Chapter 20: Sustainability

This chapter discusses the use and conservation of energy, and sustainability measures of the Proposed Project. It identifies green building practices incorporated into the Proposed Project, and discusses the energy needs of the Proposed Project, and means for reducing overall energy consumption. It is noted that the redevelopment of this previously developed Project Site to meet a community need (e.g., housing) is, in and of itself, a sustainable practice in that it minimizes the need for greenfield development and makes use of existing infrastructure.

As discussed in Chapter 11, "Use and Conservation of Energy," electricity service to the Project Site is provided by Con Edison. The Project Site currently utilizes a minimal amount of energy as the existing office buildings are vacant. The Proposed Project would require energy to power building systems. The Project Site would be served by a new electric distribution system (on-site) and may also be served by natural gas. The Applicant has not yet determined whether the buildings' heating and cooling systems (HVAC) will be electric- or natural gas-powered systems.

Energy consumption will occur during construction and occupancy of the Proposed Project. During construction, energy will be used for power equipment and various construction vehicles. Once construction is completed and the residences are occupied, energy will be required for heating, air conditioning, lighting, and the use of household appliances and electrical equipment.

To reduce the energy consumption of the Proposed Project, energy efficient lighting and appliances would be used. Is it anticipated that each apartment unit within the multifamily buildings will have a dedicated high-efficiency one-to-one split system heat pump, and that common corridors will have one-to-con split system heat pumps, while amenity spaces will utilize variable refrigerant flow (VRF) multizone split system heat pumps. In addition, high-efficiency building envelope features, including windows and facades, would be incorporated. The use of energy-efficient features would reduce energy consumption, which would also reduce the greenhouse gas emissions attributable to the Proposed Project.

The Proposed Project would include various energy conservation measures, and incorporate green and sustainable building practices. As discussed in Chapter 11, "Use and Conservation of Energy," these measures and practices would include the use of LED interior and exterior lighting, "right-sized" HVAC systems, and the use of activity-sensing and photovoltaic sensing lighting controls, where appropriate. The buildings would be insulated in accordance with applicable building and conservation codes, including the use of insulated windows. The Applicant would also undertake a post-approvals feasibility study to determine whether incorporation of solar power is practicable. The Proposed Project would include electric vehicle chargers at various locations within the Project Site. Building materials, to the extent possible, would be recycled or locally sourced, to minimize the environmental impact of the construction process. In addition, the buildings are designed to maximize natural light and ventilation, reducing the need for artificial light and air conditioning. The stormwater treatment practices discussed in Chapter 10, "Stormwater," which are based on green practices and runoff reduction, would be implemented. ✶