6.5 of the currently effective JOA provides as follows:

If an emergency condition exists in either the NYCA or PJM, the NYISO operator or PJM dispatcher may request that the NY/PJM Interconnection Facilities be adjusted to assist directing power flows between the NYCA and PJM to alleviate the emergency condition. The taps on the ABC PARs, Ramapo PARs, and Walwick PARs may be moved either in tandem or individually as needed to mitigate the emergency condition.

The NYISO and/or PJM shall implement the appropriate emergency procedures of either the NYISO or PJM, as appropriate, during system emergencies experienced on either the NYISO or PJM system. The NYISO and PJM shall have the authority to implement their respective emergency procedures in any order required to ensure overall system reliability.

Before the Con Edison 1,000 MW Wheel ended in April of 2017, Schedule C to the JOA addressed its implementation. Schedule C included provisions authorizing the use of the A, B, C and Waldwick PARs to mitigate emergency conditions that are very similar to the language that is currently in Section 35.6.5 of the JOA. Section 1.3 of Schedule C to the JOA provided, in pertinent part, as follows:

- 1.3 During system emergencies, the appropriate emergency procedures of the NYISO and PJM, if necessary, shall take priority over the provisions of this Operating Protocol. The NYISO and PJM shall have the authority to implement their respective emergency procedures in whatever order is required to ensure overall system reliability.

...

In addition, if PJM declares an emergency condition that arises from outages on the PSE&G system, the NYISO and PJM may agree to deliver up to 400 MW to Goethals [via the A line] for re-delivery to Hudson via the NYISO's system [and the B line]. Such emergency re-deliveries shall not be considered in the calculation of the Real-Time Market Desired Flow under Appendices 1 and 3 of this Operating Protocol.

Appendix 5 to Schedule C to the JOA also addressed the use of the A, B, C and Waldwick PARs to mitigate emergency conditions. It provided, in pertinent part, as follows:

Emergency Operations

If an emergency condition exists in either the NYISO or PJM, the NYISO dispatcher or PJM dispatcher may request that the ties between New York and New Jersey be adjusted to assist directing power flows in the respective areas to alleviate the emergency situation. The taps on the PARs at Waldwick, Goethals, and Farragut may be moved either in tandem or individually as needed to mitigate the emergency condition. Responding to emergency conditions in either the NYISO or PJM overrides any requirements of this Operating Protocol and the appendices hereto.

The rules in Section 35.6.5 of the currently effective JOA are more expansive than the rules that were included in Appendix C because they permit the Ramapo PARs to be used in addition to the Waldwick PARs and A, B, C PARs to mitigate an emergency condition in PJM or New

York. The PARs at the NYISO's border with PJM can be operated to achieve deliveries of power to PSE&G over the B and C lines. Unless it would place NYCA reliability at risk, the NYISO will instruct Con Edison to operate the Ramapo and A, B, C PARs¹⁸ to assist PJM in an emergency.

E. The Benefits of PSE&G's Interconnections to New York Should Be Considered Holistically

PSE&G argues that the B and C lines, assessed in isolation, have historically provided little benefit to its Northern New Jersey loads. The NYISO disagrees with the myopic scope of the review PSE&G presented to support its Complaint. The 1,000 MW Wheel was achieved using the J and K lines, the Waldwick PARs, the A, B and C lines and the associated A, B and C PARs. Power was delivered from New York to PSE&G's transmission system using the J and K lines and the Waldwick PARs, and re-delivered to New York using the A, B and C lines and associated PARs. There are sections and components of the J and K lines located in New York and maintained by Con Edison that have, to date, been used, almost exclusively, to deliver power from New York to Northern New Jersey.

PSE&G's Complaint myopically focuses on how the B and C lines have historically been used, ignoring the corresponding New York transmission facilities that have been operated to deliver power to New Jersey. Assessing the benefits of individual transmission lines to PSE&G's customers without considering the broader set of transmission facilities that make up the interface between PJM and the NYCA "loses the forest for the trees." The benefits PSE&G (and PJM and Con Edison and the NYCA) receive from interconnections are more appropriately assessed on a holistic basis.

¹⁸ The NYISO has operational control and Con Edison has physical control of the Ramapo and A, B, C PARs. PJM has operational control and PSE&G has physical control of the E, F and O PARs.

IV. DOCUMENTS SUBMITTED

The NYISO respectfully submits the Affidavit of Wesley J. Yeomans, the NYISO's Vice President of Operations, as Attachment I to this Protest.

V. CONCLUSION

WHEREFORE, the NYISO respectfully requests that the Commission (i) grant its motion to intervene, (ii) deny the PSE&G Complaint for the reasons set forth above (and as requested by Con Edison's Answer), and (iii) instruct PSE&G to work with Con Edison to promptly return the B and C lines to service.

Respectfully submitted,

NEW YORK INDEPENDENT SYSTEM OPERATOR, INC.

By: /s/ Alex M. Schnell

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June 6, 2018

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Attachment I

**UNITED STATES OF AMERICA
BEFORE THE
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Public Service Electric and Gas Company,)	
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AFFIDAVIT OF WESLEY J. YEOMANS

I. Qualifications and Purpose

1. My name is Wesley J. Yeomans. I am the Vice President of Operations for the New York Independent System Operator, Inc. ("NYISO"). My business address is 10 Krey Boulevard, Rensselaer, NY 12144.

2. I received my Bachelor of Science degree in Electrical Engineering from Clarkson University in 1984, and a Masters in Business Administration from Syracuse University in 1990. I joined the NYISO in 2009 as its Director of Operations. I was promoted to Vice President of Operations in September of 2011. Prior to joining the NYISO, I worked for Niagara Mohawk Power Corporation and National Grid for twenty-five years. My areas of responsibility at Niagara Mohawk and National Grid included transmission planning analysis, management of bulk power operations, wholesale energy commitment and procurement of supply, and meeting the transmission owner and Load Serving Entity responsibilities under the NYISO's Open Access Transmission Tariff ("OATT").

3. As Vice President of Operations for the NYISO, my responsibilities include the reliable operation of the New York Control Area transmission system, in compliance with all applicable North American Electric Reliability Corporation (“NERC”), Northeast Power Coordinating Council, and New York State Reliability Council reliability standards and rules, the operation of the ISO Day-Ahead and Real-Time wholesale Energy Markets and validating the Energy Markets’ prices, and the operation of the NYISO Transmission Congestion Contract and Installed Capacity Markets, and other NYISO administered markets.
4. My responsibilities also involve coordinating operations with neighboring regions, such as the PJM Interconnection, LLC (“PJM”), through the efficient use of interregional transmission facilities.
5. I have first-hand operational knowledge of the importance that interconnected grid operations have for both reliability and resilience. This includes personal knowledge of the major system impacts and restoration efforts undertaken during Super Storm Sandy in 2012 and other extreme weather events that have affected the NYISO and neighboring regions.
6. As the NYISO explained in its March 9, 2018 written response in the Commission’s generic grid resilience proceeding, maintaining and enhancing grid interconnections is critically important to resilience because interconnections “support and bolster reliability and resilience by creating a larger and more diverse resource pool available to meet needs and address unexpected and/or

disruptive events *throughout* an interconnected region.” *Response of the New York Independent System Operator, Inc.*, Docket No. AD18-7-000 (March 9, 2018) at 10-11 (emphasis in original).

7. The purpose of this affidavit is to describe the importance of maintaining existing interregional transmission interconnections, such as the “B” and “C” lines at issue in this proceeding because they enable the NYISO and PJM to share resources in an emergency and enhance the resiliency of the interconnected transmission grid.

II. Removing the B and C Lines Would Undermine Resilience in Both New Jersey and New York

8. The NYISO-PJM interface consists of twenty five alternating current Interconnection Facilities, two HVDC Interconnection Facilities, and a Variable Frequency Transformer (“VFT”). Interties between New York and New Jersey include the A2253 “A” (Linden-to-Goethals) 230kV line, the B3402 “B” (Hudson-to-Farragut) 345kV line, and the C3403 “C” (Marion-to-Farragut) 345kV line. The other major interties between New York and New Jersey are the 500 kV Ramapo-to-Hopatcong line (designated the 5018 line), the 345 kV J3410 “J” and 345 kV K3411 “K” lines (Waldwick-to-South Mahwah), the 345 kV Linden VFT, and the two HVDC interties - the 345 kV Hudson Transmission Project line and the 500 kV Neptune line.
9. The B and C lines were constructed in the 1970s and are jointly owned by Public Service Electric and Gas Company (“PSE&G”) and Consolidated Edison Company of New York, Inc. (“Con Edison”). Traditionally, a principal purpose

of the lines was to support a 1,000 MW wheeling arrangement between the two utilities. That arrangement predated the establishment of the NYISO and PJM as ISOs/RTOs. In the early 2000s, the NYISO and PJM took over the implementation of the wheel and administered it until it was terminated in April of 2017.

10. PSE&G argues that the B and C lines should be removed because the B line was damaged by a collapsing pier and was previously leaking dielectric fluid into the Hudson River, but has since been repaired. PSE&G contends that the B and C lines no longer serve any purpose and should be removed to avoid imposing additional expenses on PSE&G's customers.
11. New York City and the nearby portions of Northern New Jersey areas are each major load centers that have historically required local generation resources to address the transmission limitations associated with serving each of these areas. Con Edison's New York City and PSE&G's Northern New Jersey service territories are treated as constrained load deliverability areas in the respective NYISO and PJM installed capacity markets, with each market operator requiring local generation resources within those areas to meet local demand requirements.
12. The B and C Lines, along with several other major high voltage interties interconnecting the PSE&G and Con Edison systems, are of significant importance from a grid resilience perspective for the metropolitan New York City and Northern New Jersey load centers.

13. New York City and adjacent portions of Northern New Jersey have traditionally been closely interconnected and have provided reliability support to each other for decades. As NERC stated in its July 15, 2004 “Technical Analysis of the August 14, 2003 Blackout: What Happened, Why, and What Did We Learn?” (“NERC Report”) at 87, “After the blackout of 1965, the utilities serving New York City and neighboring northern New Jersey increased the integration between the systems serving this area to increase the flow capability into New York and improve the reliability of the system as a whole.”
14. This integration continued with the construction of the B and C lines and other facilities that supported it. As the NERC Report (at 87) noted, “[t]he combination of the facilities in place and the pattern of electrical loads and flows on August 14 [2003] caused New York to be tightly linked electrically to northern New Jersey and southwestern Connecticut, and moved previously existing weak spots on the grid out past this combined load and network area.”
15. The New York City area has over 8,000 MW of installed local generation and the PSE&G system has over 5,000 MW of local generation resources. The combined, continuous Summer rating of the B and C lines is 846 MW and their combined four hour emergency Summer rating is 1,203 MW. The B and C lines can be used to transfer energy produced by local generation between New York City and Northern New Jersey.

16. The unique interconnecting locations of the B and C lines enables these ties to provide a significant level of resiliency over and above minimum reliability criteria for the metropolitan load centers of the PSE&G and Con Edison systems. This capability significantly enhances the resilience of the combined PSE&G and Con Edison systems.
17. The capabilities of the B and C lines can be used by the NYISO and PJM to support each other's systems during unexpected emergency conditions or disruptive events. The ability of PJM and NYISO to request the assistance of each other's generating resources in support of maintaining the integrity of combined PSE&G and Con Edison systems in an emergency is critically important from a grid resilience perspective given threats from extreme storm events (such as Superstorm Sandy and Hurricane Irene), fuel security concerns, and other threats to the interconnected grid.
18. Under the terms of the PJM and NYISO Joint Operating Agreement ("JOA") PJM and NYISO can utilize the B and C line interconnections, like all other interconnections between the two regions, to provide assistance and preserve the integrity of the interconnected PJM and NYISO systems in an emergency.
19. In order to maintain the historical level of resilience that the combined PSE&G and Con Edison systems have been afforded because they are capable of accessing each other's local generating resources, the B and C line

interconnections along with the other PJM and NYISO interconnections need to be maintained.

III. Additional Support for the NYISO's Protest

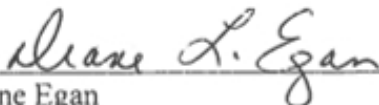
20. I have reviewed the NYISO's *Motion to Intervene and Protest* to which this affidavit is attached. The factual statements and assertions set forth in that pleading are correct to the best of my information, knowledge and belief. I strongly support the NYISO's request that the Commission deny PSE&G's complaint and strongly encourage PSE&G to cooperate with Con Edison in promptly restoring the B and C lines to service.

21. This concludes my affidavit.

Executed on this 6th day of June, 2018.



Wesley J. Yeomans
Vice President, Operations
New York Independent System Operator, Inc.
10 Krey Boulevard
Rensselaer, New York 12144



Diane Egan
Notary Public, State of New York

My Commission Expires: March 21, 2022

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 in accordance with the requirements of Rule 2010 of the Rules of Practice and Procedure, 18 C.F.R. §385.2010.

Dated at Rensselaer, NY this 6th day of June 2018.

/s/ Joy A. Zimmerlin

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