Chapter 13: Energy

A. INTRODUCTION

The 2001 *City Environmental Quality Review (CEQR) Technical Manual* recommends a detailed assessment of energy impacts only for actions that could significantly affect the transmission or generation of energy or that generate substantial indirect consumption of energy (such as a new roadway). Because the proposed action would not exceed these CEQR thresholds, this chapter simply discloses the proposed action's anticipated energy consumption.

B. PRINCIPAL CONCLUSIONS

The proposed action (both the proposed Flushing Commons project and the Macedonia Plaza project) would generate new demand for energy at the rezoning area, but it would not significantly affect the transmission or generation of energy. Electricity and gas is expected to be supplied by Con Edison, which would provide heating, cooling, and lighting for the proposed action. The operational consumption for the proposed action is expected to be approximately 200,062 million British Thermal Units (BTUs) per year. This increase in energy demand could be provided by Con Edison without disruption to the distribution system. Therefore, the proposed action would not result in any significant adverse impacts on energy supply or demand.

C. EXISTING CONDITIONS

Con Edison supplies electricity and gas for most of New York City. KeySpan Energy also provides natural gas to portions of New York City. The existing project site uses, consisting of lighting and equipment needs for the parking lot and structure, do not generate a significant demand for energy. The existing energy use at the project is estimated to be 5,785 million BTUs per year.

D. THE FUTURE WITHOUT THE PROPOSED ACTION

In the future without the proposed action, no known development projects are planned at the rezoning area. Therefore, future energy consumption at the rezoning area is not expected to change.

E. PROBABLE IMPACTS OF THE PROPOSED ACTION

Electricity and gas is expected to be supplied by Con Edison, which would provide heating, cooling, and lighting for the proposed action. The hotel scenario for the proposed Flushing Commons project was conservatively assumed for this analysis because the hotel scenario, compared with the office scenario, would result in a greater energy demand. The proposed action's energy consumption has been determined to be 200,062 million BTUs annually (see Table 13-1).

Table 13-1
Projected Annual Energy Consumption

Use	Size (Square Feet)	Rate (BTUs/Square Foot/Year)	Consumption (Million BTUs/Year)
Residential	865,000	145,500	125,858
Retail	266,500	55,800	14,870
Restaurant	33,500	159,300	5,337
Hotel	130,000	145,500	18,915
Commercial/Office	110,000	77,900	8,569
Community Facility/ Medical Office	36,000	196,400	7,070
Community Facility/ Other	72,000	65,300	4,702
Loading, Public and Accessory Parking	538,000	27,400	14,741
Subtotal	**2,051,000**	**NA**	**200,062**
Total Energy Consumption			**200,062**

Source: Rates from *CEQR Technical Manual*, December 2001.

The proposed action would be required to comply with the New York State Energy Conservation Construction 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 the code, the proposed buildings would incorporate all required energy conservation measures, including meeting the code's requirements related to energy efficiency and combined thermal transmittance.

As a result of the proposed action, the existing parking lot use and related energy consumption, estimated at 5,785 million BTUs per year, would be eliminated. The proposed action is expected to generate a total annual energy demand of 200,062 million BTUs per year. The additional consumption of about 194,276 million BTUs per year is virtually negligible compared with Con Edison's most recent annual energy demand estimate of 55 billion Kilowatt-hours (188 trillion BTUs per year) within its service area. This increase in energy demand could be provided by Con Edison without any disruption to the distribution system. As a result, no significant adverse energy impacts from the proposed action are expected. ✷