JCP&L Verbatim Response to Middletown Township's Questions

Township officials sent 13 questions about the proposed Monmouth County Reliability Project to JCP&L on June 10th. JCP&L provided direct responses to those questions on June 22nd. The views expressed in the responses below are solely those of the utility and are provided for informational purposes only.

1. Please describe the purpose and the overall benefits of this project. What will be different for the average consumer upon completion of this project?

At Jersey Central Power and Light (JCP&L), we understand that customers are expecting more from their electric utilities and it's our responsibility to make sure every customer has the power they need when they need it. The Monmouth County Reliability Project (MCRP) will strengthen and modernize the electric grid, improving service reliability for nearly 214,000 residential and commercial customers in Monmouth County.

Currently, an electricity disruption between Aberdeen and Red Bank would result in a significant power outage affecting customers across the county. The proposed transmission line provides another supply of electricity into the area, adding a layer of redundancy to enhance reliability for our Monmouth County customers.

The MCRP also includes modern technology that will deliver real-time information about system conditions so we can better monitor and respond to customer power needs. Together with substation enhancements and the new transmission line, this technology will help reduce the length and frequency of service disruptions while delivering the additional power our customers require.

2. In considering this project, what alternatives were considered or are available. For example, can these lines be run underground? Are there other technologies?

To ensure JCP&L chose the best possible route, we considered 17 potential transmission corridors, including existing highways, local roads and other rights-of-way. The proposed route was chosen because it uses land already designated for public use and minimizes social, environmental and financial impacts on the community.

While building the project underground may seem like a viable option, there are many significant obstacles to burying a 230-kilovolt transmission line. Burying the line along the proposed route would be extremely challenging because of the proximity to the railroad and its underground equipment. Typically, placing a 230-kV transmission line underground would require a digging a large trench, resulting in extensive traffic disruptions across multiple communities, substantial environmental considerations, and significantly higher costs. Underground lines are also much more difficult to service and repair.

3. What is the height of the proposed monopole's and how is the height determined?

On average, the proposed monopoles will be 140 feet tall. The height of each pole is determined by site topography and clearances required by the National Electrical Safety Code. These clearances ensure appropriate distances between wires on a pole and between the lowest transmission line wire and the exiting New Jersey Transit catenary. Each wire requires approximately 21 feet of clearance, including the static wire at the top of each pole. The poles are individually designed and engineered to meet these safety requirements.

4. How was the route and the project length determined, and what is being proposed for areas outside of this location?

A multi-disciplinary routing team conducted a Corridor Screening Study and a Route Selection Study to establish a proposed route for the MCRP. The Corridor Screening Study identified 17 transmission corridors that could potentially contain a new 230-kV transmission source into the JCP&L Red Bank Substation. These routes included opportunities to share or parallel existing rights-of-way, including existing 230-kV transmission lines and distribution circuits, New Jersey Transit rail lines, and road corridors such as the Garden State Parkway and Route 35.

After completion of the initial Corridor Screening Study, 13 potential corridors were eliminated from further consideration because the failed to meet the requirements of various regulatory agencies or due to development density.

The most feasible options were then analyzed in a Route Selection Study to identify a proposed route that minimized the overall effect of the transmission line on the natural and human environment, avoided unreasonable and circuitous routes and unreasonable costs, and minimized special design requirements. Through this process, the proposed route was selected because it minimized social, environmental, and financial impacts.

5. Is there data on the Electromagnetic Fields associated with overhead lines as proposed for this project? What are the levels established by the State of Federal Government? What will the levels be at ground-level and how do they compare to levels of EMF's humans are exposed to in normal daily life or EMF levels already occurring along the NJT right-of-way?

JCP&L understands that residents along the proposed route have concerns about electric and magnetic fields (EMF). The overall conclusion reached by national and international scientific and health agencies makes clear that exposures to EMF that people encounter in their daily life, including those from transmission lines like the one considered here, do not pose any recognized long-term health risks.

The proposed levels of magnetic field from the transmission line along the right-of-way are similar to levels associated with wood pole distribution lines that have existed throughout the country for nearly one hundred years, as well as levels found in homes, businesses, and schools near electrical wiring and appliances.

As part of JCP&L's BPU filing for this project, the company will submit a comprehensive analysis of the existing and proposed EMF levels along the project corridor. While there are no national standards or limits in the United States for EMF associated with power lines, this project meets New Jersey's electric field guideline for the edge of the right-of-way.

6. Explain the difference between Non-Ionizing and Ionizing Radiation and which is proposed with this project.

Non-ionizing radiation is the term given to lower frequency electromagnetic energy, such as radio waves, visible light and electromagnetic fields associated with power lines. Ionization is the removal of an electron from an atom. Ionizing radiation is much higher in frequency and includes X-rays and gamma rays that have over one-million-billion times more energy than power frequency fields.

7. Is there a project time-line? By what date do you anticipate filing with the BPU and when would you expect them to hold hearings.

JCP&L anticipates filing its petition with the BPU this summer. The BPU determines the timing of the public hearing, which is scheduled after the petition is filed.

8. The proposed spacing between monopoles is approximately 500 feet. What would happen to the height of the monopoles if the spacing were cut in half to 250 ft. or even 200 ft.?

Our preliminary estimates suggest that pole heights would be lowered by an average of approximately 10 feet by reducing pole spacing. Some poles would not be candidates for height reduction based on their specific location and surrounding features.

9. Has the possibility of running the poles along rt. 35 been studied? The wires could be run underground from the three key substations to rt. 35. Then above ground between Red Bank and Aberdeen. Closer spacing again could reduce the height of the poles thus reducing the visual impacts.

JCP&L considered several potential routes along Route 35 during the Corridor Screening Study and Route Selection Study. A Route 35 option was not selected as the proposed route due to the

need to acquire new and expanded rights-of-way and to purchase up to nine residences located within that right-of-way.

10. Could the wires be run underground from the substations to the Garden State Parkway, then overhead along and within the GSP right-of-way?

A route within the Garden State Parkway would conflict with the utility co-location practices followed by the New Jersey Turnpike Authority, which does not allow easements for parallel-orientated transmission infrastructure within their right-of-way. Routing the line outside the parkway's right-of-way is not possible due to existing development.

11. How does JCP&L intend to address the impacts of the proposed project on the Middletown Village Historic District? Has undergrounding or substantially lowered monopoles through the district been considered?

Building the line underground is not feasible, for the reasons previously discussed. Pole heights will be the minimum necessary to meet the National Electrical Safety Code, JCP&L, and New Jersey Transit requirements.

12. Will the overhead wires hum or emit any sound. If so would the sound also be audible with underground wires. Would any noise generated be compliant with NJDEP standards?

The proposed transmission line will comply with the New Jersey Administrative Code limit of 50 decibels at the edge of the right-of-way. Sound associated with transmission lines is much more common on higher voltage lines than the one proposed here. Additionally, we have selected wires that minimize any potential sound from the proposed line.

13. Has JCP&L looked into other areas in the country or even the world where similar powerlines were installed and gathered or sought data to determine if there have been any measurable experiences of impacts on the health of those living nearby and the real estate value of properties nearby? If so can you direct us to or provide us with such data?

Similar 230-kV transmission lines have been operating in populated areas of New Jersey and around the world since the early 20th century. The World Health Organization concluded in 2014 that "Based on a recent in-depth review of the scientific literature, [we conclude] that current evidence does not confirm the existence of any health consequences from exposure to low level electromagnetic fields."

JCP&L is evaluating whether the MCRP could affect property values in Monmouth County and will provide an independent real estate expert's report with our petition to the New Jersey Board

of Public Utilities. As part of the analysis, the appraiser is conducting a review of studies completed on the potential impact to market values of properties adjacent to high voltage transmission lines. We know our customers and local leaders will be holding us accountable to protect the natural beauty of our community, and we embrace that responsibility.