

A. INTRODUCTION

This chapter assesses the effects of the proposed construction activities on existing utility infrastructure including transmission lines and other energy infrastructure operated by the Consolidated Edison Company of New York (Con Edison). The evaluation of energy demands and use during construction of the proposed project, including those associated with any construction equipment is discussed in Chapter 6.11, “Construction—Greenhouse Gas Emissions.”

B. PRINCIPAL CONCLUSIONS**NO ACTION ALTERNATIVE (ALTERNATIVE 1)**

The No Action Alternative assumes that no new comprehensive coastal protection system is installed in the proposed project area. No changes to energy are expected to occur with the No Action Alternative.

PREFERRED ALTERNATIVE (ALTERNATIVE 4): FLOOD PROTECTION SYSTEM WITH A RAISED EAST RIVER PARK

The Preferred Alternative would involve excavation, pile driving, and other potentially disruptive construction activities in proximity to existing energy transmission and generation infrastructure. To avoid potential adverse effects, protective measures, described further in Section D below, would be implemented to ensure that construction of the proposed project would not disrupt the function of this infrastructure and the electrical supply in Lower Manhattan.

OTHER ALTERNATIVES

The Flood Protection System on the West Side of East River Park – Baseline Alternative (Alternative 2), Flood Protection System on the West Side of East River Park – Enhanced Park and Access Alternative (Alternative 3), and Flood Protection System East of Franklin Delano Roosevelt East River Drive (FDR Drive) (Alternative 5) would be similar in terms of their potential to disturb existing energy transmission and generation infrastructure, as they all involve excavation, pile driving, and other potentially disruptive construction activities. Any potential for construction-phase effects would be avoided in the same manner as described below for the Preferred Alternative.

C. REGULATORY CONTEXT

The New York Public Service Commission regulates utilities in that state¹ under the New York Energy Law² and this requirement was followed where applicable in the determination of environmental effects during construction of the proposed project.

D. EXISTING CONDITIONS

Con Edison has implemented storm-hardening improvements at its East River Complex. These measures include the following:

- Critical equipment, such as the elevated East 13th Street Substation control room, was raised or relocated;
- Submersible equipment installed to withstand flooding;
- Perimeter walls, flood walls and barriers that were constructed or upgraded around critical equipment in the electric substations and the East River Generating Station;
- Pumps that were installed with redundant power supply and backup generators; and
- Flood protection measures that safeguard utility tunnels.

E. ENVIRONMENTAL EFFECTS

A DETAILED DESCRIPTION OF THE ALTERNATIVES ANALYZED IN THIS CHAPTER IS PRESENTED IN CHAPTER 2.0, “PROJECT ALTERNATIVES.” NO ACTION ALTERNATIVE (ALTERNATIVE 1)

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PREFERRED ALTERNATIVE (ALTERNATIVE 4): FLOOD PROTECTION SYSTEM WITH A RAISED EAST RIVER PARK

Construction of the Preferred Alternative would accommodate existing water and electrical transmission lines. Most important of these are the high-voltage electrical transmission lines (owned by Con Edison) that extend beneath the entire length of East River Park, generally running beneath the park access service road, and beneath Stuyvesant Cove Park under the existing bicycle path. As discussed in Chapter 6.0, “Construction Overview,” these high-voltage transmission lines within the project area present a variety of challenges to the design and construction of the flood protection measures in Project Area One and Project Area Two. These transmission lines, critical to the delivery of electricity in Lower Manhattan and throughout New York City, are currently buried in the fill and natural soils in the project area at a depth that allows for effective dissipation of the heat associated with the transmission of electricity (heat

¹ Companies Regulated by the Commission. New York Public Service Commission. October 17, 2013.

² The New York Consolidated Laws includes a statutory code called the “Energy Law.” The New York Energy Law is the statutory, regulatory, and common law of the State of New York concerning the policy, conservation, taxation, and utilities involved in energy, which became effective on July 26, 1976 as Chapter 17-A of the Consolidated Laws.

dissipation is required for the operation of the lines). Additionally, the transmission lines were installed in locations that are accessible to Con Edison for purposes of maintenance and repair, when needed.

In order to avoid damage to or disruption of the transmission lines during the construction of the proposed project, measures would be taken to minimize vibration, to carefully control excavation around existing infrastructure, and to manage the placement of fill and soil stockpiles. Because the transmission lines are highly sensitive to vibration, installation of sheet piles in proximity to the lines could be achieved with a press-in sheet piling machine, rather than vibratory hammer. Vibration monitoring would also be employed to confirm that specified vibration limits are not exceeded. To avoid unexpected utility line strikes or other hazardous conditions, the location of transmission lines would be confirmed via test pits inspections performed by Con Edison. While much of the excavation associated with the proposed project would be performed with heavy equipment, excavation in proximity to the transmission lines would be performed manually to avoid disturbance of or damage to the infrastructure. To maintain the required heat dissipation capacity and ensure functionality of the transmission lines, soil stockpiles and additional fill storage during construction would be located away from the transmission lines.

Additional Con Edison electrical and steam transmission and generation infrastructure in the vicinity of the proposed project would not be disturbed as part of construction of the proposed project. Con Edison subsurface infrastructure, including transmission and distribution lines located within the ROW may be impacted or need to be relocated. However, the flood protection system for the proposed project would tie into the Con Edison East River Generating Station building north of East 14th Street. Close coordination with Con Edison would ensure that construction activities do not interfere with operations of these facilities.

OTHER ALTERNATIVES

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