



Agenda Date: 11/21/17
Agenda Item: 2K

STATE OF NEW JERSEY
Board of Public Utilities
44 South Clinton Avenue, 3rd Floor, Suite 314
Post Office Box 350
Trenton, New Jersey 08625-0350
www.nj.gov/bpu/

ENERGY

IN THE MATTER OF THE PETITION OF JERSEY)
CENTRAL POWER & LIGHT COMPANY)
PURSUANT TO N.J.S.A. 40:55D-19 FOR A)
DETERMINATION THAT THE MONTVILLE-)
WHIPPANY 230 KV TRANSMISSION PROJECT)
IS REASONABLY NECESSARY FOR THE)
SERVICE, CONVENIENCE OR WELFARE OF)
THE PUBLIC)

DECISION AND ORDER

BPU DOCKET NO. EO15030383
OAL PUC DOCKET NO. 08235-2015N

Parties of Record:

Stefanie A. Brand, Esq., Director, New Jersey Division of Rate Counsel
Gregory Eisenstark, Esq., Windels Marx, on behalf of Jersey Central Power and Light Company
Fred Semrau, Esq., Dorsey & Semrau, on behalf of the Township of Montville
Stephen J. Edelstein, Esq., Schwartz Simon Edelstein & Celso, LLC, on behalf of Montville Board of Education

BY THE BOARD:

On March 27, 2015, Jersey Central Power and Light, ("JCP&L" or "Company") filed a petition with the New Jersey Board of Public Utilities ("BPU" or "Board") under N.J.S.A. 40:55D-19 of the New Jersey Municipal Land Use Law ("MLUL") seeking a determination that the Montville-Whippany Transmission Project ("Project") and all facilities involved in the Project are reasonably necessary for the service, convenience or welfare of the public.

The Project consists of the construction of a new 230 kilovolt ("kV") transmission line traveling between JCP&L's Whippany substation in East Hanover, New Jersey, and its Montville substation in the Township of Montville ("Montville"), New Jersey, as well as upgrades to the substations themselves to accommodate the new transmission line. The Project is a significant undertaking which involves a wide swath of technical and legal issues. According to JCP&L, the Project is necessary to address, identify and confirm reliability issues within its transmission grid.

This Order sets forth the background and procedural history and represents the Final Order in the matter pursuant to N.J.S.A. 52:14B-20. Having reviewed the extensive record, the Stipulation of Settlement ("Stipulation") between JCP&L and Montville, and the Initial Decision issued by Administrative Law Judge ("ALJ") Leland McGee, the Board now **ADOPTS** the Stipulation entered into on May 24, 2016, and **ADOPTS** the Initial Decision in part, and **MODIFIES** the Initial Decision, in part, rendered on August 17, 2017, to the extent it failed to consider the Stipulation entered into by Montville and JCP&L that modified the proposed route.

BACKGROUND AND PROCEDURAL HISTORY

The Board is empowered to ensure that regulated public utilities provide safe, adequate and proper service to the citizens of New Jersey. N.J.S.A. 48:2-23. Pursuant to N.J.S.A. 48:2-13, the Board has been vested by the Legislature with the general supervision and regulation of and jurisdiction and control over all public utilities, "so far as may be necessary for the purpose of carrying out the provisions of [Title 48]." The courts of this State have held that the grant of power by the Legislature to the Board is to be read broadly, and that the provisions of the statutes governing public utilities are to be construed liberally. See e.g., In re Public Service Electric and Gas Company, 35 N.J. 358, 371 (1961); Twp. of Deptford v. Woodbury Terrace Sewerage Corp., 54 N.J. 418, 424 (1969); Bergen County v. Dep't. of Public Utilities, 117 N.J. Super. 304 (App. Div. 1971).

JCP&L's petition, filed with the Board, sought the following determinations:

- 1) The construction of the proposed Project and all facilities involved in the Project are reasonably necessary for the service, convenience or welfare of the public;
- 2) The Zoning and Land Use Ordinances and all regulations promulgated by the municipal entities and the counties shall have no application to the Project, including, but not limited to, the substations; and
- 3) That JCP&L be authorized to construct and energize the Project and the facilities appurtenant thereto in a timely manner, in order to permit JCP&L to satisfy its obligation to continue to provide safe, adequate and proper service to its customers, and to enable JCP&L to construct and energize the proposed facilities no later than June 1, 2017; with such authorization requested by December 31, 2015 so as to enable JCP&L to complete the permitting for the Project and commence construction in a timely manner.

The petition included maps of the proposed Project route and zoning maps of the affected municipalities, a planning analysis report, and the pre-filed testimony of the following witnesses: John T. Toth¹, Dave Kozy, Jr., Lawrence A. Hozempa, Paul W. McGlynn, Peter W Sparhawk, Kirsty M. Cronin, Tracy J. Janis, Jerome J. McHale, Kyle G. King and William H. Bailey, Ph. D.

The matter was transmitted to the Office of Administrative Law ("OAL") on June 3, 2015 for hearing as a contested matter, and subsequently assigned to the Honorable Leland McGee, ALJ.

¹ Scott Humphrys subsequently adopted the pre-filed testimony of Mr. Toth.

Prior to the filing of the petition, the Board received several hundred letters from members of the public in opposition to the Project.

On May 1, 2015, Montville, which is located within JCP&L's service territory along the proposed route of the Project, moved to intervene as a party in the proceeding. The Montville Board of Education ("Montville BOE") filed a motion to intervene on August 19, 2015. After prehearing conferences, JCP&L filed a Motion to Establish a Procedural Schedule on August 21, 2015. On September 2, 2015, Montville filed opposition to the motion and also filed a cross-motion ("Montville Cross Motion") requesting that JCP&L be directed to establish an escrow account to fund its expert and professional fees "to properly assess this Project, its impact on the Township, and possible alternatives." (Montville Cross Motion at 5) . JCP&L and the New Jersey Division of Rate Counsel ("Rate Counsel") opposed the Montville Cross Motion.

On September 8, 2015, ALJ McGee issued a Prehearing Order in this matter which granted the motions to intervene of both Montville and Montville BOE and established a procedural schedule. The Prehearing Order also denied the Montville Cross Motion.²

On September 15, 2015, Montville filed a request with the Board for an interlocutory review of ALJ McGee's order denying the Montville Cross Motion. Opposition to the request was filed by JCP&L on September 17, 2015. Rate Counsel also filed a letter brief opposing interlocutory review and the establishment of an escrow account on September 18, 2015.

On October 15, 2015, the Board issued an Order ("October 15, 2015 Order") granting Montville's motion for interlocutory review, and after evaluating the motion on the merits, found no basis to compel JCP&L to establish an escrow fund for Montville's costs and expenses. The October 15, 2015 Order affirmed the decision of ALJ McGee denying the Montville Cross-Motion.³

On November 6, 2015, Montville filed a request for reconsideration ("Reconsideration Request") of the Board's October 15, 2015 Order. JCP&L filed a letter brief in opposition to the Reconsideration Request on November 18, 2015, and on November 19, 2015, Rate Counsel filed its letter brief in opposition in response to the Reconsideration Request. On January 27, 2016, the Board issued an order denying Montville's Reconsideration Request finding "that nothing in Montville's Reconsideration Request challenges the facts relied upon by the Board or changes the conclusion reached" and "Montville's arguments have already been considered by the Board, and rejected."⁴

² In re the Petition of Jersey Central Power and Light Company Pursuant to N.J.S.A. 40:55D-19 for a Determination that the Montville-Whippany 230kV Transmission Project is Reasonably Necessary for the Service, Convenience or Welfare of the Public, OAL Docket No. PUC 08235-15 and BPU Docket No. EO15030383 (Order dated September 8, 2015) at 5.

³ In re the Petition of Jersey Central Power and Light Company Pursuant to N.J.S.A. 40:55D-19 for a Determination that the Montville-Whippany 230kV Transmission Project is Reasonably Necessary for the Service, Convenience or Welfare of the Public, OAL Docket No. PUC 08235-15 and BPU Docket No. EO15030383 (Order dated October 15, 2015) at 8 to 9.

⁴ In re the Petition of Jersey Central Power and Light Company Pursuant to N.J.S.A. 40:55D-19 for a Determination that the Montville-Whippany 230kV Transmission Project is Reasonably Necessary for the Service, Convenience or Welfare of the Public, OAL Docket No. PUC 08235-15 and BPU Docket No. EO15030383 (Order dated January 27, 2016) at 7.

On February 19, 2016, Montville filed a motion with the New Jersey Appellate Division seeking interlocutory review of the Board's Order. On March 14, 2016, the Appellate Division denied Montville's motion for interlocutory review.⁵

After notice, public hearings were held on this matter on December 8, 2015 at Montville Township High School, Montville, New Jersey. The Honorable Danielle Pasquale, ALJ presided over this proceeding. Many members of the public attended the hearing and commented on the petition. The Board also received additional written comments from members of the public.

On February 9, 2016, Wildlife Preserves, Inc. ("WPI") filed a motion to intervene. On March 2, 2016, ALJ McGee issued an order denying WPI's motion to intervene, but granting it participant status, allowing WPI to file a statement and/or brief as well as the right to file exceptions to the Initial Decision.

Evidentiary hearings were conducted the week of May 23, 2016. JCP&L presented witnesses Scott M. Humphrys, Lawrence A. Hozempa, Dave Kozy, Jr., Kirsty M. Cronin, William H. Bailey, Kyle G. King, and Peter W. Sparhawk. On May 24, 2016, Montville and JCP&L (collectively, "Stipulating Parties") entered into the Stipulation. On May 26, 2016, JCP&L again presented Mr. Humphrys for cross examination as requested by Rate Counsel in light of the execution of the Stipulation.

TESTIMONY PRESENTED

JCP&L Direct Testimony

A. Project Overview

Scott M. Humphrys

John T. Toth, a supervisor in Transmission Engineering Department of FirstEnergy Service Company, filed direct testimony on behalf of JCP&L in support of the petition. Mr. Toth's testimony was marked as Exhibit JC-2. As noted above, this testimony was subsequently adopted by Scott M. Humphrys. Mr. Humphrys' testimony provides an overview of the Project, including a summary of the need, the proposed route and estimated cost for the Project.

B. Need for the Project

Lawrence A. Hozempa

Lawrence A. Hozempa, a supervisor in the Transmission Planning in the Energy Delivery Planning and Protection Department for FirstEnergy Service Company, filed direct testimony on behalf of JCP&L in support of the petition. Mr. Hozempa's testimony was marked as Exhibit JC-4. The nature of his testimony described the electrical need for the Project.

⁵ In re the Petition of Jersey Central Power and Light Company Pursuant to N.J.S.A. 40:55D-19 for a Determination that the Montville-Whippany 230kV Transmission Project is Reasonably Necessary for the Service, Convenience or Welfare of the Public, Order, Docket No. AM-00364-T1 (App. Div. March 14, 2016).

Mr. Hozempa testified that JCP&L's service territory encompasses approximately 3,300 square miles, provides electricity to 1.1 million residential, commercial, and industrial customers, totaling twenty-five (25) percent of the metered electricity customers in New Jersey. He further testified that JCP&L's transmission system provides a mechanism for the delivery of bulk electric power to the "distribution circuits" and "sub-transmission circuits" within JCP&L's territory, and that this Bulk Electric System ("BES") is designed with three (3) nominal voltages: 500 kV, 230 kV, and 115 kV. (Exhibit JC-4 at 5-4 to 21).

Mr. Hozempa stated that while the transmission line would constitute the majority of the Project, work would be required at both Montville and Whippany substations, as they would both require a new 230 kV breaker to be installed to accommodate the new transmission line. (Id. at 7-1 to 8).

As a part of its responsibility as a regional transmission operator ("RTO"), PJM Interconnection LLC⁶ ("PJM") conducts a series of ongoing analyses to identify the need for upgrades to the system within their control in order to preserve reliability. These analyses are known as the PJM Regional Transmission Expansion Plan ("RTEP"). (Id. at 8-12 to 19).

Part of the RTEP process is assessing compliance with North American Reliability Corporation ("NERC") standards, which set certain standards that must be met, both during normal conditions, as well as, conditions where one or more aspects of the BES are suffering an outage. NERC has three categories of conditions that are used to assess reliability: NERC Category A, NERC Category B, and NERC Category C. (Id. at 9-7 to 11-5).

NERC Category A is a standard of assessment that looks at whether or not, when the entirety of the system is operating under normal conditions, the transmission network can meet projected customer demands. Essentially, NERC Category A looks at whether the BES can meet its needs when it is completely functional. (Id. at 9-13 to 21).

NERC Category B contingencies are events resulting in the loss of any single generating unit, transmission line, transformer, circuit breaker, capacitor, or single pole of a bi-polar transmission line. The standard requires that, if such an event were to occur, the thermal load of the BES does not exceed its seasonal emergency rating and that voltages remain within deviation and voltage limit ranges. It is also required that, in a NERC Category B Contingency, voltage levels within the system remain within a prescribed maximum variation and within an established minimum/maximum voltage limit. A NERC Category B Contingency is also known as an N-1 contingency, where N is the total number of transmission components in the system. Essentially, NERC Category B examines whether the BES can meet its needs, and stay within established safety parameters, if one component of the network is not functional. (Id. at 9-22 to 10-11).

NERC Category C contingencies are events resulting in the loss of any double-circuit BES transmission line, bi-polar double-circuit line, faulted circuit breaker, bus section, or the combination of a single generating unit, transmission line, transformer, circuit breaker, or capacitor followed by the loss of another single generating unit, transmission line, transformer,

⁶ PJM is an RTO regulated by the Federal Energy Regulatory Commission ("FERC") that is responsible for the planning, operation, and reliability of the electrical system under its control, and is a system which includes all or parts of Delaware, the District of Columbia, Illinois, Indiana, Kentucky, Maryland, Michigan, New Jersey, North Carolina, Ohio, Pennsylvania, Tennessee, Virginia, and West Virginia.

circuit breaker, or capacitor. It is required that, if such an event were to occur, the thermal load of the BES does not exceed its seasonal emergency rating and that voltages remain within deviation and voltage limit ranges. It is also required that, in a NERC Category C Contingency, voltage levels within the system remain within a prescribed maximum variation and within an established minimum/maximum voltage limit. A NERC Category C Contingency is also known as an N-1-1 contingency, where N is the total number of transmission components in the system. Essentially, NERC Category C looks at whether the BES can meet its needs, and stay within established safety parameters, if two components in the network are not functioning. (Id. at 10-12 to 11-2).

During PJM's 2012 RTEP process, PJM identified reliability criteria violations of NERC Category C contingencies. The specific violation would occur if there was an outage of JCP&L's Montville-Roseland 230 kV line followed by the loss of either: (1) the Kittatinny-Newton 230 kV line with the 230-34.5 kV transformer and the 34.5 kV capacitor at Newton, or (2) the Newton-Montville 230 kV line. Mr. Hozempa also testified that, according to PJM, the Project would adequately address this violation. (Id. at 11-8 to 15).

If the potential N-1-1 contingency were to occur, it would potentially affect 86,719 of JCP&L's customers. (Id. at 13 to 14). Moreover, despite a forecast of reduced load levels in future years, the violations would remain. (Id. at 16-3 to 5).

JCP&L considered solving the NERC Category C Contingency by constructing a Montville-Whippany 115 kV line instead of the 230 kV line that constitutes the Project. (Id. at 15-16 to 21). Ultimately, this alternative was not selected for several reasons: (1) the Montville substation does not have 115 kV facilities, and therefore a new 115 kV yard would need to be developed along with the installation of a 230/115 kV transformer at the Montville substation, and (2) the 115 kV facilities at Whippany substation are not designed to accommodate an additional 115 kV circuit, so the 115 kV yard would need to be expanded. (Id. at 16-2 to 10). Hozempa testified that in light of these complications, the 115 kV alternative to the Project would be more complicated and expensive to build while simultaneously providing less network support than the 230 kV alternative that constitutes the Project. (Id. at 16-11 to 13).

Mr. Hozempa concluded his testimony by reaffirming that the Project was necessary to avert the NERC Category C contingencies, and by pointing out that JCP&L has experienced the type of outages that would constitute a NERC Category C Contingency. Specifically, an incident of this nature occurred on July 21, 2004. (Id. at 17-11 to 21).

Under cross examination by counsel for the Montville BOE, Mr. Hozempa was questioned about the NERC Category C contingency driving the Project. (2T:44:18-21). He testified that, in layman's terms, the NERC Category C Contingency would consist of two 230 kV lines going into Montville "going down," or failing to function, and further that he was not aware of such an event occurring within the past ten (10) years. (2T:45:3-17). Hozempa also testified that a NERC Category C violation could have penalties as high as \$1,000,000 per day. (2T:46:1).

Mr. Hozempa testified further that JCP&L considered a potential 115 kV line between Montville and Whippany as an alternative, but ultimately decided against it due to cost, as well as the associated substation work that would be required at both the Montville and the Whippany substations to accommodate a new 115 kV line. (2T:49:2-15). The possible 115 kV alternative would have satisfied the Category C contingency. (2T:50:18-24).

As of the date of the evidentiary hearing, Mr. Hozempa stated that the costs associated with the Project had not increased. (2T:51:14-18)⁷.

Paul F. McGlynn

Paul F. McGlynn, Senior Director of the System Planning Division at PJM, filed direct testimony on behalf of JCP&L in support of the petition. Mr. McGlynn's testimony was marked as Exhibit JC-5. Mr. McGlynn's testimony focused on the general background of the PJM transmission planning process and how the process identified the electrical demand necessitating the Project. Mr. McGlynn's testimony explained the electrical need that motivated the Project and described the process by which that need was identified and assessed. (Exhibit JC-5 at 4-9 to 11).

Parts of PJM's responsibilities as an RTO include managing the regional planning process within its area of controls, the RTEP. The purpose of the RTEP is to identify specific areas of need, including: reliability, market efficiency, operational performance, public policy, and addressing congestion. (Id. at 3-14 to 4-5). The RTEP, which is performed annually, plans approximately fifteen (15) years ahead, and PJM is authorized to direct transmission owners to implement upgrades to the transmission infrastructure under their control. (Id. at 6-17 to 7-3).

PJM determines if there is a sufficient need for new transmission facilities when certain specific criteria of the RTEP are met. One of these criteria is "reliability". (Id. at 12-11 to 13-11). The RTEP must conform to the applicable reliability principles, guidelines and standards of NERC, ReliabilityFirst ("RFC"), and FERC. (Id. at 12-13 to 15). As part of the RTEP conducted in 2012, PJM identified that the Project was necessary to satisfy reliability criteria. (Id. at 13-12 to 14).

Historically, compliance with NERC reliability standards was voluntary; however, the Energy Policy Act of 2005, which was enacted after the 2003 Blackout, established mandatory compliance with NERC standards under the oversight of the FERC. FERC-enforced reliability standards began on June 18, 2007, and failure to comply with these standards may result in penalties as high as \$1,000,000 per violation per day. (Id. at 13-18 to 14-8).

With regard to transmission planning, FERC-approved reliability standards are used to measure the need for new transmission lines or upgrades to existing lines. These reliability standards require PJM to perform assessments and demonstrate compliance in both the near term of one (1) to five (5) years, and the long term of six (6) to ten (10) years. These standards also require PJM to develop a schedule for compliance when a violation or potential violation is discovered, and PJM utilized these standards that were used to determine the necessity for the Project. (Id. at 14-10 to 15-2).

During the 2012 RTEP, PJM identified voltage related violations of NERC Reliability Standards. (Id. at 17-10 to 11). Additionally, PJM has completed two (2) re-assessments of the need for the Project based on more recently updated forecasts of electrical need in both the 2013 and 2014 RTEP, and the results of these re-assessments were consistent with the conclusions of the 2012 RTEP. (Id. at 18-11 to 19).

⁷ Following the execution of the Stipulation, the Company represents that the estimate based on the preferred route as modified by the Stipulation is approximately \$35.6 million, including overhead costs. (JCP&L Initial Brief at 16).

C. Engineering and Construction of the Project

Dave Kozy, Jr.

Dave Kozy Jr., General Manager for Substation Engineering with FirstEnergy Service Corporation, filed direct testimony on behalf of JCP&L in support of the petition. Mr. Kozy's testimony was marked as Exhibit JC-3. The nature of his testimony was to provide background on the design, engineering, construction, operation, and maintenance of the Project, as well as the issues associated with a potential underground installation of the transmission line.

Mr. Kozy testified that the Project consists of thirteen (13) segments, beginning at JCP&L's existing Whippany Substation in East Hanover, New Jersey heading north, and ending at JCP&L's Montville Substation located in Montville Township, New Jersey. For most of the Project's length, the new 230 kV circuit will follow the path of an existing JCP&L 34.5 kV double circuit: the K-115 Montville-Whippany No. Two (2) circuit ("K-115"), and the O-93 Chapin Road – Montville – Whippany circuit ("O-93"). (Exhibit JC-3 at 4-16 to 25).

Segment 1 of the Project begins at the Whippany substation and heads north to Troy Road in Parsippany-Troy Hills Township for a distance of approximately 0.6 miles. Segment 1 will be built within JCP&L's existing right of way ("ROW"), which is approximately 395 feet wide. In segment one (1), JCP&L is proposing to remove the existing two (2) pole, double circuit wood structures within the JCP&L ROW that currently carry the K-115 and O-93 circuits and replace them with new steel monopoles which would carry the existing lines, as well as, the new line. Both the new and existing lines would be "underbuilt" on the new steel monopoles, which would range from 130 to 150 feet high in segment one (1). (Id. at 4-27 to 5-9).

Segment 2 runs from Troy Road to approximately 0.2 miles north of Troy Road and mostly within JCP&L's existing ROW that is approximately 340 to 365 feet wide. An additional twenty-five (25) feet of new ROW will be needed on the western side of the existing ROW where the ROW narrows north of Troy Road. Similar to Segment 1, Segment 2 would involve removing the existing structures carrying the K-115 and O-93 circuits and replacing them with new steel monopoles, ranging from 130 to 150 feet in height that would carry both the new and existing circuits after they were "underbuilt". (Id. at 5-10 to 6-5).

Segment 3 runs from approximately 0.2 miles north of Troy Road to Interstate 80, a distance of approximately 2.2 miles that would fall mostly within JCP&L's existing 155-foot wide ROW. There are several parcels within Segment 3 where the ROW would require expansion. Segment 3 would also contain new steel monopoles, ranging from 110 to 150 feet in height that would be located on the east side of the existing ROW, adjacent to the steel towers currently carrying the K-115 and O-93 circuits. (Id. at 6-6 to 14).

Segment 4 runs from Interstate 80 to State Route 46, a distance of approximately 0.4 miles, within JCP&L's existing ROW that is approximately 155 feet wide. JCP&L will need to obtain a highway crossing permit for this segment. This segment will contain new steel monopoles ranging from 165 to 185 feet in height, located on the east side of the existing ROW, adjacent to the current two-pole, wooden structures carrying the K-115 and O-93 lines. (Id. at 6-15 to 22).

Segment 5 runs from State Route 46 to Vail Road/Stiles Lane in Montville Township, a distance of approximately 0.7 miles, and will require approximately 120 feet of new ROW. This segment will contain new steel monopoles ranging from 110 to 150 feet in height that will be constructed along the center of the new ROW. (Id. at 7-1 to 6).

Segment 6 runs from Vail Road/Stiles Lane to John Henry Drive, a distance of approximately 0.9 miles, and will be within JCP&L's existing ROW that is approximately 170 feet wide. This segment will contain new steel monopoles ranging from 110 to 150 feet in height that will be constructed approximately 60 feet from the eastern edge of the ROW. (Id. at 7-7 to 13). The route of this segment was later modified per a Stipulation reached between Montville Township and JCP&L.

Segment 7 runs from John Henry Drive to approximately 0.3 miles north of John Henry Drive, within JCP&L's existing ROW that is approximately 170 feet wide. This segment will contain new steel monopoles ranging from 100 to 140 feet in height that will be constructed approximately 75 feet from the western edge of the ROW. (Id. at 7-14 to 20).

Segment 8 runs from approximately 0.3 miles north of John Henry Drive to Changebridge Substation, a distance of approximately 0.4 miles, and will be within JCP&L's existing unused ROW that is approximately 100 feet wide. This segment will contain new steel monopoles ranging from 110 to 150 feet in height that will be constructed along the center of the ROW. (Id. at 7-21 to 8-4).

Segment 9 runs from the Changebridge Substation to approximately 0.1 miles north of Old Changebridge Road, a distance of approximately 0.2 miles, and will be within JCP&L's existing ROW that is approximately 100 feet wide. In Segment 9, JCP&L is proposing to remove the existing two-pole, double circuit wood structures within the JCP&L ROW that currently carry the K-115 and O-93 circuits and replace them with new steel monopoles, ranging from 130 to 170 feet in height, which would carry the existing lines, as well as, the new line. (Id. at 8-5 to 15).

Segment 10 runs from approximately 0.1 miles north of Old Changebridge Road to south of Church Lane, which is a distance of approximately 0.4 miles, and within JCP&L's existing 170 feet wide ROW. This segment will contain new steel monopoles ranging from 110 to 150 feet in height that will be constructed approximately seventy (70) feet from the east side of the existing ROW and adjacent to the current single pole structures carrying the K-115 and O-93 lines. JCP&L's ROW in this area is located adjacent to the east side of the Public Service Electric & Gas Company ("PSE&G") 500/230 kV Susquehanna-Roseland monopoles. (Id. at 8-16 to 9-2).

Segment 11 runs from south of Church Lane to north of Springbrook Road East, a distance of approximately 0.4 miles, and within JCP&L's existing ROW that is approximately 210 feet wide. This segment will contain new steel monopoles, ranging from 110 to 150 feet in height, that will be located approximately fifty-five (55) feet from the east side of the existing ROW and adjacent to the current two-pole, double circuit structures carrying the K-115 and O-93 lines. (Id. at 9-3 to 11). The route of this segment was later modified per a Stipulation reached between Montville Township and JCP&L.

Segment 12 runs from north of Springbrook Road East to south of Schneider Lane, a distance of approximately 0.3 miles, and within JCP&L's existing ROW that varies from approximately 160 to 210 feet wide. This segment will contain new steel monopoles, ranging from 110 to 150 feet high, that will be located approximately fifty-five (55) feet from the east side of the existing

ROW and adjacent to the current single pole, double circuit structures carrying the K-115 and O-93 lines. Segment 12 runs adjacent to two underground gas pipelines owned by Spectra Energy Corporation, and is also adjacent to the Public Service Electric & Gas 500/230 kV Susquehanna-Roseland double circuit steel monopoles. (Id. at 9-12 to 10-2).

Segment 13 runs from south of Schneider Lane to the existing Montville Substation in Montville Township, New Jersey, a distance of approximately 0.2 miles, and within JCP&L's existing ROW that is approximately 170 feet wide. This segment will contain new steel monopoles, ranging from 110 to 150 feet in height, that will be located approximately seventy (70) feet from the east side of the existing ROW and adjacent to the current single pole, double circuit wood structures carrying the K-115 and O-93 lines. Segment thirteen (13) will also be adjacent to a PSE&G easement. (Id. at 10-3 to 11).

The Project will require construction at both the Whippany and Montville substations so that they may accommodate the new 230 kV transmission line. The cost estimate of this work is approximately \$1,187,100 for the Whippany substation and \$1,132,600 for the Montville substation. (Id. at 10-14 to 11-2).

Regarding JCP&L's decision to only rebuild certain portions of the K-115 and O-93 lines, Mr. Kozy testified that this was only necessary in certain segments of the Project where the existing ROW does not provide enough room for both the existing structures and the new structures that must be built to accommodate the new 230 kV line. (Id. at 11-22 to 12-5). The new monopoles installed for the Project will support an additional 230 kV line in the future should that become necessary. (Id. at 12- 19 to 22).

The factors that determine the height of the monopoles include terrain, National Electric Safety Code ("NESC") standards, clearance among the multiple lines at each monopole, clearance between the lines and the ground, clearance between the lines and other utilities that might be present, and the need to cross roads, other structures, and bodies of water. (Id. at 15-12 to 15). Mr. Kozy testified that JCP&L uses the most cost effective methods possible while minimizing electric and magnetic fields and meeting all applicable safety standards. (Id. at 15-18 to 21).

Regarding construction, the monopole structures require large construction equipment on site for erection, and the Project in general will involve the clearing of some of the land involved as well as acquiring additional easements to store and transport construction equipment. (Id. at 13-5 to 6 and 20-12 to 15).

The Project's construction plan was designed to minimize environmental impact by: submitting a Soil Erosion and Sedimentation Control Plan to the New Jersey Department of Environmental Protection ("NJDEP"), using soil erosion and sedimentation control measures prior to making any geographical changes to land; avoiding, to the extent possible, construction of permanent access roads; and restoring temporary access roads to their prior conditions. (Id. at 21-1 to 13). Areas disturbed by construction work will also be re-vegetated with drainage, fencing, and erosion control aspects of the ROW being restored to conditions as good as, or better than, they were prior to construction. (Id. at 22-5 to 14).

All ROW clearing would comply with N.J.A.C. 14:5-9.6, as well as, JCP&L's internal standards regarding vegetation management with regards to the clearance between physical structures and vegetation. (Id. at 21-15 to 16). These conditions will be maintained in accordance with

NESC and Occupational Safety and Health Administration ("OSHA") regulations. (Id. at 23-9 to 14).

Mr. Kozy also testified regarding JCP&L's assessment of placing the new 230 kV transmission line underground instead of above ground. According to Mr. Kozy, JCP&L decided against placing the new 230 kV transmission line underground for several reasons: environmental impacts, restoration periods, cost, and capacity. (Id. at 25-3 to 26-6).

Regarding the environmental impacts of an underground transmission line, Kozy testified that installation would require extensive excavation of land and installation of underground cables, concrete banks, and manholes. This activity would negatively impact streams, wetlands, and other sensitive areas because of the heavy equipment required, including excavation equipment, concrete trucks, 80,000-pound manhole covers, and 50,000-pound spools of transmission wire. Specifically, for an underground installation the entire length of the Project must be excavated which requires construction of additional access roads. Moreover, in areas where the Project crosses certain geographic conditions such as wetlands, creeks, rivers, railroads, or highways, digging a trench is not feasible and thus a practice known as "horizontal drilling" would be required, which requires extensive equipment and poses further environmental risks. In certain areas of the Project, horizontal drilling would require approvals from the NJDEP that are difficult to obtain and would likely require a complete re-routing of those portions. (Id. at 26-9 to 27-12).

An underground installation of the Project would also have significant effects regarding Electric and Magnetic Fields ("EMF"). While the earth blocks electric fields, it does not block magnetic fields. Installing the Project underground could therefore result in a much higher concentration of magnetic fields at ground level. (Id. at 28-18 to 29-9).

Regarding the repairing of an underground installation, it would be problematic to fix an underground portion of the transmission line because it requires excavation and equipment to locate the issue, and repairs could take several weeks. With an overhead transmission line, the repair would take days, or even hours. A failed underground transmission wire could be out of service for over a month, which would then require alternate provisions to supply the necessary power to the region. (Id. at 25-10 to 18).

The total cost of the Project as planned is approximately \$35,463,300. Were the Project to be installed underground, Mr. Kozy estimated that cost to be approximately four (4) to ten (10) times as expensive. (Id. at 25-19 to 22).

Regarding capacity, underground cables transmit less power than overhead cables, thus, larger or multiple cables would be required to support an underground installation. Moreover, underground transmission wires require protection via plastic encasement or placement in oil filled reservoirs placed underground. (Id. at 26-1 to 6).

At the plenary hearings held on May 23, 2016, Mr. Kozy adopted the Direct Testimony that was submitted with the Petition and was cross examined by counsel for the Montville BOE, and Rate Counsel. (1T-34 at 18 to 21)

Regarding Segment 10, Mr. Kozy stated that the Project would be approximately 175 feet closer to the Lazar Middle School ("Lazar") than the existing PSE&G Susquehanna-Roseland 230 kV transmission line. (1T-46 at 2 to 6). Trees that interfered with the transmission lines would be removed. (1T-49 at 11 to 25). Mr. Kozy was questioned about the noise generated from construction activity, and he testified that while construction necessarily generates some increase in noise, he would not describe the noise expected to be generated from the Project in Segment 10 as "noisy." (1T-51 at 20 to 25). Mr. Kozy also testified that the construction in Segment 10 would be far enough away from Lazar that it would not interfere with teaching. (1T-52 at 8 to 16).

Regarding the decision to install the new transmission line overhead as opposed to underground, Mr. Kozy testified that JCP&L would consider placing a transmission line underground in a situation where there is no viable overhead alternative, and that no viable alternative would exist in a situation where JCP&L could not find a ROW or where an existing ROW was surrounded by high buildings or other features making above ground construction impossible. (1T-53 at 7 to 19). JCP&L evaluated the underground option and concluded that an above ground installation was a more practical option, at which point the underground option was abandoned. (1T-56 at 1 to 9). Moreover, while no specific study was done regarding installing Segment 10 underground, an underground line was considered in general and estimated to cost 4 to 10 times as much as an above ground line. (1T-59 at 4 to 12).

With respect to the potential danger posed by electrically charged wires detaching or falling from the above ground installation, Mr. Kozy testified that while falling wires are obviously dangerous, there are safety measures that quickly de-energize a falling wire so they do not pose a threat for more than a moment in such instances. (1T-61 at 5 to 21).

D. Routing

Peter W. Sparhawk

Peter W. Sparhawk filed direct testimony on behalf of JCP&L in support of the Petition. Mr. Sparhawk's testimony was marked as Exhibit JC-6. He is the Associate Vice President of Power and Energy for the Louis Berger Group, Inc. The nature of his testimony was to address the siting and route selection of the Project.

Mr. Sparhawk testified that a detailed analysis by an interdisciplinary routing team produced three preliminary alternative routes: Alternative Route A, Alternative Route B, and Alternative Route C. There were also two alternative segments of Alternative Route A, identified as Route A2 and Route A3, that were developed to provide options to divert the Project away from a heavily developed area containing one or more overhead transmission lines and underground natural gas pipelines. Initially, the routing team selected Alternative Route A as the preferred route because it was the shortest and most direct route into the Montville Substation and it either paralleled or rebuilt existing transmission lines for the entirety of the route. (Id. at 10-3 to 10). Ultimately, after further consideration, Alternative Route A3 emerged as the preferred route for the Project. (Exhibit JC-6 at 11-9 to 10).

Alternative Route A, the initial preferred route, was developed to parallel an existing PSE&G transmission line that feeds into the Montville Substation. Certain portions of this route would have required JCP&L to build within PSE&G's existing ROW, which also contains a Texas Eastern gas line. PSE&G informed JCP&L that they were not willing to allow the Project to be constructed within their ROW, and therefore Alternative Route A would require JCP&L to obtain a new ROW adjacent to PSE&G's ROW. Ultimately, this would have required JCP&L to purchase between fourteen and twenty-four residential homes, and as a result this route was abandoned. (Id. at 11-13 to 14-6).

Route A2 would have required JCP&L to acquire a new ROW in order to construct certain segments of the Project. (Id. at 12-15 to 17). Mr. Sparhawk also testified that Route A2 raised issues of reliability. (Id. at 12-18 to 21). The preliminary version of Route A3 was modified subsequent to discussions with PSE&G, a detailed engineering review, and information received from the public. (Id. at 13-3 to 7). Initially, the preliminary Route A3 was going to consist of a rebuild of JCP&L's existing 34.5 kV transmission lines (Id. 13-7 to 8). However, additional analysis showed that JCP&L has sufficient ROW along Route A3 to parallel the existing lines with new monopole construction, leaving the existing K-115 and O-93 lines in place and constructing the new transmission lines parallel to them, and attached to new structures, to the extent possible (Id. at 13-8 to 12). This has significant benefits over the preliminary plan, including: it would be challenging to schedule a power outage that would be necessary to take down and rebuild the existing K-115 and O-93 lines; rebuilding is significantly more expensive than paralleling; rebuilding would require taller transmission structures with shorter transmission spans, resulting in more structures overall; rebuilding has the potential to increase the length of outages if a single pole fails (because both the 230 kV and 34.5 kV structures would be on the same pole); in most areas, JCP&L has enough ROW to accommodate a parallel line; and the two short segments of the route that will be rebuilt are in areas that pose little risk of pole/car accidents. (Id. at 13-13 to 14-2). Ultimately Route A3 was selected as the preferred route because it is the shortest route of all those considered, it parallels or rebuilds existing JCP&L transmission lines for most the route, and it minimizes new ROW acquisition. (Id. at 15-1 to 4). Route A3 also has significant access advantages because it is primarily located near existing transmission lines which minimizes new ROW acquisition, vegetation clearing, and earth disturbance, thus reducing the overall Project cost and environmental impact. (Id. at 15-4 to 8).

Mr. Sparhawk stated that Route A3 would have the smallest environmental impact because of its proximity to existing transmission lines. Since Route A3 parallels or rebuilds existing transmission lines, most of the work needed will be performed within existing ROW and therefore would require the least amount of forest clearing. The forest clearing that would occur with the implementation of Route A3 is significantly less than what would occur with Routes B or Route C. (Id. at 15-22 to 16-3). Additionally, Route A3 would minimize the Project's impact on residential, commercial and industrial development, institutional uses, cultural resources, and land use. (Id. at 23-12 to 14).

Regarding JCP&L's public outreach, the Company contacted local, county, and State officials about the Project. Public hearings were also held on November 13, and November 14, 2013. (Id. at 24-15 to 18). In addition, JCP&L met with Montville and Parsippany- Troy Hills townships multiple times before and after the public hearings. (Id. at 10 to 13). Based on the information received from public outreach, JCP&L made several modifications to potential routes. (Id. at 26-18 to 27-8). Finally, after the selection of Route A3 as the route for the Project, JCP&L held an additional public hearing on November 10, 2014, where they presented Route A3 as the

preferred route, and solicited additional input, which was considered when finalizing the decision. (Id. at 27-9 to 19).

Mr. Sparhawk testified that he and the team believe that the cumulative social, environmental, and financial impacts associated with route A3 will be less than all other possible routes that were considered. (Id. at 28-22 to 29-1). Route A3 is the shortest route, most of the route parallels or rebuilds existing transmission lines, and approximately eighty-nine (89) percent of Route A3 can be constructed either entirely or partially within JCP&L's existing ROW. (Id. at 29-1 to 4). The total estimated cost of Route A3 is approximately \$35,500,000, while the total estimated costs of Routes B and C are approximately \$50,400,000 and \$78,300,000, respectively. Finally, Route A3 significantly minimizes the potential environmental impacts of the Project compared with the other routes considered. (Id. at 29-1 to 19).

Mr. Sparhawk further testified that the Project's proposed route would result in the construction of structures that would be closer to Lazar than the existing PSE&G Susquehanna-Roseland 230 kV transmission line. (1T- 92 at 14 to 17). Moreover, at least some of the existing trees that currently serve as a buffer between the PSE&G transmission line and Lazar would be subject to removal. (1T- 92 at 18 to 25). Regarding the Project's aesthetic implications, the existing PSE&G transmission line, as well as the line proposed by the Project, would be more visible after completion of the new line than they are now. (1T- 96 at 9 to 14).

By contrast, Route C, which uses the least amount of ROW would require the largest forest clearing (about 113 acres). Routes B and C would require the greatest amount of new ROW, including ROW through two recreational areas (West Essex Park and Great Piece Meadows). (JC-6 at 20 - 8 to 10). Routes B and C were determined to have high potential impacts to cultural resources. Route B would require about eighty (80) acres of clearing. Route A was eliminated because JCP&L could not use PSE&G's ROW and would have to construct within existing ROW as well as purchasing additional ROW. (Id. at 11-18 to 20). Segment alternative A2 was also eliminated as it would require new ROW acquisition to construct the 230 kV line parallel to the 34.5 kV line and gas line. Additionally, separating the 2 lines would prevent both circuits from failing if the single pole failed. (Id. at 12-10 to 23).

E. Environmental Impacts and Permitting

Kirsty M. Cronin

Kirsty M. Cronin, a Principal Environmental Scientist with The Louis Berger Group, Inc., filed direct testimony on behalf of JCP&L in support of the petition. Ms. Cronin's testimony was marked as Exhibit JC-7. The nature of her testimony was to describe the environmental impacts and permitting process for the proposed Project route.

Ms. Cronin testified that in addition to the Petition before the Board, JCP&L would also be applying to various agencies for the following approvals and authorizations to proceed with the Project:

1. NJDEP Division of Land use Regulation ("DLUR" Freshwater Wetland Letter of Interpretation ("LOI");
2. NJDEP DLUR Freshwater Wetlands and Flood Hazard Area Control Act Permits;

3. NJDEP Division of Water Quality Stormwater Construction Permit Requests for Authorization ("RFA"): Construction Activities (5G3);
4. New Jersey Department of Transportation Highway Occupancy Permit;
5. Morris County Soil Conservation District Certificate of Soil Erosion and Sediment Control ("SESC"); and
6. New Jersey State Historic Preservation Office Approval.

(Exhibit JC-7 at 3-12 to 6-20).

In addition to these required approvals, JCP&L will be coordinating with the NJDEP Green Acres Program, NJDEP Division of Parks and Forestry and property owners for parcels located through Troy Meadows Natural Area, United States Fish and Wildlife Service, NJDEP Endangered and Non-game Species Program, and any other agency that would be relevant (Id. at 6-21 to 7-5).

The permit application processes for several of the agencies require submittal of the design plans. These plans are used to determine the acreage of permanent and temporary impacts to the regulated areas. A final design plan, which will include foundation size, access roads, and laydown areas and pulling areas, is required. Ms. Cronin stated that the final design of the Project was not expected until the third quarter of 2015. (Id. at 7-8 to 16).

These plans revealed some areas of impact including freshwater wetlands, stream crossings, and potentially suitable habitat for threatened and endangered species. The freshwater wetlands include emergent, scrub-shrub, and forested wetlands which are delineated by Louis Berger in accordance with the procedures outline in the 1989 Interagency Federal Manual for Identifying and Delineating Jurisdictional Wetlands. There are several stream crossings, most of which are already being crossed by existing transmission lines. The only new crossings this Project will involve the Rockaway River and associated tributaries within an undeveloped portion of the existing ROW near the Montville and Parsippany-Troy Hills boundary. The Project does not cross any Category One Waters. (Id. at 8-2 to 13).

The Project will result in both permanent and temporary impacts to freshwater wetlands, transition areas and riparian areas. Permanent impacts include placement of structure foundations within regulated areas and changes to existing wetlands (i.e., conversion of a forested wetland to a scrub-shrub wetland). Temporary impacts include tree clearing required for construction and operation, installation of a transmission line in scrub-shrub, or emergent wetlands (Id. at 10-12 to 21).

The preferred route minimizes environmental impacts. All of the proposed routes were examined for the impact each would have on the environment mentioned above using publically available data including mapper wetlands, streams, conservation lands, potential threatened and endangered species habitat, floodplain information, soil information, and aerial imagery. The Routes marked as B and C would transverse approximately 5.6 and 5.8 miles respectively through mapped wetlands, while Routes A3 and A3 with option would transverse five (5) miles each. They also have fewer impacts to the wetlands, as it is the shortest route and require the least amount of new ROW (Id. at 11-9 to 13-3).

F. Real Estate and Property Rights

Tracey J. Janis Testimony

Tracey J. Janis, a Manager at Right of Way Services for FirstEnergy Service Company, provided testimony on behalf of JCP&L on property related rights, including additional ROW, access and vegetation clearing rights that may be required for the construction, operation and maintenance of the Project. Ms. Janis's testimony was marked as Exhibit JC-8.

Ms. Janis testified that the Project is anticipated to need approximately seven (7) miles of proposed transmission lines; negotiations for additional ROW will be required for approximately 1.8 miles, of which about twenty-three (23) parcels will require new or amended easements. Also, additional easement rights may be necessary for vegetation management and temporary right-of-entry agreements for access points and possible construction laydown/storage areas (Exhibit JC-8 at 2-21 to 3-10).

Only 0.4 miles of the seven (7) mile route, will require completely new ROW. The remaining 6.8 miles will be constructed within existing ROW, with 1.4 miles of this requiring expansion to accommodate the 230 kV transmission line (Id. at 3-13 to 17). For additional required ROWs, JCP&L intends to work with the property owners to acquire the necessary rights, including easements, access and vegetation management rights for the Project. JCP&L would also prepare property value opinions utility recent sales data for the geographic area and anticipated successfully negotiating with affected property owners. Should JCP&L be unable to negotiate for voluntary rights with a particular property owner, Ms. Janis indicated that JCP&L would seek approval to exercise eminent domain rights pursuant to N.J.S.A. 48:3-17.6 and 48:3-17.7. (Id. at 4-6 to 12).

Jerome J. McHale

Jerome J. McHale provided direct testimony on behalf of JCP&L. Mr. McHale is the Principal of J. McHale & Associates, Inc., and has provided real estate appraisals and consulting services since 1986. Mr. McHale's testimony was marked as Exhibit JC-9. The nature of Mr. McHale's testimony was to explain the Real Estate Property Analysis completed for the Project.

Mr. McHale provided a real estate property analysis that determined the impact on the market value of properties located within 100 feet of the proposed right-of-way for the Project. Specifically, he inspected and took photographs of the proposed ROW, described key structures within 100 feet of the ROW, and completed a comparison of the existing steel lattice and wooden H-frame/two-pole structures to the proposed steel monopoles. (Exhibit JC-9 at 3-6 to 14). Mr. McHale concluded that the additional light steel monopoles near the existing steel lattice towers, and the replacement of various H-Frame/Two-Pole towers within the existing ROW easement with new monopoles will create no further diminution in value to the properties adjacent to the ROW. Also, the new monopoles that will be built in existing unused ROW and new ROW will create no further diminution in value to the properties adjacent to the existing and proposed ROW. (Id. at 3-20 to 4-2).

G. EMF

Kyle G. King

Kyle G. King filed direct testimony on behalf of JCP&L in support of the petition. Mr. King is the President of K&R Consulting, an electric power engineering firm founded in 2004. Prior to 2004, Mr. King was the Director of the Electric Power Research Institute High Voltage Research and Test Center in Lenox, Massachusetts. Mr. King's testimony was marked as Exhibit JC-10. The nature of Mr. King's testimony was to provide analysis on the effects of electric fields, magnetic fields, audible noise, and radio noise associated with the Project.

With respect to magnetic fields, Mr. King testified that in 2014, the magnetic field along the edges of JCP&L's existing ROWs from the Whippany Substation to the Montville Substation range from 1.6 milligauss ("mG") to 62.4 mG. (Exhibit JC-10 at 8-18 to 21). After completion of the Project, the expected magnetic field along the edges of JCP&L's ROWs from the Whippany Substation to the Montville Substation will range from 0.7 mG to 58.4 mG in 2018. (Id. at 8-21 to 9-1). The maximum possible magnetic fields would be between 37.9 mG and 270.2 mG, a number which was calculated by using the maximum possible currents that the transmission lines of the Project could handle. (Id. at 9-8 to 10). Mr. King testified that the State of New Jersey has no legal limit regarding magnetic fields produced by transmission lines either inside or at the edge of a ROW. (Id. at 10-4 to 6).

With respect to electric fields, the Project will produce a maximum electric field of 0.7 kilovolts per meter ("kV/m") along the edges of the ROWs, an increase from the 0.3 kV/m maximum along the ROWs currently produced by the existing transmission lines. King also testified that the State of New Jersey has a guideline of 3 kV/m for electric fields at the edge of a transmission line ROW, a limit that both the current transmission lines and the upgrades envisioned by the Project would fall well within. (Id. at 9-20 to 10-2).

With respect to the audible noise associated with the Project, in New Jersey there is a 50 dBA limit for airborne sound found at N.J.A.C. 7:29-1.2(a)(2)(i). (Id. at 10-17 to 19). King testified that the estimated noise levels generated by the Project after completion would be approximately 45.8 dBA, well within the limit required by the State. (Id. at 11-2 to 3).

Dr. William H. Bailey

Dr. William H. Bailey, a Principal Scientist in the Center for Exposure Assessment and Dose Reconstruction in the Health Sciences practice of Exponent, Inc., provided direct testimony on behalf of JCP&L in support of the Petition. Dr. Bailey's testimony was marked as Exhibit JC-11. The nature of Bailey's testimony was the expected levels of EMF associated with the existing transmission lines and the new transmission line that would constitute the Project, as well as, the current consensus on the health concerns relating to EMF.

Dr. Bailey testified regarding EMF exposure standards established by the International Committee on Non-Ionizing Radiation Protection ("ICNIRP"), as well as, the International Committee on Electromagnetic Safety ("ICES"), stating that ICNIRP and ICES have recommended limits on EMF. ICNIRP and ICES recommend these limits to protect against the "acute established effects" of EMF, or the stimulation of nerves and muscles that occur at extremely high EMF exposure levels. (Id. at 9-1 to 4). Bailey testified that these limits are difficult to measure directly, so both ICNIRP and ICES establish "screening levels," or exposure

limits of EMF, that are 2-3 times below exposures meeting basic restrictions to ensure that limits on internal electric fields are not exceeded. (Id. at 9-4 to 7). The ICNIRP screening value for EMF exposure is 2,000 mG and the ICES screening value at 9,040 mG and 5 kV/m. (Id. at 9-8 to 17). Dr. Bailey stated that the electric field produced by the Project will be at or below the lowest ICNIRP and ICES guideline and that the magnetic field produced by the Project will be "far, far below" the lowest ICNIRP and ICES guidelines. (Id. at 10-4 to 6).

With respect to the scientific community's consensus on the potential effects of EMF on public health, Dr. Bailey testified that the scientific consensus of the National Institutes of Environmental Health Sciences, the Health Council for the Netherlands, the National Radiological Protection Board of the United Kingdom, the International Agency for Research in Cancer, and the World Health Organization, have all concluded that there is no scientific evidence sufficient to conclude that EMF exposure is a cause of any long-term health effects. (Id. at 10-11 to 18).

Montville Board of Education Direct Testimony

Dr. Karen Cortellino

Dr. Karen Cortellino submitted direct testimony on behalf of Montville BOE addressing concerns about the Project's impact on Lazar, located in Segment 10 of the Project. Dr. Cortellino's testimony, dated November 30, 2015 was marked as Exhibit BOE-1. Dr. Cortellino is the president of the Montville Township Board of Education.

Dr. Cortellino testified that Montville BOE has both safety and health concerns regarding the impact of the Project on multiple schools under the Montville BOE's control. (Cortellino Testimony at 4-3 to 4). Regarding the safety concerns, the height and proximity of the new monopoles that would be placed near Lazar would create a potential danger to students, faculty, and anyone else on the property. (Id. at 5-14 to 20). Regarding the health concerns, the Montville BOE was concerned about the potential health effects on students and faculty of Lazar arising from exposure to certain levels of EMF that may be associated with the Project. EMF was a particular concern because of the already existing PSE&G 500 kV circuit and the JCP&L 34.5 kV circuit already in place near Lazar. (Id. at 5-22 to 6-3).

Additionally, Dr. Cortellino stated that the Montville BOE has aesthetic concerns related to the Project as vegetation clearance may be necessary along the property of Lazar and may affect the aesthetics. Dr. Cortellino further asserted that the higher monopoles containing the 230 kV circuits will be visible from locations where the 24.5 kV circuits were not and the new poles are expected to be seen from the Montville High School and certainly will be visible from the Middle School. (Id. at 6-9 to 13).

With respect to the impact on expansion and land use, the Montville BOE believes that the Project may impact the ability for expansion at Lazar due to the proximity of the towers to school property. Should the school want to expand in the future, which is likely, the place for expansion would be through the rear of the school property where the towers would be located creating more of a dangerous condition for the school and the children. (Id. at 6-16 to 22). Finally, the Montville BOE has concerns about an increase in noise that may affect the students and faculty of Lazar. (Id. at 7-1 to 2).

JCP&L Rebuttal Testimony

Dave Kozy, Jr.

In Mr. Kozy's rebuttal testimony, he responded to certain portions of the pre-filed direct testimony of Steve Hodgkin and Joseph Burgis, on behalf of Montville, and Dr. Cortellino, on behalf of the Montville BOE.⁸ Mr. Kozy also clarified an exhibit to his pre-filed direct testimony. Mr. Kozy's rebuttal testimony was marked as Exhibit JC-3 Rebuttal. (Exhibit JC-10 Rebuttal at 1-10 to 16).

In response to Dr. Cortellino's testimony that the Project will create safety, aesthetic, and land use concerns, Mr. Kozy testified that the Project will meet all NESC criteria, including minimum required design loads and safety factors. Additionally, JCP&L inspects its transmission lines on a regular basis. (Id. at 8-4 to 16). Furthermore, construction access will be temporary and the proposed line will be maintained similar to the existing lines. (Id. at 8-17 to 21). With respect to aesthetic concerns, the proposed line will not exceed the height of the PSE&G poles located within the same transmission corridor. The proposed structures will be approximately thirty (30) to eighty-five (85) feet shorter and underbuild construction will increase structure height by approximately twenty (20) feet. (Id. at 9-1 to 9). JCP&L has an existing easement across school property, so any school expansion would not be permitted to violate such, with or without the proposed transmission line. Any school expansion outside of the existing easement areas would be permitted. (Id. at 9-10 to 16).

Mr. Kozy also submitted a revised DRL-Exhibit 6 to reflect the correct alignment of the corridor cross section. (Id. at 9-17 to 10-6).

Kyle G. King Rebuttal

In Mr. King's rebuttal testimony, he stated that the purpose of his testimony was to address specific calculated levels of audible noise, radio noise, and EMF at the Lazar Middle School submitted as part of his pre-filed direct testimony, confirm those levels will not exceed any guidelines, and respond to Dr. Cortellino's pre-filed direct testimony. Mr. King's rebuttal testimony was marked as Exhibit JC-10 Rebuttal. (Exhibit JC-10 Rebuttal at 2-14 to 3-2). Mr. King testified that Dr. Cortellino's concerns regarding the health of the students at Lazar Middle School due to EMF are unsubstantiated and inconsistent with the conclusions of expert panels. (Id. at 2-5 to 13). Mr. King's reiterated his pre-filed direct testimony that the Project will meet the State of New Jersey's electric field guideline and published audible noise limits and the Institute of Electrical and Electronics Engineers ("IEEE") Radio Noise Design Guideline. The post-Project calculated magnetic field level will decrease from the existing level along the edge of the ROW near the Lazar Middle School, and the calculated parameters include the effects of PSE&G's Susquehanna-Roseland and Montville-Roseland transmission lines on the adjacent ROW. (Id. at 3-7 to 4-8).

Dr. William H. Bailey Rebuttal

In Dr. Bailey's rebuttal, he responded to the pre-filed direct testimony of Dr. Karen Cortellino where she raised concern about effects on students and faculty resulting from exposure to electric and magnetic fields. Dr. Bailey's rebuttal testimony was marked as Exhibit JC-11

⁸ Pursuant to the terms of the Stipulation, the testimony submitted on behalf of Montville was withdrawn.

Rebuttal. (Exhibit JC-11 Rebuttal at 1-9 to 16). He stated that Dr. Cortellino did not specifically classify any of the existing or proposed lines as reaching a harmful level during operation and that her concerns about such are not supported by any reference in her testimony to the conclusions of national and international health and scientific agencies. (Id. at 1-17 to 2-4). Dr. Cortellino was not offered as an expert witness on the topic of electric and magnetic fields and the response to discovery request JC-BOE-1 specifically identifies the testimony as "lay testimony". (Id. at 2-5 to 11). Dr. Bailey does not believe that the testimony by Dr. Cortellino provides any scientific basis to conclude that the students or faculty at Lazar would be harmed by the electric and magnetic fields from power lines on the nearby ROW. (Id. at 2-12 to 20).

STIPULATION

During the pendency of the evidentiary hearings in this matter, Montville and JCP&L, the Stipulating Parties entered into the Stipulation on May 24, 2016. The Stipulation concerns changes to the route of the Project agreed to by the Stipulating Parties regarding Segments 6 and 11. Specifically, the Stipulation provides for the following:

8. In regard to the route of the Project in the vicinity of the development known as the Meadows at Montville (an area that falls within segment six (6) of the Project as described in the Verified Petition and supporting testimony), JCP&L will modify the route of the 230 kV transmission line as depicted on the map/drawing that is attached to the Stipulation as Attachment A. Montville acknowledges that JCP&L's ability to modify the route as agreed to in the Stipulation is subject to the following conditions:
 - a. The Meadows at Montville agrees to the necessary swap of easement rights with JCP&L on a "one for one" basis (i.e., no additional consideration). More specifically, the Meadows at Montville will agree to enter into a written agreement with JCP&L for the swap prior to the BPU's issuance of a final order in this proceeding. The easements to be swapped are depicted on the drawing that is attached to the Stipulation as Attachment B.
 - b. The owner of the property at Lot 1.02, Block 138 in Montville Township agrees to grant JCP&L the necessary additional easement on that property to allow this route modification.
 - c. If the Meadows at Montville agrees to the easement swap and if the owner of the property at Lot 1.02, Block 138 does not agree to grant JCP&L the necessary easement, JCP&L will modify only the portion of the route located on the Meadows at Montville property. Under this scenario, JCP&L will develop an alignment of the transmission line on the Meadows at Montville property that will be as close as practical to the route of the transmission line depicted on the map/drawing that is attached to the Stipulation as Attachment A. In the event Montville Township were to acquire the easement on Block 138, Lot. 1.02 at a reasonable price that JCP&L agrees with, and if such acquisition occurs prior to the start of construction on the Project, then JCP&L shall acquire

said easement from Montville at such cost and construct the Project as depicted on Attachment A of the Stipulation.

9. With respect to construction for the Project that may impact property at or near the Meadows at Montville and the Montville Chase, JCP&L agrees that, once construction is complete, disturbed work areas will be re-vegetated in accordance with the Soil Erosion and Sedimentation Control Plan submitted to the NJDEP. After construction, drainage, fencing and erosion control aspects of the transmission line ROW will be restored to conditions as good as or better than those that existed prior to construction, which may include some or all of the following: 1) restoring of drainage ditches, fencing and field drainage tiles; 2) fertilizing, seeding and mulching of disturbed non-cultivated areas; and 3) removing temporary soil erosion and sedimentation control measures after vegetative cover has been established. Where required, access roads shall be removed and the area restored to as good as or better than those that existed prior to construction.
10. In regard to the construction of the Project in the vicinity of the development known as Montville Chase (segment eleven (11) of the Project as described in the verified petition and supporting testimony), JCP&L agrees to utilize underbuild construction. Therefore, the new 230 kV conductors and the existing 34.5 kV conductors would be located on the same monopoles in Segment 11 of the Project. The existing wooden structures that carry the existing 34.5 kV conductors will be removed. The new monopoles will not be in the exact same location as the current structures carrying the existing 34.5 kV conductors; the new monopoles will be located in the appropriate location within the right-of-way, as depicted on the attached map/drawing. The exact location of each monopole will not be determined until final engineering is completed for the Project.
11. JCP&L will provide funds for landscaping in the Meadows at Montville and Montville Chase communities to assist in ameliorating the visual impact of the Project. The total funds for such landscaping-related activities will be as follows: \$15,000 for the Meadows at Montville and \$10,000 for Montville Chase. In addition, JCP&L agrees to provide \$10,000 towards the construction of a new playground at the Meadows at Montville. The payments set forth in Paragraph eleven (11) of the Stipulation will be made directly to the Montville Chase and the Meadows at Montville, respectively, subject to the provisions of Paragraph 16 of the Stipulation.
12. JCP&L will lease the following parcels of land from Montville to use as construction storage/laydown sites during the construction of the Project: Block 131, Lot 15.3; Block 138, Lot 12; Block 138, Lot 13; and Block 123, Lot 19; and Block 59.2, Lot 23 (collectively the "Subject Parcels"), all on the tax map of the Township of Montville. JCP&L will lease the Subject Parcels at a total monthly rental fee of \$10,000 for a period of fourteen (14) months. In the event a State law or agency precludes such use of the property, the Township and JCP&L will find alternate locations to utilize at a similar amount of rental payment to be paid to the Township. If no suitable location is found, the parties have the right to terminate the agreement on thirty (30) days' notice to the other party. The Stipulating Parties also agree that, should JCP&L require the use of the Subject

Parcels beyond the fourteen (14) month lease period, JCP&L may elect, at its option, to extend the lease on a month-to-month basis at a monthly rental fee of \$10,000. The Stipulating Parties also agree that they will enter into an appropriate lease agreement regarding the use and restoration to prior conditions to the extent practical of the Subject Parcels. The Stipulating Parties also agree that JCP&L will be able to utilize any existing environmental permits or approvals that Montville has with respect to the use of the Subject Parcels, to the extent that such permits or approvals are compatible with JCP&L's planned use. The Stipulating Parties also agree that Montville will provide copies to JCP&L of any permits, wetland delineation, stream classification and similar reports and current plans for developing all or any portions of the Subject Parcels. The Stipulating Parties also agree that JCP&L will make necessary applications for additional approvals, if necessary for JCP&L's intended use of the Subject Parcels, to the NJDEP. In addition, JCP&L expects that its use of the parcels may facilitate making approximately \$20,000 in improvements to one or more of the Subject Parcels as part of using the Subject Parcels as construction storage/laydown sites that is compatible with Montville's plan for developing the Subject Parcels. JCP&L will submit to Montville drawings identifying the improvements that it believes are compatible with Montville's plan for developing the Subject Parcels and, with Montville's approval, such improvements will be allowed to remain; and, if Montville's approval is not granted, such improvements will be removed.

13. The Stipulating Parties agree to support the Stipulation before the OAL and BPU. Montville also agrees that it will not challenge the Project before the OAL, BPU, any other municipal, county, state or federal agency, before any court, or in any other forum.
14. Montville agrees that it will not pursue additional administrative or judicial review of the BPU's denial of its request for an escrow fund for this proceeding.
15. The Stipulating Parties agree that the Stipulation is subject to the condition that the Meadows at Montville and Montville Chase each agree in writing, in a form acceptable to JCP&L and Montville, to the terms of this Stipulation, and that the Meadows at Montville and Montville Chase each files such written acknowledgement with the OAL.
16. Except as otherwise specifically provided in the Stipulation, any payments by JCP&L to Montville Township, the Meadows at Montville, or Montville Chase pursuant to the Stipulation will be paid only after: (a) the receipt of a final, non-appealable order of the BPU approving the Project, in a form that is acceptable to JCP&L; or (b) the Project is constructed and energized, whichever is sooner. However, the monthly rental payments by JCP&L to Montville Township set forth in Paragraph twelve (12) of the Stipulation will commence within thirty (30) days after JCP&L begins construction of the Project.
17. In regard the certain pre-filed testimony, Montville agrees that it's pre-filed direct and surrebuttal testimony shall not be entered into the record in this Matter. JCP&L agrees that those portions of its pre-filed surrebuttal testimony that are directly in response to Montville's pre-filed direct testimony shall not be entered into the record in this Matter. The Stipulating Parties agree that all of JCP&L's

direct testimony and the rest of JCP&L's rebuttal testimony (i.e., all portions thereof that are not directly in response to Montville's direct testimony) shall be entered into the record of this Matter.

At the evidentiary hearing held on May 26, 2016, Mr. Humphrys testified regarding the modifications made to the Project based on the Stipulation. According to Mr. Humphrys, Segment 6 of the Project that runs adjacent to Montville Meadows would be moved further away from the physical structures that were identified in the petition. An easement swap was agreed to so this modification could be facilitated (3T- 7 at 8 to 14). Mr. Humphrys further testified that with respect to the portion of the Project that goes through Montville Chase in Segment 11, JCP&L had agreed to underbuild the 34.5 kV and move the proposed 230 kV centerline to the existing 34.5 kV centerline for a series of approximately five monopoles that goes through the Montville Chase condos. (Id. at 3T- 8 at 10 to 16). With respect to the changes to cost of the modifications, Mr. Humphrys testified that the Segment 11 modification would increase the cost by approximately \$130,000. The increase would be needed to purchase an easement for Montville Chase. The modifications to Segment 6 would decrease the cost by approximately \$41,000. (Id. at 3T- 12 at 13 to 22).

Initial Briefs

A. JCP&L

JCP&L filed its initial post-hearing brief on June 17, 2016. In its initial brief, JCP&L argues that it has unequivocally established that the Project is reasonably necessary for the service, convenience, or welfare of the public as required by N.J.S.A. 40:55D-19. (JCP&L Initial Brief at 5). The Company states that the Project will allow JCP&L to remedy a NERC reliability criteria violation, comply with PJM's directive to construct the Project as a baseline RTEP upgrade, and enable JCP&L to provide safe, adequate and proper service to its customers while also, to the greatest extent possible, conserving and preserving the quality of the environment. (Ibid.). JCP&L also asserts that in establishing the route of the Project, it has followed N.J.A.C. 14:5-7.1(a), which states in pertinent part that JCP&L, in constructing a transmission line, must "make use of available railroad or other rights of way whenever practicable, feasible and with safety, subject to agreement with the owners." (Ibid.).

Regarding the need for the Project, JCP&L contends that during the 2012 RTEP, PJM identified a planning criteria violation with respect to the transmission lines that supply the Montville substation. (Id. at 6). This violation would constitute a NERC Category C contingency violation that, were it to occur, it would result in JCP&L suffering the loss of all 230 kV sources feeding into the Montville Substation. JCP&L suggests that such an event would affect approximately 86,719 customers. (Id. at 7). JCP&L states that PJM has confirmed that the Project will address this potential violation. PJM presented the Project at the April 27, 2012 Transmission Enhancement Advisory Committee ("TEAC") meeting. The PJM Board subsequently approved the Project. (Id. at 7-8). JCP&L further argues that no party introduced any evidence that disputes that the Project is necessary. (Id. at 6).

JCP&L also contends that it considered electrical alternatives to the Project, but that the alternatives would have required substantive engineering upgrades to both the Montville and Whippany substations. (Id. at 8). Moreover, the alternatives considered by JCP&L would not have provided the same level of network support as the Project. (Ibid.). Additionally, the Company argues that no other party submitted testimony or other evidence in the record that

disputes the validity of the route selection study that ultimately lead to the selection of the Preferred Route. (Id. at 8 to 9).

Regarding route selection, JCP&L argues that it considered multiple alternative routes which were studied and presented to the public during several open public meetings. (Id. at 9 to 11). Following comprehensive study and public input, JCP&L chose Route A3, which it argues is the least expensive route considered. (Id. at 11). Moreover, JCP&L avers that Route A3 will have the smallest environmental impact and will require the least amount of new ROW. (Ibid.).

Regarding EMF and noise issues, JCP&L argues that the Project will not result in any levels of EMF or audible noise in excess of limits established by the State of New Jersey. (Id. at 17). Additionally, the consensus of the international scientific community is that there are no links between EMF and negative health effects on human beings. (Ibid.) JCP&L also claims that, with respect to Lazar, the Project will actually decrease the existing levels of EMF found near Lazar as a result of existing transmission lines. (Id. at 18 to 19).

Regarding issues of safety and aesthetics, JCP&L contends that there was no factual, credible evidence provided that would support the claim that the Project would result in dangerous conditions for the students of Lazar. (Id. at 20). Moreover, JCP&L states that the Project was designed and will be implemented according to NESC safety standards. (Ibid.)

For the above described reasons, JCP&L requested that the ALJ: (1) find that the Project is reasonably necessary for the service, convenience or welfare of the public and fully satisfies the statutory criteria of N.J.S.A. 40:55d-19; (2) adopt the Stipulation as part of the Initial Decision; and (3) authorize JCP&L to site and construct the Project as described in the record of this matter. (Id. at 22).

B. Rate Counsel

In its Initial Brief, Rate Counsel states it does not object to the Project, as proposed, but asserts that the settlement between Montville and JCP&L adds modifications to the Project that are not "necessary" to maintain reliable electric service. According to Rate Counsel, the modifications increase costs of the Project, but only benefit a limited group of Montville residents and ratepayers should not bear these additional costs. (Id. at 1 to 2).

Rate Counsel states that the Board must consider costs that New Jersey electricity customers will bear in connection with the Project when making a determination pursuant to N.J.S.A. 40:55D-19⁹, has done so in several previous cases¹⁰, and must continue to do so. (Id. at 5 to 7).

Rate Counsel also states that ratepayers should not bear the costs for the modifications and cost increases to the Project that are not necessary and for which there is a more cost-effective

⁹ See In re Public Service Electric & Gas Co., 35 N.J. 358, 377 (1961)

¹⁰ In re the Petition of PSE&G for a Determination Pursuant to the Provisions of N.J.S.A. 40:55D-19 Re: North Central Reliability Project, BPU Docket EO11050323 (June 18, 2012) and I/M/O the Petition of Public Service Electric and Gas Company for a Determination Pursuant to the Provisions of N.J.S.A. 40:55D-19 ("Susquehanna – Roseland Transmission Line"), BPU Docket EM09010035 (Feb. 11, 2010) at 74. ("Susquehanna-Roseland Order")

alternative. Rate Counsel points out that the Supreme Court has noted the importance of considering the most cost-effective alternatives:

As a matter of guiding principle on site approval in this type of case, it seems necessary, however, to record our view that whenever alternate locations of substantially equal use value are reasonably available, the utility should be required to utilize the one having the least capacity for adverse effect on the local zoning scheme.

Petition of Monmouth Consol. Water Co., 47 N.J. 251, 260-61(1966)

Rate Counsel further claims that the Board has previously focused on the evidence of whether the benefits to ratepayers outweigh the cost¹¹ and whether the cost of the Project is less than specific alternatives¹². According to Rate Counsel, the record here is devoid of the proper evidence to establish that the modifications in the Stipulation and their increased costs are reasonably necessary. It argues that the modifications and cost include a playground that clearly bears no relationship to the Project, indeterminate landscaping by the Meadows at Montville and Montville Chase whose relationship to the Project has not been clearly established, and underbuild a segment of line by Montville Chase with no reliability improvement. Rate Counsel asserts that these modifications are not reasonably necessary for the Project to meet the needs of the general public and ratepayers should not bear these additional costs. (Id. at 7 to 8).

C. Wildlife Preserves

WPI filed a Post-Hearing Letter Brief on June 16, 2016. WPI contends that to satisfy the statutory requirements of N.J.S.A. 40:55D-19, JCP&L must establish not only that the Project is "reasonably necessary for the service, convenience, or welfare of the public," but also that the Project is in compliance with N.J.A.C. 14:5-7.1, and that the proposed route for the Project will have the smallest environmental impact of any available alternatives. (WPI Initial Brief at 2). Accordingly, WPI contends that JCP&L's petition does not comply with N.J.A.C. 14:5-6 and because the expansion of the existing right ROW will result in a greater environmental impact than the construction of a single monopole along the existing ROW, that the Project fails to meet the standard of N.J.S.A. 40:55D-19 and the petition must be denied. (Id. at 2 to 3).

WPI posits that JCP&L has not met the required legal standards because the Project does not intend to use existing ROW through the Troy Meadows area and has failed to provide any explanation for why it cannot do so. (Id. at 3). Moreover, WPI contends that JCP&L could stay within existing ROW within the Troy Meadows area if it constructed a single steel monopole that would carry the new 230 kV line, as well as, the existing K-115 and O-93 lines. (Id. at 4). WPI claims that JCP&L offers no explanation as to why they are not constructing the Troy Meadows located segment of the Project in this fashion. (Ibid.).

¹¹ In re the Petition of South Jersey Gas Company for a Determination Pursuant to the Provisions of N.J.S.A. 40:55D-19, BPU Docket No. GO13111049 (December 16, 2015), at 50.

¹² In re the Petition of JCP&L Pursuant to N.J.S.A. 40:55D-19 for a Determination that the Oceanview 230 KV Transmission Project is Reasonably Necessary for the Service Convenience or Welfare of the Public, BPU Docket No. EO14030281 (January 21, 2015), at 14.

Accordingly, WPI submitted that: (1) JCP&L's petition should be denied; or (2) in the alternative the ALJ should reconsider WPI's application for intervenor status and grant WPI the right to intervene for the limited purpose of reopening the hearings to allow WPI to present testimony and evidence with regard to the impact of the petition on Troy Meadows and to cross-examine JCP&L witnesses Janis and Sparhawk with regard to the necessity, if any, for JCP&L to construct a parallel utility corridor in Troy Meadows next to its existing right-of-way. (Id. at 7).

D. Montville Board of Education

Montville BOE filed a post-hearing brief on June 17, 2016. Montville BOE makes numerous arguments against the approval of the Petition, all of which essentially charge JCP&L with failing to meet the statutory standard required in N.J.S.A. 40:55D-19. Montville BOE requests denial of the Project's approval, or, an Order directing JCP&L to provide "ongoing monitoring of the EMF levels at Lazar." (Montville BOE Initial Brief at 2).

Montville BOE contends that JCP&L should be denied permission to proceed with the Project as proposed because the placement of the monopoles in Segment 10 would explicitly contravene a previous BPU order regarding the construction of transmission lines in the same area. (Id. at 21). Montville BOE claims that the Project's proposed route would result in monopole construction significantly closer to Lazar than a past Project proposed by PSE&G, which the BPU found to be too close to the school. (Ibid.). Positing that JCP&L and PSE&G are "in privity," Montville BOE contends that res judicata should preclude JCP&L from constructing monopoles in a location closer to Lazar than PSE&G was prohibited from doing the same. (Id. at 24).

Montville BOE further argues that JCP&L failed to adequately consider alternative sites and methods as required by N.J.S.A. 40:55D-19. (Id. at 25). Specifically, Montville BOE stated that JCP&L did not adequately consider the 115 kV transmission line alternative despite the fact that a 115 kV line would have satisfied the NERC Category C contingency violation. (Id. at 26 to 27). Additionally, JCP&L failed to adequately consider constructing the portion of the Project located near Lazar underground, which would have addressed the Board of Education's concerns about the Project. (Id. at 28 to 31). Montville BOE also argues that JCP&L failed to adequately consider "under building" the portion of the Project located near Lazar, which would eliminate the need to construct additional monopoles closer to the school than those already present. (Id. at 31 to 35).

Montville BOE disputes that JCP&L has established a sufficient electrical need for the Project. (Id. at 35). Specifically, a single potential NERC Category C contingency violation is not only insufficient with respect to necessitating the Project, but also that such an event is extremely unlikely and has not occurred in the past decade. (Id. at 35 to 38).

Finally, Montville BOE claims that in planning the Project, JCP&L has not adequately considered the potential safety issues that Lazar might face in light of EMF levels and the possible health hazards of EMF exposure, the noise and aesthetics that would be created by the Project's construction, and the potential danger of a falling wire or monopole. (Id. at 39 to 47).

Reply Briefs

A. JCP&L Reply Brief

On June 27, 2016, JCP&L filed a reply brief responding to the claims made in the post-hearing briefs filed by WPI and Montville BOE.

Regarding the claims made by WPI, JCP&L contends that WPI has either failed to comprehend or has mischaracterized the Project and the testimony submitted by JCP&L in support of it. (JCP&L Reply Brief at 1). Specifically, despite WPI's claims, the Project does in fact propose the use of existing JCP&L ROW in the Troy Meadows area. (Id. at 2). Only certain segments of the ROW within Troy Meadows will require the acquisition of additional ROW due to insufficient width, and this is a result of required NESC standards regarding ROW width. (Id. at 2 to 3).

Additionally, JCP&L argues that N.J.S.A. 40:55D-19 simply does not contain any language that requires JCP&L to show that the proposed route for the Project will have the smallest environmental impact of any available alternatives. (Id. at 3). Moreover, JCP&L points out that despite this standard not being supported by N.J.S.A. 40:55D-19, the proposed route for the Project nevertheless does have the lowest environmental impact of all the potential routes that JCP&L considered. (Id. at 4).

Regarding the claims made by Montville BOE, JCP&L contends that the Montville BOE Initial Brief completely ignores the "overwhelming" evidence in the record that shows the Project fully satisfying the statutory requirements of N.J.S.A. 40:55D-19. (Id. at 9 to 10). Specifically, JCP&L argues that the prior BPU decision relied upon by Montville BOE is not binding upon the BPU or the OAL, that res judicata is completely inapplicable as there is no privity between JCP&L and PSE&G, and, notwithstanding, Montville BOE has mischaracterized the holding BPU applied to PSE&G in that prior case. (Id. at 12 to 13).

Additionally, JCP&L argues that despite Montville BOE's claims, the evaluation of alternatives assessed by JCP&L was robust and adequate and that the record contains no evidence to the contrary. (Id. at 15 to 23). JCP&L reiterates the arguments made in its initial post-hearing brief that it has conclusively established the electrical need for the Project, that there are no EMF, safety, or aesthetic risks to Lazar sufficient to deny the Petition, and that there is no evidence in the record that suggests otherwise. (Id. at 23 to 31).

B. Montville

Montville filed a reply to the New Jersey Rate Counsel Initial Brief on June 27, 2017. Montville expressed concern that Rate Counsel challenged and questioned the Stipulation that was negotiated between them and JCP&L. (Montville Reply Brief at 1). Montville cited the standing public policy promoting settlement of litigation with several case law examples. Montville stated that the Stipulation was negotiated to avoid expensive litigation and for the "health and safety" of Montville and was cooperative between the parties. The minor changes to the Project represent major adjustments for Montville. (Id. at 2). Montville cited the responsibility of Rate Counsel to consider the interests of Montville's ratepayers. (Ibid.) Montville further indicates that it intervened in the matter and negotiated on behalf of the two communities impacted by the Project and that the issues were resolved by developing the alternative routes with the least impact. (Ibid.) Montville cited their legal expenses to date and the potential significant additional

funds needed if the Stipulation had not been reached. (Id. at 3). Montville requested that the ALJ approve the Project as modified by the Stipulation. (Ibid.)

C. WPI

WPI submitted a reply brief to JCP&L on June 30, 2017. WPI asserted that JCP&L had not followed N.J.A.C. 14:5-7.1, which requires the use of available railway and/or other rights-of-way whenever practical. They specifically question the need to widen the ROW through property owned by the WPI and the lack of monopole construction in these areas. (WPI Reply Brief at 1). WPI noted that widening of the ROW through Troy Meadows does not constitute use of existing ROW and easement. (Id. at 2). WPI also countered the JCP&L assertion that the WPI did not provide evidence that monopole/underbuild construction would eliminate the need for any widening of the existing ROW. WPI asserted that they did not have the information on the subject due to JCP&L efforts to keep that information from the organization and JCP&L did not even consider the underbuild option to reduce the environmental impact. (Ibid.) WPI stated that the Court should not disregard their evidence presented supporting the feasibility of monopole construction; including an article concerning PSE&G prior construction with monopoles in the same area. (Id. at 3). WPI reiterated that JCP&L failed to meet the required burdens under the aforementioned N.J.A.C. sections. WPI concluded that as a result, the Project should be denied outright, and that the WPI's request for status as an "intervenor" should be reconsidered. (Id. at 4).

D. Montville BOE

Montville BOE submitted a reply to JCP&L's brief on June 24, 2017. Montville BOE stated that JCP&L failed to demonstrate that the Project was reasonable and necessary for the "service, convenience or welfare" of the public. Montville BOE further stated that JCP&L has not met its burden of proof. (Montville BOE Reply at 1 to 2). Beyond the failure to meet N.J.S.A. 40:55D-19, Montville BOE stated that the Project is in conflict with the previous Susquehanna-Roseland Board decision where the Board indicated that transmission lines should not be constructed in close proximity to Lazar. (Id. at 2). Montville BOE further stated that the Project must be denied since JCP&L failed to establish an electrical need and that they did not consider alternative routes or solutions. (Ibid.) Specifically, Montville BOE stated that JCP&L failed to consider the 115 kV line alternative as an option to the Category C violation, regardless of what testimony JCP&L submitted (Id. at 3). They stated that the 115 kV solution would "ameliorate the concern triggering" the Project need. (Id. at 4). Montville BOE accused JCP&L of a hasty decision to abandon the 115 kV alternative and that the 230 kV line was larger than needed, regardless of the work that would be required at the Montville and Whippany substations for the 115 kV solution. (Ibid.) Montville BOE also claims that JCP&L failed to consider underbuild and undergrounding of the lines near the Lazar school. They cite the underbuild option adopted by JCP&L in several sections as a result of the stipulation reached between JCP&L and Montville. Montville BOE asserted that JCP&L provided no evidence why underbuild is not an option for other segments but not at the school; citing that an underbuild would increase the distance of the lines from the school. Therefore, the petition should be denied (Id. at 6 and 7). Additionally, Montville BOE indicated that JCP&L should be ordered to fully review the 115 kV option prior to any consideration for exception of local zoning ordinances and regulations. (Id. at 7).

Montville BOE's Reply Brief further stated that the BPU should deny the petition as JCP&L failed to weigh the harmful effects of EMF, aesthetic impact and safety concerns which threaten the staff and students of Lazar. (Id. at 7). Montville BOE stated that JCP&L's assertion that the Project electric fields are similar to those of other lines did not definitively determine that the Project would be safely operated. Additionally, they did not make the calculations for the segment running near Lazar. (Id. at 8). Montville BOE claimed JCP&L failed to perform "prudent avoidance" when dealing with the magnetic fields that will be created by the Project, stating that they did not take guidelines from other states in their magnetic field analysis; specifically in Segment 10 near Lazar. (Id. at 9). They stated that the calculated maximum magnetic fields in Segment 10 will exceed those standards acceptable in New York and Florida. (Id. at 10). Montville BOE reiterated that the best method to reduce the EMF exposure near the school is to move the lines further away from the school building. (Ibid.). Montville BOE further stated that the Project should be denied on this principle and if not, appropriate field studies should be conducted and evaluated. Montville BOE indicated that they find JCP&L's reliance of magnetic field data for home appliances as a measure faulty because the exposure from the Project lines are continuous and constant. (Id. at 11). They claim that JCP&L witnesses confirmed a statistical association with magnetic fields and leukemia. (Ibid.). Montville BOE also cited long term construction near Lazar as a safety hazard, as the Project will be built during the school year and noise, pollution and physical dangers will be present near the school area. (Id. at 12). It also cited concerns regarding pole failures and downed power lines. Montville BOE reiterated that the lines should be moved further away from the school and indicated that PSE&G was previously ordered to do so by the Board. Montville BOE also stated that the Project should be denied as it will interfere with Montville BOE's "ability and prerogative" to expand Lazar. (Id. at 14).

INITIAL DECISION

The record in this matter was closed on June 27, 2016. On July 26, 2017, the Board issued an Order granting the Office of Administrative Law ("OAL") multiple requests for extensions of time to submit the Initial Decision to the Board, through August 9, 2017.

On August 10, 2017, ALJ McGee issued the Initial Decision, which was received by the Board on August 10, 2017. Although the Initial Decision did not specifically designate undisputed findings of fact, ALJ McGee made the following determinations:

ALJ McGee concluded that JCP&L established, through significant and thorough testimony and evidence that "the Project is reasonable and is necessary for the service, convenience, or welfare of the public pursuant N.J.S.A. 40:55D-19." (Initial Decision at 38). ALJ McGee concluded that the petition should be granted.

In addressing Montville BOE's assertions made in its post hearing briefs in opposition to the Project, ALJ McGee found that it "neither introduced nor relied on any evidence in the record in support of its position other than that introduced by JCP&L." (Initial Decision at 33). Specifically with regard to Montville BOE's res judicata argument, he found that the Board's "decision in Susquehanna-Roseland is plainly not prohibitive of JCP&L's Project." (Id. at 35).

ALJ McGee also reiterated, with respect to Montville BOE's claim that JCP&L did not properly evaluate alternative routes for the Project that "the only evidence in the record regarding the extent of effort that went into the Project is on behalf of JCP&L." He further pointed out that the

Company filed a voluminous amount of testimony regarding the route selection process. (Id. at 35-36).

With regard to Montville BOE's assertion that JCP&L did not adequately consider alternative construction options for the Project, ALJ McGee found that Mr. Hozempa's testimony addressed JCP&L's consideration of a 115 kV alternative in detail. (Id. at 36). Likewise, ALJ McGee concluded that JCP&L provided direct evidence that it considered, but ultimately eliminated the option of partially placing the Project underground. (Id. at 36-37 (citing JC-3 at 23 to 27)).

In addressing the electrical need for the Project, ALJ McGee stated that Montville BOE cites to no evidence in the record in support its claims other than the Company's direct testimony, finding that Mr. Hozempa and Mr. McGlynn thoroughly established the electrical need for the Project, specifically the potential NERC Category C violation discovered during PJM's 2012 RTEP. (Id. at 37).

In addition, ALJ McGee determined that there is no testimony or evidence in the record in support of the argument advanced by Montville BOE concerning JCPL's purported failure to adequately investigate the possibility of dangerous levels of EMF; aesthetic impacts; and land use issues in the vicinity of the Lazar Middle School other than the Direct Testimony of Dr. Cortellino who testified that she has "concerns" about the effects of EMF on Lazar Middle School. The ALJ concluded that there is no substantive evidence in support of this argument. (Id. at 37-38).

EXCEPTIONS TO INITIAL DECISION

On August 17, 2017, the Montville BOE filed a letter with the Board Secretary seeking a one week extension of time to file exceptions to the Initial Decision. The Board issued an order on August 23, 2017 granting Montville BOE's request. On August 24 2017, WPI filed a letter requesting an extension of time to file exceptions to the Initial Decision until September 15, 2017, claiming the OAL had served WPI the Initial Decision eight (8) days after the Initial Decision was issued. On September 22, 2017 the Board issued an order granting WPI's request.

JCP&L

On September 5, 2017, JCP&L filed correspondence with the Board, not taking exception to the Initial Decision, but rather requesting the Initial Decision include the recommendation the Company made in its post hearing brief that ALJ McGee and the Board approve the petition as modified by the Stipulation. JCP&L also requested that the Board adopt the Initial Decision, but clarify that the petition, as modified by the Stipulation, is approved. (JCP&L Exceptions at 1).

Montville BOE

On September 5, 2017, Montville BOE filed exceptions to the Initial Decision. Montville BOE continues to assert that the petition should be denied under N.J.S.A. 40:55D-19 as the proposed Project will negatively impact the residents of the area via EMF levels, health risks, aesthetic impact, safety and construction effects. (Montville BOE Exceptions at 1). Montville BOE cited to the Board's Susquehanna-Roseland Order, a case that involved the construction

of a PSE&G transmission lines adjacent to Lazar. In that proceeding, the Board found that relocation of three (3) proposed transmission lines was prudent and reasonable. (See Susquehanna-Roseland Order at 2 to 3). Montville BOE concluded that the proposed Project is inconsistent with BPU's prior directive that transmission lines should not be constructed in such close proximity to a school. (Montville BOE Exceptions at 2). In this particular instance, the JCP&L lines will run along the same ground as the referenced PSE&G case, but the JCP&L right of way is closer to the school than PSE&G's. (Id. at 3). The proposed Project would be approximately three hundred and thirty (330) feet from the school building and about twenty (20) feet from the nearest playing field backstop. (Ibid.) They additionally stated that the line construction would hinder expansion of Lazar, introduce safety issues if a downed poll lands on school property, and that construction of these monopoles will be during the school year increasing danger, noise, and pollution with heavy machinery (bulldozers, bucket trucks, etc.) and helicopters. (Id. at 25 to 28).

Montville BOE also claims that the petition should be denied as JCP&L failed to adequately consider alternative sites and methods as required N.J.S.A. 40:55D-19. (Id. at 6). Montville BOE argues that JCP&L should be ordered to address the advantages and disadvantages of a 115 kV line, a partially underground solution near Lazar. Montville BOE claims that there is nothing on the record indicating that JCP&L considered constructing a 115 kV transmission line instead of the 230 kV proposal beyond a cursory review. (Id. at 7). They stated that the 115 kV alternative was disregarded due to ancillary construction at Montville and Whippany substations, making it slightly more complicated and costly to construct. (Id. at 8). Montville BOE cited JCP&L's witness, Scott Humphrys' testimony that the 115 kV transmission line "was not considered a desirable solution for the Project; therefore [a cost] estimate was not prepared" and that the 115 kV alternative "would not provide the same level of network support as the 230 kV alternative." Montville BOE argued that under cross-examination, Mr. Humphrys conceded that the 115 kV transmission line would have fully resolved the only Category C reliability planning violation underlying the need for the Project. (Ibid.).

Montville BOE also claimed that JCP&L failed to consider a partial underground solution because of environmental impacts, restoration period, cost, and decreased capacity relative to an above-ground transmission lines. (Id. at 10). JCP&L's witness Mr. Kozy conceded that an underground transmission line adjacent to Lazar on Segment 10, could have been utilized. (Ibid.). Montville BOE also described the cost estimation provided by JCP&L's witness as a vague estimate and stated that the disadvantages regarding the environment do not apply in this case. (Id. at 11).

Montville BOE took exception to the JCP&L dismissal of 230 kV/34.5 kV underbuild in portions of the route stating that sufficient ROW was valuable, the cost would be reduced and future vegetation management efforts could be reduced, and the distance from the lines to the school would be reduced. (Id. at 12 to 16).

In its exceptions to the Initial Decision, the Montville BOE also discusses concerns related to EMF, stating that while New Jersey does not have applicable standards, the new JCP&L lines would have magnetic field levels that exceed the standards set by other states. (Id. at 23). Citing his testimony, Montville BOE believes that Dr. William H. Bailey confirmed that EMF exposure could potentially have detrimental effects on health. (Id. at 24). The preferred plan has significantly less vegetation clearing due to the route running on or parallel existing ROW lines. (Exhibit A at p. 21).

Montville BOE also argued that collateral estoppel should apply as once a final ruling has been made, that issue cannot again be litigated between the same parties in any future lawsuit. (p.5)

Finally, Montville BOE stated that JCP&L failed to demonstrate an underlying electrical need for the Project. (Id. at 15).

WPI

On September 15, 2017, WPI filed exceptions to the Initial Decision. WPI states that the Project transverses two (2) miles through Wildlife Preserves, Troy Meadows in Parsippany-Troy Hills. The Project would build transmission towers parallel to existing towers and expand JCP&L's ROW. These additional towers are unnecessary and harmful to the ecosystem. (WPI Exceptions at 2). The new line would run through several areas that are populated by endangered animals, including Bald Eagles, the oldest tree in Parsippany-Troy Hills, and 29 acres of wetlands. (Id. at 4).

WPI proposes replacing the existing poles with monopoles for 230 kV and 115 kV, O-93 and 34.5 kV circuits (Id. at 2). Peter Sparhawk, a witness for JCP&L, explains that the single line of monopoles would be "challenging;" "significantly more expensive," and "would require taller transmission structures." Thus WPI asked the Board to return the matter to the OAL for a hearing on its proposed alternative. (Id. at 6 to 7).

REPLY TO EXCEPTIONS TO INITIAL DECISION

On September 12, 2017, JCP&L filed its Reply to the Exceptions of Montville BOE. JCP&L asserted that it has demonstrated the need for the Project and supports the route selected; stating that the Montville BOE Exceptions had already been rejected by ALJ McGee and Montville BOE has mischaracterized the facts of the case. JCP&L stated that ALJ McGee rejected all of Montville BOE's arguments and that their exceptions are just a further attempt to rehash the same issues. (JCP&L- Montville BOE Reply Exceptions at 1). It further stated that the Montville BOE offered no alternative proposals for the Project until after evidentiary hearings were complete. (Ibid.).

Regarding Montville BOE's assertion that the Board had previously directed PSE&G to re-route the Susquehanna-Roseland Line further from Lazar, JCP&L noted that Montville BOE misrepresented the actual facts of that agreement and its binding impact. (Id. at 4). JCP&L stated that the Board only directed PSE&G to evaluate if the line could be relocated; and that the parties eventually settled. JCP&L stated that the Susquehanna-Roseland Line relocation around the school does not set precedent, and does not create estoppel. JCP&L further stated that ALJ McGee rejected this argument in the Initial Decision at paragraphs 33 to 35. JCP&L argues that Montville BOE's assertion that the Company did not consider undergrounding the lines near the school is addressed in direct testimony of Mr. Kozy. The Company claimed that Montville BOE is using selective excerpts from his testimony to give the impression that undergrounding was a viable option. (Id. at 11). JCP&L refutes Montville BOE's assertion that EMF would be reduced or "blocked" if the lines were constructed underground. (Id. at 12). JCP&L stated that underground construction of the lines near the school would "most likely" result in a greater distance from the school, but that the Montville BOE has not demonstrated any benefits from such construction. (Id. at 14). JCP&L stated that regardless of an agreement between the Company and Montville to "underbuild" certain segments of the Project, it should

not be concluded that JCP&L did not consider it as an option for the segment near the school. The Company evaluated underbuild versus parallel construction for all Project segments. (Id. at 15) JCP&L also refuted Montville BOE's assertions that the Project would negate future expansion of the school facilities, result in aesthetic impacts and result in safety concerns. (Id. at 24 to 27).

Regarding the alternative route and methods analysis arguments in Montville BOE's Exceptions, JCP&L stated that it has created a clear record of how the route was selected in the direct testimony of Mr. Hozempa. (Id. at 6). JCP&L also stated that no party to the case offered any additional testimony during the proceedings to find an alternative route. JCP&L addressed Montville BOE's proposal to build a 115kV solution and reiterated that this option was explored but rejected due to additional substation work and buildout as presented in the testimony of Mr. Hozempa. JCP&L reiterated that the 230kV line between Whippany and Montville substations was the "superior" solution. (Id. at 7). JCP&L indicated that Montville BOE's claim of clear advantages to the 115kV line are unsubstantiated and its faulting of the Company for not completing a full cost estimate for this option is unwarranted, stating that there is not a requirement to fully estimate rejected solutions. (Id. at 8).

Regarding the Project need, JCP&L rejects the assertion by Montville BOE that the need was not established. They stated that the testimonies of Mr. Hozempa and Mr. McGlynn conclusively established the need for the Project. They also counter that the Montville BOE never submitted testimony arguing the reverse. (Id. at 16). JCP&L reiterated the NERC criteria violation, the standards for analysis of the bulk electrical system, and the planning and compliance processes as they relate to JCP&L, PJM and NERC. JCP&L further dismissed the Montville BOE's assertion that a Category C violation is in anyway less important or critical than a Category A or B violation. (Id. at 16 to 17). JCP&L also re-reviewed the violation criteria resulting in the need for the Project.

JCP&L asserted that there will be no detrimental impacts in the vicinity of the school, contrary to the assertions of the Montville BOE. (Id. at 18 to 19). JCP&L cites the testimony of Mr. King regarding measurements and calculations pertaining to EMF and the Project, specifically noting that the magnetic field levels are calculated to be 4.1mG after construction which is less than measured in the field. (Id. at 19). JCP&L cited Mr. King's testimony that readings taken on Project Segment 11 would yield the same results as Segment 10 in response to the Montville BOE question on why no specific readings were taken at the school. (Id. at 20). In response to the Montville BOE's assertion that the calculated magnetic field levels would be higher than maximum levels allowed by other States, the Company cited Mr. King's testimony that the lines would never realistically operate at levels that would generate such high levels of magnetic fields due to physical limitations; it was only a calculated maximum. (Ibid.). JCP&L did not object to Montville BOE's request that the Board direct JCP&L to conduct field measurements of magnetic fields after construction of the Project. JCP&L accused Montville BOE of mischaracterizations with the testimony of Dr. Bailey in an attempt to say the witness testified to health effects from EMF. (Id. at 22). The Company provided his full testimony addressing that statement for context. JCP&L also cited Dr. Bailey's testimony that the EMF from the Project would be "far below" the lowest EMF guidelines set by international committees (Ibid.); and cited Mr. King's exhibit of calculated EMF values relative to these same international committee guidelines. (Id. at 23).

JCP&L filed its Reply to the Exceptions of WPI exceptions on September 22, 2017. JCP&L asserted that they have established on the record that the Project is necessary for the service, convenience or welfare of the public, and cited the ALJ Initial Decision supporting the Project. (JCP&L- WPI Reply Exceptions at 1). JCP&L stated that the WPI arguments are the same they previously stated and that the ALJ has already rejected their points in the Initial Decision. They refute WPI's main concerns, that the Project fails to comply with N.J.A.C. 14:5-7(a) regarding use of ROW and that the Project will cause environmental harm to the Troy Meadows area. JCP&L accused the WPI of misrepresenting the Project route or not understanding the Project route. (Id. at 2). JCP&L indicated that the Project in the Troy Meadows area will be constructed in existing JCP&L owned ROW, contrary to the WPI assertion. (Ibid.). The Company clarified that some of the existing ROW will need to be expanded in width to accommodate the Project, NESC codes, and to allow the appropriate line clearances. (Id. at 3). Additionally, the Company stated that the use of these existing ROW demonstrates the Project's compliance with N.J.A.C. 14:5-7(a). (Ibid.).

JCP&L disputed the WPI statement that the Project is in violation of the N.J.S.A. 40:55D-19 due to environmental impact. (Id. at 4). JCP&L argues that environmental impact from a Project is only one element under consideration for Board approval. JCP&L further stated that the proposed route has the lowest impact to the environment of all the route alternatives. (Ibid.) Additionally, JCP&L reiterated that it will comply with all applicable environmental regulations, requirements and mitigations per the testimony of Ms. Cronin. (Id. at 5). JCP&L also stated that the WPI argument for underbuild does not establish reasons why ROW widening would be mitigated by such construction, regardless of what PSE&G did on the Susquehanna-Roseland Line. (Id. at 6).

Lastly, JCP&L insisted that the Board not return the matter to the OAL as requested by WPI. They indicate that the WPI was limited in their participation of these proceedings as they filed for intervention late and were denied intervenor status by the ALJ for that reason. (Id. at 7).

DISCUSSION AND FINDINGS

The Board fully evaluated the Initial Decision and record in this matter as well as the exceptions. It is clear to the Board that the Stipulation between JCP&L and Montville is part of the record and all Parties, including Rate Counsel, who objected to portions of the stipulation considered it before the ALJ. See N.J.A.C. 1:1-18.1. Additionally, as part of the Stipulation, Montville and JCP&L agreed to withdraw all or portions of certain witness testimony. As such, the Board **HEREBY FINDS** that the record before the OAL included the Stipulation and does not include the testimony which the parties agreed to withdraw. Additionally, the Stipulation modified segments of the route. In reviewing the Initial Decision and the record, the Board has considered the Route as proposed by JCP&L including consideration of proposed modifications in the Stipulation.

In evaluating a proposed settlement, the Board must review the record, balance the interests of the ratepayers and the shareholders, and determine whether the settlement represents a reasonable disposition of the issues that will enable the Company to provide its customers in this State with safe, adequate and proper service at just and reasonable rates. In re Petition of Pub. Serv. Elec. & Gas, 304 N.J. Super. 247 (App. Div.), certif. denied, 152 N.J. 12 (1997). The Board recognizes that the Stipulation was not signed by all the parties in this proceeding; nonetheless, it is well-established that the Board may consider and rely upon a non-unanimous

stipulation as a fact-finding tool so long as the Board independently examines the existing record and makes appropriate findings. Id. at 270.

A. Review Criteria

The applicable criteria to be reviewed by the Board in this matter are set forth in N.J.S.A. 40:55D-19. The statute provides that the Board may grant the petition of a public utility for relief from local zoning restrictions on a proposed utility project running through multiple municipalities if, after hearing, on notice to all interested parties, the Board finds:

the present or proposed use by the public utility ... of the land described in the petition is necessary for the service, convenience or welfare of the public... that the present or proposed use of the land is necessary to maintain reliable electric or natural gas supply service for the general public and that no alternative site or sites are reasonably available to achieve an equivalent public benefit, the public utility ... may proceed in accordance with such decision of the Board of Public Utilities, and ordinance or regulation made under the authority of [Municipal Land Use Law] notwithstanding.

[N.J.S.A. 40:55D-19].

The New Jersey Supreme Court, in In re Public Service Electric & Gas Co., 35 N.J. 358 (1961), explained the applicable legal principles:

- a. The phrase "for the service, convenience and welfare of the public" refers to the whole public served by the utility and not the limited group that benefits from the local zoning ordinance;
- b. The proposed use must be reasonably, not absolutely or indispensably, necessary for the service, convenience, and welfare of the public;
- c. The particular site or location must be found to be "reasonably necessary" and so the Board must consider the community zoning plan, the physical characteristics of the site, and the surrounding neighborhood;
- d. Alternative sites and their comparative advantages and disadvantages, including cost, must be considered in determining reasonable necessity; and
- e. The Board must weigh all interests and factors in light of all the facts, giving the utility preference if the balance is equal. The legislative intent is clear that the broad public interest is greater than local considerations.

Therefore, in making its determination, the Board must weigh all the interests and, in the event the interests are equal, the utility should be entitled to a preference because the legislative intent is clear that the broad public interest to be served is greater than local considerations. See, e.g., In re Monmouth Consolidated Water Co., 47 N.J. 251 (1966); In re Public Service Electric & Gas Company, supra, 35 N.J. at 377.

B. Need for the Project

The Project entails the seven (7.0) miles of 230 kV circuit between JCP&L's Whippany and Montville substations; with associated work at each location. The Project is being planned in response to a Category C Contingency violation in the region. (JC-2 at 6-7 to 13). The RTO identified a needed additional feed into the Montville substation which was later included in the 2012 PJM RTEP as project b2003. (JC-4 at 6-3 to 12). JCP&L received a Notification of Designation of Construction Responsibility from PJM on November 26, 2012. (JC-4 at 11-21). The initial requested in-service date was June 1, 2015. The need for the Project was based on a potential voltage collapse risk in the Greystone, Montville, Whippany, Riverdale area with a potential loss of 400 MW of load. (JC-4 at 12- 10 to 13). This equated to an 86,719 customer impact. Mr. McGlynn, of PJM, supported the need for the Project as the Category C contingency was required to be mitigated per NERC standards. The PJM analysis was based on the original 2012 model and was further confirmed in the 2013 and 2014 models which were subsequently run for the JCP&L transmission system in the region. Mr. McGlynn described the violation as an "N-1-1" contingency which equates to the loss of two (2) transmission system elements in the affected area. (JC-5 at 15-20 to 16-5). The specific voltage collapse conditions are described below:

- Montville-Roseland (E2205) 230 kV line loss; plus
- Kittatinny-Newton (T2298) 230 kV line; or
- Newton-Montville (N2214) line

The Project as described in the petition would mitigate this potential situation.

JCP&L considered a 115 kV circuit between the Whippany and Montville substations as an alternative to the proposed Project. However, this option would require substantial upgrades in both substations to accommodate the 115 kV tie-ins as the substations were not equipped for that voltage. (JC-4 at 15-16 to 23). Mr. Hozempa indicated that demand response would not provide sufficient load shed to accommodate the 400 MW potential loss. He also testified that there were no other PJM directed RTEP projects or planned generation with the RTO that would offset the contingency.

As such the Company has demonstrated the need to address the Category C violation by constructing the project. Therefore, the Board **HEREBY FINDS** that JCP&L has met its burden of proof and has shown that the Project "is reasonable necessary for the service, convenience or welfare of the public" pursuant to N.J.S.A 40:55D-19.

C. Alternatives Routes for the Project

As presented in testimony, the routing study documented the selection methodology, public outreach, and the identification of the preferred route. The primary goals were to select a route that minimized the effects of the Project on the environment, comply with regulatory requirements, avoid unreasonable routes, minimize design requirements, and avoid unreasonable costs. (JC-6 at 3-11 to 16). A corridor screening process was first used to identify potential locations then the Route selection process was used to refine the best corridor for the Project. Alternative routes were also identified and reviewed during this stage of the process.

(Id. at 10-3 to 10). The Project team sought to minimize route length, circuitousness, cost, and special design requirements; interference with existing structures; interference with schools, places of worship, cemeteries, and facilities used for cultural, historic, and recreational purposes; interference with economic activities; creation of new rights-of-way; crossing of designated resource lands; crossings of large bodies of water; and visual impact on residential and public resource areas.

The JCP&L routing team determined that preferred route, A3, is the shortest route, and it parallels or rebuilds existing transmission for majority of the route and minimizes ROW acquisition. This route would have the least environmental impact overall due to its rebuilds and/or parallels existing transmission lines. (Id. at 15-1 to 8). Route A3 which uses mostly existing ROW requires the least forest clearing. It was determined that Route A3 crossed the largest urban areas. As a result, the route will traverse to the east of existing ROW for short distances reducing the number of residences within 500 feet. However, there would be an increased environmental impact. (Id. at 18-19 to 21). Route A3 has a moderate potential impact primarily due to installing the new lines parallel to existing lines. Additionally, preferred route A3 minimizes potential direct and indirect impacts to residents, commercial and industrial development, institutional uses, cultural resources, and land use. Since they will run the line parallel to existing lines it will have minimal cumulative land use and aesthetic impacts. (Id. at 22-19 to 23-16).

Alternative Route A3 Option is the same as alternative Route A3 with one exception. Through the Meadows at Montville residential community, JCP&L identified a route option that would involve exchanging JCP&L's existing 170-foot-wide ROW for a new 170-foot-wide ROW located slightly farther to the west on the Meadows at Montville property, allowing the transmission line to be constructed farther away from the Meadows units. (Id. at Exhibit PWS-2 at 39).

It was determined by the Routing Team that Route A3 was the shortest route with the least amount of impact to the environment, residents, and commercial and industrial areas. This route was estimated to cost approximately \$35.5 million, whereas Routes B and C are about \$50.4 million and \$78.3 million, respectively. (Id. at 29-11 to 13). Preferred route (A3) modifies the Project from rebuilding a majority of the existing 34.5 kV lines to running the new 230 kV lines parallel based on sufficient ROW. This modification will mitigate challenges of scheduling extended outages of the existing double-circuit 34.5 kV sub-transmission line in order to rebuild, save costs as rebuilding the 34.5 kV circuits would be more expensive than running parallel lines, and avoid taller poles/structures due to an underbuild scenario. There is enough space in the existing ROW for most of the Project route to build the new lines parallel. (Id. at 13- 8 to 14-2).

In its exceptions to the Initial Decision, the Montville BOE argued that JCP&L's petition must be denied because it is inconsistent with the Board's Order in the Susquehanna-Roseland matter¹³. Montville BOE asserted that the Board ordered PSE&G to move three (3) specifically identified transmission towers near Lazar. (Montville BOE Exceptions at 2 to 6). The Board notes that, in fact, the Board only ordered PSE&G to conduct an analysis of the feasibility of relocating the proposed structures near Lazar. If the proposed relocation was not feasible, PSE&G was required to report back to the Board within ninety days stating why the relocation was not possible. This determination was solely based on the facts as they applied to that specific matter, including ROW characteristics and the characteristics of the proposed transmission line.

¹³ See Susquehanna-Roseland Order at 70.

In reviewing this petition, the Board notes that the Montville BOE asserted that utilization of an underbuild construction in Segment 10, which is near Lazar, would increase the distance between the school and the line by fifty (50) feet and increase the height of the line by an additional twenty (20) feet above ground. (Montville BOE Initial Brief at 10 and Exceptions at 14 to 16). However, there is no evidence in the record to justify the additional complexities of an underbuild construction in Segment 10 when it only results in a small increase in the distance away from the school. Absent a settlement or other agreement that mitigates litigation risk to JCP&L, the Board is not persuaded to unilaterally require the Company to arbitrarily move structures or require a different construction technique in Segment 10. The remainder of the Montville BOE's exceptions to ALJ McGee's Initial Decision are addressed throughout the discussion of this order.

The Board has also considered the Stipulation and the objections raised by Rate Counsel with regard to the necessity of the modifications to the Project's route and resulting costs in comparison to the alternatives.

The evidence in the record reveals that JCP&L considered alternative routes and methods, including those raised by Montville BOE. The burden of demonstrating a feasible alternative method or route lies with the parties to the proceeding, including interveners. See Application of Hackensack Water Co., 41 N.J. Super. 408, 426-27 (App. Div. 1956). As evidenced by the record, Montville BOE did not present any feasible alternatives, or any expert testimony to support a feasible alternative. Thus, the Board **HEREBY FINDS** that JCP&L has met its burden of proving that the proposed Project is reasonable, and that no alternative would be less intrusive to the environment or community. See In re Pub. Serv. Electric and Gas Co., 35 N.J. at 377 (requiring consideration of "alternative sites" in determining "reasonable necessity").

D. Design, Engineering and Construction

The transmission lines for this Project will be constructed using a single circuit monopole that will have one set of three (3) phases arranged vertically on the structure using one conductor per phase. The vertical phase will allow for a compact design which minimizes electric and magnetic fields, and the visual impact of the transmission structures on the ROW. Existing JCP&L owned ROW will be utilized for the Project, minimizing the impact to the surrounding areas. The new lines will be built parallel to and in some instances above relocated 34.5 kV lines on monopoles.

The design and location of the transmission structures are based on the natural environment. JCP&L properly considered avoiding wetlands, crossing bodies of water, and designed the structures to withstand severe weather conditions.

JCP&L has submitted evidence that follows the use of Prudent Avoidance by using the most cost effective structure possible that minimize electric and magnetic fields, while meeting all NESC, OSHA, and FirstEnergy's clearance and safety requirements.

Additionally, as mentioned previously, multiple permits and the acquisition of additional ROW will be required for construction and operation of the Project. JCP&L represents that it will work with and negotiate the needed easements, rights, access and vegetation management rights with the property owners. JCP&L further represents that it will coordinate with the government agencies during the permitting and construction processes.

The Board **HEREBY FINDS** that the design and construction meet the necessary requirements for the intent of the Project and that prudent standards were employed.

E. Electric and Magnetic Fields

Mr. King filed testimony on behalf of JCP&L in support of the Project. Mr. King's filed report describes and quantifies the electrical effects of the Project. These effects include the levels of 60-hertz (HZ) electrical and magnetic fields ("EMF"), high frequency radio noise, and levels of audible noise produced by the lines. (JC-10 at Exhibit KGK-2 at 3).

To quantify these electrical affects along the route an Electric Power Research Institute ("EPRI") Transmission Line Workstation computer program was utilized. The validity of these computer models has been verified against field measurements and reported in many technical papers and reports over the past thirty years. (*Ibid.*).

With respect to magnetic fields, Mr. King testified that in 2014, the magnetic field along the edges of JCP&L's existing ROWs from the Whippany Substation to the Montville Substation range from 1.6 mG to 62.4 mG. (*Id.* at 8-18 to 21). After completion of the Project, the expected magnetic field along the edges of JCP&L's ROWs from the Whippany Substation to the Montville Substation will range from 0.7 mG to 58.4 mG in 2018. (*Id.* at 8-21 to 9-2). The maximum possible magnetic fields would be between 37.9 mG and 270.2 mG; which was calculated by using the maximum possible currents that the transmission lines of the Project could handle. (*Id.* at 9-5 to 10).

Mr. King also stated that the State of New Jersey has no legal limit regarding magnetic fields produced by transmission lines either inside or at the edge of a ROW. (*Id.* at 10-5 to 6).

With respect to electric fields, the Project will produce a maximum electric field of 0.7 kV/m along the edges of the ROWs, an increase from the 0.3 kV/m maximum along the ROWs currently produced by the existing transmission lines. (*Id.* at 9-20 to 10-2). Mr. King also testified that the State of New Jersey has a guideline of 3 kV/m for electric fields at the edge of a transmission line ROW, a limit that both the current transmission lines and the upgrades envisioned by the Project would fall well within. (*Id.* at 9-14 to 16).

With respect to the audible noise associated with the Project, in New Jersey there is a 50 dBa limit for airborne sound between the hours of 10:00 P.M. and 7:00 A.M. at N.J.A.C. 7:29-1.2(a)(2)(i). (*Id.* at 10). King testified that the estimated noise levels generated by the Project after completion would be approximately 45.8 dBa, well within the limit required by the State. (*Id.* at 10-17 to 11-4).

The Board is cognizant of the concerns and arguments from the Montville BOE regarding magnetic and electric fields and has reviewed the testimony on these matters in full. As previously stated, there are no federal standards for electric fields. New Jersey has adopted a standard of 3 kV/m for electric fields at the edge of a right-of-way. The maximum level of electric fields at the edge of the right-of-way for the Project is projected to be 0.7 kV/m. There are no standards in New Jersey, however, for electric fields within the right-of-way. Thus, the Board **HEREBY DETERMINES** that the Project will comply with the New Jersey's standard for electric fields at the edge of the right-of-way, and is well within the guidelines set by other states for electric fields within the right-of-way.

Likewise, there are no federal standards for magnetic fields at power frequencies. Additionally, New Jersey has not adopted standards for magnetic fields. Therefore, the Board reviewed standards adopted by the international community for guidance on commonly accepted levels of magnetic fields for transmission lines. The projected levels of magnetic fields associated with the Project are between 0.7 and 58.4 mGg at the edge of the ROW which is within the range for the existing lines. Thus, the projected levels are lower than the standards set in other states that set limits. Therefore, the Board **HEREBY FINDS** that the estimated magnetic field levels follows the "Principle of Prudent Avoidance" that are within the guidelines set by other states such as New York and Florida.

JCP&L further represents that it employed reasonable efforts to minimize potential risks from EMF, by utilizing the transmission tower configuration and phasing in of conductors. The Board **HEREBY DETERMINES** that the design and routing of the Project incorporates reasonable efforts to manage EMF exposure.

F. Cost Allocation

In determining whether the Project is "reasonably necessary for the service, convenience or welfare of the public," the Board must consider the cost that New Jersey electricity customers will bear in connection with the Project. Construing this standard under the predecessor to N.J.S.A. 40:55D-19, the New Jersey Supreme Court stated:

Alternative sites or methods and their comparative advantages and disadvantages to all interests involved, including cost, must be considered in determining such reasonable necessity.

[In re Public Service Electric & Gas Co., 35 N.J. 358, 377 (1961).]

The Board is cognizant that whether the Project is "reasonably necessary for the service, convenience or welfare of the public" must include consideration of the cost of the Project to New Jersey electricity customers. At the same time, the Board is faced with a decision that is time-sensitive, considering the construction schedule and the potential penalties that could be imposed upon the Company as a result of the NERC reliability criteria violations. The estimated cost for the Project is \$35,600,000. The Board **HEREBY FINDS**, based on unrefuted expert testimony and evidence concerning the expected costs of the Project, that the costs are reasonable. Furthermore, the Board **HEREBY FINDS** that there is sufficient evidence in the record that the estimated cost of the Project is reasonable as compared to the alternatives, including taking no action, and that the Project "is reasonably necessary for the service, convenience or welfare of the public" pursuant to N.J.S.A. 40:55D-19.

However, the Board is cognizant of Rate Counsel's assertion that additional project costs included in the Stipulation between JCP&L and Montville Township for landscaping, a playground and easement rentals are not reasonably necessary and bear no relationship to the Project. Rate Counsel, however, does not assert that the Project is not reasonably necessary. The Board notes that although easement rentals are necessary for construction, and area restoration is necessary for such a project, the relationship between the costs for the playground and the project are unclear. Thus, the Board shares Rate Counsel's concerns that the costs

designated for the playground should be borne by JCP&L and not by ratepayers, and should be allocated as such in subsequent FERC proceedings.

In addition the Board **HEREBY FINDS**:

- 1) That, in light of the NERC criteria violation and reliability concerns identified in this proceeding, there is no reasonable, practical, and permanent alternative to the construction and operation of the Project that would have any less adverse impact upon the environment, surrounding community, or local land use ordinances;
- 2) That JCP&L conducted a good faith, reasonable, and extensive analysis of alternative methods for the Project, and the Project represents the most effective and efficient solution to the expected reliability criteria violations;
- 3) That the findings contained within this Order are the result of a thorough and complete review of the record in this proceeding. The Board's findings are limited to the facts and circumstances of this particular Project along this particular route and shall not be construed as a determination by this Board on any other application.
- 4) That the Project as proposed is to be designed and constructed in accordance with all applicable industry standards in a manner that will minimize adverse impacts upon the environment, to the extent known or predictable;

Consequently, based on the review of the record in the proceeding and the Stipulation, the Board **HEREBY FINDS**, in accordance with N.J.S.A. 40:55D-19, the Project "is reasonably necessary for the service, convenience, or welfare of the public" to enable JCP&L to continue to provide safe, adequate, and reliable service to the customer, and thus JCP&L should be able to construct the Project as proposed and modified by the Stipulation, and that the local land use and zoning ordinance and any other ordinance, rule or regulation promulgated under the auspices of the MLUL shall not apply to the construction, installation and operation of the Project.

Therefore, the Board **HEREBY MODIFIES** the Initial Decision in part as set forth herein to the extent ALJ McGee did not consider the Stipulation and the resulting modification to the Project's route. However, the Board **AFFIRMS** ALJ McGee's remaining conclusions with regard to the necessity of the Project as it pertains to the service, convenience or welfare of the public and, accordingly, **HEREBY ORDERS** that neither N.J.S.A. 40:55D-1, et seq., nor any other governmental ordinances or regulations, permits or license requirements made under the authority of N.J.S.A. 40:55D-1, et seq., shall apply to the siting, installation, construction, or operation of the Project, as proposed and modified in this Order. This Order shall not be construed as a certificate, license, consent, or permit to construct or disturb any land within the jurisdiction of any other regulatory agency. Should JCP&L need to obtain any approval or authorization to proceed from these entities or any other entity as may be required by law or rules, it is required to do so.

This Order is applicable only to the route as proposed by JCP&L and modified by the Stipulation between JCP&L and Montville. Should JCP&L determine that additional modifications to the Project route are required, because of the actions of another agency or for any other reason, it must request further approval from this Board.

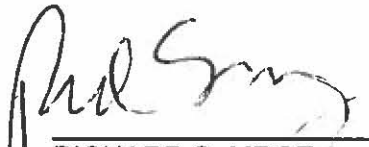
The Board **FURTHER ORDERS** the following:


- 1) JCP&L shall minimize the visual impact of all transmission structures to the extent practicable;
- 2) JCP&L shall comply with the New Jersey audible noise requirements; and
- 3) JCP&L shall compensate property owners for any and all physical property damages that may result from construction of the Project

This Order shall be effective on December 1, 2017.

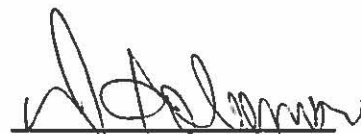
DATED: 11/21/17


BOARD OF PUBLIC UTILITIES
BY:

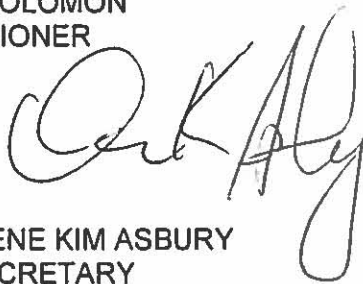

RICHARD S. MRÓZ
PRESIDENT

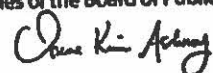

JOSEPH L. FIORDALISO
COMMISSIONER


MARY-ANNA HOLDEN
COMMISSIONER


DIANNE SOLOMON
COMMISSIONER


UPENDRA J. CHIVUKULA
COMMISSIONER

ATTEST: 
IRENE KIM ASBURY
SECRETARY

I HEREBY CERTIFY that the within document is a true copy of the original in the files of the Board of Public Utilities


**IN THE MATTER OF THE PETITION OF JERSEY CENTRAL POWER & LIGHT COMPANY
PURSUANT TO N.J.S.A. 40:55D-19 FOR A DETERMINATION THAT THE MONTVILLE-
WHIPPANY 230 KV TRANSMISSION PROJECT IS REASONABLY NECESSARY FOR THE
SERVICE, CONVENIENCE OR WELFARE OF THE PUBLIC
BPU DOCKET NO. EO15030383
OAL DOCKET NO. PUC 08235-2015N**

SERVICE LIST

The Honorable Irene Asbury
Secretary
Board of Public Utilities
44 South Clinton Avenue, 3rd Floor, Suite 314
P.O. Box 350
Trenton, NJ 08625-0350
secretary@bpu.nj.gov

The Honorable Leland McGee, ALJ
Office of Administrative Law
33 Washington Street
Newark, NJ 07102

Gregory Eisenstark, Esq.
Windels Marx Lane & Mittendorf, LLP
120 Albany Street Plaza
New Brunswick, NJ 08901
geisenstark@windlesmarx.com

Michael Connolly, Esq.
Windels Marx Lane & Mittendorf, LLP
One Giralda Farms
Madison, NJ 07940
mconnolly@windlesmarx.com

Mark A. Mader
Jersey Central Power & Light Co.
300 Madison Avenue
Morristown, NJ 07961-1911
mamader@firstenergycorp.com

Stefanie A. Brand, Esq.
Director
Division of the Rate Counsel
140 East Front Street, 4th Floor
PO Box 003
Trenton NJ 08625
sbrand@rpa.nj.gov

Paul Flanagan, Esq.
Executive Director
Board of Public Utilities
44 South Clinton Avenue, 3rd Floor, Suite 314
P.O. Box 350
Trenton, NJ 08625-0350
paul.flanagan@bpu.nj.gov

Thomas Walker, Director
Division of Energy
Board of Public Utilities
44 South Clinton Avenue, 3rd Floor, Suite 314
P.O. Box 350
Trenton, NJ 08625-0350
thomas.walker@bpu.nj.gov

Cynthia Covie, Chief of Staff
Board of Public Utilities
44 South Clinton Avenue, 3rd Floor, Suite 314
P.O. Box 350
Trenton, NJ 08625-0350
cynthia.covie@bpu.nj.gov

John Masiello
Division of Energy
Board of Public Utilities
44 South Clinton Avenue, 3rd Floor, Suite 314
P.O. Box 350
Trenton, NJ 08625-0350
john.masiello@bpu.nj.gov

Stacy Peterson
Division of Energy
Board of Public Utilities
44 South Clinton Avenue, 3rd Floor, Suite 314
P.O. Box 350
Trenton, NJ 08625-0350
stacy.peterson@bpu.nj.gov

Ami Morita, Esq.
Division of the Rate Counsel
140 East Front Street, 4th Floor
PO Box 003
Trenton NJ 08625
amorita@rpa.nj.gov

Brian Lipman, Esq.
Division of the Rate Counsel
140 East Front Street, 4th Floor
PO Box 003
Trenton NJ 08625
blipman@rpa.nj.gov

Brian Weeks, Esq.
Division of Rate Counsel
140 East Front Street, 4th Floor
PO Box 003
Trenton NJ 08625
bweeks@rpa.nj.gov

Lisa Gurkas
Division of Rate Counsel
31 Clinton Street, 11th Floor
P.O. Box 46005
Newark, NJ 07101
lgurkas@rpa.nj.gov

Fred Semrau, Esq,
Dorsey & Semrau
714 Main Street
P.O. Box 228
Boonton, NJ 07005
fsemrau@dorseysemrau.com

Tracy W. Schnurr, Esq.
Dorsey & Semrau
714 Main Street
P.O. Box 228
Boonton, NJ 07005
tschnurr@dorseysemrau.com

Dawn Sullivan, Esq.
Dorsey & Semrau
714 Main Street
P.O. Box 228
Boonton, NJ 07005
dsullivan@dorseysemrau.com

John Zarzycki
Division of Energy
Board of Public Utilities
44 South Clinton Avenue, 3rd Floor, Suite 314
P.O. Box 350
Trenton, NJ 08625-0350
john.zarzycki@bpu.nj.gov

Bethany Rocque-Romaine, Esq.
Board of Public Utilities
44 South Clinton Avenue, 3rd Floor, Suite 314
P.O. Box 350
Trenton, NJ 08625-0350
bethany.romaine@bpu.nj.gov

Megan Lupo, Esq.
Board of Public Utilities
44 South Clinton Avenue, 3rd Floor, Suite 314
P.O. Box 350
Trenton, NJ 08625-0350
megan.lupo@bpu.nj.gov

Caroline Vachier, DAG
Dept. Of Law & Public Safety
Division of Law
124 Halsey Street
P.O. Box 45029
Newark, NJ 07101
caroline.vachier@law.njoag.gov

Geoffrey Gersten, DAG
Dept. Of Law & Public Safety
Division of Law
124 Halsey Street
P.O. Box 45029
Newark, NJ 07101
geoffrey.gersten@law.njoag.gov

Alex Moreau, DAG
Dept. Of Law & Public Safety
Division of Law
124 Halsey Street
P.O. Box 45029
Newark, NJ 07101
alex.moreau@law.njoag.gov

Albert I. Telsey, Esq.
Meyner and Landis, LLP
One Gateway Center, Ste.2500
Newark, NJ 07102
atelsey@meyner.com

Kevin Connolly, Esq.
Jersey Central Power & Light Co.
300 Madison Avenue
Morristown, NJ 07960
kconnolly@firstenergy.com

Clerk, Montville Township
Municipal Building
195 Changebridge Road
Montville, NJ 07045-9498

Scott Humphrys
FirstEnergy Corp.
76 S. Main Street,
Akron, OH 44308
shumphrys@firstenergy.com

County Administrator
Morris County Administration and Records
Building
P.O. Box 900
Morristown, NJ 07963-0900

Lauren Lepkoski, Esq.
FirstEnergy Corp.
2800 Pottsville Pike
P.O. Box 16001
Reading, PA 19612-6001
llepkoski@firstenergycorp.com

Clerk
Township of East Hanover
411 Ridgedale Avenue
East Hanover, NJ 07936
paulam@easthanovertownship.com

Stephen J. Edelstein, Esq.
Schwartz Simon Edelstein & Celso
100 S. Jefferson Road, Suite 200
Whippany, NJ 07981
sedelstein@sseclaw.com

Clerk
Parsippany-Troy Hills Township
Parsippany-Troy Hills Town Hall
1001 Parsippany Blvd
Parsippany-Troy Hills, NJ 07054

Clerk, Morris County Board of Chosen
Freeholders
Morris County Administration and Records
Building
P.O. Box 900
Morristown, NJ 07963-0900



State of New Jersey
OFFICE OF ADMINISTRATIVE LAW

INITIAL DECISION

OAL DKT. NO.: PUC 08235-15

AGENCY DKT. NO.: EO15030383

**IN THE MATTER OF THE PETITIONER OF JERSEY
CENTRAL POWER & LIGHT COMPANY PURSUANT
TO N.J.S.A. 40:55D-19 FOR A DETERMINATION
THAT THE MONTVILLE-WHIPpany 230Kv TRANS-
MISSION PROJECT IS REASONABLY NECESSARY
FOR THE SERVICE, CONVENIENCE OR WELFARE
OF THE PUBLIC BPU DOCKET NO. EO15030383.**

Gregory Eisenstark, Esq., for Petitioner JCP&L (Windels Marx Lane &
Mittendorf, LLP, Attorneys)

Brian Weeks, Deputy Rate Counsel, for Rate Counsel (Stefanie A. Brand,
Director, Division of Rate Counsel)

Alex Moreau, Deputy Attorney General, for Board of Public Utilities (Christopher
S. Porrino, Acting Attorney General of New Jersey, attorneys)

Fred Semrau, Esq., for Intervenor Montville Township, (Dorsey & Semrau,
attorneys)

Stephen J. Edelstein, Esq. for Intervenor Montville Board of Education
(Schwartz Simon Edelstein & Celso, LLC, attorneys)

Record Closed: June 27, 2016

Decided: August 10, 2017

BEFORE **LELAND S. MCGEE, ALJ:**

FACTUAL AND PROCEDURAL DISCUSSION

GENERAL BACKGROUND

On March 27, 2015, pursuant to N.J.S.A. 40:55D-19, JCP&L filed a petition ("Petition") with BPU seeking approval for its Montville-Whippany 230 kV Transmission Project (the "Project"), along with several volumes of the direct testimony of individuals involved with the Project.

The Project consists of the construction of a new 230 kV transmission line traveling between JCP&L's Whippany substation in East Hanover, New Jersey, and its Montville substation in Montville, New Jersey, as well as upgrades to the substations themselves to accommodate the new line. The Project is a significant undertaking which implicates a wide swath of technical and legal issues. According to JCP&L, the Project is necessary to address, identify and confirm reliability issues within their transmission grid.

The following entities are integral to the creation and implementation of the Project:

Jersey Central Power & Light Company ("JCP&L") is a public utility as defined in N.J.S.A. 48:2-13, and is thus subject to the regulatory jurisdiction of the Board of Public Utilities ("BPU").

PJM Interconnection, LLC ("PJM") is a Regional Transmission Organization ("RTO") that is responsible for the planning, operation, and reliability of the

electric transmission systems under its control. JCP&L is a PJM Transmission Owner ("TO"), which means that JCP&L is a member of the PJM RTO.

The Federal Energy Regulatory Commission ("FERC") is the Federal agency responsible for regulating the transmission and sale of energy in interstate commerce throughout the United States.

The North American Electric Reliability Corporation ("NERC") develops and enforces standards of reliability for large-scale power systems in the United States, and is subject to oversight by FERC. NERC establishes certain standards for large scale electrical transmission systems, standards which are then approved by FERC. FERC then authorizes RTOs to effectuate implementation of those standards; PJM is one of those RTOs. In turn, PJM then enters into agreements with various entities to further implement its obligations; JCP&L is one of those entities.

PROCEDURAL HISTORY

JCP&L filed the Petition with the BPU pursuant to N.J.S.A. 40:55D-19 seeking approval of the Project on March 27, 2015. Along with the Petition, JCP&L filed the direct testimony of the following ten witnesses, testifying to specific subject matters:

1. Scott Humphrys: Overview of the Project and filing of the Petition;
2. Dave Kozy, Jr.: Design, engineering, construction, operation, and maintenance of the Project, as well as the issues associated with an underground installation of a 230 kV transmission line;
3. Lawrence A. Hozempa: Need for the Project;
4. Paul M. McGlynn: PJM transmission planning process and the need for the Project;

5. Peter W. Sparhawk: route selection and routing study;
6. Kirsty M. Cronin: Environmental impacts and the permitting process;
7. Tracey J. Janis: Real estate and property rights;
8. Jerome J. McHale: Real estate property analysis;
9. Kyle G. King; Electric fields, magnetic fields, audible noise, and radio noise associated with the Project; and
10. William H. Bailey: Electromagnetic fields and health impacts.

On May 1, 2015, the Township of Montville ("Montville") filed a motion to intervene.

On June 3, 2015, this matter was transferred to the New Jersey Office of Administrative Law and assigned to the Honorable Leland S. McGee.

On August 19, 2015, the Montville Board of Education ("Montville BOE") filed a motion to intervene.

On July 21, 2015, Judge McGee presided over a prehearing conference.

On September 8, 2015, Judge McGee issued a Prehearing Order granting both the Montville's and the Montville BOE's motions to intervene and adopted a procedural schedule.

Pursuant to Judge McGee's September 8, 2015, Prehearing Order, the parties began discovery.

Pursuant to the schedule established by Judge McGee, Montville filed the direct testimony of two witnesses and the surrebuttal testimony of one witness. The Montville

BOE filed the direct testimony of one witness, Dr. Karen Cortellino. Subsequently, JCP&L filed rebuttal testimony of three witnesses: Dave Kozy Jr., Kyle G. King, and Dr. William A. Bailey. BPU staff and the Division of Rate Counsel ("Rate Counsel") are parties to this matter but filed no testimony.

On December 8, 2015, a duly noticed, Public Hearing was held at the Montville Township High School, 100 Horsneck Road, Montville, New Jersey. The Honorable Danielle Pasquale, ALJ presided over this proceeding.

On February 9, 2016, Wildlife Preserves, Inc. ("Wildlife") filed a motion to intervene, which JCP&L opposed. Wildlife's motion was denied, and Judge McGee granted Wildlife "Participant Status" by Order dated March 2, 2016.

Evidentiary hearings were scheduled and held for the week beginning May 23, 2016.

On May 23, 2016, JCP&L presented witnesses Scott M. Humphrys, Dave Kozy Jr., Kirsty M. Cronin, and Peter W. Sparhawk.

On May 24, 2016, JCP&L filed a Stipulation of Settlement between JCP&L and Montville.

On May 25, 2016, JCP&L presented witnesses Kyle G. King, Dr. William H. Bailey, and Lawrence a. Hozempa. All parties waived cross-examination of the remaining JCP&L witnesses whose testimony, both direct and rebuttal was admitted into evidence. All parties waived cross-examination of Montville BOE's sole witness Karen A. Cortellino, whose testimony was admitted into evidence.

On May 26, 2016, JCP&L presented Scott M. Humphrys as a witness for cross-examination as requested by Rate Counsel in light of the settlement with Montville. After this, the evidentiary hearing was concluded.

TESTIMONY

A. The Need for the Project

Lawrence A. Hozempa

Lawrence A. Hozempa ("Hozempa") filed direct testimony on behalf of JCP&L in support of the Petition. The nature of his testimony was the electrical need that the Project will satisfy. See March 27, 2015, Direct Testimony of Lawrence A. Hozempa ("Hozempa Test").

Hozempa testified that JCP&L's service territory encompasses approximately 3,300 square miles, provides electricity to 1.1 million residential, commercial, and industrial customers, totaling 25% of the metered electricity customers in New Jersey. Hozempa Test., Page 5. He testified further that JCP&L's transmission system provides a mechanism for the delivery of bulk electric power to the "distribution circuits" and "sub-transmission circuits" within JCP&L's territory, and that this Bulk Electric System ("BES") is designed with three nominal voltages: 500 kV, 230 kV, and 115 kV. Id.

Hozempa testified that while the transmission line would constitute the majority of the Project, work would be required at both Montville and Whippany substations as well, as they would both require a new 230 kV breaker to be installed to accommodate the new transmission line. Id. at 7.

As a part of PJM's responsibility as a RTO, PJM conducts a series of ongoing analyses to identify the need for upgrades to the system within their control in order to preserve reliability. Id. at 8. These analyses are known as the PJM Regional Transmission Expansion Plan ("RTEP"). Id.

Part of the RTEP process is assessing compliance with NERC standards, which set certain standards that must be met, both during normal conditions, as well as,

conditions where one or more aspects of the BES are suffering an outage. Id. at 9. NERC has three categories of conditions that are used to assess reliability: NERC Category A, NERC Category B, and NERC Category C. Id.

NERC Category A is a standard of assessment that looks at whether or not, when the entirety of the system is operating under normal conditions, the transmission network can meet projected customer demands. Id. Essentially, NERC Category A looks at whether the BES can meet its needs when it is completely functional.

NERC Category B contingencies are events resulting in the loss of any single generating unit, transmission line, transformer, circuit breaker, capacitor, or single pole of a bi-polar transmission line. Id. at 9-10. It is required that, if such an event were to occur, the thermal load of the BES does not exceed a certain point. Id. at 10. It is also required that, in a NERC Category B Contingency, voltage levels within the system remain within a prescribed maximum variation and within an established minimum/maximum voltage limit. Id. A NERC Category B Contingency is also known as an N-1 contingency, where N is the total number of transmission components in the system. Id. Essentially, NERC Category B looks at whether the BES can meet its needs, and stay within established safety parameters, if one component of the network is not functional.

NERC Category C contingencies are events resulting in the loss of any double-circuit BES transmission line, bi-polar double-circuit line, faulted circuit breaker, bus section, or the combination of a single generating unit, transmission line, transformer, circuit breaker, or capacitor followed by the loss of another single generating unit, transmission line, transformer, circuit breaker, or capacitor. Id. It is required that, if such an event were to occur, the thermal load of the BES does not exceed a certain point. Id. It is also required that, in a NERC Category C Contingency, voltage levels within the system remain within a prescribed maximum variation and within an established minimum/maximum voltage limit. Id. A NERC Category C Contingency is also known as an N-1-1 contingency, where N is the total number of transmission components in

the system. Id. Essentially, NERC Category C looks at whether the BES can meet its needs, and stay within established safety parameters, if two components in the network are not functioning.

During PJM's 2012 RTEP process a reliability criteria violation of NERC Category C was identified. Id. at 11. The specific violation would occur if there was an outage of JCP&L's Montville-Roseland 230 kV line followed by the loss of either: (1) the Kittatinny-Newton 230 kV line with the 230-34.5 kV transformer and the 34.5 kV capacitor at Newton, or (2) the Newton-Montville 230 kV line. Id. Hozempa also testified that the Project would adequately address this violation. Id.

If the potential N-1-1 contingency were to occur, it would potentially affect 86,719 of JCP&L's customers. Id. at 14. Moreover, despite a forecast of reduced load levels in future years, the violations remain. Id. at 15.

JCP&L considered solving the NERC Category C Contingency by constructing a Montville-Whippany 115 kV line instead of the 230 kV line that constitutes the Project. Id. Ultimately, this alternative was not selected for several reasons: (1) the Montville substation does not have 115 kV facilities, and therefore a new 115 kV yard would need to be developed along with the installation of a 230/115 kV transformer at the Montville substation, and (2) the 115 kV facilities at Whippany substation are not designed to accommodate an additional 115 kV circuit, so the 115 kV yard would need to be expanded. Id. at 16. Hozempa testified that in light of these complications, the 115 kV alternative to the Project would be more complicated and expensive to build while simultaneously providing less network support than the 230 kV alternative that constitutes the Project. Id.

Hozempa concluded his testimony by reaffirming that the Project was necessary to avert the NERC Category C Contingencies, and by pointing out that JCP&L has experienced the type of outages that would constitute a NERC Category C

Contingency. Id. at 17. Specifically, an incident of this nature occurred on July 21, 2004. Id.

Under cross examination by counsel for the Montville BOE, Hozempa was questioned about the NERC Category C Contingency driving the Project. (2T:44:18-21)¹. He testified that, in layman's terms, the NERC Category C Contingency would consist of two 230 kV lines going into Montville "going down," or failing to function, and further that he was not aware of such an event occurring within the past ten years. (2T:45:3-17). Hozempa also testified that a NERC Category C violation could have penalties as high as \$1,000,000 per day. (2T:46:1).

Hozempa testified further that JCP&L considered a potential 115 kV line between Montville and Whippany as an alternative, but ultimately decided against it due to cost, as well as the associated substation work that would be required at both the Montvale and the Whippany substations to accommodate a new 115 kV line. (2T:49:2-15). The possible 115 kV alternative would have satisfied the Category C contingency. (2T:50:18-24).

As of the date of the hearing, the costs associated with the Project had not increased. (2T:51:14-18).

Paul F. McGlynn

Paul F. McGlynn ("McGlynn") filed direct testimony on behalf of JCP&L in support of the Petition. The nature of his testimony was general background of the PJM transmission planning process and how the process identified the electrical demand necessitating the Project. See March 27, 2015, Direct Testimony of Paul F. McGlynn (Ex. JC-5). The purpose of McGlynn's testimony was to explain the electrical need that motivated the Project and to describe the process by which that need was

¹ Herein "1T" shall refer to transcript dated May 23, 2016, "2T" shall refer to transcript dated May 25, 2016, and "3T" shall refer to transcript dated May 26, 2016.

identified and assessed. Id. at 4. McGlynn serves as the Chair of the PJM Transmission Expansion Advisory Committee ("TEAC"). Id. at 1.

PJM is an RTO regulated by FERC that is responsible for the planning, operation, and reliability of the electrical system under its control; a system which includes all or parts of: Delaware, the District of Columbia, Illinois, Indiana, Kentucky, Maryland, Michigan, New Jersey, North Carolina, Ohio, Pennsylvania, Tennessee, Virginia, and West Virginia. Id. PJM serves approximately 60 million people through its management of more than 65,000 miles of transmission lines, and either serves or supports approximately 20% of the U.S. economy. Id.

As part of its duties as an RTO, PJM manages a regional planning process within the area it controls. Id. at 3. This planning process is known as the RTEP. Id. The purpose of the RTEP is to identify specific areas of need, including: reliability, market efficiency, operational performance, public policy, and addressing congestion. Id. at 3-4.

Part of PJM's responsibilities as an RTO include preparing the RTEP every year in order to understand the transmission and electricity needs of those within the PJM region. Id. at 6. The RTEP plans approximately 15 years ahead, and PJM is authorized to direct TOs to implement upgrades to the transmission infrastructure under their control. Id. at 7.

PJM determines that there is a sufficient need for new transmission facilities when certain specific criteria of the RTEP are met. One of those criteria is "reliability". Id. at 12. The RTEP must conform to minimum reliability standards established by NERC. Id. As part of the RTEP conducted in 2012, PJM identified that the Project was necessary to meet these reliability standards. Id. at 13.

Historically, compliance with NERC reliability standards was voluntary, however, Federal legislation enacted to address the 2003 blackout established mandatory

compliance with NERC standards under the oversight of FERC. Id. at 14. FERC-enforced reliability standards began on June 18, 2007, and failure to comply with these standards may result in penalties as high as \$1,000,000 per violation per day. Id.

With regards to transmission planning, FERC-approved reliability standards which are the standards used to measure the need for new transmission lines. Id. These reliability standards require PJM to perform assessments and demonstrate compliance in both the near term of 1 to 5 years and the long term of six to ten years. Id. These standards also require PJM to develop a schedule for compliance when a violation or potential violation is discovered, and it was these standards that were used to determine the necessity for the Project. Id. at 14-15.

During the 2012 RTEP, PJM identified the violation of NERC reliability standards. Id. at 17. Additionally, PJM has completed two additional assessments of the need for the Project based on more recently updated forecasts of electrical need in both the 2013 and 2014 RTEP, and that the results of these additional assessments was consistent with the conclusions of the 2012 RTEP. Id. at 18.

B. Engineering and Construction of the Project

Dave Kozy, Jr.

Dave Kozy Jr., General Manager for Substation Engineering with FirstEnergy Service Corporation ("FirstEnergy"),² filed direct testimony on behalf of JCP&L in support of the Petition. The nature of his testimony was to provide background on the design, engineering, construction, operation, and maintenance of the Project, as well as the issues associated with a potential underground installation of the transmission line. March 27, 2015 Testimony of Dave Kozy Jr. ("Ex. JC-3.").

² FirstEnergy is a company that works with JCP&L regarding the implementation of transmission line planning.

Kozy testified that the Project consists of thirteen segments, beginning at JCP&L's existing Whippany Substation in East Hanover, New Jersey heading north, and ending at JCP&L's Montville Substation located in Montville Township, New Jersey. For most of the Project's length, the new 230 kV circuit will follow the path of an existing JCP&L 34.5 kV double circuit: the K-115 Montville-Whippany No. 2 circuit ("K-115"), and the O-93 Chapin Road – Montville – Whippany circuit ("O-93"). Kozy Test., Page 4.

Segment 1 of the project begins at the Whippany substation and heads north to Troy Road in Parsippany-Troy Hills Township for a distance of approximately 0.6 miles. Id. Segment 1 will be built within JCP&L's existing right of way ("ROW"), which is approximately 395 feet wide. Id. at 4-5. In Segment No. 1, JCP&L is proposing to remove the existing two-pole, double circuit wood structures within the JCP&L ROW that currently carry the K-115 and O-93 circuits and replace them with new steel monopoles which would carry the existing lines, as well as, the new line. Id. at 5. Both the new and existing lines would be "underbuilt" on the new steel monopoles, which would range from 130 to 150 feet high in Segment No. 1. Id.

Segment No. 2 runs from Troy Road to approximately 0.2 miles north of Troy Road and mostly within JCP&L's existing ROW that is approximately 340 to 365 feet wide. Id. An additional 25 feet of new ROW will be needed on the western side of the existing ROW where the ROW narrows north of Troy Road. Id. Like Segment No. 1, Segment No. 2 would similarly involve removing the existing structures carrying the K-115 and O-93 circuits and replacing them with new steel monopoles, ranging from 130 to 150 feet in height that would carry both the new and existing circuits after they were "underbuilt". Id. at 5-6.

Segment No. 3 runs from approximately 0.2 miles north of Troy Road to Interstate 80, a distance of approximately 2.2 miles that would fall mostly within JCP&L's existing ROW, which is approximately 155 feet wide. Id. at 6. There are several parcels within Segment No. 3 where the ROW would require expansion. Id. Segment No. 3 would also contain new steel monopoles, ranging from 110 to 150 feet

in height, that would be located on the east side of the existing ROW, adjacent to the steel towers currently carrying the K-115 and O-93 circuits. Id.

Segment No. 4 runs from Interstate 80 to State Route 46, a distance of approximately 0.4 miles, within JCP&L's existing ROW that is approximately 155 feet wide. Id. JCP&L will need to obtain a highway crossing permit for this segment. Id. This segment will contain new steel monopoles ranging from 165 to 185 feet in height, located on the east side of the existing ROW, adjacent to the current two-pole, wooden structures carrying the K-115 and O-93 lines. Id.

Segment No. 5 runs from State Route 46 to Vail Road/Stiles Lane in Montville Township, a distance of approximately 0.7 miles, and will require approximately 120 feet of new ROW. Id. at 7. This segment will contain new steel monopoles ranging from 110 to 150 feet in height that will be constructed along the center of the new ROW. Id.

Segment No. 6 runs from Vail Road/Stiles Lane to John Henry Drive, a distance of approximately 0.9 miles, and will be within JCP&L's existing ROW that is approximately 170 feet wide. Id. This segment will contain new steel monopoles ranging from 110 to 150 feet in height that will be constructed approximately 60 feet from the eastern edge of the ROW. Id.

Segment No. 7 runs from John Henry Drive to approximately 0.3 miles north of John Henry Drive, within JCP&L's existing ROW that is approximately 170 feet wide. Id. This segment will contain new steel monopoles ranging from 100 to 140 feet in height that will be constructed approximately 75 feet from the western edge of the ROW. Id.

Segment No. 8 runs from approximately 0.3 miles north of John Henry Drive to Changebridge Substation, a distance of approximately 0.4 miles, and will be within JCP&L's existing unused ROW that is approximately 100 feet wide. Id. at 7-8. This segment will contain new steel monopoles ranging from 110 to 150 feet in height that will be constructed along the center of the ROW. Id. at 8.

Segment No. 9 runs from the Changebridge Substation to approximately 0.1 miles north of Old Changebridge Road, a distance of approximately 0.2 miles, and will be within JCP&L's existing ROW that is approximately 100 feet wide. Id. In Segment No. 9, JCP&L is proposing to remove the existing two-pole, double circuit wood structures within the JCP&L ROW that currently carry the K-115 and O-93 circuits and replace them with new steel monopoles, ranging from 130 to 170 feet in height, which would carry the existing lines, as well as, the new line. Id.

Segment No. 10 runs from approximately 0.1 miles north of Old Changebridge road to south of Church Lane, a distance of approximately 0.4 miles, and within JCP&L's existing ROW that is approximately 170 feet wide. Id. This segment will contain new steel monopoles ranging from 110 to 150 feet in height that will be constructed approximately 70 feet from the east side of the existing ROW and adjacent to the current single pole structures carrying the K-115 and O-93 lines. Id. JCP&L's ROW in this area is located adjacent to the east side of the Public Service Electric & Gas 500/230 kV Susquehanna-Roseland monopoles. Id.

Segment No. 11 runs from south of Church Lane to north of Springbrook Road East, a distance of approximately 0.4 miles, and within JCP&L's existing ROW that is approximately 210 feet wide. Id. at 9. This segment will contain new steel monopoles, ranging from 110 to 150 feet in height, that will be located approximately 55 feet from the east side of the existing ROW and adjacent to the current two-pole, double circuit structures carrying the K-115 and O-93 lines. Id.

Segment No. 12 runs from north of Springbrook Road East to south of Schneider Lane, a distance of approximately 0.3 miles, and within JCP&L's existing ROW that varies from approximately 160 to 210 feet wide. Id. This segment will contain new steel monopoles, ranging from 110 to 150 feet high, that will be located approximately 55 feet from the east side of the existing ROW and adjacent to the current single pole, double circuit structures carrying the K-115 and O-93 lines. Id. at 9-10. Segment No. 12 runs

adjacent to two underground gas pipelines owned by Spectra Energy Corporation, and is also adjacent to the Public Service Electric & Gas 500/230 kV Susquehanna-Roseland double circuit steel monopoles. Id. at 9.

Segment No. 13 runs from south of Schneider Lane to the existing Montville Substation in Montville Township, New Jersey, a distance of approximately 0.2 miles, and within JCP&L's existing ROW that is approximately 170 feet wide. Id. at 10. This segment will contain new steel monopoles, ranging from 110 to 150 feet in height, that will be located approximately 70 feet from the east side of the existing ROW and adjacent to the current single pole, double circuit wood structures carrying the K-115 and O-93 lines. Id. Segment 13 will also be adjacent to a Public Service Electric & Gas ("PSE&G") easement. Id.

The Project will require construction on both the Whippany and Montville substations so that they may accommodate the new 230 kV transmission line. Id. The cost estimate of this work is approximately \$1,187,100 for the Whippany substation and \$1,132,600 for the Montville substation. Id. at 10-11.

Regarding JCP&L's decision to only rebuild certain portions of the K-115 and O-93 lines, Kozy testified that this was only necessary in certain segments of the Project where the existing ROW does not provide enough room for both the existing structures and the new structures that must be built to accommodate the new 230 kV line. Id. at 12. The new monopoles installed for the Project will support an additional 230 kV line in the future should that become necessary. Id.

The factors that determine the height of the monopoles include terrain, National Electric Safety Code ("NESC") standards, clearance among the multiple lines at each monopole, clearance between the lines and the ground, clearance between the lines and other utilities that might be present, and the need to cross roads, other structures, and bodies of water. Id. at 15. Kozy testified that JCP&L uses the most cost effective

methods possible while minimizing electric and magnetic fields and meeting all applicable safety standards. Id.

Regarding construction, the monopole erection requires large construction equipment, and that the Project in general will involve the clearing of some of the land involved as well as acquiring additional easements to store and transport construction equipment. Id. at 13, 20.

The Project's construction plan was designed to minimize environmental impact by: submitting a Soil Erosion and Sedimentation Control Plan to the New Jersey Department of Environmental Protection, using soil erosion and sedimentation control measures prior to making any geographical changes to land; avoiding, to the extent possible, construction of permanent access roads; and restoring temporary access roads to their prior conditions. Id. at 21. Areas disturbed by construction work will also be re-vegetated with drainage, fencing, and erosion control aspects of the ROW being restored to conditions as good as, or better than, they were prior to construction. Id. at 22.

All ROW clearing would comply with N.J.A.C. 14:5-9.6, as well as, JCP&L's internal standards regarding vegetation management with regards to the clearance between physical structures and vegetation. Id. at 21. These conditions will be maintained in accordance with NESC and Occupational Safety and Health Administration ("OSHA") regulations. Id. at 23.

Kozy also testified regarding JCP&L's assessment of placing the new 230 kV transmission line underground instead of above ground. Id. at 24. According to Kozy, JCP&L decided against placing the new 230 kV transmission line underground for several reasons: environmental impacts, restoration periods, cost, and capacity. Id. at 25.

Regarding the environmental impacts of an underground transmission line, Kozy testified that installation would require extensive excavation of land and installation of underground cables, concrete banks, and manholes. Id. This activity would negatively impact streams, wetlands, and other sensitive areas because of the heavy equipment required, including excavation equipment, concrete trucks, 80,000-pound manhole covers, and 50,000-pound spools of transmission wire. Id. Specifically, for an underground installation the entire length of the Project must be excavated which requires construction of additional access roads. Id. at 26. Moreover, in areas where the Project crosses certain geographic conditions such as wetlands, creeks, rivers, railroads, or highways, digging a trench is not feasible and thus a practice known as "horizontal drilling" would be required, which requires extensive equipment and poses further environmental risks. Id. In certain areas of the project, horizontal drilling would require approvals from the New Jersey Department of Environmental Protection that are difficult to obtain and would likely require a complete re-routing of those portions. Id. at 27.

An underground installation of the Project would also have significant effects regarding Electric and Magnetic Fields ("EMF"). Id. at 28. While the earth blocks electric fields, it does not block magnetic fields. Id. Installing the Project underground could therefore result in a much higher concentration of magnetic fields at ground level. Id. at 28-29.

Regarding the repairing of an underground installation, it would be problematic to fix an underground portion of the transmission line because it requires excavation and equipment to locate the issue, and repairs could take several weeks. Id. at 25. With an overhead transmission line, the repair would take days, or even hours. Id. A failed underground transmission wire could be out of service for over a month, which would then require alternate provisions to supply the necessary power to the region. Id.

The total cost of the Project as planned is approximately \$35,463,300. Id. Where the Project to be installed underground, Kozy estimated that cost to be approximately 4 to 10 times as expensive. Id.

Regarding capacity, underground cables transmit less power than overhead cables, thus, larger or multiple cables would be required to support an underground installation. Id. at 26. Moreover, underground transmission wires require protection via plastic encasement or placement in oil filled reservoirs placed underground. Id.

On May 23, 2016, Kozy adopted the Direct Testimony that was submitted with the Petition and was cross examined by counsel for the Montville Board of Education, and the Division of Rate Counsel.

Regarding Segment No. 10, Kozy stated that the Project would be approximately 175 feet closer to the Lazar Middle School ("Lazar") than the existing PSE&G Susquehanna-Roseland 230 kV transmission line. (1T:46:2-6). Trees that interfered with the transmission lines would be removed. (1T:49:11-25). Kozy was questioned about the noise generated from construction activity, and he testified that while construction necessarily generates some increase in noise, he would not describe the noise expected to be generated from the Project in Segment No. 10 as "noisy." (1T:51:20-25). Kozy also testified that the construction in Segment No. 10 would be far enough away from Lazar that it would not interfere with teaching. (1T:52:8-16).

Regarding the decision to install the new transmission line overhead as opposed to underground, Kozy testified that JCP&L would consider placing a transmission line underground in a situation where there is no viable overhead alternative, and that no viable alternative would exist in a situation where JCP&L could not find a ROW or where an existing ROW was surrounded by high buildings or other features making above ground construction impossible. (1T:53:7-19). JCP&L considered the underground option until they concluded that an above ground installation made more sense, at which point the underground option was abandoned. (1T:56:1-9). Moreover,

while no specific study was done regarding installing Segment No. 10 underground, an underground line was considered in general and estimated to cost 4 to 10 times as much as an above ground line. (1T:59:4-12).

With respect to the potential danger posed by electrically charged wires detaching or falling from the above ground installation, Kozy testified that while falling wires are obviously dangerous, there are safety measures that quickly de-energize a falling wire so they do not pose a threat for more than a moment in such instances. (1T:61:5-21).

Finally, JCP&L made no changes to the Project from the plans outlined in the Petition and did not have any plans to do so. (1T:69:9-19).

C. Routing

Peter W. Sparhawk

Peter W. Sparhawk ("Sparhawk") filed Direct Testimony on behalf of JCP&L in support of the Petition. He is the Associate Vice President of Power and Energy for the Louis Berger Group, Inc. ("Louis Berger"). The nature of his testimony was to the siting and route selection of the Project. See, March 27, 2015 Testimony of Peter W. Sparhawk ("Ex. JC-6").

Sparhawk testified that a detailed analysis by an interdisciplinary routing team produced three preliminary alternative routes: Alternative Route A, Alternative Route B, and Alternative Route C. Id. at 10. There were also two alternative segments of Alternative Route A, identified as Route A2 and Route A3, that were developed to provide options to divert the Project away from a heavily developed area containing one or more overhead transmission lines and underground natural gas pipelines. Id. Initially, the routing team selected Alternative Route A as the preferred route because it was the shortest and most direct route into the Montville Substation and that it either

paralleled or rebuilt existing transmission lines for the entirety of the route. Id. Ultimately, after further consideration, Alternative Route A3 emerged as the preferred route for the Project.

Alternative Route A, the initial preferred route, was developed to parallel an existing PSE&G transmission line that feeds into the Montville Substation. Id. at 11. Certain portions of this route would have required JCP&L to build within PSE&G's existing ROW, which also contains a Texas Eastern gas line. Id. PSE&G informed JCP&L that they were not willing to allow the Project to be constructed within their ROW, and therefore Alternative Route A would require JCP&L to obtain a new ROW adjacent to PSE&G's ROW. Id. Ultimately, this would have required JCP&L to purchase between fourteen and twenty-four residential homes, and as a result this route was abandoned. Id. at 12.

Route A2 would have required JCP&L to acquire new ROW in order to construct certain segments of the Project. Id. Sparhawk also testified that Route A2 raised issues of reliability. Id.

The preliminary version of Route A3 was modified subsequent to discussions with PSE&G, a detailed engineering review, and information received from the public. Id. at 13. Initially, the preliminary Route A3 was going to consist of a rebuild of JCP&L's existing 34.5 kV transmission lines, K-115 and O-93, that would ultimately combine these existing lines with the new 230 kV line making up the Project. All three lines would run on the same structures. Id. However, additional analysis showed that JCP&L has sufficient ROW along Route A3 to parallel the existing lines with new monopole construction, leaving the existing K-115 and O-93 lines in place and constructing the new transmission lines parallel to them, and attached to new structures, to the extent possible Id. This has significant benefits over the preliminary plan, including: it would be challenging to schedule a power outage that would be necessary to take down and rebuild the existing K-115 and O-93 lines; rebuilding is significantly more expensive than paralleling; rebuilding would require taller transmission structures with shorter

transmission spans, resulting in more structures overall; and that rebuilding all of the lines onto one structure would create a greater risk of losing all the transmission lines if one of the structures were to fail. Id. at 13. Ultimately Route A3 is preferred because it is the shortest route of all those considered, it parallels or rebuilds existing JCP&L transmission lines for most the route, and it minimizes new ROW acquisition. Id. at 15. Route A3 also has significant access advantages because it is primarily located near existing transmission lines which minimizes new ROW acquisition, vegetation clearing, and land disturbance, thus reducing the overall Project cost and environmental impact. Id.

Regarding the environmental impact Route A3 would have the smallest environmental impact because of its proximity to existing transmission lines. Id. Since Route A3 parallels or rebuilds existing transmission lines, most of the work needed will be performed within existing ROW and therefore would require the least amount of forest clearing. Id. at 16. The forest clearing that would occur with the implementation of Route A3 is significantly less than what would occur with Routes B or Route C. Id. Additionally, Route A3 would minimize the Project's impact on residential, commercial, and industrial development. Id. at 23.

Regarding JCP&L's public outreach, it contacted local, county, and State officials about the Project. Id. at 24. Public hearings were also held on November 13, 2013, and November 14, 2014. Id. at 26. In addition, JCP&L met with Montville and Parsippany-Hills-Troy townships multiple times before and after the public hearings. Id. Based on the information received from public outreach, JCP&L made several modifications to potential routes. Id. Finally, after the selection of Route A3 as the route for the Project, JCP&L held an additional public hearing on November 10, 2014, where they presented Route A3 and solicited additional input, which was considered when finalizing the decision. Id. at 27.

Sparhawk testified that he and the team believe that the cumulative social, environmental, and financial impacts associated with route A3 will be less than all other

possible routes that were considered. Id. at 28-29. Route A3 is the shortest route, most of the route parallels or rebuilds existing transmission lines, and approximately 89% of Route A3 can be constructed either entirely or partially within JCP&L's existing ROW. Id. at 29. The total estimated cost of Route A3 is approximately \$35,500,000, while the total estimated costs of Routes B and C are approximately \$50,400,000 and \$78,300,000, respectively. Id. Finally, Route A3 significantly minimizes the potential environmental impacts of the Project compared with the other routes considered. Id.

Sparhawk testified that the Project's proposed route would result in the construction of structures that would be closer to the Lazar Middle School than the existing PSE&G Susquehanna-Roseland 230 kV transmission line. (1T:92:14-17). Moreover, at least some of the existing trees that currently serve as a buffer between the PSE&G transmission line and the Lazar Middle School would be subject to removal. (1T:92:18-25). Regarding the Project's aesthetic implications, the existing PSE&G transmission line, as well as, the line proposed by the Project, would be more visible after completion of the new line than they are now. (1T:96:9-14).

D. EMF

Kyle G. King

Kyle G. King ("King") filed Direct Testimony on behalf of JCP&L in support of the Petition. King is the President of K&R Consulting, an electric power engineering firm that he founded in 2004. His prior employment was as the Director of the Electric Power Research Institute High Voltage Research and Test Center in Lenox, Massachusetts. The nature of King's testimony was to provide analysis on the effects of electric fields, magnetic fields, audible noise, and radio noise associated with the Project. See March 27, 2015 Testimony of Kyle G. King ("Ex. JC-10").

With respect to magnetic fields, King testified that in 2014, the magnetic field along the edges of JCP&L's existing ROWs from the Whippany Substation to the

Montville Substation range from 1.6 milligauss ("mG") to 62.4 mG. Id. at 8. After completion of the Project, the expected magnetic field along the edges of JCP&L's ROWs from the Whippany Substation to the Montville Substation will range from 0.7 mG to 58.4 mG in 2018. Id. at 8-9. The maximum possible magnetic fields would be between 37.9 mG and 270.2 mG, a number which was calculated by using the maximum possible currents that the transmission lines of the Project could handle. Id. at 9. King also stated that the State of New Jersey has no legal limit regarding magnetic fields produced by transmission lines either inside or at the edge of a ROW. Id. at 10.

With respect to electric fields, the Project will produce a maximum electric field of 0.7 kilovolts per meter ("kV/m") along the edges of the ROWs, an increase from the 0.3 kV/m maximum along the ROWs currently produced by the existing transmission lines. Id. at 9-10. King also testified that the State of New Jersey has a guideline of 3 kV/m for electric fields at the edge of a transmission line ROW, a limit that both the current transmission lines and the upgrades envisioned by the Project would fall well within. Id. at 9-10.

With respect to the audible noise associated with the Project, in New Jersey there is a 50 dBa limit for airborne sound found at N.J.A.C. 7:29-1.2(a)(2)(i). Ex. JC-10, Page 10. King testified that the estimated noise levels generated by the Project after completion would be approximately 45.8 dBa, well within the limit required by the State. Id. at 11.

Dr. William H. Bailey

Dr. William H. Bailey ("Bailey") provided Direct Testimony on behalf of JCP&L in support of the Petition. The nature of Bailey's testimony was the expected levels of EMF associated with the existing transmission lines and the new transmission line that would constitute the Project, as well as, the current consensus on the health concerns

relating to EMF. See March 27, 2015 Testimony of William H. Bailey, Ph.D. ("Ex. JC-11").

Bailey testified regarding EMF exposure standards established by the International Committee on Non-Ionizing Radiation Protection ("ICNIRP"), as well as, the International Committee on Electromagnetic Safety ("ICES"), stating that ICNIRP and ICES have recommended limits on EMF. Id. at 9. ICNIRP and ICES recommend these limits to protect against the "acute established effects" of EMF, or the stimulation of nerves and muscles that occur at extremely high EMF exposure levels. Id. Bailey testified that these limits are difficult to measure directly, so both ICNIRP and ICES establish "screening levels," or exposure limits of EMF, that are 2-3 times below the amount of EMF exposure that would produce "acute established effects." Id. The ICNIRP screening value for EMF exposure is 2,000 mG and the ICES screening value at 9,040 mG and 5 kV/m. Id. To put this more simply, both ICNIRP and ICES established their projected safety limits of EMF exposure at a level which is 2-3 times lower than the level at which EMF exposure produces noticeable effects. Bailey stated that the electric field produced by the Project will be at or below the lowest ICNIRP and ICES guideline and that the magnetic field produced by the Project will be "far, far below" the lowest ICNIRP and ICES guidelines. Id. at 10.

With respect to the scientific community's consensus on the potential effects of EMF on public health, Bailey testified that the scientific consensus of the National Institutes of Environmental Health Sciences, the Health Council for the Netherlands, the National Radiological Protection Board of the United Kingdom, the International Agency for Research in Cancer, the World Health Organization, the Scientific Committee on Emerging and Newly Identified Health Risks in the European Union, the European Health Risk Assessment Network on Electromagnetic Fields, the Swedish Radiation Safety Authority, and the ICNIRP have all concluded that there is no scientific evidence sufficient to establish that EMF exposure is a cause of any adverse health effects. Id. at 10-12.

Dr. Karen Cortellino

Dr. Karen Cortellino ("Cortellino") submitted Direct Testimony on behalf of Montville BOE addressing concerns about the Project's impact on the Lazar Middle School, located in Segment NO. 10 of the Project. See December 3, 2015 Testimony of Dr. Karen Cortellino ("Cortellino Test."). Cortellino is the President of the Montville Township Board of Education.

Cortellino testified that Montville BOE has both safety and health concerns regarding the Project. Cortellino Test., Page 5. Regarding the safety concerns, the height and proximity of the new monopoles that would be placed near the Lazar Middle School would create a potential danger to students, faculty, and anyone else on the property. Id. Regarding the health concerns, the Montville BOE was concerned about the potential health effects on students and faculty of Lazar Middle School arising from exposure to certain levels of EMF that may be associated with the Project. Id. at 5-6. EMF was a particular concern because of the already existing PSE&G 500 kV circuit and the JCP&L 34.5 kV circuit already in place near Lazar Middle School. Id. at 6. Finally, the Montville BOE has concerns about an increase in noise that may affect the students and faculty of Lazar Middle School. Id. at 7.

Initial Briefs

A. JCP&L

JCP&L filed its initial post-hearing brief on June 17, 2016. See Initial Brief of Petitioner Jersey Central Power & Light Company ("JCP&L Brief"), June 17, 2016.

In its initial brief, JCP&L argues that it has unequivocally established that the Project is reasonably necessary for the service, convenience, or welfare of the public as required by N.J.S.A. 40:55D-19. JCP&L Brief, Page 4. Additionally, JCP&L contends that the "public" posited by N.J.S.A. 40:55D-19 is the entire body of its utility customers

and not smaller, more specific groups of residents may have objections to the Project. Id.

JCP&L also asserts that in establishing the route of the Project, it has followed N.J.A.C. 14:5-7.1(a), which states in pertinent part that JCP&L, in constructing a transmission line, must “make use of available railroad or other rights of way whenever practicable, feasible and with safety, subject to agreement with the owners.”

Regarding the need for the Project, JCP&L contends that during the 2012 RTEP, PJM identified a planning criteria violation with respect to the transmission lines that supply the Montville substation. JCP&L Brief, Page 6. This violation would constitute a NERC Category C contingency violation that, were it to occur, it would result in JCP&L suffering the loss of all 230 kV sources feeding into the Montville Substation. Id. at 7. JCP&L suggests that such an event would affect approximately 86,719 customers. Id. JCP&L states that PJM has confirmed that the Project will address this potential violation, that PJM presented the Project at the April 27, 2012, TEAC meeting, and that subsequently TEAC and PJM approved the Project. Id. at 7-8.

JCP&L also contends that it considered electrical alternatives to the Project, but that the alternatives would have required substantive engineering upgrades to both the Montville and Whippany substations. Id. at 8. Moreover, the alternatives considered by JCP&L would not have provided the same level of network support as the Project. Id.

Regarding route selection, JCP&L contends that it considered multiple alternative routes which were studied and presented to the public during several open public meetings. Id. at 9. Following comprehensive study and public input, JCP&L chose Route A3, which it argues is the least expensive route considered. Id. at 11. Moreover, JCP&L avers that Route A3 will have the smallest environmental impact and will require the least amount of new ROW. Id.

Regarding EMF and noise issues, JCP&L argues that the Project will not result in any levels of EMF or audible noise in excess of limits established by the State of New Jersey. Id. at 17. Additionally, the consensus of the international scientific community is that there are no links between EMF and negative health effects on human beings. Id. JCP&L also claims that, with respect to Lazar Middle School, the Project will actually decrease the existing levels of EMF found near the school as a result of existing transmission lines. Id. at 18.

Regarding issues of safety and aesthetics, JCP&L contends that there was no factual, credible evidence provided that would support the claim that the Project would result in dangerous conditions for the students of Lazar Middle school. Id. at 20. Moreover, JCP&L states that the Project was designed and will be implemented according to NESC safety standards. Id.

B. Wildlife Preserves

Wildlife Preserves filed a Post-Hearing Letter Brief on June 16, 2016. See Wildlife Preserves Letter Brief ("Wildlife Brief"), June 16, 2016.

Wildlife Preserves contends that in order to satisfy the statutory requirements of N.J.S.A. 40:55D-19, JCP&L must establish not only that the Project is "reasonably necessary for the service, convenience, or welfare of the public," but also that the Project is in compliance with N.J.A.C. 14:5-7.1, and that the proposed route for the Project will have the smallest environmental impact of any available alternatives. Wildlife Brief, Page 2.

Wildlife posits that JCP&L has not met the required legal standards because the Project does not intend to use existing ROW through the Troy Meadows area. Id. at 3. Moreover, Wildlife contends that JCP&L could stay within existing ROW within the Troy Meadows area if it constructed a single steel monopole that would carry the new 230 kV line, as well as, the existing K-115 and O-93 lines. Id. at 4. Wildlife claims that JCP&L

offers no explanation as to why they are not constructing the Troy Meadows located segment of the Project in this fashion. Id.

C. Montville Board of Education

Montville BOE filed a post-hearing brief on June 17, 2016. See Post-Hearing brief on Behalf of Intervenor Montville Township Board of Education ("BOE Brief"), June 17, 2016. The BOE Brief makes numerous arguments against the approval of the Petition, all of which essentially charge JCP&L with failing to meet the statutory standard required in N.J.S.A. 40:55D-19. Montville BOE requests denial of the Project's approval, in the alternative, an Order directing JCP&L to provide "ongoing monitoring of the EMF levels at the Lazar Middle School." BOE Brief, Page 2.

Montville BOE contends that JCP&L should be denied permission to proceed with the Project as proposed because the placement of the monopoles in Segment No. 10 would explicitly contravene a previous BPU order regarding the construction of transmission lines in the same area. Id. at 21. Montville BOE claims that the Project's proposed route would result in monopole construction significantly closer to the Lazar Middle School than a past project proposed by PSE&G, which the BPU found to be too close to the school. Id. at 21. Positing that JCP&L and PSE&G are "in privity," Montville BOE contends that *res judicata* should preclude JCP&L from constructing monopoles in a location closer to the Lazar Middle School than PSE&G was prohibited from doing the same. Id. at 22.

Montville BOE then argues that JCP&L failed to adequately consider alternative sites and methods as required by N.J.S.A. 40:55D-19. Id. at 25. Specifically, that JCP&L did not adequately consider the 115 kV transmission line alternative despite the fact that a 115 kV line would have satisfied the NERC Category C contingency violation. Id. at 25-27. Additionally, JCP&L failed to adequately consider constructing the portion of the Project located near the Lazar Middle School underground, which would have addressed the Board's concerns about the Project. Id. at 28-31. It also argues that

JCP&L failed to adequately consider “under building” the portion of the Project located near the Lazar Middle School, which would eliminate the need to construct additional monopoles closer to the school than those already present. Id. at 31-35.

Montville BOE disputes that JCP&L has established a sufficient electrical need for the Project. Id. at 35. Specifically, a single potential NERC Category C contingency violation is not only insufficient with respect to necessitating the Project, but also that such an event is extremely unlikely and has not occurred in the past decade. Id. at 35-38.

Finally, Montville BOE claims that in planning the Project, JCP&L has not adequately considered the potential safety issues that Lazar Middle School might face in light of EMF levels and the possible health hazards of EMF exposure, the noise and aesthetics that would be created by the Project’s construction, and the potential danger of a falling wire or monopole. Id. at 39-47.

JCP&L Reply Brief

On June 27, 2016, JCP&L filed a reply brief responding to the claims made in the post-hearing briefs filed by Wildlife and Montville BOE. See Reply Brief of Petitioner Jersey Central Power & Light Company (“JCP&L Reply”), June 27, 2016.

Regarding the claims made by Wildlife, JCP&L contends that Wildlife has either failed to comprehend or has mischaracterized the Project and the testimony submitted by JCP&L in support of it. JCP&L Reply, Page 1. Specifically, despite Wildlife’s claims, the Project does in fact propose the use of existing JCP&L ROW in the Troy Meadows area. Id. at 2. Only certain segments of the ROW within Troy Meadows will require the acquisition of additional ROW due to insufficient width, and this is a result of required NESC standards regarding ROW width. Id. at 2-3.

Additionally, JCP&L argues that N.J.S.A. 40:55D-19 simply does not contain any language that requires JCP&L to show that the proposed route for the Project will have the smallest environmental impact of any available alternatives. Id. at 3. Moreover, JCP&L points out that despite this standard not being supported by N.J.S.A. 40:55D-19, the proposed route for the Project nevertheless does have the lowest environmental impact of all the potential routes that JCP&L considered. Id. at 4.

Regarding the claims made by Montville BOE, JCP&L contends that the BOE Brief completely ignores the “overwhelming” evidence in the record that shows the Project fully satisfying the statutory requirements of N.J.S.A. 40:55D-19. JCP&L Reply, Page 9-10. Specifically, JCP&L argues that the prior BPU decision relied upon by Montville BOE is not binding upon the BPU or the OAL, that *res judicata* is completely inapplicable as there is no privity between JCP&L and PSE&G, and, notwithstanding, Montville BOE has mischaracterized the holding BPU applied to PSE&G in that prior case. Id. at 12-13.

Additionally, JCP&L argues that despite Montville BOE's claims, the evaluation of alternatives assessed by JCP&L was robust and adequate and that the record contains no evidence to the contrary. Id. at 15-23. JCP&L reiterates the arguments made in its initial post-hearing brief that it has conclusively established the electrical need for the Project, that there are no EMF, safety, or aesthetic risks to the Lazar Middle School sufficient to deny the Petition, and that there is no evidence in the record that suggests otherwise. Id. at 23-31.

LEGAL ANALYSIS

JCP&L filed the Petition pursuant to N.J.S.A. 40:55D-19, which provides that New Jersey's Municipal Land Use Act, or any regulations or ordinances made pursuant to that act, shall not apply to a project proposed by a public utility if, upon petition to the BPU, the BPU finds that the project is “reasonably necessary for the service, convenience or welfare of the public.” Id.

The New Jersey Supreme Court addressed this issue in Petition of Monmouth Consolidated Water Company, 47 N.J. 251 (1996), where the Court held:

In enacting this section the Legislature recognized that local municipal authorities are ill-equipped to comprehend adequately the needs of the actual and potential users of the utility's services beyond as well as within their territorial limits. . . . The exemption also signifies an awareness that if the local authorities were supreme the Board of Public Utility Commissioners could not compel a utility to provide adequate service if the zoning ordinance conflicted with the need for expansion or extension of its facilities within the municipality. . . . The conclusion is inescapable that "public" in N.J.S.A. 40:55-50 means the public served by the utility and not the limited group whose interests are protected by a zoning ordinance.
[id. at 258]

A. Wildlife Preserves

Wildlife argues that JCP&L's proposed route for the Project is in violation of N.J.A.C. 14:5-7.1 which reads:

(a) Whenever an EDC constructs an overhead transmission line, it shall:

1. Make use of available railroad or other rights-of-way whenever practicable, feasible and with safety, subject to agreement with the owners . . .

[id.]

Wildlife claims that the proposed route for the Project does not utilize existing ROW through the Troy Meadows area, and further that JCP&L has failed to provide any justification for this failure.

Specifically, JCP&L has proposed that the Project necessitates the expansion of certain segments of ROW within the Troy Meadows area; that JCP&L could avoid the need to expand its ROW in the Troy Meadows area by using a single steel monopole to

carry both the new 230 kV transmission line, as well as, the existing K-115 and O-93 lines instead of running the new line parallel to the existing lines; and that JCP&L has failed to provide evidence as to why a single monopole construction was not chosen. Wildlife has introduced no evidence into the record other than their Letter Brief.

Despite Wildlife's claims, the record makes clear that JCP&L is using its existing ROW through the Troy Meadows area to the extent possible. The relevant areas are located in Segment 2 and Segment 3 of the Project, where JCP&L's existing ROW is of a varying width. Certain portions of the Project within Troy Meadows will fall entirely within JCP&L's existing ROW, while other portions will both maximize the available ROW while also requiring the acquisition of additional ROW in order to accommodate the new transmission line and accompanying structures.

Additionally, as Kozy testified, the width of JCP&L's ROW must comply with certain requirements of the NESC which also underlies JCP&L's need to acquire additional ROW in certain areas of Troy Meadows.

Finally, Wildlife argues that JCP&L would address Wildlife's position if the Project's route within Troy Meadows were constructed as an underbuild, where both the new and existing transmission lines would all be attached to one monopole, as this would remove the need for additional ROW acquisition.

As the entirety of JCP&L's Direct Testimony makes clear, substantial thought, planning, and revision was put into adopting the Project's proposed route and the specifics therein. Moreover, despite the significant record established by JCP&L as to why the specifics of the Project were adopted, Wildlife did not support its brief with any substantive evidence to the contrary. There is nothing that Wildlife points to, other than its own assertion, that support its claim that an underbuild in the Troy Meadows area of the Project would be either structurally or financially sound, nor that an underbuild would not require additional ROW acquisition by JCP&L.

N.J.A.C. 14:5-7.1 requires JCP&L to construct the Project within existing ROW “whenever practicable, feasible, and with safety...,” which is precisely what they are doing. JCP&L is using existing ROW to the maximum extent possible, and where safety standards and the Project necessitate new ROW acquisition, they have established the necessity to do so.

B. Montville BOE

Montville BOE argues that JCP&L has failed to establish that the Project is “reasonably necessary for the service, convenience or welfare of the public,” and therefore has not met the statutory standard of N.J.S.A. 40:55D-19, necessitating the denial of the Petition.

Specifically, *res judicata* prevents the approval of JCP&L’s Petition; that JCP&L did not adequately consider alternative routes and options for the Project; that JCP&L has not established the electrical need for the Project; and that the Lazar Middle School will be subjected to potentially dangerous and aesthetically adverse results due to the Project.

Montville BOE has neither introduced nor relied on any evidence in the record in support of its position other than that introduced by JCP&L.

In support of its *res judicata* claim, Montville BOE relies on the prior BPU decision, In the Matter of the Petition of Public Service Electric and Gas Company for a Determination Pursuant to the Provisions of N.J.S.A. 40:55D-19 (Susquehanna-Roseland Transmission Line), BPU Docket No. EM09010035, April 21, 2010 (“Susquehanna-Roseland”).

In Susquehanna-Roseland, PSE&G petitioned the BPU to find that their proposed electrical project satisfied the statutory standards of N.J.S.A. 40:55D-19. Susquehanna-Roseland at 1. The specifics of that case are very similar to this one,

despite differences in size and scope. Montville BOE was a party in Susquehanna-Roseland and raised virtually identical claims to those raised here.

Montville BOE's argument is that since the BPU ordered PSE&G to study the implications of moving the monopoles associated with that project further away from Lazar Middle School, that Order is binding on JCP&L since both JCP&L and PSE&G are electrical utilities. Therefore, according to Montville BOE, through *res judicata* or collateral estoppel JCP&L should be denied the petition or alternatively ordered to move the monopoles in Segment 10 further away from Lazar Middle School.

Montville BOE is correct in that the BPU did order PSE&G to consider moving the proposed Susquehanna-Roseland transmission line further away from Lazar Middle School:

The Board further **ORDERS** that:

7) PSE&G provide a report to this Board within ninety (90) days of the date of this Board Order identifying a relocation or realignment of the proposed new towers that are located on or around the Lazar Middle School in Montville Township to maximize the distances of the towers and transmission lines from the school property. PSE&G should explore the option raised by Montville BOE, as well as any additional options. If PSE&G believes that relocation or realignment is not possible, they shall report to the Board, in detail, the reasons for that conclusion.

[Id. at 78.]

However, this is where the similarities end. Montville BOE cites to Winters v. North Hudson Reg'l Fire and Rescue, 212 N.J. 67 (2012) which holds that collateral estoppel "bars relitigation of any issue which was determined in a prior action, generally between the same parties, involving a different cause of action." Id. at 89. Montville also cites to Oliveri v. Y.M.F. Carpet, Inc., 186 N.J. 511 (2006), which holds that a central element of collateral estoppel is that "the party against whom the doctrine is asserted was a party to or in privity with a party to the earlier proceeding." Id. at 521.

Additionally, Montville BOE cites to Zoneraich v. Overlook Hosp., 121 N.J. Super. 83, (App. Div. 1986), which holds that collateral estoppel precludes parties from relitigating matters “which the part[ies] actually litigated . . . and which were directly in issue between the parties.” Id. at 93-94.

The fact that PSE&G and JCP&L are both electrical utilities, practicing the same type of business in no way places two entities in privity for the purposes of collateral estoppel or *res judicata*. Susquehanna-Roseland was a decision by the BPU regarding PSE&G's petition to the BPU, and JCP&L and PSE&G are completely different entities. Thus, the litigation entered into by one cannot possibly bind the options of the other. Moreover, the facts and evidence in Susquehanna-Roseland were completely different than those in this case. The outcome of the BPU's decision in Susquehanna-Roseland is plainly not prohibitive of JCP&L's Project.

Montville BOE also argues that JCP&L did not properly evaluate alternative routes for the Project. It bears repeating that the only evidence in the record regarding the extent of effort that went into the Project is on behalf of JCP&L.

At the outset, Sparhawk's testimony as to the route selection process is clear:

The Route Development process for the Project was an inherently iterative process that consisted of an initial Corridor Screening Study followed by a comprehensive Route Selection Study.

The purpose of the Corridor Screening Study was to identify the most feasible transmission path(s) (“corridors”) that could potentially be used to provide a new 230 kV source into the Montville Substation. Based on the results of the Corridor Screening Study, the most feasible corridors were retained for further analysis in the Route Selection Study.

The purpose of the Route Selection Study was to refine the most feasible corridors identified during the Corridor Screening Study by developing Potential routes. During the Route Selection Study, the Potential Routes were further

refined and assembled into Alternative Routes. The potential impacts associated with the Alternative Routes were evaluated, and, ultimately, a preferred route for the Project was identified.

[Ex. JC-6, Page 4.]

Sparhawk's Direct Testimony and accompanying exhibits alone consist of hundreds of pages of analysis and explanation regarding the various routes considered for the Project.

In addition, Montville BOE claims that JCP&L did not adequately consider alternative construction options for the Project. Specifically, it claims that JCP&L did not adequately consider a 115 kV alternative or a partial underground installation of the new 230 kV transmission line in the vicinity of Lazar Middle School.

Hozempa addressed JCP&L's consideration of a 115 kV alternative in detail. Hozempa testified explicitly that a 115 kV alternative to the Project was considered, but abandoned because neither the Montville nor the Whippany substations are currently compatible with a new 115 kV line and would require substantial renovation; that a 115 kV alternative would not provide the same amount of overall network support as the 230 kV option; and that the 115 kV alternative would cost more. Additionally, the 230 kV line would provide greater electrical supply possibilities and therefore reduce the need for additional projects in the future. Montville BOE faults JCP&L for ignoring the 115 kV alternative when it would have solved the NERC Category C violation, but any alternative considered by JCP&L would have had to solve the NERC Category C violation as that is the primary motivation behind the existence of the Project.

Regarding the possibility of a partially underground construction, JCP&L provided direct evidence that they considered, but ultimately eliminated such an option. Kozy stated in his Direct Testimony that placing the line underground was not feasible due to environmental impacts; restoration issues – a significant cost increase; lower

capacity; and the challenges of repairing an underground transmission line were there to be a service issue. See Ex. JC-3, Pages 23-27.

While Montville BOE also posited that an underground transmission line would ease its concerns regarding EMF levels near the Lazar Middle School, the only evidence introduced regarding this issue is the testimony of Kozy, who stated that an underground cable would ultimately be closer to the surface than the line would be as proposed in the Project, and cause *higher* levels of EMF in the vicinity of Lazar Middle School. Id. at 28-29.

Montville BOE's next argument is that JCP&L has not established the electrical need for the Project. Again, Montville BOE cites to no evidence in the record in support of this claim other than the Direct Testimony filed on behalf of JCP&L.

Both Hozempa and McGlynn thoroughly established the electrical need for the project, specifically the potential NERC Category C violation discovered during PJM's 2012 RTEP. The potential NERC violation, is a serious and significant federal regulatory violation that could result in the loss of electricity to approximately 86,719 JCP&L's customers, as well as fines of up to one million dollars per day were the violation to actually occur. PJM and JCP&L are legally obligated to test for potential NERC violations and remedy them when they are found. Montville BOE correctly points out that only one NERC Category C event has occurred in the past decade, and that PSE&G's Susquehanna-Roseland line was motivated by several NERC Category A, B, and C violations. While all of these points are true, they do not change the fact that even one NERC violation is a serious and significant issue that PJM and JCP&L are obligated to prevent against. I am persuaded that the testimony and evidence introduced by JCP&L establishes the electrical need for the Project.

Finally, Montville BOE argues that JCP&L failed to adequately investigate the possibility of dangerous levels of EMF; aesthetic impacts; and land use issues in the vicinity of the Lazar Middle School. There is no testimony or evidence in the record in

support of this argument other than the Direct Testimony of Cortellino who testified that she has “concerns” about the effects of EMF on Lazar Middle School. There is no substantive evidence in support of this argument.

King and Bailey filed Direct Testimony regarding EMF and the Project, testifying that virtually all major National and International health organizations who had studied the impact of EMF arrived at the same conclusion: that the levels of EMF that are under consideration in this project does not impact humans negatively. Moreover, King testified that the amount of EMF levels found in Segment 10 near Lazar Middle School would actually *decrease* as a result of the Project, as the EMF generated by the existing transmission lines and the new 230 kV transmission line proposed by the Project would to some degree cancel out. Regarding electric field levels specifically, King testified that the Project is well within the 3 kV/meter guideline established by the State of New Jersey for the entirety of the Project.

In sum, the Direct Testimony of both King and Bailey establishes a voluminous record regarding EMF. The record in this case supports the conclusion that EMF does not present a danger to humans and more importantly that with respect to the Lazar Middle School, the Project may actually reduce EMF levels at the surface.

CONCLUSION

For the foregoing reasons, I **CONCLUDE** that JCP&L has established, through significant and thorough testimony and evidence that the Project is reasonable and is for the service, convenience, or welfare of the public pursuant to N.J.S.A. 40:55D-19. I am persuaded by the record JCP&L has established. It is voluminous, thorough and overwhelming supports the conclusion that the Project satisfies the applicable statutory requirements of N.J.S.A. 40:55D-19. Therefore, I **CONCLUDE** that the Petition should be **GRANTED**.

ORDER

It is hereby **ORDERED** that the Petitioner of JCP&L seeking approval for its Montville-Whippany 230 kV Transmission Project is hereby **GRANTED**.

I hereby **FILE** my initial decision with the **BOARD OF PUBLIC UTILITIES** for consideration.

This recommended decision may be adopted, modified or rejected by the **BOARD OF PUBLIC UTILITIES**, which by law is authorized to make a final decision in this matter. If the Board of Public Utilities does not adopt, modify or reject this decision within forty-five days and unless such time limit is otherwise extended, this recommended decision shall become a final decision in accordance with N.J.S.A. 52:14B-10.

Within thirteen days from the date on which this recommended decision was mailed to the parties, any party may file written exceptions with the **SECRETARY OF THE BOARD OF PUBLIC UTILITIES, 44 South Clinton Avenue, P.O. Box 350, Trenton, NJ 08625-0350**, marked "Attention: Exceptions." A copy of any exceptions must be sent to the judge and to the other parties.

August 10, 2017



DATE

LELAND S. McGEE, ALJ

Date Received at Agency:

Date Mailed to Parties:

LSM/sej

APPENDIX

WITNESSES:

For JCP&L

Scott M. Humphreys
David R. Kozy, Jr.
Kirsty M. Cronin
Peter W. Sparhawk
Kyle G. King
William H. Bailey
Lawrence A. Hozempa

For Other Parties

None

EXHIBITS - Admitted into Evidence by Stipulation:

For BPU Staff

S-ENR-1 to 90 (with S-ENR-53 designated as confidential)

For Township of Montville

TOM-1 to 67 (with TOM-13 designated as confidential)
TOM-DOC_REQ-1 to 9
TOM-SUPP-1 to 12
SH-TOM-1 to 11 Rebuttal

For Montville Board of Education

BOE 1 to 36

BOE-DKJ-1 - 5 Rebuttal

KGK-1 & 2 Rebuttal

WHB-1 & 2 Rebuttal

For Jersey Central Power & Light Company

JC-TOM-1 to 14

JC-BOE-1 to 3

**WINDELS
MARX**

Windels
Marx
Lane &
Mittendorf, LLP

windelsmarx.com

Gregory Eisenstark
732.448.2537
geisenstark@windelsmarx.com

120 Albany Street Plaza | New Brunswick, NJ 08901
T. 732.846.7600 | F. 732.846.8877

May 24, 2016

VIA Email and Overnight Delivery

Honorable Leland McGee, ALJ
Office of Administrative Law
33 Washington Street
Newark, New Jersey 07102

Re: In the Matter of the Petition of **Jersey Central Power & Light Company**
Pursuant to *N.J.S.A.* 40:55D-19 for a Determination that the Montville-
Whippany 230 kV Transmission Project is Reasonably Necessary for the
Service, Convenience or Welfare of the Public
BPU Dkt. No. EO15030383
OAL Dkt. No. PUC 08235-2015N

Dear Judge McGee:

I enclose for filing an executed Stipulation of Settlement and Joint Position between Jersey Central Power & Light Company and the Township of Montville in the above-referenced matter ("Stipulation"). Also included for filing are letters from the Meadows at Montville Condominium Association, Inc. and the Board of Trustees for Montville Chase Condominium Association stating that each entity concurs with the Stipulation.

Respectfully submitted,



Gregory Eisenstark

Encls.

cc: Lisa Reyes, Secretary to ALJ McGee (via email)
Service List (via email)

SERVICE LIST

In the Matter of the Petition of Jersey Central Power & Light Company
Pursuant to N.J.S.A. 40:55D-19 for a Determination that the Montville-Whippany 230 kV
Transmission Project is Reasonably Necessary for the Service,
Convenience or Welfare of the Public

BPU Docket No.: EO15030383
OAL Docket No. PUC 08235-2015N

BPU		
<p>Kenneth Sheehan, Chief of Staff Board of Public Utilities 44 South Clinton Avenue, 9th Fl P.O. Box 350 Trenton, NJ 08625 ksheehan@bpu.state.nj.us</p>	<p>Jerome May, Director Board of Public Utilities 44 South Clinton Avenue, 9th Fl P.O. Box 350 Trenton, NJ 08625 jerome.may@bpu.state.nj.us</p>	<p>Carl Dzierawiec Board of Public Utilities 44 South Clinton Avenue, 9th Fl P.O. Box 350 Trenton, NJ 08625 carl.dzierawiec@bpu.state.nj.us</p>
<p>Bethany Rocque-Romaine Board of Public Utilities 44 South Clinton Avenue, 9th Fl P.O. Box 350 Trenton, NJ 08625 bethany.rocque-romaine@bpu.state.nj.us</p>	<p>Paul Flanagan Board of Public Utilities 44 South Clinton Avenue, 9th Fl P.O. Box 350 Trenton, NJ 08625 paul.flanagan@bpu.state.nj.us</p>	<p>Megan Lupo Board of Public Utilities 44 South Clinton Avenue, 9th Fl P.O. Box 350 Trenton, NJ 08625 megan.lupo@bpu.state.nj.us</p>
<p>Cynthia Covie Board of Public Utilities 44 South Clinton Avenue, 9th Fl P.O. Box 350 Trenton, NJ 08625 cynthia.covie@bpu.state.nj.us</p>	<p>John Masiello Board of Public Utilities 44 South Clinton Avenue, 9th Fl P.O. Box 350 Trenton, NJ 08625 john.masiello@bpu.state.nj.us</p>	<p>David Ballengee Board of Public Utilities 44 South Clinton Avenue, 9th Fl P.O. Box 350 Trenton, NJ 08625 david.ballengee@bpu.state.nj.us</p>
DAG		
<p>Geoffrey Gersten, DAG Division of Law 124 Halsey Street, 5th Floor P.O. Box 45029 Newark, NJ 07101 Geoffrey.Gersten@dol.lps.state.nj.us</p>	<p>Alex Moreau, DAG Division of Law 124 Halsey Street, 5th Floor P.O. Box 45029 Newark, NJ 07101 alex.moreau@dol.lps.state.nj.us</p>	<p>Carolyn McIntosh, DAG Division of Law 124 Halsey Street, 5th Floor P.O. Box 45029 Newark, NJ 07101 carolyn.mcintosh@dol.lps.state.nj.us</p>
<p>Angela Hickson, Paralegal Division of Law 124 Halsey Street, 5th Floor P.O. Box 45029 Newark, NJ 07101 angela.hickson@dol.lps.state.nj.us</p>	<p>Ruby Smith, Legal Secretary Division of Law 124 Halsey Street, 5th Floor P.O. Box 45029 Newark, NJ 07101 ruby.smith@dol.lps.state.nj.us</p>	

Rate Counsel		
<p>Stefanie A. Brand, Director Division of Rate Counsel 140 East Front Street, 4th Floor P.O. Box 003 Trenton, N.J. 08625-0003 sbrand@rpa.state.nj.us</p>	<p>Ami Morita, DRA Division of Rate Counsel 140 East Front Street, 4th Floor P.O. Box 003 Trenton, N.J. 08625-0003 amorita@rpa.state.nj.us</p>	<p>Brian Weeks, Esq. Division of Rate Counsel 140 East Front Street, 4th Floor P.O. Box 003 Trenton, N.J. 08625-0003 bweeks@rpa.state.nj.us</p>
<p>Lisa Gurkas Division of Rate Counsel 140 East Front Street, 4th Floor P.O. Box 003 Trenton, N.J. 08625-0003 lgurkas@rpa.state.nj.us</p>	<p>Brian Lipman Division of Rate Counsel 140 East Front Street, 4th Floor P.O. Box 003 Trenton, N.J. 08625-0003 blipman@rpa.state.nj.us</p>	
JCP&L		
<p>Gregory Eisenstark, Esq. Windels Marx Lane & Mittendorf, LLP 120 Albany Street Plaza New Brunswick, NJ 08901 geisenstark@windelsmarx.com</p>	<p>Kevin Connelly Jersey Central Power & Light Company 300 Madison Avenue P.O. Box 1911 Morristown, New Jersey 07960 kconnelly@firstenergycorp.com</p>	<p>Lauren M. Lepkoski, Esq. FirstEnergy Service Company Legal Department 2800 Pottsville Pike Reading, PA 19612-6001 llepkoski@firstenergycorp.com</p>
<p>Michael Connolly Windels Marx Lane & Mittendorf, LLP One Giralda Farms Madison, NJ 07940 mconnolly@windelsmarx.com</p>	<p>Scott Humphrys First Energy Service Company 76 South Main Street Akron, OH 44308 shumphrys@firstenergycorp.com</p>	
Board of Chosen Freeholders		
<p>Clerk, Morris County Board of Chosen Freeholders Morris County Administration & Records Building P.O. Box 900 Morristown, NJ 07963-0900</p>		
Morris County Administrator		
<p>County Administrator Morris County Administration & Records Building P.O. Box 900 Morristown, NJ 07963-0900</p>		
East Hanover Township		
<p>Clerk Township of East Hanover 411 Ridgedale Avenue East Hanover, NJ 07936 paulam@easthanovertownship.com</p>		

Parsippany-Troy Hills Twp.

Clerk
Parsippany-Troy Hills Township
Parsippany-Troy Hills Town Hall
1001 Parsippany Boulevard
Parsippany-Troy Hills, NJ 07054

Montville Township

Clerk
Montville Township
Municipal Building
195 Changebridge Road
Montville, NJ 07045-9498

Fred Semrau, Esq.
Dorsey & Semrau
714 Main Street
P.O. Box 228
Boonton, NJ 07005
fsemrau@dorseysemrau.com

Tracy W. Schnurr
Dorsey & Semrau
714 Main Street
P.O. Box 228
Boonton, NJ 07005
tschnurr@dorseysemrau.com

Dawn Sullivan, Esq.
Dorsey & Semrau
714 Main Street
P.O. Box 228
Boonton, NJ 07005
dsullivan@dorseysemrau.com

Mark R. Peck
Florio Perrucci Steinhardt & Fader
235 Frost Avenue
Phillipsburg, NJ 08865
mpeck@fpslawfirm.com

Montville Township Board of Education

Stephen J. Edelstein, Esq.
Schwartz Simon Edelstein & Celso
100 South Jefferson Road, Suite 200
Whippany, NJ 07981
sedelstein@sseclaw.com

Wildlife Preserve, Inc.

Albert I. Telsey, Esq.
Meyner and Landis LLP
One Gateway Center, Suite 2500
Newark, New Jersey 07102
atelsey@Meyner.com

**STATE OF NEW JERSEY
BOARD OF PUBLIC UTILITIES
OFFICE OF ADMINISTRATIVE LAW**

In the Matter of the Petition of Jersey Central Power & Light Company Pursuant to <i>N.J.S.A.</i> 40:55D-19 for a Determination that the Montville-Whippany 230 kV Transmission Project is Reasonably Necessary for the Service, Convenience or Welfare of the Public	: STIPULATION OF SETTLEMENT AND JOINT POSITION BETWEEN JERSEY CENTRAL POWER & LIGHT COMPANY AND THE TOWNSHIP OF MONTVILLE
	: BPU Docket No. EO15030383
	: OAL Docket No. PUC 08235-2015N

APPEARANCES:

Gregory Eisenstark, Esq. (Windels Marx Lanc & Mittendorf, LLP, attorneys) for the Petitioner, Jersey Central Power & Light Company

Fred Semrau, Esq. and Tracy W. Schnurr, Esq., (Dorsey & Semrau, LLC, attorneys) for the Township of Montville

This Stipulation of Settlement and Joint Position (the "Stipulation") is hereby made and executed as of date(s) indicated herein below, by and among the Petitioner, Jersey Central Power & Light Company ("JCP&L" or the "Company") and the Township of Montville ("Montville") (collectively, the "Undersigned Parties") in regard to the above-captioned matter (the "Matter").

The Undersigned Parties do hereby join in recommending that the Office of Administrative Law ("OAL") issue an Initial Decision approving the Stipulation, and that the Board of Public Utilities ("Board" or "BPU") issue an Order approving the Stipulation, based upon the following stipulations:

Background

1. On March 27, 2015, pursuant to *N.J.S.A.* 40:55D-19, JCP&L filed a Verified Petition (including pre-filed direct testimony) with the BPU in this Matter, requesting, *inter alia*, that the BPU issue an Order finding that the Montville-Whippany 230 kV transmission project, as defined in said Verified Petition (the “Project”), is reasonably necessary for the service, convenience or welfare of the public.

2. On May 1, 2015, Montville filed a motion to intervene in this Matter. JCP&L did not oppose Montville’s intervention.

3. On June 3, 2015, the BPU transmitted the Matter to the OAL as a contested case and it was thereafter assigned to the Honorable Leland S. McGee, ALJ.

4. On June 17, 2015, Judge McGee granted Montville’s intervention.

5. On September 8, 2015, Judge McGee issued a prehearing order with a procedural schedule for this Matter.

6. Thereafter, the Undersigned Parties engaged in written discovery. In addition, Montville filed written direct testimony of two witnesses and JCP&L filed written rebuttal testimony of three witnesses. Montville also filed written surrebuttal testimony of one witness.

7. In addition, the Undersigned Parties engaged in settlement discussions and negotiations. As a result of such discussions and negotiations, the Undersigned Parties have determined to resolve this Matter, as it relates to Montville and JCP&L, in accordance with the terms set forth below.

Stipulation

8. In regard to the route of the Project in the vicinity of the development known as the Meadows at Montville (an area that falls within Segment 6 of the Project as described in the

Verified Petition and supporting testimony), JCP&L will modify the route of the 230 kV transmission line as depicted on the map/drawing that is attached hereto as Attachment A. Montville acknowledges that JCP&L's ability to modify the route as agreed to herein is subject to the following conditions:

- a. The Meadows at Montville agrees to the necessary swap of easement rights with JCP&L on a "one for one" basis (i.e., no additional consideration). More specifically, the Meadows at Montville will agree to enter into a written agreement with JCP&L for the swap prior to the BPU's issuance of a final order in this proceeding. The easements to be swapped are depicted on the drawing that is attached to this Stipulation as Attachment B.
- b. The owner of the property at Lot 1.02, Block 138 in Montville Township agrees to grant JCP&L the necessary additional easement on that property to allow this route modification.
- c. If the Meadows at Montville agrees to the easement swap and if the owner of the property at Lot 1.02, Block 138 does not agree to grant JCP&L the necessary easement, JCP&L will modify only the portion of the route located on the Meadows at Montville property. Under this scenario, JCP&L will develop an alignment of the transmission line on the Meadows at Montville property that will be as close as practical to the route of the transmission line depicted on the map/drawing that is attached hereto as Attachment A. In the event Montville Township were to acquire the easement on Block 138, Lot. 1.02 at a reasonable price that JCP&L agrees with, and if such acquisition occurs prior to the start of construction on the Project, then JCP&L shall acquire said easement from Montville at such cost and construct the Project as depicted on Attachment A.

9. With respect to construction for the Project that may impact property at or near the Meadows at Montville and the Montville Chase, JCP&L agrees that, once construction is complete, disturbed work areas will be re-vegetated in accordance with the Soil Erosion and Sedimentation Control Plan submitted to the New Jersey Department of Environmental Protection ("NJDEP"). After construction, drainage, fencing and erosion control aspects of the

transmission line ROW will be restored to conditions as good as or better than those that existed prior to construction, which may include some or all of the following: 1) the restoring of drainage ditches, fencing and field drainage tiles; 2) fertilizing, seeding and mulching of disturbed non-cultivated areas; and 3) removing temporary soil erosion and sedimentation control measures after vegetative cover has been established. Where required, access roads shall be removed and the area restored to as good as or better than those that existed prior to construction.

10. In regard to the construction of the Project in the vicinity of the development known as Montville Chase (Segment 11 of the Project as described in the Verified Petition and supporting testimony), JCP&L agrees to utilize underbuild construction. Therefore, the new 230 kV conductors and the existing 34.5 kV conductors would be located on the same monopoles in Segment 11 of the Project. The existing wooden structures that carry the existing 34.5 kV conductors will be removed. The new monopoles will not be in the exact same location as the current structures carrying the existing 34.5 kV conductors; the new monopoles will be located in the appropriate location within the right-of-way, as depicted on the attached map/drawing. The exact location of each monopole will not be determined until final engineering is completed for the Project.

11. JCP&L will provide funds for landscaping in the Meadows at Montville and Montville Chase communities to assist in ameliorating the visual impact of the Project. The total funds for such landscaping-related activities will be as follows: \$15,000 for the Meadows at Montville and \$10,000 for Montville Chase. In addition, JCP&L agrees to provide \$10,000

towards the construction of a new playground at the Meadows at Montville. The payments set forth in this Paragraph 11 will be made directly to the Montville Chase and the Meadows at Montville, respectively, subject to the provisions of Paragraph 16 herein below.

12. JCP&L will lease the following parcels of land from Montville to use as construction storage/laydown sites during the construction of the Project: Block 131, Lot 15.3; Block 138, Lot 12; Block 138, Lot 13; and Block 123, Lot 19; and Block 59.2, Lot 23 (collectively the "Subject Parcels"), all on the tax map of the Township of Montville. JCP&L will lease the Subject Parcels at a total monthly rental fee of \$10,000 for a period of 14 months. In the event a State law or agency precludes such use of the property, the Township and JCP&L will find alternate locations to utilize at a similar amount of rental payment to be paid to the Township. If no suitable location is found, the parties have the right to terminate this agreement on 30 days' notice to the other party. The Undersigned Parties also agree that, should JCP&L require the use of the Subject Parcels beyond the 14-month lease period, JCP&L may elect, at its option, to extend the lease on a month-to-month basis at a monthly rental fee of \$10,000. The Undersigned Parties also agree that they will enter into an appropriate lease agreement regarding the use and restoration to prior conditions to the extent practical of the Subject Parcels. The Undersigned Parties also agree that JCP&L will be able to utilize any existing environmental permits or approvals that Montville has with respect to the use of the Subject Parcels, to the extent that such permits or approvals are compatible with JCP&L's planned use. The Undersigned Parties also agree that Montville will provide copies to JCP&L of any permits, wetland delineation, stream classification and similar reports and current plans for developing all or any portions of the Subject Parcels. The Undersigned Parties also agree that JCP&L will make necessary applications for additional approvals, if necessary for JCP&L's intended use of

the Subject Parcels, to the NJDEP. In addition, JCP&L expects that its use of the parcels may facilitate making approximately \$20,000 in improvements to one or more of the Subject Parcels as part of using the Subject Parcels as construction storage/laydown sites that is compatible with Montville's plan for developing the Subject Parcels. JCP&L will submit to Montville drawings identifying the improvements that it believes are compatible with Montville's plan for developing the Subject Parcels and, with Montville's approval, such improvements will be allowed to remain; and, if Montville's approval is not granted, such improvements will be removed.

13. The Undersigned Parties agree to support the Stipulation before the OAL and BPU. Montville also agrees that it will not challenge the Project before the OAL, BPU, any other municipal, county, state or federal agency, before any court, or in any other forum.

14. Montville agrees that it will not pursue additional administrative or judicial review of the BPU's denial of its request for an escrow fund for this proceeding.

15. The Undersigned Parties agree that this Stipulation is subject to the condition that the Meadows at Montville and Montville Chase each agree in writing, in a form acceptable to JCP&L and Montville, to the terms of this Stipulation, and that the Meadows at Montville and Montville Chase each files such written acknowledgement with the OAL.

16. Except as otherwise specifically provided herein, any payments by JCP&L to Montville Township, the Meadows at Montville, or Montville Chase pursuant to this Stipulation will be paid only after: (a) the receipt of a final, non-appealable order of the BPU approving the Project, in a form that is acceptable to JCP&L; or (b) the Montville-Whippany Project is constructed and energized, whichever is sooner. However, the monthly rental payments by

JCP&L to Montville Township set forth in Paragraph 12 herein above will commence within 30 days after JCP&L begins construction of the Project.

17. In regard the certain pre-filed testimony, Montville agrees that its pre-filed direct and surrebuttal testimony shall not be entered into the record in this Matter. JCP&L agrees that those portions of its pre-filed surrebuttal testimony that are directly in response to Montville's pre-filed direct testimony shall not be entered into the record in this Matter. The Undersigned Parties agree that all of JCP&L's direct testimony and the rest of JCP&L's rebuttal testimony (i.e., all portions thereof that are not directly in response to Montville's direct testimony) shall be entered into the record of this Matter.

18. The Undersigned Parties agree that this Stipulation fully resolves all issues in regard to the Project as between JCP&L and Montville.

Conclusion

19. The Undersigned Parties agree that this Stipulation contains mutual balancing and interdependent clauses and is intended to be accepted and approved in its entirety. In the event any particular provision of this Stipulation is not accepted and approved in its entirety by the OAL or the Board, or is modified by a court of competent jurisdiction, then any Undersigned Party aggrieved thereby shall not be bound to proceed with this Stipulation and shall have the right, upon written notice to be provided to all other Parties within ten (10) days after receipt of any such adverse decision, to litigate all issues addressed herein to a conclusion. More particularly, in the event this Stipulation is not adopted in its entirety by the OAL or the Board in an appropriate Order, or is modified by a court of competent jurisdiction, then any Undersigned Party hereto is free, upon ten (10) days' written notice, to pursue its then available legal remedies

with respect to all issues addressed in this Stipulation, including the right to litigate all issues herein to a conclusion, as though this Stipulation had not been signed.

20. The Undersigned Parties agree that this Stipulation shall be binding on them for all purposes herein.

21. It is specifically understood and agreed that this Stipulation represents a negotiated agreement and, except as otherwise expressly provided for herein:

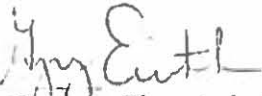
- a. By executing this Stipulation, no Undersigned Party waives any rights it possesses under any prior Stipulation, except where the terms of this Stipulation supersede such prior Stipulation.
- b. The contents of this Stipulation shall not in any way be considered, cited or used by any of the Undersigned Parties as an indication of any Undersigned Party's position on any related or other issue litigated in any other proceeding or forum, except to enforce the terms of this Stipulation.

22. This Stipulation may be executed in any number of counterparts, each of which shall be considered one and the same agreement, and shall become effective when one or more counterparts have been signed by each of the Parties.

WHEREFORE, the Undersigned Parties hereto have duly executed and do respectfully submit this Stipulation to the OAL, and recommend that the presiding Administrative Law Judge issue an Initial Decision adopting and approving this Stipulation in its entirety. The Parties also recommend that the Board issue a Final Decision and Order adopting and approving this Stipulation in its entirety in accordance with the terms hereof. The Parties further acknowledge that a Board Order approving this Stipulation will become effective upon the service of said Board Order, or upon such date after the service thereof as the Board may specify, in accordance with N.J.S.A. 48:2-40.

Jersey Central Power & Light Company

By:



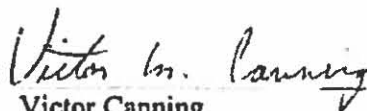
Gregory Eisenstark, Esq.
Windels Marx Lane & Mittendorf, LLP

Dated:

5-24-2016

Township of Montville

By:



Victor Canning
Township Administrator

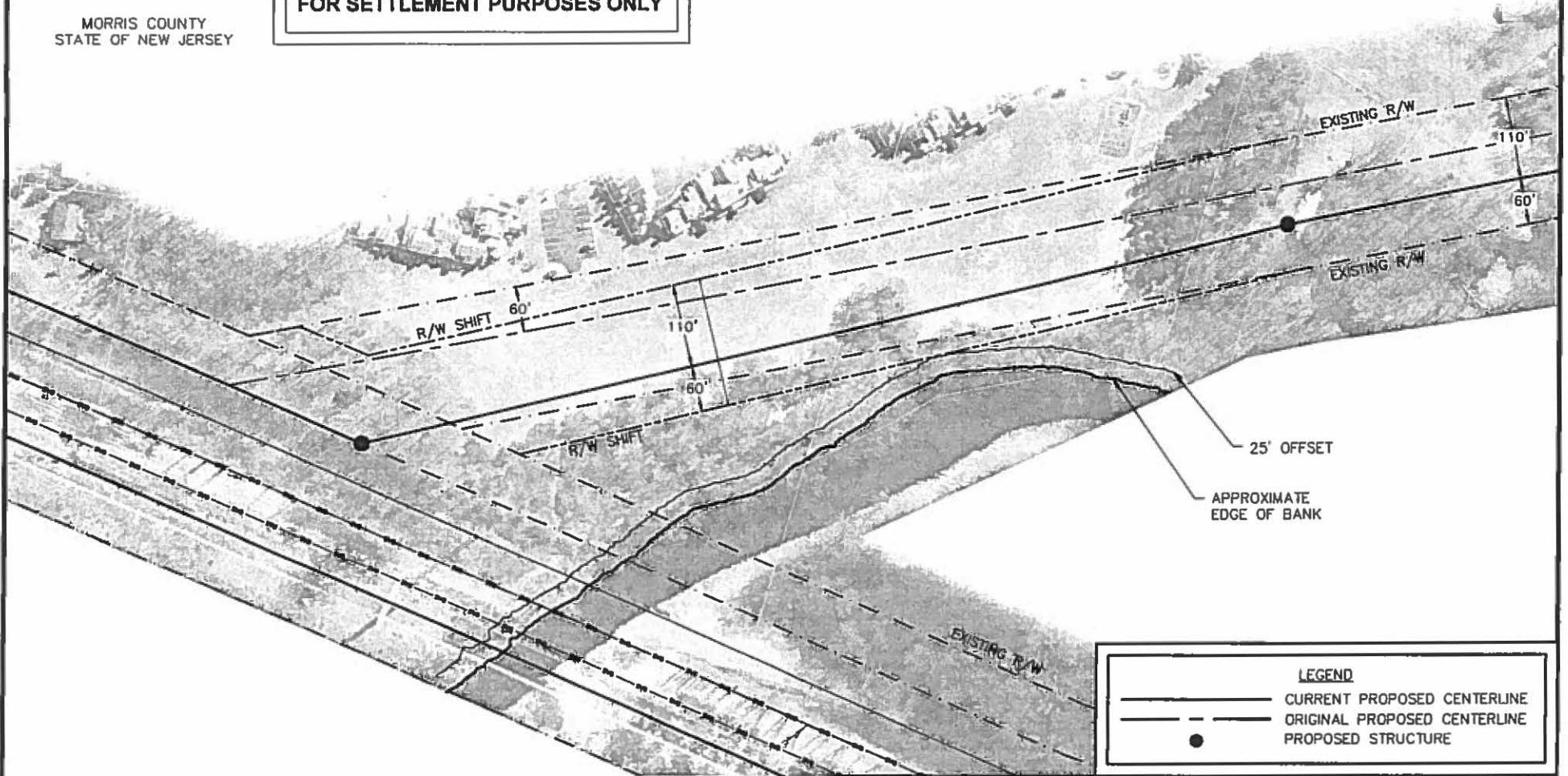
Dated:

5-24-2016



MORRIS COUNTY
STATE OF NEW JERSEY

CONFIDENTIAL
FOR SETTLEMENT PURPOSES ONLY



**PRELIMINARY - NOT
FOR CONSTRUCTION**



DATE: 3/16

DESIGNED: BET/BMcd

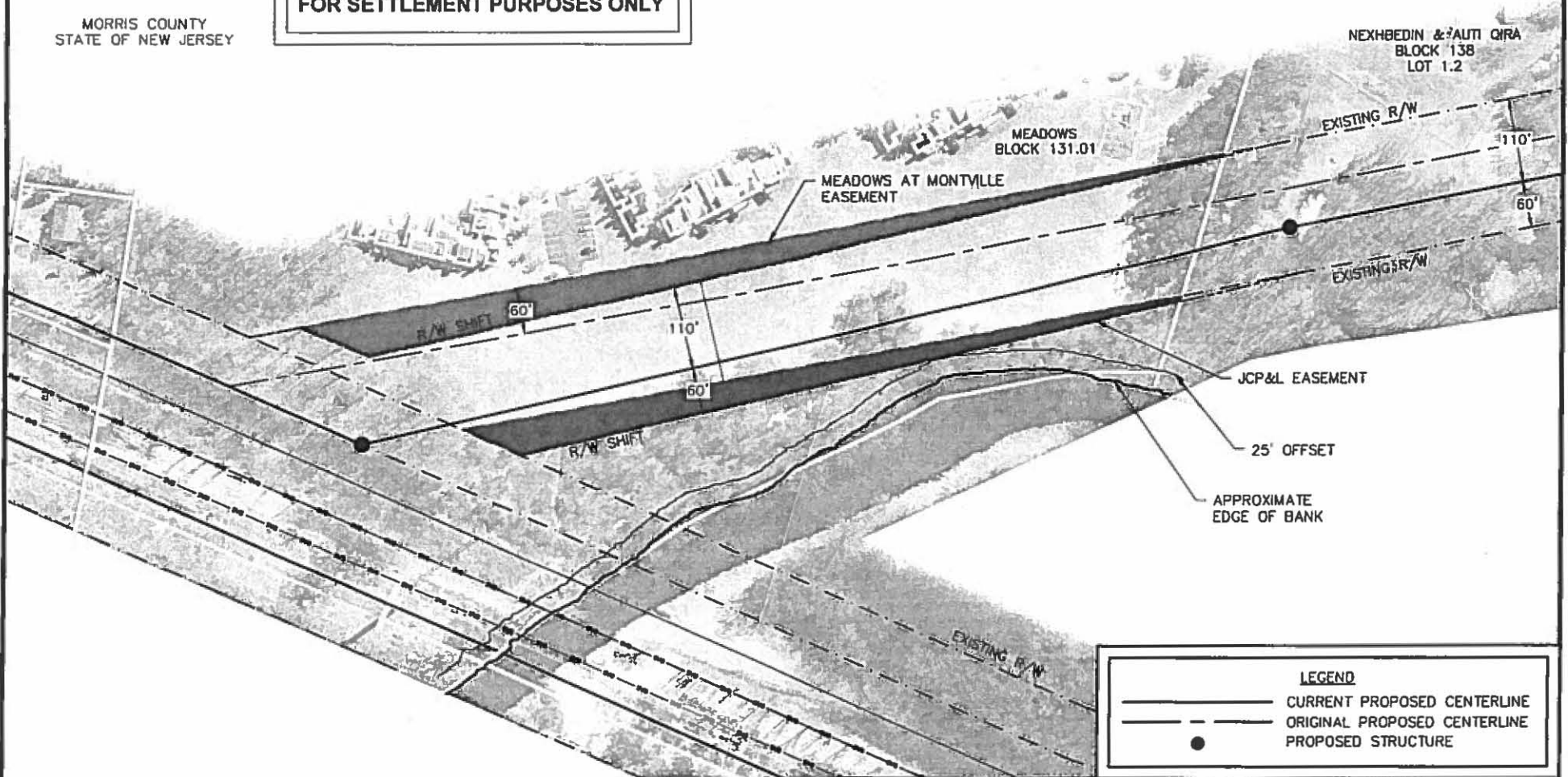
MONTVILLE-WHIPpany 230kV
MEADOWS COMPLEX
EXHIBIT

PROJECT:
MONTVILLE-WHIPpany 230kV



MORRIS COUNTY
STATE OF NEW JERSEY

CONFIDENTIAL
FOR SETTLEMENT PURPOSES ONLY



LEGEND	
	CURRENT PROPOSED CENTERLINE
	ORIGINAL PROPOSED CENTERLINE
	PROPOSED STRUCTURE

**PRELIMINARY - NOT
FOR CONSTRUCTION**

**BURNS
MEDONNELL**
FirstEnergy
Transmission Group

DATE: 3/16
DESIGNED: BET/BM:CD

MONTVILLE-WHIPpany 230KV
MEADOWS COMPLEX
EXHIBIT

PROJECT: MONTVILLE-WHIPpany 230KV

MEADOWS AT MONTVILLE, CONDOMINIUM ASSOCIATION, INC.

May 23, 2016

Via Email & Regular Mail

Honorable Leland McGee, ALJ
Office of Administrative Law
33 Washington Street
Newark, NJ 07102

**Re: In The Matter Of The Petition Of Jersey Central Power & Light
Company Pursuant To N.J.S.A. 40:55d-19 For A Determination That
The Montville-Whippany 230 kV Transmission Project Is Reasonably
Necessary For The Service, Convenience Or Welfare Of The Public
BPU Docket No. EO15030383
OAL Docket No. PUC 08235-2015N**

Dear Judge McGee:

We are writing on behalf of the Board of Trustees for the Meadows at Montville Condominium Association. We have reviewed the terms of the Stipulation of Settlement between Montville Township and Jersey Central Power & Light Company and its impact on the Meadows at Montville Condominium Association and accordingly, after much thought and consideration, we concur with the settlement. So long as the plans are modified for this project to be consistent with what is proposed in this settlement, Meadows hereby endorses this agreement and the plans for this project.

Respectfully submitted,


Meadows Board of Trustees

cc: Attached Service List (via email, w/encl.)
{40634960:1}

Professionally managed by

Homestead Management Services, Inc

328 Changebridge Rd. P.O. Box 644, Pine Brook, NJ 07058 office: 973-797-1444 fax: 973-797-1499
854 Route 206 S. Bldg C P.O. Box 7499 Hillsborough NJ 08844 office: 908 874-6991 fax: 908-874-6951

May 23, 2016

Via Email & Regular Mail

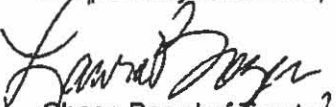
Honorable Leland McGee, ALJ
Office of Administrative Law
33 Washington Street
Newark, NJ 07102

**Re: In The Matter Of The Petition Of Jersey Central Power & Light
Company Pursuant To N.J.S.A. 40:55d-19 For A Determination That
The Montville-Whippany 230 kV Transmission Project Is Reasonably
Necessary For The Service, Convenience Or Welfare Of The Public
BPU Docket No. EO15030383
OAL Docket No. PUC 08235-2015N**

Dear Judge McGee:

We are writing on behalf of the Board of Trustees for Montville Chase Condominium Association. We have reviewed the terms of the Stipulation of Settlement and its impact on the Montville Chase Condominium Association and accordingly, after much thought and consideration, we concur with the settlement. So long as the plans are modified for this project to be consistent with what is proposed in this settlement, Chase hereby endorses this agreement and the plans for this project

Respectfully submitted,

 *Lawrence J. Meyer*, Vice-President
Chase Board of Trustees

cc: Attached Service List (via email, w/encl.)