

Consolidated Edison Company of New York, Inc.

M29 Transmission Line Project

Exhibit 6

Economic Effect of Proposed Facility

TABLE OF CONTENTS

<u>Section</u>	<u>Page</u>
EXHIBIT 6: ECONOMIC EFFECTS OF PROPOSED FACILITY.....	6-1
6.1 Introduction and Summary of Findings	6-1
6.2 Demographics	6-2
6.3 Construction Effects and Mitigation.....	6-2
6.3.1 Construction Schedule and Major Phases	6-3
6.3.2 Number of Construction Workers by Discipline	6-6
6.3.3 Available Construction Force	6-6
6.3.4 Mitigation.....	6-7
6.4 Operational Effects and Mitigation.....	6-7

LIST OF TABLES

<u>Section</u>	<u>Page</u>
Table 6-1: Population of Communities Within the Project Area.....	6-2

LIST OF FIGURES

<u>Section</u>	<u>Page</u>
Figure 6-1. Proposed Construction Schedule	6-4

EXHIBIT 6: ECONOMIC EFFECTS OF PROPOSED FACILITY

This Exhibit addresses the requirements of 16 NYCRR §86.7.

6.1 Introduction and Summary of Findings

Construction of the Project will require a contract work force averaging fewer than 200 workers at any time. Construction and installation of the M29 transmission line itself will require a contract work force of fewer than 80 workers at any time (contractors and/or Con Edison employees) in various disciplines assigned to carry out the process of excavation and trenching, pipe installation and welding, manhole and cable installation, and **tunnel construction**. Installation of equipment ancillary to the transmission line at the Sprain Brook Substation will require a contract work force of approximately 30 workers (contractors and/or Con Edison employees) for up to 18 months, with a peak construction staff of 40 workers for a period of approximately three months. Construction activities for installation of new equipment at the Academy Substation will require a contract work force of approximately 60 to 100 workers (contractors and/or Con Edison employees) per day for up to 8 months, with a peak construction staff of 125 to 150 workers for a period of approximately six months. **Construction activities for installation of the two shafts and Harlem River tunnel will require a contract work force of approximately 35 workers/shift for approximately one year.**

Specialized teams varying in size from three to six workers will perform the HPFF pipe-type underground transmission line work. Multiple three- or four-person crews working at various locations along the transmission right-of-way will complete the trenching, pipe installation and welding, manhole installation, cable installation and splicing. Special teams may work independently at any locations requiring specialized construction techniques, such as the Harlem River crossing where **tunneling** will be required. Operational and maintenance activities at the Sprain Brook Substation will require no additional work force other than the Con Edison personnel currently employed at the substation site. The new Academy Substation is planned as an unmanned substation.

The Project's cost and the relatively short duration of its installation will not impact the local economy sufficiently to induce any significant changes in the local residential, commercial, or industrial land use patterns. In addition, installation of the cable primarily within public roadway rights-of-way ensures that the proposed transmission line installation avoids, to the maximum extent practicable, any potential disruptions to retail establishments along the proposed

transmission corridor that could cause a loss of business income. Additionally, Con Edison will ensure that access to existing retail and commercial establishments located along the transmission corridor is maintained during construction. Therefore, no mitigation measures are required. Con Edison is in discussions with the Metropolitan Transit Authority, New York-Presbyterian Hospital, and Kingsbridge Associates for construction access and installation of the transmission line within properties owned by these entities along the preferred route.

6.2 Demographics

The Project will be located within the City of Yonkers, in Westchester County, and in New York City, in both Bronx and New York Counties. The urban setting of the Project area includes a large, residential population within one mile of the Project’s transmission line and its connecting substations. The population of the municipal jurisdictions affected by the Project, according to Census 2000 tabulations, is presented in Table 6-1.

Table 6-1: Population of Communities Within the Project Area

Municipal Jurisdiction	Population
Westchester County	923,459
City of Yonkers	196,086
Bronx County (New York City)	1,332,650
New York County (New York City)	1,537,195

Source: U.S. Bureau of the Census, 2000.

6.3 Construction Effects and Mitigation

Changes in the patterns of existing land use development are typically induced by a significant change in one or more influential variables such as: 1) large-scale physical improvements to some aspect of the local infrastructure; 2) a change in the regulatory environment; or 3) major employment and/or income growth trends in the local economy. Given an adequate level of demand, such changes tend to enhance land for development, induce construction that responds to the demand, and hence cause changes in residential, commercial and/or industrial land use patterns.

Because the transmission line will be placed underground (with the exception of the four bridge crossings, where the line will be mounted underneath or within the bridge structures) and primarily in existing public rights-of-way, there will be no perceptible change in local

infrastructure. Further, as both the Sprain Brook and Academy Substation sites have historically been, and are currently, dedicated to utility use, there will be no regulatory changes required to allow for the installation of the required improvements at these site. Accordingly, surrounding land uses will not be adversely impacted, as the substation sites will continue to be dedicated to utility use. Finally, the increased reliability and capacity brought by the Project to the Con Edison’s regional and local electric distribution systems will support continued growth in the Project region. Therefore, the Project itself will not directly induce any land use changes or land development.

6.3.1 Construction Schedule and Major Phases

The overall construction period for the Project is estimated to be approximately 18 months. The major overlapping phases of the transmission line’s construction and the approximate durations are listed below and illustrated on Figure 6-1:

- Trenching/Pipe Installation and Welding 9 months
- Cable Pulling/Splicing 5 months
- Splice Joints 4 months
- Splice/Alarms 1 month
- Testing 1 month

The overall construction period required for the new equipment at the Sprain Brook Substation is estimated to last approximately 18 months. The major overlapping phases of the construction in support of the improvements at the Sprain Brook Substation and their approximate durations are listed below and illustrated in Figure 6-1:

- Below Ground Civil and Electrical Work 9 months
- Above Ground Electrical Work 8 months
- Testing 1 month

For the Academy Substation, the overall construction period for the installation of new equipment is estimated to last approximately 8 months. The major overlapping phases of the construction in support of the improvements at the Academy Substation and their approximate durations are listed below and in Figure 6-1:

- Install No. 1 Transformer, Switchgear and GIS System 6 months
- Install No. 2 Transformer, Switchgear and GIS System 6 months

6.3.2 Number of Construction Workers by Discipline

The construction work force for the transmission line installation and for improvements to the substations will average fewer than 200 workers (contractors and Con Edison employees) at any time during the 18 months of construction. Construction of the Project transmission line will require a contract work force of fewer than 80 workers at any time (contractors and/or Con Edison employees) in various disciplines assigned to carry out the process of excavation and trenching, pipe installation and welding, manhole and cable installation, and tunneling. Installation of the new equipment at the Sprain Brook Substation will require a contract work force of approximately 30 workers (contractors and/or Con Edison employees) for up to 18 months, with a peak construction staff of 40 workers for a period of approximately three months. Construction activities at the new Academy Substation will require a contract work force of approximately 60 to 100 workers (contractors and/or Con Edison employees) per day for up to 8 months, with a peak construction staff of 125 to 150 workers for a period of approximately 6 months. **Construction activities for installation of the two shafts and Harlem River tunnel will require a contract work force of approximately 35 workers/shift for approximately one year.**

The trenching, pipe installation and welding, cable installation, and splicing will be conducted by multiple three- or four-person crews working at various locations along the rights-of-way. Manhole installations will each be done by five-person crews; six-person crews will conduct cable pulling. These crews also will be working at multiple locations along the rights-of-way.

6.3.3 Available Construction Force

Based on recent and pending transmission line construction in the Project area by Con Edison (i.e., the Grasslands and Cedar Street Projects) and an assessment of Con Edison's in-house work force in the New York metropolitan area and southern Westchester County, Con Edison has determined that the local labor force is sufficient to staff the work required to construct the Project-related transmission facilities and substation improvements. Therefore, no in-migration of workers is anticipated to be necessary, and there would be no need for temporary housing for such workers.

6.3.4 Mitigation

The estimated duration of Project construction is 18 months. Since the transmission facility and substation components of the Project do not constitute large-scale infrastructure improvements, result in no changes in land use regulations, and will induce only minor income and employment growth, these facilities will not generate alterations to the residential, commercial, or industrial land-use patterns of any area adjacent to the transmission line rights-of-way or substations. Therefore, no mitigation of the economic effects of construction is necessary.

6.4 Operational Effects and Mitigation

The transmission line does not require a full-time work force for its operation and maintenance. Therefore, there will be no direct economic impact from the operation of the line. Its operation will be principally underground in a paved or otherwise maintained right-of-way, which will obviate any direct physical impact on adjoining land uses.

Operational and maintenance activities at the Sprain Brook Substation will require no additional work force other than the Con Edison personnel currently employed at the substation site. Similarly, the existing Con Edison operational and maintenance staff, which manages the existing Sherman Creek Substation, will be sufficient to manage the new Academy Substation.

The Project is an essential reinforcement of Con Edison's regional and local electric distribution systems that will support the long-term economic health and growth of Westchester, Bronx and New York Counties and constitutes its principal contribution to the economy of these counties.

For the reasons cited above, construction and operation of the Project will cause no foreseeable alterations to the residential, commercial, or industrial land use patterns in the proximate area. Accordingly, no mitigation is necessary.

References:

Census 2000 Website

<http://quickfacts.census.gov/qfd/states/36000.html>