

### Annual Report on Construction of Transmission and Distribution Projects

### Presented by: Billy Raley

November 13, 2024





# **Discussion Topics**









## Board Policy on Construction of Transmission and Distribution Projects

### It is LIPA's Board Policy on Construction of Transmission and Distribution Projects to:

- Make choices for the construction of the transmission and distribution system in a consistent manner that balances cost for all customers with local concerns.
- Conduct public outreach prior to the beginning of construction in accordance with certain principles described in detail in the policy.
- To accommodate local preferences for underground construction in circumstances where system-wide benefits are insufficient to justify the incremental expense by providing mechanisms for local choice and local funding.



## Board Policy on Construction of Transmission and Distribution Projects

### Proposed Change to Board Policy on Construction of Transmission and Distribution Projects:

- LIPA's electric transmission and distribution (T&D) system is predominantly an overhead system. In general, overhead construction with a robust tree-trim program has provided the best balance between reliability and cost of service for LIPA's customers.
- In recognition of evolving risks to the T&D System in the future as a result of climate change and other factors, for new transmission projects designed for voltages 65kV and above that are not subject to Article VII, underground method of construction is more likely than not to meet the requirements of LIPA's Board Policy on T&D Operations.
- If overhead method is proposed for such facilities, a review of factors such as those identified in certain state regulations (see, for example, Title 16 NYCRR Part 102) should be performed.



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# Policy Compliance & Overall Assessment



## **Transmission & Distribution System Overview**

# LIPA's Transmission & Distribution (T&D) System Statistics

- Overall T&D system approximately 15,500 total miles (10,000 overhead and 5,500 underground).
- Transmission = approximately 1,500 total miles (1,000 overhead and 500 underground).
- Distribution = approximately 14,000 total miles (9,000 overhead and 5,000 underground).
- Underground lines make up approximately 35.5% of our overall T&D system, with underground lines comprising about 33% of the Transmission System and nearly 36% of the Distribution System.





# **Transmission & Distribution Highlighted Construction Projects**

 Projects are evaluated with multiple options in mind balancing considerations of constructability, cost and local customer preferences

### ✓ Eaton's Neck Reconfiguration Reliability Project

- Approximately 2,100 customers served with a significant portion of them experiencing a long history of sustained and momentary outages that far exceed system-wide average performance.
- A reliability project with a scope that incorporated a mix of solutions, with the objective of reducing customer outages in this area. The main project components included converting a portion of the overhead three phase conductor to underground and storm hardening 0.8 miles of overhead lines.
- Project completed in April 2024 at a cost of approximately \$2.3 million.

### ✓ Huntington Village Load Pocket Project

- Approximately 4,000 customers supplied by two 23kV lines with portions running through heavily vegetated areas that have experienced many outages over an extended period of time, especially during major storm events.
- Potential solutions (1. Overhead Aerial Cable, 2. Underground, and 3. Hybrid of #1 and #2) were developed and thoroughly evaluated, with the Aerial Cable solution coupled with additional hardening becoming the preferred solution. This project is scheduled to commence in early 2025.



# External Affairs (EA) Public Outreach for Construction Projects

### **Public Outreach Tier Structure and Activity**

- PSEG Long Island outreach is integrated into capital project planning, design, and construction, and both LIPA and the Department of Public Service review project scoring and outreach plans.
- PSEG Long Island scores each project using outreach tiers based on various factors, including project need, community impact, governmental impact, media landscape, permitting and regulatory requirements, aesthetic impacts, and environmental, historical, cultural, and construction considerations. An outreach plan is developed for each specific project. The outreach tiers are used as a guideline, and outreach tools are then tailored to each project's specific circumstances.
- Tier 1 project activities may include: (i) developing collateral materials; (ii) conducting media and regulatory audits to determine the outreach landscape and identification of stakeholders; (iii) briefing impacted officials; and (iv) notifying impacted customers.
- Tier 2 project activities may include: (i) all Tier 1 activities; (ii) mailings or door hangers to impacted customers; (iii) follow-up with impacted officials; and (iv) sharing project information on PSEG Long Island's website and social media accounts.
- Tier 3 project activities may include: (i) all Tier 1 and 2 activities; (ii) engaging in early design discussions; (iii) conducting early outreach and partnering with elected officials; (iv) hosting open houses; (v) collaborating with third-party experts; (vi) implementing a print and/or broadcast media communications plan; and (vii) email updates to impacted customers.
- Since the last annual update, there were two T&D-specific projects that were scored by External Affairs as Tier 3, Belmont Substation Conversion (from 33kV to 69kV) and Bridgehampton – Install New 69kV Circuit to Buell Substation. Additionally, there were five projects that were scored as Tier 2.



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# **Risk Management**



### Enterprise Risk Management

There is one low-level risk related to the Construction of T&D Projects Board Policy. This risk is being monitored and opportunities for enhanced mitigation actions are being discussed.

- Transmission & Distribution and capital generation projects could lead to controversy with stakeholders, negative public perception, and SEQRA and/or other litigation.
- LIPA mitigates this risk with concurrent oversight of PSEG Long Island's project identification, planning, and development process for significant projects and through its Legal and External Affairs teams that work closely with PSEG Long Island's External Affairs to monitor compliance with the Policy and the communication with towns and the public on significant projects.



# Questions?

**Billy Raley** Senior Vice President Transmission & Distribution

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#### FOR CONSIDERATION

November 13, 2024

**TO:** The Board of Trustees

- **FROM:** John Rhodes
- **SUBJECT:** Approval of the Annual Report and Amendments to the Board Policy on the Construction of Transmission and Distribution Projects

The Board of Trustees (the "Board") of the Long Island Power Authority ("LIPA") is requested to adopt a resolution: (i) approving the annual report on the Board Policy on the Construction of Transmission and Distribution Projects (the "Policy"); (ii) adopting revisions to the Policy described and recommended in this memorandum; and (iii) finding that LIPA has complied with the Policy, which resolution is attached hereto as **Exhibit "A"**.

#### **Background**

By Resolution No. 1383, dated September 27, 2017, the Board adopted the Policy with the purpose of supplementing existing requirements and practices and to guide consistent decision-making related to: (i) the evaluation of system-wide benefits and costs for underground construction of projects where such benefits may exceed their costs; and (ii) public outreach prior to construction of major projects. The Policy was last reviewed on September 28, 2022.

#### **Compliance with the Policy**

LIPA Staff recommends that, for the reasons set forth below, the Board find that the Authority has complied with the Policy for the period since the review of the Policy last year.

The Policy requires that the Chief Executive Officer annually report to the Board on compliance with the key provisions of the Policy. The key provisions of the Policy require that LIPA and its Service Provider, PSEG Long Island:

"For transmission projects designed for voltages 65 kV and above that are not subject to Article VII, prepare a pre-construction report containing an advantage-disadvantage analysis using standardized criteria for evaluating the system-wide benefits and costs to the public of construction of overhead versus underground transmission projects similar to the criteria used by New York utilities subject to Title 16 of the New York Codes, Rules and Regulations ("NYCRR") Part 102, such report to be done sufficiently far in advance of construction to inform the public outreach and project planning process":

• The Eaton's Neck Reconfiguration Reliability Project benefits approximately 2,100 customers served with a significant portion of them experiencing a long history of sustained and momentary outages that far exceed system-wide average performance. A reliability project was developed with a scope that incorporated a mix of solutions, with the objective of reducing customer outages in this area. The main project components included

converting a portion of the overhead three phase conductor to underground and storm hardening 0.8 miles of overhead lines. This project was completed in April 2024 at a cost of approximately \$2.3 million.

• The Huntington Village Load Pocket Project will benefit approximately 4,000 customers supplied by two 23kV lines with portions running through heavily vegetated areas. These customers have experienced many outages over an extended period, especially during major storm events. Potential construction solutions include: (i) overhead – aerial cable, (ii) underground; and (iii) a hybrid of the first two potential solutions. These were developed and thoroughly evaluated, with the aerial cable solution coupled with additional hardening becoming the preferred solution. This project is scheduled to commence in early 2025.

"Maintain a special tariff for undergrounding to provide a financing mechanism that allows local communities to pay for the additional cost of undergrounding all or a portion of a transmission or distribution project where insufficient systemwide benefits exist to justify allocation of the incremental expense throughout the Service Area."

- LIPA's Tariff for Electrical Service (the "Tariff") provides a financing program that allows a local community to request an overhead line be undergrounded.
- The Tariff provisions allow the requesting municipality the option of paying either the full incremental cost of undergrounding in advance of construction or paying the cost in the form of an incremental consumption charge for a period of 20 years.
- LIPA prepared a <u>brochure</u> for its Service Provider on the undergrounding program, which was electronically distributed to local elected officials and is available on both the LIPA and PSEG Long Island websites. A formalized process was also developed with LIPA oversight to ensure the effective implementation of the Tariff provisions.
- This tariff has been used most recently for a project that was completed in 2021 in the Village of Westhampton.

"LIPA and its Service Provider will conduct outreach to affected public officials, civic leaders, and communities in advance of the construction of transmission and distribution projects in a manner appropriate to each project, including visual representations of the proposed project as built, if appropriate, consistent with industry best practices, as mutually agreed upon by LIPA and its Service Provider, and in consultation with the Department of Public Service":

- PSEG Long Island outreach is integrated into capital project planning, design, and construction, and both LIPA and the Department of Public Service review project scoring and outreach plans.
- PSEG Long Island scores each project using outreach tiers based on various factors, including project need, community impact, governmental impact, media landscape, permitting and regulatory requirements, aesthetic impacts, and environmental, historical, cultural, and construction considerations. An outreach plan is developed for each specific project. The outreach tiers are used as a guideline, and outreach tools are then tailored to each project's specific circumstances.

- Tier 1 project activities may include: (i) developing collateral materials; (ii) conducting media and regulatory audits to determine the outreach landscape and identification of stakeholders; (iii) briefing impacted officials; and (iv) notifying impacted customers.
- Tier 2 project activities may include: (i) all Tier 1 activities; (ii) mailings or door hangers to impacted customers; (iii) follow-up with impacted officials; and (iv) sharing project information on PSEG Long Island's website and social media accounts.
- Tier 3 project activities may include: (i) all Tier 1 and 2 activities; (ii) engaging in early design discussions; (iii) conducting early outreach and partnering with elected officials; (iv) hosting open houses; (v) collaborating with third-party experts; (vi) implementing a print and/or broadcast media communications plan; and (vii) email updates to impacted customers.
- Since the last annual update, PSEG Long Island reports that there were a total of seven Transmission and Distribution-specific projects that were scored by External Affairs as Tier 2 or Tier 3. Two of those projects were Tier 3, including the Belmont Substation Conversion (from 33kV to 69kV), and Bridgehampton Install New 69kV Circuit to Buell Substation. Five projects are rated a Tier 2, including Woodmere Conversion & Reinforcement Feeder Extension, Syosset New Underground 13.2 kV Feeder & Overhead Reconductoring, Park Place (2A) Feeder Extension (Superblock), Reconductor 33-315 Reynolds Channel Submarine Cable and Port Jefferson Install New 13kV Distribution Feeder.

#### Enterprise Risk Management Discussion

The Board has adopted a Policy on Enterprise Risk Management. Enterprise risks are brought to the Board's attention throughout the year. There is one risk related to the Policy. That risk is: "Transmission and Distribution and generation capital projects could lead to controversy with stakeholders, negative public perception, and SEQRA and other litigation."

This risk is rated as a low-level risk. LIPA mitigates this risk with concurrent oversight of PSEG Long Island's project identification, planning, and development process for significant projects and through its Legal and External Affairs teams that work closely with PSEG Long Island's External Affairs to monitor compliance with the Policy and the communication with municipalities and the public on significant projects. Based on the mitigation actions in place, LIPA Staff believes this risk is adequately managed.

#### **Annual Review of the Policy**

LIPA Staff has completed its review of the Policy and is proposing certain changes to reflect consideration of the evolving trends in risks and benefits from underground and overhead methods of constructions for new transmission facilities for voltages 65 kV and above that are not subject to Public Service Law Article VII. Such considerations include growing climate change risks that were identified in the recently completed Climate Change Vulnerability Study, potential additions of transmission capacity needed to reliably accommodate future offshore wind deliveries to Long Island, and other factors considered to meet the requirements of the Board's Policy on Transmission and Distribution Operations.

#### **Recommendation**

Based upon the foregoing, I recommend approval of the above-requested action by the adoption of a resolution in the form attached hereto.

#### Attachments

Exhibit "A"ResolutionExhibit "B"Policy (redline)

### **RESOLUTION APPROVING THE ANNUAL REPORT ON THE BOARD POLICY ON THE CONSTRUCTION OF TRANSMISSION AND DISTRIBUTION PROJECTS**

**WHEREAS**, the Board Policy on the Construction of Transmission and Distribution Projects (the "Policy") was originally approved by the Board of Trustees Resolution No. 1383, dated September 27, 2017; and

WHEREAS, the Policy was last reviewed by the Board in September 2022; and

**WHEREAS**, the Board has conducted an annual review of the Policy and affirms that the Policy has been complied with and finds that the amendments proposed are due and proper.

**NOW, THEREFORE, BE IT RESOLVED**, that consistent with the accompanying memorandum, the Board hereby finds that the LIPA has complied with Policy for the period since the last annual review and approves the annual report to the Board; and

**BE IT FURTHER RESOLVED,** that consistent with the accompanying memorandum, the Board hereby adopts the amendments to the Policy as reflected in **Exhibit "B"**.

Dated: November 13, 2024

Board Policy:	Construction of Transmission and Distribution Projects
Policy Type:	Operating Policies
Monitored by:	Oversight and Clean Energy REV Committee
Board Resolution: DRAFT	#1383, approved September 27, 2017 #1449, amended December 19, 2018 #1491, amended September 25, 2019 revisions proposal for November 13, 2024 meeting

#### **Board Policy on Construction of Transmission and Distribution Projects**

It is the policy of the Long Island Power Authority to (i) make choices for the construction of the transmission and distribution system in a consistent manner that balances cost for all customers with local concerns; (ii) to conduct public outreach prior to the beginning of construction in accordance with certain principles described herein; and (iii) to accommodate local preferences for underground construction in circumstances where system-wide benefits are insufficient to justify the incremental expense by providing mechanisms for local choice and local funding.

#### **Regulatory Requirements**

LIPA's construction of transmission and distribution facilities must comply with criteria contained in several statutes and regulations, including:

- Article VII of the New York Public Service Law (Article VII)<sup>1</sup>,
- State Environmental Quality Review Act (SEQRA),
- Environmental Conservation Law (ECL) Article 8,
- 6 NYCRR 617 (SEQRA implementing regulations),
- 21 NYCRR 10052 (LIPA's SEQRA implementing regulations), and
- Smart Growth Public Infrastructure Policy Act, ECL Article 6.

This Policy supplements these legal and regulatory requirements to guide consistent decisionmaking.

<sup>&</sup>lt;sup>1</sup> Article VII applies to electric transmission facilities with a design capacity of 100 kilovolts (kV) or more extending for at least 10 miles, or 125 kV and extending more than one mile.

#### **Selection of Construction Type**

LIPA's electric transmission and distribution system is predominantly an overhead system.<sup>2</sup> In general, overhead construction with a robust tree-trim program <u>has</u> provide<u>ds</u> the best balance between reliability and cost of service for LIPA's customers. In recognition of evolving risks to the T&D System in the future as a result of climate change and other factors, for new transmission projects designed for voltages 65kV and above that are not subject to Article VII, underground method of construction is more likely than not to meet the requirements of LIPA Policy on Transmission and Distribution Operations. If overhead method is proposed for such facilities, a review of Underground facilities are considered when necessary to address issues of feasibility<sup>3</sup> or to address factors such as those identified in certain state regulations (see, for example, Title 16 NYCRR Part 102) should be performed.

To achieve the objectives of this Policy, LIPA and its Service Provider will:

- For transmission projects designed for voltages 65 kV and above that are not subject to Article VII, prepare a pre-construction report containing an advantage-disadvantage analysis using standardized criteria for evaluating the system-wide benefits and costs to the public of construction of overhead versus underground transmission projects similar to the criteria used by New York utilities subject to Title 16 of the New York Codes, Rules and Regulations (NYCRR) Part 102<sup>3</sup>, such report to be done sufficiently far in advance of construction to inform the public outreach and project planning process<sup>4</sup>;
- For all transmission projects designed for voltages below 65 kV, as well as all distribution projects, consider the criteria set forth in the attachment to this Policy, as applicable.
- Maintain a special tariff for undergrounding to provide a financing mechanism that allows local communities to pay for the additional cost of undergrounding all or a portion of a transmission or distribution project where insufficient systemwide benefits exist to justify allocation of the incremental expense throughout the Service Area<sup>5</sup>;
- Underground service to multiple occupancy buildings and new residential subdivisions at the developer's expense in accordance with similar criteria used by New York utilities subject to 16 NYCRR Part 100; maintain tariff provisions for the utility to provide cost allowances for undergrounding residential service where required or where requested by an applicant, consistent with Title 16 NYCRR Part 98 (e) and (f); and underground customer-owned facilities at customer expense.

<sup>&</sup>lt;sup>2</sup> <u>As of 2024, LIPA's electric grid contains approximately [10,000 miles (9,000 distribution and 1,000 transmission) of overhead lines and 5,2500 miles (45,8000 distribution and 4500 transmission)] of underground lines.</u>

<sup>&</sup>lt;sup>3</sup> LIPA's standardized criteria for evaluating eligible projects are included as an attachment to the Policy.

<sup>&</sup>lt;sup>4</sup> The analysis for each project will be sent to the Trustees as an information item when completed.

<sup>&</sup>lt;sup>5</sup> Local communities may also pursue other financing mechanisms, such as an undergrounding district.

#### Application of the Policy to Pprojects pPlanned by pParties Oother Tthan LIPA

Consistent with this Policy, if a party other than LIPA is planning a transmission project in the LIPA's Service Area, including upgrading or rebuilding facilities, designed for voltages 65kV and above that is not subject to Article VII, such party should plan for underground method of construction for the planned facilities after it has completed a consultation with the LIPA. The party may plan for overhead method of construction if it completes the pre-construction report contemplated by this policy with consideration of criteria set forth in the attachment to this policy, and on the basis of such report and consideration has reasonably concluded, with concurrence by LIPA, that overhead construction method is justified for all or relevant portions of the planned facility.

#### **Principles for Public Outreach**

Public outreach is important to maintaining public acceptance and support for the infrastructure necessary to maintain reliable electric service to the 1.24 million customers served by the LIPA and its Service Provider. The electric grid is a complex system of generation and transmission that aims to ensure adequate levels of power reach customers at reasonable cost, with minimum impact to the environment and local community.

LIPA's Service Provider implements many widely varying infrastructure projects each year. There is therefore no "one size fits all" approach to public outreach, and any process requires regular review, including to consider changing conditions or lessons learned from actual projects over time.

To achieve the objectives of this Policy, LIPA and its Service Provider will conduct outreach to affected public officials, civic leaders, and communities in advance of the construction of transmission and distribution projects in a manner appropriate to each project, including visual representations of the proposed project as built, if appropriate, consistent with industry best practices, as mutually agreed upon by LIPA and its Service Provider, and in consultation with the Department of Public Service.<sup>6</sup>

LIPA's principles to guide the public outreach process include:

- Evaluating the potential impacts of each major project for:
  - Project scope, development timeline, and alternatives;
  - Cost, including the cost of alternatives;
  - Community impact, including:
    - Local services,
    - Aesthetic concerns,
    - Tree canopy and vegetation,
    - Residential or commercial districts,

<sup>&</sup>lt;sup>6</sup> The Department of Public Service's responsibilities in reviewing such capital projects are pursuant to the LIPA Reform Act, as described in a letter from the DPS CEO dated June 23, 2014.

- Height of poles,
- Historic or cultural areas,
- Environmentally sensitive areas;
- Local, state and federal jurisdictions affected; and
- Permitting and regulatory requirements.
- Using tools for public outreach designed to ensure all relevant officials, stakeholders, and customers are informed of project plans, and that all projects proceed transparently, including:
  - Briefing officials in affected areas;
  - Meeting with civic groups and organizations, as appropriate;
  - Notifying affected customers through mailings, door hangers, websites, outbound calls, open houses, and social media, as appropriate.
- Developing systematic outreach plans, particular and appropriate to each project, based on the potential impacts of the project, evaluated as described above.
- Performing appropriate outreach for each project prior to any State Environmental Quality Review Act determination, if applicable.

The Chief Executive Officer will report annually to the Board on compliance with the key provisions of this Policy.

#### Attachment

#### LIPA's Standardized Criteria for Evaluating Systemwide Benefits of <u>Underground-Overhead Vversus Undergrounds</u> Transmission Facilities

LIPA's Board Policy on the *Construction of Transmission and Distribution Projects* requires "utilizing standardized criteria for evaluating the systemwide benefits and costs to the public of construction of overhead versus underground transmission projects similar to the criteria used by New York utilities subject to Title 16 of NYCRR Part 102."

Therefore, the evaluation of whether to construct overhead versus underground transmission facilities<sup>7</sup> shall include:

- 1. Any Priority Areas (defined below) affected by the subject Project where the advantages of <u>underground\_overhead</u> transmission construction to the public *throughout the Service Area* may outweigh the disadvantages (i.e., an advantage-disadvantage analysis);
- 2. An inventory of other potentially affected areas in categories identified below; and
- 3. An explanation of why the proposed transmission facility or portion thereof should be placed overhead or underground.

The categories of areas shall be updated as 16 NYCRR Part 102 may change from time to time.

#### I. Priority Areas for Advantage-Disadvantage Analysis

Priority Areas for an advantage-disadvantage analysis that evaluates whether the advantages of <u>underground\_overhead</u> construction outweigh the disadvantages to the public *throughout the Service Area* are:

- 1. National and State parks, preserves, reservations, landmarks, and monuments formally so designated and acquired for their natural, scenic or cultural value by appropriate State and Federal agencies. (Included would be historic landmarks, national landmarks, national monuments and trails, and wild and scenic rivers.)
- 2. Status as a disadvantaged and/or historically marginalized community;
- 2.3. Historic sites formally so designated by National or State agencies but without acquisition of rights or ownership sufficient for the purpose of preservation.
- 3.4. Central Business Districts (as defined below) in towns, cities, villages and hamlets.

<sup>&</sup>lt;sup>7</sup> Transmission facilities 65 kV or higher for distances of one mile or longer, excluding facilities subject to Article VII of the Public Service Law; the construction of all other such transmission facilities in Priority Areas shall be reported to the Board no less than annually.

4.5. Developed and partly developed residential areas with an existing density of one or more dwelling units per acre, as shown on approved Subdivision (as defined below) maps, occupying a minimum contiguous area of 20 acres, all or a portion of which would be traversed by the proposed transmission facility right-of-way.

#### II. Definitions

- (a) Central Business Districts are:
  - 1. The centrally located, prime commercial district of a municipality (which may be a town, city, village or hamlet), the focus of main traffic arteries and mass transit composed of retail trade, offices (including governmental functions), light manufacturing and commercialized recreational activities with few or no dwellings.
  - 2. Commercial areas essentially one lot deep along a thoroughfare are more aptly described as strip developments and not central business districts.

Central business districts occupy a relatively small proportion of the urbanized area -- not over four percent even in the smallest cities and only 0.4 percent in the largest.

(b) Subdivisions are a tract of land divided into lots for residential buildings the plan for which has been approved by governmental authorities having jurisdiction.

#### III. Exemption from Completion of Full Report Consistent with 16 NYCRR 102

A full report consistent with the provisions of 16 NYCRR 102 is not required for upgrading or rebuilding transmission facilities on existing right-of-way provided that all of the following conditions are met:

- 1. No additional rights-of-way are required;
- 2. There is no increase in the number of structures on the right-of-way;
- 3. The resulting structures do not carry more than two circuits;
- 4. No substantial modification will be made to existing vegetative cover on the right-of- way; and
- 5. The height of a new tower does not exceed the height of a replaced tower by more than 10 feet.

Likewise, a full report is not required if construction of the facility in question must substantially be <u>underground overhead</u> for technical reasons.

#### IV. Elements of the Advantage-Disadvantage Analysis for Priority Areas

The advantage-disadvantage analysis for Priority Areas is meant to provide a framework by which the features or facts which support one or another mode of construction are identified clearly. Circumstances that reduce or enhance the benefits or affect the costs of underground\_overhead construction, identified in the advantage-disadvantage analysis, will provide the basis for decision. Examples of factors which may affect a decision to underground\_overhead would include the availability of suitable existing corridors, or the likelihood of pronounced visual impact.

Data and/or all pertinent information for each item shall be presented for both the underground and overhead alternative. The analysis of cost should be made on a present-worth basis for both alternatives over a period long enough to allow for appropriate incremental construction.

The advantage-disadvantage analysis for Priority Areas shall include:

- 1. Availability of existing corridors suitable for additional transmission facilities. (The availability of suitable existing corridors through a Priority Area, for example, may reduce the relative benefits of underground construction.)
- 2. Capital construction costs. (Costs that may be capitalized under the uniform system of accounts.)
- 3. Construction expense costs. (Costs that may not be capitalized.)
- 4. Right-of-way acquisition costs.
- 5. Anticipated total operation and maintenance costs including power losses for the depreciable life of the plant, discounted to present-worth, when the present worth of such losses is significant in comparison to other costs (such as (i) there is no increase in the number of structures on the right-of- way; (ii) the resulting structures do not carry more than two circuits; or (iii) no substantial modification will be made to existing vegetative cover on the right-of-way).
- 6. Relevant technological considerations.
- 7. The relative effect on vegetation, wildlife, soils, erosion, streams, and other such natural features (as noted in biological surveys, water quality ratings, and land management policies and practices) of the construction methods proposed.
- 8. The relative visual impact including incremental impact compared to existing surroundings.
- 9. Relative availability of right-of-way for other uses: e.g., parks, recreation, farming, transportation.

#### V. Other Areas to Be Inventoried

Other areas which should be inventoried, but for which an advantage-disadvantage analysis is not required, but may be prepared if appropriate, are:

- 1. Areas of outstanding natural or scenic value which are preserved by non-profit private agencies, but which have not been formally so designated by national or State agencies.
- 2. Areas of outstanding cultural value (e.g., attractive pastoral scenes, locations of noteworthy architectural and/or social import both within and outside specific sites) that have been formally designated by the appropriate governmental authority.
- 3. Existing local (city, town, village and county) parks and open space areas that have been formally established by governmental or private authorities.
- 4. Public and semipublic facilities such as cemeteries, educational, correctional and medical facilities and military installations.
- 5. Existing light industrial and commercial areas (e.g., industrial parks, shopping centers, office building complexes).
- 6. Partially developed residential areas where the Subdivision will have an eventual population density of one or more dwelling units per acre, as shown on approved Subdivision maps, comprising a minimum contiguous area of 20 acres or a portion of which is traversed by the proposed transmission facility right- of-way.
- 7. Areas of outstanding cultural value (e.g., attractive pastoral scenes, locations of noteworthy architectural and/or social import both within and outside specific sites that lend attractiveness to a neighborhood or community) that have not been formally designated by governmental or private authority.
- 8. Residential areas with less population density than those specified in preceding categories.
- 9. Planned and zoned undeveloped light industrial, commercial and residential areas.
- 10. Managed woodlands (e.g., commercial and other productive forests).
- 11. Agricultural districts established in accordance with article 25-AA of the Agriculture and Markets Law, and other farmlands.
- 12. Existing and planned heavy industrial areas.
- 13. Woods and open lands other than those included within areas specified in any Priority Area above.