

LIST OF CORRESPONDENCE FROM CONSOLIDATED EDISON

The attached correspondence from Consolidated Edison (Con Edison) provides estimations of peak electricity and gas demands under Future Conditions With and Without the Proposed Action in 2010 and 2025. Also provided is a broad estimate of energy infrastructure improvements that would be needed to supply adequate and reliable energy sources for the Proposed Action. Correspondence includes:

- Con Edison Letter, dated 3/05/04, regarding potential electricity and gas demand of the Proposed Action and possible need for energy infrastructure improvements; and
- Con Edison Letter, dated 3/26/04, regarding potential electricity and gas demand of the Future With the Proposed Action and possible need for energy infrastructure improvements.



March 5, 2004

David Gmach
Director
Manhattan Public Affairs and
Financial Planning & Analysis

James Brown
Vice President
Technical Director, Environmental Services
Parsons Brinckerhoff Quade & Douglas
One Penn Plaza
New York, NY 10119

Dear Mr. Brown:

Con Edison is pleased to submit the following comments on the proposed actions included in the Draft Generic Environmental Impact Statement ("DGEIS") for the Hudson Yards development plan and extension of the Number 7 subway line and their impact on our electric, gas and steam system infrastructure.

These comments are intended to provide information to the Department of City Planning and the Metropolitan Transportation Authority to assist in preparation of the energy portion of the DGEIS. They are not intended to be Con Edison's comments on the DGEIS, which will be forthcoming upon release of the DGEIS.

City Planning and the MTA asked for Con Edison's assistance in examining the proposed actions' impact on the existing energy systems in the City. City Planning and MTA asked Con Edison to look at the years 2010 and 2025 for the proposed actions. For purposes of this DGEIS, City Planning and the MTA assumed complete development and full utilization by the year 2010 for specifically identified elements of the development plan and by the year 2025 for all the remaining buildout.

Con Edison's electric forecast and load growth program is usually developed for a 10-year period. For purposes of this analysis only, Con Edison conducted an analysis extending the electric forecast and load growth program to the year 2025. City Planning and the MTA provided assumptions regarding projects and buildings to be built, square footage, and the anticipated development schedule. Con Edison utilized these assumptions for its analysis. This analysis is not meant to serve as a forecast for future load growth. It was developed solely for the purposes outlined to us by City Planning and the MTA as part of the DGEIS analysis.

For purposes of this analysis, no assumptions were made about the use of Con Edison's steam system as a heating or cooling source. At this time, there is only a small amount of steam service available in the Hudson Yards Development Plan area, within a limited

Impact in the Year 2010

Electric

Electricity is generated in generating stations and delivered over the transmission system to transmission substations. Transmission substations receive electricity from the transmission system and reduce the voltage to a level that can be delivered to area substations. Area substations receive electricity from a transmission substation and reduce the voltage to a level that can be delivered into the distribution system or "grid" in the streets. In the distribution system, the electricity's voltage is reduced further to be delivered to customers. Each area substation serves one or more distinct geographic areas, called networks. Con Edison currently has 33 networks and 22 area substations in Manhattan.

Based on development assumptions provided by City Planning and the MTA, the incremental electric load associated with the Hudson Yards Development Plan in the Year 2010 will be approximately 77 MW. In addition, there is concurrent normal load growth that will occur in the area and surrounding neighborhoods. At this time, Con Edison's transmission and distribution systems are expected to have sufficient capacity to meet this incremental demand and the concurrent normal load growth. However, the increased load will require a new area substation by 2013. A new transmission substation would need to be built to serve the area substation by 2013. Therefore, planning for a new area substation and transmission substation would have to be underway by the Year 2010.

The large-scale development will require extensive construction within a tight timetable for delivering service to customers throughout the area. No engineering or specific estimates can be conducted until these projects are further underway. However, there are a number of issues that may hinder Con Edison's ability to provide the service as needed. For example, the New York City Department of Transportation and Amtrak have proposed new bridges to cross over the Amtrak tracks. As proposed, these bridges would limit Con Edison's ability to deliver service to its customers. The bridge design must allow for Con Edison facilities to be placed in both the street and the sidewalk. Also, with the tight timeframe and number of large-scale projects, there will need to be significant coordination among several public and private entities for all street and underground projects.

Gas

Based on development assumptions provided by City Planning and the MTA, the incremental gas load is projected to be 500,000 cubic feet per hour in the Year 2010. Con Edison's gas transmission and distribution facilities will be used to deliver natural gas to the area. There will have to be upstream modifications and enhancements to the transmission and distribution system to meet the increased demand. Locally, new gas mains, service lines and metering will need to be constructed to support the new customer

load. Similar issues mentioned above regarding construction for electric will apply to the gas system as well.

Impact in the Year 2025

Electric

Based on development assumptions provided by City Planning and the MTA, the incremental load associated with the Hudson Yards Development Plan in the Year 2025 will be approximately 309 MW. This scenario assumes that the entire development plan is fully completed and utilized by the year 2025. The incremental load of 309 MW from the proposed action is greater than the design capacity of a typical area substation serving Manhattan. In addition, there is concurrent normal load growth that will occur in the area and surrounding neighborhoods.

With this scenario, two additional area substations would need to be in service prior to the Year 2025 to serve the Hudson Yards area. One area substation would be needed to be in operation by the year 2013. A second new area substation would be needed by the year 2021. These area substations should be located within the Hudson Yards area.

This scenario will also require a new transmission substation that can serve the Hudson Yards area as well as other parts of the West Side of Manhattan prior to the Year 2025. The new transmission substation would serve the Hudson Yards area substations as well as other area substations. The transmission substation would not have to be in the Hudson Yards area. Therefore, the total impact for the Year 2025 will require the construction of two area substations and one transmission substation.

Con Edison's facilities are currently zoned for manufacturing. With the rezoning proposal in the Hudson Yards development plan, much of the manufacturing area is being rezoned for commercial and residential uses. The rezoning proposal should accommodate the need for additional Con Edison facilities in the area as-of-right.

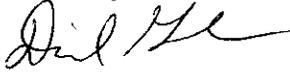
The large-scale development will require extensive construction within a tight timetable for delivering service to customers throughout the area. No engineering or specific estimates can be conducted until these projects are further underway. However, there are a number of issues that may hinder Con Edison's ability to provide the service as needed. For example, the New York City Department of Transportation and Amtrak have proposed new bridges to cross over the Amtrak tracks. As proposed, these bridges would limit Con Edison's ability to deliver service. The bridge design must allow for Con Edison facilities to be placed in both the street and the sidewalk. The underground and aboveground congestion and limited access to streets may be worsened in this period, after the initial buildup occurs. There will need to be significant coordination among several public and private entities for all street and underground infrastructure projects.

Gas

Based on development assumptions provided by City Planning and the MTA, the incremental gas load is projected to be 4,000,000 cubic feet per hour in the Year 2025. Con Edison's gas transmission and distribution facilities will be used to deliver natural gas to the area. There will have to be upstream modifications and enhancements to the transmission and distribution system to meet the increased demand. Locally, new gas mains, service lines and metering will need to be constructed to support the new customer load. Similar issues mentioned above regarding construction for electric will apply to the gas system as well.

I hope this information is helpful. Please call me if you have any comments or questions.

Sincerely,



David Gmach

cc: Aron Kirsch
Ann Weisbrod
John Banks
Joe Madia

March 26, 2004

James Brown
Vice President
Technical Director, Environmental Services
Parsons Brinckerhoff Quade & Douglas
One Penn Plaza
New York, NY 10119

Dear Mr. Brown:

Con Edison is pleased to submit this follow-up to our letter of March 5th regarding the proposed actions included in the Draft Generic Environmental Impact Statement (“DGEIS”) for the Hudson Yards development plan and extension of the Number 7 subway line. Parsons Brinckerhoff (“PB”) has requested that Con Edison provide additional information on electric demand without the proposed action in 2010 and 2025. To summarize, I have incorporated information from the prior submission as well.

Please note that Con Edison’s electric forecast and load growth program is usually developed for a 10-year period. For purposes of this analysis only, Con Edison conducted an analysis extending the electric forecast and load growth program to the year 2025. Please be advised that these estimates are not Con Edison’s actual forecasts and are framed around assumptions which PB specifically provided to us for this request.

Below are two independent evaluations that address your separate requests.

I. Con Edison Network Serving Hudson Yards Development Area

Electricity is generated in generating stations and delivered at high voltage over the transmission system to transmission substations. Transmission substations receive electricity from the transmission system and reduce the voltage to a level that can be delivered to area substations. Area substations receive electricity from a transmission substation and reduce the voltage to a level that can be delivered into the distribution system or “grid” in the streets. In the distribution system, the electricity’s voltage is reduced further for delivery to customers. Each area substation serves one or more distinct geographic areas, called networks. Con Edison currently has 33 networks and 22 area substations in Manhattan.

One of Con Edison’s networks serves the area from 30/31st Street to 43rd Street and from Seventh Avenue to the Hudson River. This network serves most of the area covered by the Hudson Yards Development Plan. In 2003, the peak load for the network was approximately 232 MW.

Without the Hudson Yards Development Plan, Con Edison estimates that the network’s incremental increase in the peak demand in the Year 2010 would be 44 MW above the 2003 level (see Table 1 below). The Hudson Yards Development Plan would require an additional 77 MW by 2010. Therefore, the total incremental increase in load by 2010 with the Hudson Yards would be 121 MW above the 2003 level.

Without the Hudson Yards Development Plan, Con Edison estimates that the network’s incremental increase in the peak demand in the Year 2025 would be 88 MW above the 2003 level. The Hudson Yards Development Plan would require an additional 309 MW by 2025. Therefore, the total incremental increase in load by 2025 with the Hudson Yards would be 397 MW above the 2003 level.

**TABLE 1. IMPACT OF HUDSON YARDS ON ELECTRIC LOAD
(Megawatts)**

EIS Year	Incremental Load No Hudson Yards	Load Associated with Hudson Yards	Incremental Load With Hudson Yards
2003-2010	44	77	121
2003-2025	88	309	397

The design capacity of the area substation serving this network is 271 MW. Currently, Con Edison plans to transfer some portion of the load from this network to another area substation at a future date -- prior to 2010 – to alleviate some of the immediate constraints in this network. However, there is limited capacity within Manhattan for transferring load to another area substation. When there is no additional capacity to transfer the load, a new area substation will be required. To give some context of the magnitude of the load associated with Hudson Yards, please note that the incremental load of 309 MW from the proposed action is greater than the design capacity of the area substation currently serving the area.

With the Hudson Yards Development Plan, a new area substation would be required by 2013. In addition, a new transmission substation would be required in 2013 to serve the area substation.¹ In anticipation of the new facilities, land would have to be acquired and engineering underway by 2010. A second area substation would be required by 2021. The area substations should be located within the Hudson Yards area, in close proximity to the growing load area. The transmission substation could be located outside the Hudson Yards area.

Without the Hudson Yards Development Plan, there would not be a need for a new area substation specifically for the network serving the Hudson Yards area. There would be a

¹ The new transmission substation will be required because of capacity constraints on the existing transmission substations.

need for a new area substation and a new transmission substation by 2020. However, the need for those facilities is attributable to the overall load growth in several parts of midtown Manhattan. The requisite new facilities cannot be directly attributed to the load growth in the Hudson Yards area. The new area substation required by 2020 in this scenario may not have to be in the Hudson Yards area. The transmission substation could be located outside the Hudson Yards area.

As mentioned in my letter of March 5th, Con Edison's facilities are currently zoned for manufacturing. With the rezoning proposal in the Hudson Yards development plan, much of the manufacturing area is being rezoned for commercial and residential uses. The rezoning proposal should accommodate the need for additional Con Edison facilities in the area as-of-right.

II. Con Edison's Response to PB's Scenarios Without Proposed Action

Separate and apart from the analysis above, PB provided Con Edison with a set of assumptions and specific load entities for a portion of the Hudson Yards area without the proposed action for 2003, 2010 and 2025. Con Edison estimated the approximate peak demand for each period. The results are as follows:

The total summer electric demand for all the items listed in Table 1 ("Rezoning Area Development in 2003 – Existing Conditions") is about 34 MW.

The total summer electric demand for all the items listed in Table 2 ("Rezoning Area Development in the Future Without the Proposed Action in 2010") is about 44 MW.

The total summer electric demand for all the items listed in Table 3 ("Rezoning Area Development in the Future Without the Proposed Action in 2025") is about 51 MW.

Attached are the tables provided by PB.

I hope this information is helpful. Please call me if you have any comments or questions.

Sincerely,

David Gmach

cc: Aron Kirsch
Ann Weisbrod
John Banks
Joseph Madia

TABLES PROVIDED BY PB

Table 1: Rezoning Area Development in 2003 (Existing Conditions)

Existing Conditions (2003)	Floor Area (sq. ft.)	Peak Period Electricity Demand (MW)
Office	1,858,615	
Retail	169,234	
Other Commercial	933,234	
*Residential	*505 dwelling units	
Hotel	0	
Ind/Man	762,058	
Institutional	438,928	
Madison Square Garden	1,000,000	
TOTAL		

Table 2: Rezoning Area Development in the Future Without the Proposed Action in 2010

Future Without the Proposed Action in 2010	Floor Area (sq. ft.)	
Office	3,087,100	
Retail	187,067	
Other Commercial	922,989	
Residential*	*2,625 dwelling units	
Hotel	0	
Ind/Man	762,058	
Institutional	438,928	
MSG	1,000,000	
TOTAL		

Table 3: Rezoning Area Development in the Future Without the Proposed Action in 2025

Future Without the Proposed Action in 2025	Floor Area (sq. ft.)	
Office	3,276,013	
Retail	299,705	
Other Commercial	922,989	
Residential*	*3,251 dwelling units	
Hotel	0	
Ind/Man	762,058	
Institutional	438,928	
MSG	1,000,000	
	TOTAL	