

Chapter 13: ENERGY

13.1 Introduction

According to the *CEQR Technical Manual*, a detailed assessment of energy impacts is warranted for projects that may significantly affect the transmission or generation of energy, or generate substantial indirect consumption of energy (such as data centers or web hosting facilities). The proposed action would not meet these thresholds for detailed analysis, but a discussion of the operational energy consumption is calculated for the proposed action and reported in this chapter.

13.2 Principal Conclusions

The proposed action would not directly affect the transmission of energy, nor would the proposed residential and commercial uses generate a demand for energy that would overburden energy supply systems. Therefore, no significant adverse impact with regard to energy would occur with the proposed action.

13.3 Methodology

The annual energy consumption is calculated for the residential and commercial uses that would be introduced with the proposed action, per the guidance of the *CEQR Technical Manual*, as seen in Table 13-1, "Average Annual Whole-Building Energy Use in New York City." This table provides the average annual energy consumption rates in New York City for commercial, industrial, institutional, and residential land uses. The measure of energy use in this chapter is British Thermal Units ("BTUs"); one BTU is the quantity of heat required to raise the temperature of one pound of water by one degree Fahrenheit. Energy consumption is calculated and expressed as annual energy consumption.

Table 13-1: Average Annual Whole-Building Energy Use in New York City

Building Type	Source Energy (Thousand Btu (“MBtu”)/sq. ft)
Commercial	216.3
Industrial	554.3
Institutional	250.7
Large Residential (>4 family)	126.7
Small Residential (1-4 family)	94

Notes:
 Source energy accounts for energy consumed on site in addition to energy consumed during the generation and transmission of energy supplied to the site. This table was developed by the Mayor’s Office of Long Term Planning and Sustainability and lists New York City-specific energy- and carbon-intensity values for various building types. Building energy intensity (measured by thousand Btu per square foot (MBtu/sq. ft)) is calculated from data compiled for calendar year 2008 for the Inventory of New York City Greenhouse Gas Emissions: September 2009. These values have been normalized for weather using the National Oceanic and Atmospheric Administration (“NOAA”) Typical Meteorological Year (“TMY”) data, which are derived from 1976-2005 historical weather data.
 Data Sources: City of New York, *Inventory of New York City Greenhouse Gas Emissions* (2009); New York City Department of Finance; U.S. Department of Energy National Renewable Energy Laboratory.

Source: Table 15-1 in the *CEQR Technical Manual*

13.4 Existing Conditions

The project site is currently not occupied, and no substantial energy consumption is attributable to the project site in existing conditions.

13.5 The Future Without the Proposed Action (“No Action” Conditions)

No substantial change at or in the vicinity of the project site to availability or transmission of energy is anticipated in the future without the proposed action. Moreover, as the project site is expected to remain unbuilt and unoccupied in the future without the proposed action, on-site energy consumption will be negligible.

13.6 The Future With the Proposed Action (“With Action” Conditions)

The proposed action would introduce up to approximately 975,000 square feet of residential space and up to approximately 122,500 square feet of commercial space when fully developed. As of project completion in 2028, the total residential space¹ would be expected to consume approximately 123.5 billion BTUs per square foot per year and the total commercial space² would be expected to consume approximately 26.5 billion BTUs per square foot per year. Therefore, the proposed action would be expected to result in a total operational energy consumption of approximately 150 billion BTUs annually.

All new buildings constructed with the proposed action would be required to comply with the New York City Energy Conservation Code, which governs performance requirements of heating, ventilation, and air conditioning systems, as well as the exterior building envelope of new buildings. In compliance with this code, new developments must meet standards for energy conservation, which include requirements relating to energy efficiency and combined thermal transmittance. In addition, the proposed method of construction and building operations would be designed to meet Enterprise Green Communities Standards of energy efficiency, and the buildings would partially rely on on-site solar- and/or wind-generated power.

With these measures in place, and given that the proposed action would not directly affect the transmission of energy, nor be expected to generate a demand for energy that would overburden energy supply systems, no significant adverse impact with regard to energy would result from the proposed action, and no further analysis of energy is warranted.

¹ Energy use for the residential space is based on the “Large Residential (>4 family)” building type, per Table 15-1 of the *CEQR Technical Manual*, which is estimated to consume 126,700 BTUs per square foot.

² Energy use for the commercial space is based on the “Commercial” building type, per Table 15-1 of the *CEQR Technical Manual*, which is estimated to consume 216,300 BTUs per square foot.
