

STATE OF NEW YORK
PUBLIC SERVICE COMMISSION

OPINION NO. 01-2

CASE 00-T-1831 - Application of Cross Sound Cable Company (New York for a Certificate of Environmental Compatibility and Public Need for the Construction of a 300 Megawatt, 24-mile HVDC Transmission Cable under Long Island Sound from New Haven, CT to the Town of Brookhaven, Suffolk County.

OPINION AND ORDER
GRANTING CERTIFICATE OF ENVIRONMENTAL
COMPATIBILITY AND PUBLIC NEED

Issued and Effective: June 27, 2001

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(Issued and Effective June 27, 2001)

BY THE COMMISSION:

INTRODUCTION

On October 17, 2000, the Cross Sound Cable Company (New York) LLC (CSCNY or the Applicant) filed for a Certificate of Environmental Compatibility and Public Need pursuant to Article VII of the Public Service Law (PSL) for the construction and operation of a 300 MW High Voltage Direct Current (HVDC) transmission line running beneath Long Island Sound for approximately 24 miles between New Haven, Connecticut and Brookhaven, New York. CSCNY estimates the cost of constructing the entire project, including the portion in Connecticut, to be \$125 million.

The proposed facility calls for the construction and operation of a 300 MW High Voltage Direct Current (HVDC) and fiber optic submarine direct burial cable system running beneath the seabed of Long Island Sound for approximately 24 miles between New Haven, Connecticut and Brookhaven, New York as shown on the attached map. The Connecticut portion of the project originates at the New Haven Harbor Station and enters the waters of Long Island Sound. Traveling south, the facility will enter New York State waters at approximately the 11 to 12 mile mark.

The line will continue south in New York State waters until intersecting the centerline of the intake canal of the former Shoreham Nuclear Power Facility. From this point the 300 MW underground HVDC and fiber optic upland direct burial cable interconnection system will be installed in a 30 foot wide utility easement for a distance of approximately 1,600 feet before terminating at the conversion station that will convert the power from DC to alternating current (AC).

The conversion station consists of a 3.21 acre HVDC substation including converter valves, filters, transformers, circuit breakers, relay/metering/control devices and ancillary buildings and equipment. From the conversion station the project will consist of a 138-kV overhead AC transmission line approximately 500 foot long, which will tie-in the facility to the existing Shoreham Substation owned by the Long Island Power Authority (LIPA).

Public statement hearings were held before Administrative Law Judge Walter T. Moynihan in Port Jefferson, New York, on December 29, 2000 and January 18, 2001. A representative from LIPA participated in the December 29 public statement hearing. Representatives of the STAR Foundation, Citizens Advisory Panel (CAP), New York Public Interest Research Group (NYPIRG), Long Island Coalition for Democracy, Suffolk County Electrical Agency, and a civic association participated

in the January 18 public statement hearing. Several concerns were raised at the public statement hearings, including the role of this project in enabling the continued operation of the Millstone Nuclear Power Station in Connecticut; whether the facility is a merchant facility; whether LIPA ratepayers are bearing too much risk for the project; whether need has been demonstrated; and whether demand side management (DSM) and renewable generation have been evaluated as potential alternatives to the facility.

The active parties to this proceeding included the Applicant, the Department of Public Service Staff (Staff) and the State Department of Environmental Conservation (DEC). In a Settlement Agreement dated May 16, 2001 (joint proposal), attached as Appendix A, these parties proposed a resolution of all issues in the case and included proposed ordering paragraphs and requirements for an Environmental Management and Construction Plan (EM&CP). The Applicant filed the joint proposal and a statement in support on May 30, 2001; subsequently, on June 1, 2001, Staff filed its supporting statement, and on June 6, DEC filed its statement.

On May 31, 2001, a Notice Soliciting Comments was issued, inviting interested parties to comment on the proposal no later than June 6, 2001. Aside from the statements noted above, no comments were received.

Based upon our consideration of the record as a whole, we will grant a Certificate of Environmental Compatibility and Public Need to permit construction and operation for the facility for the reasons, and subject to the conditions, noted below. In doing so, we are adopting the terms of the joint proposal, as well as certain additional conditions necessary to mitigate the environmental impacts of the facility.

NEED FOR ADDITIONAL CAPACITY

Long Island is geographically isolated from the remainder of New York's electric grid. Only a limited number of transmission ties exist over which electricity can be imported into Long Island. Due to these limits Long Island has been assigned an even higher installed capacity (ICAP) requirement (on island) by the New York Independent System Operator (NYISO) than for transmission constrained New York City. As a result, Long Island is a "load pocket" vulnerable to the exercise of market power by electric generators because of transmission constraints and the concentration of generation resources in few owners. This vulnerability, however, is currently mitigated in part by LIPA's existing long-term power purchase contracts and the pricing provisions incorporated into these contracts that limit opportunities to exercise market power.

Long Island's peak load in July 1999 (4,622 MW) significantly exceeded forecasted peak load. The actual peak load in 1999 exceeded the NYISO forecast for 2002 and the State Energy Plan (SEP) forecast for 2003.

The Long Island Installed Reserve Requirement (18% installed reserve margin) is projected to have a shortfall of up to 31 MW in 2002, a 34-180 MW shortfall in 2003, and a 115-262 MW shortfall in 2004. The Long Island Locational Capacity Requirement (98% of peak load) needs to be met with additional generating plant additions as load increases, however the addition of new transmission ties to Long Island will decrease the Long Island Locational Capacity Requirements. That is, even though the proposed facility's capacity does not count towards the traditional installed generation reserve and locational generation capacity requirements, the facility will, reduce the locational capacity requirement and, in operation, have a positive effect on the system which would be similar to adding approximately 300 MW of new generation.

Continuing opportunities for displacement of higher cost generation made possible by this facility should result in a measurable improvement in the overall economic efficiency of power markets in the Northeast and should keep wholesale electric prices at lower levels than would otherwise be the case, ultimately resulting in benefits to the retail consumers in New York State. The facility will increase the opportunities for transactions among buyers and sellers in the wholesale markets thereby enhancing competition in the electric industry in New York State. The proposed facility will also improve the reliability of the electric system serving Long Island by creating opportunities for bulk power sales and transfers and increasing access to additional supplies in the event of a system emergency.

ALTERNATIVES TO THE TRANSMISSION LINE

The parties examined several alternative methods for providing electric system benefits to Long Island that would be similar to this proposal. Each is discussed below.

New Generation

The installation of 300 MW of new generation capacity in lieu of the facility would have approximately the same performance benefits in terms of providing additional resources for use in Long Island during peak periods, but would not open up the opportunity for energy transactions with New England as this proposal will. The siting of a new 300 MW power plant can only be accomplished pursuant to Article X of the Public Service Law, which governs the siting of all major electric generating facilities with a capacity of 80 MW or greater. The use of additional generation as an alternative is less desirable because the longer lead time to construct a plant involved would not sufficiently satisfy immediate reliability concerns due to load growth.

Demand-Side Management

Demand-side management (DSM) includes all measures, programs, equipment and activities that are directed toward improving efficiency and cost-effectiveness of energy usage on the customer side of the meter. DSM can be targeted toward reducing general energy usage or toward reducing peak load. The equivalent load reduction of 300 MW would require a program well beyond LIPA's Clean Energy Program and could not provide the system relief needed in the near term. In view of the practical limits to what DSM programs can achieve, particularly in light of LIPA's already substantial commitment to such programs, we do not believe that DSM is a viable alternative to the proposed transmission line.

Distributed Generation

Distributed generation could include a host of various types of small generation units that can be located on the distribution system or, more often, at individual customer sites. The application of the various distributed generation facilities, such as diesel engines, combustion turbines, microturbines, wind, solar, small hydro, and fuel cells, depends on the economics and the applicability to the types of customer load in the area. Given the current economics of distributed generation and its small-scale applicability, we believe that distributed generation is not a viable alternative to the proposed transmission line.

LONG-RANGE PLAN

We find that construction of the facility is consistent with the most recent State Energy Plan.¹ Based on

¹ See, e.g., NYS Energy Plan (November 1998) at pp. 1-2, 1-17, 2-52, and 3-6.

system reliability impact studies, it should have no adverse impact on the electric system, and will expand the electric power grid in a way that benefits the State and interconnected utility systems.

ROUTING

There are no proposed alternative routes in New York identified or proposed by any party to this proceeding.

ENVIRONMENTAL IMPACTS

The environmental impacts of the facility will be minimal, and limited to temporary construction disturbances and the visual introduction of a single structure into an industrial landscape. The proposed facility has been sited and designed to avoid impacts to inland surface waters and wetlands in the vicinity of the Shoreham site and should not affect the quantity or the quality of groundwater at the Shoreham site. The installation and operation of the cable should also not have a significant impact on the bathymetry, seabed characteristics or geology beneath the waters of Long Island Sound.

The facility, as designed, will not have any significant long-term impact on the physical or chemical properties of the existing sediments and no new or foreign sediments will be introduced as fill along the cable route. CSCNY conducted physical and chemical sampling on February 8, 2001, in order to document the nature of existing sediments. Monitoring of suspended solids will be performed to determine the extent of disturbance during the installation of the cable.

Potential installation impacts on finfish are anticipated to be localized and temporary. The cable is a solid-dielectric HVDC cable and, therefore, no fluids will be released in the unlikely event of external damage or breakage. Similarly, cable installation will have only localized and

short-term impacts on benthic communities and no adverse water quality impacts are anticipated.

Commercial shellfish resources are primarily limited to near shore areas of Long Island Sound. Direct impacts to lobsters and the commercial lobster industry cannot be quantified; however, since the project area encompasses a very small portion of the total area of the Sound, the number of shellfish impacted during construction is expected to be minimal in New York waters.

Construction techniques will minimize the impacts on wildlife and wildlife habitats. Construction impacts on these habitats will be minimal due to the existing industrial nature of the site and placement of the cable in paved access rights-of-ways or on previously disturbed land. After construction, disturbed areas will be stabilized in accordance with their previous and continued use. No impact on protected species and habitats is expected as a result of construction or operation of the proposed facility.

No affected historic or archaeological sites have been identified in the project areas, as indicated by letter dated March 16, 2001, from the New York State Office of Parks, Recreation and Historic Preservation.

The visual impact assessment indicates that the addition of the facility to the already developed Shoreham site will not significantly change the appearance of the area. The proposed project is compatible with the existing structures and is of modest size. Effective screening and distance between the site and sensitive viewer locations also help to mitigate potential impacts.

ELECTROMAGNETIC FIELDS AND
EFFECTS ON COMMUNICATIONS

Electric Fields

Electric field calculations show that the AC overhead span meets our 1.6 kV/m standard at a distance of 50 feet on either side of the centerline. The minimum distance between the AC overhead span and the nearest property line is approximately 80 feet, resulting in even lower electric field levels at the edge of the property. The DC underground cable inherently complies with this standard because the type of construction proposed by CSCNY allows no electric field to emanate beyond the sheathing of the cable and the ground.

Magnetic Fields

Magnetic field calculations show that the AC overhead span meets our 200 mG standard at a distance of 50 feet on either side of the centerline.² The minimum distance between the AC overhead span and the nearest property line is approximately 80 feet, resulting in even lower magnetic field levels at the edge of the property. Magnetic field calculations for the upland and Sound portions of the cable, assuming a 30-foot right-of-way, also demonstrate compliance with our standard.

Telecommunications

The Application demonstrates that there should be no significant effects from the proposed facility on telecommunication transmissions.

² Our policy on magnetic fields specifies that, in the absence of a defined right-of-way, compliance with the standard be tested for typical 100-foot right-of-way width for transmission lines with voltages below 230 kV. Case 26529, et al., Magnetic Fields Standards, Statement of Interim Policy on Magnetic Fields of Major Electric Transmission Facilities (issued September 11, 1990).

COMPLIANCE WITH STATE AND LOCAL LAWS AND ORDINANCES

Before we can grant a certificate to construct a transmission line, we must find that ". . .the location of the facility as proposed conforms to applicable state and local laws and regulations. . . ."³ However, we ". . .may refuse to apply any local ordinance, law, resolution or other action. . . which would be otherwise applicable if [we find] that as applied to the proposed facility such is unreasonably restrictive in view of the existing technology, or of factors of cost or economics, or of the needs of consumers whether located inside or outside of such municipality."⁴

State Laws

The Applicant has demonstrated that the proposed facility conforms to all State laws. In addition, the ordering clauses below will ensure that the proposed facility will conform with State laws and regulations. CSCNY is also required to obtain the services of an engineer to inspect the facility to ensure that it complies with the New York State Uniform Fire Prevention and Building Code prior to its being placed in operation.

Local Laws

In its application, CSCNY identified the local laws applicable to the facility and did not indicate that any of these were unreasonably restrictive.

Surveys, maps and plans provided by CSCNY demonstrate that setback and building area limitations in Brookhaven's zoning code will be met. As required by local law, CSCNY has supplemented the record to demonstrate that the architectural

³ PSL §126(1)(f).

⁴ Id.

and aesthetic features of the proposed structures will conform to and enhance the architectural features of the neighborhood.

CSCNY has demonstrated that the project is consistent with the Final 1996 Comprehensive Land Use Plan of the Town of Brookhaven. The facility is an industrial use consistent and compatible with existing industrial uses. A prime objective of Brookhaven's Land Use Plan is to protect and enhance the coastal zone of the Town by balancing the preservation and restoration of significant environmental resources, ecological habitats and surface waters with the need to develop additional water dependent facilities. Among the objectives are provisions for opportunities for public access and maintenance of the characteristics of the waterfront. The facility has been sited and designed to be consistent with these objectives.

WAIVERS OF COMMISSION REGULATIONS

CSCNY asked for several waivers of requirements contained in 16 NYCRR Part 86. Specifically, the Applicant requested a waiver of §86.3(a)(1)(i) to allow the use of navigational charts instead of highway transportation maps as the base map for Long Island Sound; §86.3(a)(1)(iii), which sets a three mile corridor for certain resource studies; and §86.3(a)(2), which requires additional larger scale maps. Additionally, CSCNY sought relief from §86.3(b)(1), to waive the submission of aerial photographs of areas of surface water in Long Island Sound; §86.3(b)(2), to allow the use of aerial photographs taken more than six months prior to the date of the filing; and §86.10(a)(1-9), which requires the filing of detailed cost estimates. The waiver requests are granted for the reasons stated below.

Highway transportation maps are not appropriate and do not exist for the seabed of Long Island Sound and the use of navigational charts provides appropriate and comparable detail

as an alternative. Given the limited landfall areas contained wholly within the existing Shoreham site, use of a three-mile wide study corridor is unnecessary as no routes outside of the Shoreham site are under consideration. Similarly, the larger scale maps are unnecessary as no extensive cross-country route is under consideration. No practical purpose would be served by submitting aerial photographs of the surface waters of Long Island Sound. The use of aerial photographs taken more than six months prior to the date of the filing is acceptable in this instance as the area under consideration is small and sufficient field reconnaissance confirmed the accuracy of the photos. Finally, since this is a merchant facility, greater detail on cost information is not needed to make our assessment in this particular instance.

CONCLUSION

Pursuant to PSL §126(1), we make the following findings and determinations based on the record in this case. We conclude that the transmission facility is needed to facilitate exchanges of power between producers and purchasers located in New England and on Long Island, to enhance regional and local competition in the electric power industry and to improve system reliability. Construction of the transmission facility along the route proposed in CSCNY's application conforms to a long-range plan for expansion of the electric power grid. A map of the route is attached as Appendix B. We also conclude that the environmental impacts will be temporary in nature and essentially will be associated with the construction activity necessary to dig the trench and lay the cable. No significant impacts are expected with regard to the physical or chemical properties of existing sediments during the construction or operation and any changes in turbidity are expected to be

localized, temporary and subject to a suspended solids monitoring provision set forth below.

Impacts on finfish and commercial shellfish during construction are expected to be minimal. No impact on fish resources is expected as a result of the cable's operation nor is any release of fluids possible as a result of damage to the solid dielectric HVDC cable. No significant visual impacts will result from any of the buildings, structures or equipment associated with the proposed transmission facility. All of the construction methods for this project will be contained in an EM&CP and will be designed to minimize impacts on the physical environment.

The facility, as proposed, represents the minimum adverse environmental impact, considering the state of available technology and the nature and economics of the various alternatives, and other considerations such as the effects on agricultural lands, wetlands, parklands, and river corridors because the trenching operation for laying the cable is expected to produce only localized and temporary effects on turbidity and the facility is otherwise confined to already disturbed industrial property. The location of the facility will not pose an undue hazard to persons or property along the area traversed, and the location of the facility conforms to applicable state and local laws and regulations. The cable also meets EMF guidelines, has no effect on communications and will be buried at a depth that avoids potential navigation impacts; the upland portion of the cable will be buried and connected to the substation in conformance with NYISO and LIPA safety and construction requirements, and the overhead AC interconnection and conversion substation conform with zoning bulk and use standards.

The proposed transmission facility will serve the public interest, convenience and necessity because it will, with

minimum environmental impact, add needed transmission capability on Long Island, improve system reliability, enhance opportunities for market-based transactions and help further the transition to a competitive electric industry in New York State.

Although the Connecticut Siting Council, on March 28, 2001, denied without prejudice the application of CSCNY's affiliate for a certificate of environmental compatibility and public need as to that portion of the project located in Connecticut, we act in the instant case so that CSCNY will be in position to immediately commence construction of this facility, which is important to LIPA and the electric needs of customers on Long Island, upon Connecticut's approval of the remainder. We shall allow CSCNY at its own commercial risk, and subject to future site restoration safeguards, to commence site preparation and construction of the AC interconnection, conversion substation and the upland portion of the cable on the Shoreham site prior to receiving certification in Connecticut. A Certificate of Environmental Compatibility and Public Need is hereby granted, subject to the terms and conditions of the ordering clauses below.

The Commission orders:

1. Subject to the conditions set forth in this Opinion and Order, the Cross Sound Cable Company (New York) LLC (CSCNY) is granted a Certificate of Environmental Compatibility and Public Need authorizing construction and operation of a 300 MW DC, underground electric transmission system along the project route detailed herein and of the appurtenant overhead AC interconnection and conversion substation (the "facility"). The terms of the joint proposal (Settlement Agreement dated May 16, 2001, attached as Appendix A) with the additional conditions adopted herein are adopted in their entirety and incorporated as part of this Opinion and Order. The conditions set forth in

this Opinion and Order shall apply only to the portions of the project certified as the facility within the State of New York.

2. CSCNY will be permitted at its own commercial risk to commence site preparation and construction of the AC interconnection, substation and the upland portion of the cable prior to receiving certification from the Connecticut Siting Council for the Connecticut portion of the project. CSCNY shall include in periodic reports to the Commission the status of its efforts to achieve certification in Connecticut. In the event CSCNY is unable to achieve certification in Connecticut, it shall stop work in New York State and restore the site to a condition acceptable to the owner of the property on which any site preparation or construction has occurred.

3. Notwithstanding Ordering Paragraph 2, construction of any part of the facility, whether on land or under water, shall not commence until CSCNY has received from the New York State Office of General Services such authorizations as are necessary to permit construction to commence and until CSCNY has received such leases and easements from LIPA as are necessary to permit construction to commence.

4. CSCNY shall not begin site preparation or construction with respect to any portion of the facility (except for surveying, boring and such other related activities as are necessary to prepare final design plans) before it has submitted to the Commission, and the Commission has approved, an Environmental Management and Construction Plan (EM&CP) for the New York portion of the facility, which is generally consistent with the guidelines set forth in Appendix C hereto.

5. The Applicant shall submit three copies of the EM&CP to the Commission, serve one copy on the Commissioner of the New York State Department of Environmental Conservation (DEC) and the Commissioner of the New York State Office of Parks, Recreation and Historic Preservation (OPRHP) [pursuant to

9 NYCRR Part 428 §428.2(c)], serve at least one copy on any other New York State agency (and its relevant regional offices) which requests the document, serve one copy on active parties on the service list who request the document, and place copies for inspection by the public in at least one public library or other convenient location in each municipality in which construction will take place. Contemporaneously with the submission and service of the EM&CP, CSCNY shall provide notice, in the manner specified below, that the EM&CP has been filed.

6. CSCNY shall serve written notice(s) on all active parties to this proceeding, on each person on the Commission's service list considered potentially affected by the subject matter in the EM&CP, and on all statutory parties to this proceeding, and shall attach a copy of the notice to each copy of the EM&CP. CSCNY also shall attempt to serve similar written notice(s) on each person from whom rights-of-way are required, on each person owning the underlying land right to an easement being acquired from another utility and on each person currently leasing a portion of any right-of-way to be used for the facility. Further, CSCNY shall publish the notice(s) in a newspaper or newspapers of general circulation in the vicinity of the facility.

7. The written notice(s) and the newspaper notice(s) shall contain at a minimum, the following: a statement that the EM&CP has been filed; a general description of the EM&CP; a listing of the locations where the EM&CP is available for public inspection; a statement that any person desiring additional information about a specific geographical location or specific subject may request it from CSCNY; the name, address, and telephone number of CSCNY's representative; the address of the Commission, and a statement that any person may comment on the EM&CP by filing written comments with the Commission and CSCNY within 30 days of the filing date with the Commission of the

EM&CP (or within 30 days of the date of the newspaper notice, whichever is later). A certificate of service indicating upon whom all EM&CP notices and documents were served and a copy of the written notice shall be submitted to the Commission at the time the EM&CP is filed and shall be a condition precedent to approval of the EM&CP.

8. Except where this Opinion and Order requires otherwise, the environmental protection measures contained in the application and in the related statements made by CSCNY, shall be applied during preparation of the EM&CP and during construction, operation and maintenance of the certified facility. Applicable provisions of the EM&CP and orders approving the EM&CP shall be accommodated in contracts associated with the facility.

9. CSCNY shall, within 30 days after the issuance of the Certificate, submit to the Commission either a petition for rehearing or a verified statement that it accepts and will comply with the Certificate. Failure to comply with this condition may lead to invalidation of the Certificate.

10. Prior to any site preparation or construction of the AC interconnection, CSCNY shall either (a) obtain an easement, lease or lesser real property interest over the affected land necessary to allow CSCNY to construct, own and operate the AC interconnection itself (at a location no closer than 50 feet to the nearest property line); or (b) if approved by the Commission pursuant to Public Service Law §121(2), transfer to the Long Island Power Authority (LIPA) that portion of the certificate necessary to allow LIPA to construct, own and operate the AC interconnection on its own real property.

11.(a) Each substantive state and local law and regulation applicable to the location of the facility authorized by the Certificate shall apply.

- (b) No state or local legal provision purporting to require any approval, consent, permit, certificate or other condition for the construction or operation of the facility authorized by the Certificate shall apply, except those of the Public Service Law and regulations and orders adopted thereunder, and those provided by otherwise applicable State law for the protection of employees engaged in the construction and operation of the facility.
 - (c) Nothing herein shall preclude CSCNY from voluntarily subjecting itself to any such state or local approval, consent, permit, certificate or other condition.
- 12.(a) The EM&CP may be segmented in order to permit commencement of construction of on-land components of the facility not subject to the permit authority of the Army Corps of Engineers. In all other respects, prior to commencement of construction of the facility, CSCNY shall receive all required governmental authorizations and shall deliver copies thereof to Staff.
- (b) CSCNY shall comply with any conditions contained in a Water Quality Certification issued pursuant to §401 of the Federal Clean Water Act.
 - (c) CSCNY shall obtain the services of an engineer to inspect the facility prior to the commencement of operation to ensure that it complies with the New York State Uniform Fire Prevention and Building Code. CSCNY may seek

a variance with accordance with §381(1)(f) of the Executive Law.

13. The Applicant shall construct the facility in accordance with Case 70100 Standards and Practices for Environmental Management and Construction of Gas Transmission Facilities in New York State (Standards and Practices) applicable to this facility. While these standards were originally written to apply to fuel gas transmission lines, the environmental impacts of underground electric transmission lines are the same for gas transmission lines. This is true particularly with regard to archaeological resources, construction practices and techniques, water bodies and wetlands, erosion control, right-of-way, clearing and maintenance, and right-of-way restoration, except as otherwise specified herein.

14. The Applicant shall report any proposed changes in the approved EM&CP to Staff. Staff will refer to the Secretary of the Commission (or a designee) reports of any proposed changes that do not cause substantial change in environmental impact or are not related to contested issues decided during the proceeding. All other proposed changes in the EM&CP shall be referred by Staff to the Commission for approval. Upon being advised that Staff will refer a proposed change to the Commission, CSCNY shall notify all affected statutory and active parties as well as all property owners or lessees whose property is affected by the proposed change. The notice shall describe the requested change and state that documents supporting the request are available for inspection at specified locations, and state that persons may comment by writing or calling (followed by written confirmation) to the Commission within 10 days of the notification date. Any delay in receipt of written confirmation will not delay Commission action on the proposed change. CSCNY shall not execute any

proposed change until it receives oral or written approval, except in emergency situations threatening personal injury, property damage or severe adverse environmental impact or as specified in the EM&CP.

15. CSCNY shall make available to the public a toll free or local phone number of an agent or employee where complaints may be received during construction of the facility. In addition, the phone number of the Commission, and the phone number of its Environmental Compliance Section, shall also be provided in the event there are questions or concerns. Phone complaints shall be logged and made available to Staff upon its request. During Staff's compliance inspections, CSCNY shall report to Staff every unresolved complaint.

16. Before commencing site preparation, CSCNY shall give notice to local officials and emergency personnel. CSCNY shall also provide such notice for dissemination to local media and display in public places (such as general stores, post offices, community centers and conspicuous community bulletin boards). The notice shall contain a map and description of the facility in the local area, and anticipated date for start of construction and name, address and local or toll-free telephone number of an employee or agent of CSCNY. The notice shall also contain a statement that the facility is under the jurisdiction of the Public Service Commission, which is responsible for enforcing compliance with environmental and construction conditions, and which may be contacted at an address and telephone number to be provided. Where possible, the notice shall be written in language reasonably understandable to the average person, as determined by CSCNY. Upon distribution, a copy shall be submitted to the Secretary of the Commission.

17. CSCNY shall provide construction contractors with complete copies of the Certificate, EM&CP, Section 401 Water Quality Certification, and 6 NYCRR Parts 700-704.

18. The authority granted in the Certificate and any subsequent order(s) in the proceeding is subject to the following conditions necessary to ensure compliance with such order(s):

- (a) CSCNY shall regard the Staff representatives (certified pursuant to Public Service Law, Section 8) as the Commission's designated representatives in the field. In the event of any emergency resulting from the specific construction or maintenance activities that violate or may violate the terms of the Certificate or any other order in this proceeding, such Staff representatives may issue a stop-work order for that location or activity.
- (b) A stop-work order shall expire within 24 hours unless confirmed by a single Commissioner. If a stop-work order is confirmed, CSCNY may seek reconsideration from the confirming Commissioner or the whole Commission. If the emergency prompting the issuance of a stop-work order is resolved to the satisfaction of the Commissioner or the Commission, the stop-work order will be lifted. If the emergency has not been satisfactorily resolved, the stop-work order will remain in effect.
- (c) Stop-work authority shall be exercised sparingly and with due regard to the potential economic costs involved and possible impact on construction activities. Before exercising such authority, Staff field representatives shall attempt (wherever practicable) to direct preventative or remedial action through

representatives of CSCNY possessing comparable authority. In the event that Staff field representatives issue a stop-work order, neither CSCNY nor the contractor will be prevented from undertaking such safety-related activities as they deem necessary and appropriate under the circumstances.

- (d) In the event of any emergency involving specific construction or maintenance activities that violate or threaten to violate the terms of the Certificate or any other order in this proceeding, Staff field representatives may direct CSCNY to install appropriate mitigative measures or devices.

NOTIFICATIONS

19. CSCNY shall inform the Secretary and Staff (of the Public Service Commission and DEC) at least five days before commencing construction or clearing on this project.

20. CSCNY shall provide Staff with weekly status reports summarizing the previous week's construction and indicating locations of construction scheduled for the next two weeks.

21. Within ten days after the facility is in service, CSCNY shall notify the Commission of that fact.

22. CSCNY shall confine clearing and subsequent maintenance to the certified right-of-way.

23. Any fines, penalties or environmental damage resulting from actions performed by contractor personnel working on this facility (from work directly or indirectly associated with this facility) shall be the responsibility of the contractor. The Commission may also seek appropriate penalties from the Applicant as a result of its contractors' actions.

TRANSMISSION LINE CONSTRUCTION

- 24.(a) CSCNY has concluded that the majority of the sediment suspended during trenching and installation of the cable will settle within 350 feet of the trench. To verify this determination, CSCNY will monitor for total suspended solids at the surface of the water and at near-bottom depth following installation of the cable at one(1) mile intervals within the boundaries of New York State as follows:
- i) six (6) hours after trenching and cable installation, a sample will be taken 100 feet from the center of the trench on both sides of the cable;
 - ii) six (6) hours after trenching and cable installation, a sample will be taken 300 from the center of the trench on both sides of the cable.
 - iii) twenty-four (24) hours after trenching and cable installation a sample will be taken 100 feet from the center of the trench on both sides of the cable;
 - iv) twenty-four (24) hours after trenching and cable installation, a sample will be taken 300 feet from the center of the trench on both sides of the cable.
- (b) Two additional locations will be sampled at 6 and 24 hours at surface and near-bottom depth at a distance of 500 feet on both sides of the trench. These two sample locations will be in areas where the trench crosses siltier areas of Long Island Sound.

- (c) CSCNY may ask DEC to dispense with the 24 hour samples should the 6 hour samples warrant it.
- (d) CSCNY will provide the DEC with the results of suspended solids monitoring in time for DEC to determine if a seventy-two (72) hour sample is warranted.

25. To protect sensitive life stages of marine species, construction of the cable shall not occur after January 15 or before October 15 in any calendar year. With the prior written consent of DEC, however, CSCNY may petition the Commission for a modification of this construction window, provided copies of the petition are served on all parties to this proceeding.

26. CSCNY shall install sedimentation/erosion control devices to prevent sedimentation into tidal wetlands during construction. These erosion control structures shall be installed prior to construction and shall remain in place while working within 100 feet of the wetland. Erosion and sedimentation controls will be maintained until the right-of-way has been revegetated and/or stabilized in accordance with pre-existing conditions.

27. During construction in the intake canal, no side casting, or temporary storage of dredged material is authorized. This prohibition does not apply to work done with the hydraulic jet plow or with directional drilling.

28. CSCNY shall not store or operate heavy machinery or equipment in the beach area east of the intake canal. All equipment and machinery shall be operated, stored and safety contained 500 feet from then nesting and foraging areas of the piping plover and least tern east of the intake canal.

29. CSCNY shall take appropriate measures as outlined in the EM&CP to minimize fugitive dust and airborne debris from construction activity.

30. Noise mitigation procedures shall be set forth in the approved EM&CP. Staff shall be notified at least 24 hours in advanced if planned weekend, evening or holiday construction becomes necessary.

31. No vehicular or equipment access across streams or wetlands is permitted. Equipment turnouts may be provided for machinery and equipment to pass at intervals in non-sensitive areas.

32. CSCNY shall instruct its contractors to park in designated areas, which do not interfere with normal traffic, do not cause any safety hazard or interfere with existing land uses.

EROSION CONTROL

33. In areas of the right-of-way subject to soil erosion, CSCNY shall install temporary erosion control devices as soon as practicable and appropriate, and shall be indicated in the EM&CP and any stormwater and erosion control plans.

34. CSCNY's environmental inspector, engineer or a qualified designee shall be on site at the start-up of each field operation and at all times during environmentally sensitive phases of construction in areas such as water crossings, significant wildlife or rare plant habitats. Each environmental inspector, engineer or designee and construction inspector shall be equipped with sufficient documentation, and transportation and communication equipment to monitor effectively contractor compliance with the provisions of this Opinion and Order, applicable sections of the Public Service Law and the Commission approved EM&CP.

35. CSCNY shall organize and conduct site compliance inspections as needed, but not less frequently than once a month during the clearing, construction and restoration phases and at least annually for two years after the facility is operational. The inspection shall include a review of the status of all

certification conditions, requirements, and commitments, as well as a field review of the facility, if necessary. The inspection may also include:

- (a) reviews of all complaints received, and their proposed or actual resolutions;
- (b) reviews of any significant comments, concerns or suggestions may b the public, local governments or other agencies;
- (c) reviews of the status in relation to the overall schedule established prior to the commencement of construction; and
- (d) any other items CSCNY or Staff consider appropriate. A written record of the results of the inspection will be circulated to involved agencies by CSCNY.

RIGHTS-OF-WAY MAINTENANCE

36. CSCNY, where necessary, shall negotiate for additional temporary easements for construction purposes as identified in the EM&CP and approved by the Commission. Any temporary easement or construction areas not identified in the approved EM&CP will be requested through changes thereto. Unless otherwise specified in the EM&CP, CSCNY shall, following restoration, let the temporary construction area revegetate naturally or return to its original land use to the extent that forest canopy development does not interfere with the inspection, operation or maintenance of the utility facilities. Except where otherwise specified in the EM&CP, in areas where forest canopy growth precludes aerial inspections of the right-of-way, stem-specific removal of trees or side trimming shall be conducted in accordance with long-range right-of-way management plans.

37. No herbicides will be used for facility construction or maintenance. CSCNY shall employ appropriate

non-chemical techniques and apply environmental restrictions to be specified in the EM&CP.

CONSERVATION MEASURES

38. In all portions of the right-of-way where these measures may prove beneficial, topsoil shall be removed from the combined width of the subsoil stockpile area, trench, construction assembly and traffic zones. The depth of the topsoil removal shall include all of the "A" horizon down to the beginning of the subsoil "B" horizon, generally not to exceed a maximum of 12 inches. All topsoil shall be stockpiled separate from other excavated materials. The exposed surface of the subsoil shall be the work surface. All topsoil material shall be stripped, stockpiled, and returned in its natural sequence to restore the original soil profile. During the clearing/construction phase, site-specific depths of topsoil stripping shall be monitored by CSCNY. Where right-of-way construction cut-and-fill of the soil profile across grades, all topsoil shall be stripped and separately stockpiled, where practical, on the upslope edge of the right-of-way.

ARCHAEOLOGICAL

39. The Applicant shall submit to the Commission as part of its EM&CP, or thereafter as available, the archaeologist's final report describing the survey, the basis for decision concerning the design and extent of the survey, along with any findings. CSCNY has consulted with the New York State Office of Parks, Recreation and Historic Preservation (OPRHP), which by letter dated March 16, 2001 stated that, based upon its review, it was OPRHP's opinion that the project "will have no effect upon cultural resources in or eligible for inclusion in the National Register of Historic Places."

40. Should archaeological materials be encountered during construction, CSCNY shall stabilize the area and cease construction activities in the immediate vicinity of the find

and protect the same from further damage. Within twenty-four hours of such discovery, CSCNY shall notify Staff and OPRHP to determine the best course of action. No construction activities shall be permitted in the vicinity of the find until such time as the significance of the resources has been evaluated and the need for the scope of impact mitigation has been determined.

41. Should human remains or evidence of human burials be encountered during the conduct of archaeological data recovery field work or during construction, all work in the vicinity of the find shall be immediately halted and the remains shall be protected from further damage. Within twenty-four hours of any such discovery, the Applicant shall notify the Commission and OPRHP

42. CSCNY shall refrain from undertaking construction in areas where cultural resource surveys have not been completed and until such time as the results of any additional cultural resource surveys that are required have been reviewed by the appropriate authorities, including OPRHP and Staff. Staff shall be contacted prior to commencement of construction in any such areas.

OTHER FACILITIES

43. CSCNY shall engineer its facilities to be fully compatible with the operation of nearby electrical and gas facilities and to ensure proper coordination of the cathodic protection of the pipeline with the transmission structures' foundations. CSCNY shall take remedial measures with regard to its cathodic protection system if, upon monitoring, such measures are indicated.

44. CSCNY shall coordinate maintenance of these facilities with those of any and all adjacent electric and gas facilities.

45. CSCNY shall identify and mark-out all existing in-ground utilities in accordance with 16 NYCRR Part 753.

RIGHTS-OF-WAY RESTORATION

46. Roadside boring and receiving pits shall be backfilled for a distance of at least 15 feet from the travel portion of the road within one week of the facility installation unless conditions or circumstances warrant a different period as determined by the construction foreman, environmental inspector, engineer or Staff inspectors.

47. No woody vegetation was observed along the upland cable easement and, therefore, no replacement or rearrangement of existing plants will be necessary. The upland cable easement is partially disturbed and partly vegetated with common herbaceous species. A suitable seed mixture will be applied to these areas to revegetate and stabilize the cable easement.

48. All trees over two inches in diameter (measured four feet above ground) or shrubs over four feet in height damaged or destroyed by CSCNY's activities during construction, operation, or maintenance, regardless of where located, shall be replaced by CSCNY with the equivalent type trees or shrubs except where:

- (a) permitted by any approved EM&CP;
- (b) equivalent-type replacement trees or shrubs would interfere with the proper clearing, construction, operation, or maintenance of the facility;
- (c) replacement would be contrary to sound right-of-way management practices or to any approved long-range right-of-way management plan applicable to the facility or
- (d) a property owner (other than CSCNY) on whose land the damaged or destroyed trees or shrubs were located declines replacement.

49. Within ten days of the completion of final restoration, CSCNY shall notify the Commission that all restoration has been completed in compliance with the EM&CP.

50. The requests of CSCNY for waivers of certain filing requirements of 16 NYCRR, Part 86 are granted for the reasons noted in the body of this Order.

51. The proceeding is continued.

By the Commission,

(SIGNED)

JANET HAND DEIXLER
Secretary

**STATE OF NEW YORK
PUBLIC SERVICE COMMISSION**

**Case 00-T-1831 — Application of Cross Sound Cable
Company (New York) LLC for a Certificate of Environmental
Compatibility and Public Need Pursuant to Article VII of the
Public Service Law for the Cross Sound Cable Project.**

Settlement Agreement

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Dated: May 16, 2001
Albany, New York

**STATE OF NEW YORK
PUBLIC SERVICE COMMISSION**

Case 00-T-1831 — Application of Cross Sound Cable Company (New York) LLC for a Certificate of Environmental Compatibility and Public Need Pursuant to Article VII of the Public Service Law for the Cross Sound Cable Project.

Settlement Agreement

THIS SETTLEMENT AGREEMENT is made on the 16th day of May 2001 by and among the Cross Sound Cable Company (New York) LLC (CSCNY), the **Staff** of the Department of Public Service (Staff) and the New York State Department of Environmental Conservation @EC) (collectively referred to as the “Signatory Parties”).

Introduction

On October 17, 2000 CSCNY filed an application with the New York State Public Service Commission (the “Commission”) seeking a certificate of environmental compatibility and public need pursuant to Article VII of the Public Service Law for the construction and operation of a 300 MW High Voltage Direct Current (HVDC) transmission line running beneath Long Island Sound for approximately 24 miles between New Haven, Connecticut and Brookhaven, New York (the “Project”).

Public statement hearings were held before Presiding Administrative Law Judge Walter T. Moynihan in Port Jefferson, New York, on December 29, 2000 and January 18, 2001.

A prehearing conference was held on January 4, 2001 before Judge Moynihan in Albany which was attended by the Signatory Parties.

Discovery was undertaken by Staff and DEC in between the filing of the application and March 2001. After exploratory discussions among the parties, a Notice of Impending Negotiations was sent to all interested persons on February 28, 2001 and Notice of the Impending Negotiations was duly filed with the Secretary of the Commission by letter of the same date. Settlement conferences were noticed and held in Albany on March 13, 2001 and March 29, 2001. Both conferences were attended by CSCNY, Staff and DEC representatives. Settlement is now feasible because, after thorough investigation and discussion, the Signatory Parties hereto more fully understand their respective positions and recognize that reasonable settlement of those positions is possible. The Signatory Parties hereto also believe that this Agreement will further the objective of giving fair consideration to the interests of customers and transmission owners alike in assuring the provision of safe and adequate service at just and reasonable rates.

Terms of Settlement

I. General Provisions

1. It is understood that each provision of this Agreement is in consideration and support of all of the other provisions of this Agreement and is expressly conditioned upon approval of the terms of this Agreement in full by the Commission. If the Commission fails to adopt the terms of this Agreement, the parties to the Agreement shall be free to pursue their respective positions in this proceeding without prejudice.

2. The terms and provisions of this Agreement apply solely to, and are binding only in, the context of the purposes and results of this Agreement. None of the terms or provisions of this Agreement and none of the positions taken herein by any party may be referred to, cited or relied upon in any fashion as precedent or otherwise in any other proceeding before this Commission or any other regulatory agency or before any court of law for any purpose, except in furtherance of ensuring the effectuation of the purposes and results of this Agreement.

3. The Signatory Parties agree to submit this Agreement to the Commission along with a request that the Commission expeditiously adopt the terms and provisions of this Agreement as set forth herein.

4. The Signatory Parties recognize that certain provisions of this Agreement contemplate actions to be taken in the future to effectuate fully this Agreement. Accordingly, the Signatory Parties agree to cooperate with each other in good faith in taking such actions.

5. In the event of any disagreement over the interpretation of this Agreement or implementation of any of the provisions of this Agreement, which cannot be resolved informally among the Signatory Parties, such disagreement shall be resolved in the following manner:
(a) the Signatory Parties shall promptly convene a conference and in good faith attempt to resolve any such disagreement; and (b) if any such disagreement cannot be resolved by the Signatory Parties, any Signatory Party may petition the Commission for resolution of the disputed matter.

6. This Agreement is being executed in counterpart originals, and shall be binding on each Signatory Party when the counterparts have been executed.

7. Applicant agrees to provide the necessary affidavits that will permit the pre-filed testimony, exhibits and appendices comprising the application and the supplemental exhibits agreed upon by the Signatory Parties and attached to this Agreement to be admitted as record evidence in this proceeding.

II. Description of Facility Location

1. The Facility will begin at the Long Island Power Authority's (**LIPA**) **Shoreham** Substation located approximately 1,000 feet in a northwesterly direction **from** the intersection of North Country Road and New Beach Road in the Town of Brookhaven, Long Island, New York. From the **LIPA** Substation, a **138-kV** overhead alternating current (AC) tie line **will** travel in a westerly direction through lands to be acquired by **LIPA** from **MarketSpan** Generation LLC (**MarketSpan**), a distance of approximately 500 feet to a 3.21 acre HVDC Substation Site on lands to be acquired by **LIPA** from **MarketSpan** to be leased by Cross Sound Cable Company (New York) LLC (CSCNY). At the HVDC Substation Site the Facility shall consist of substation equipment including converter valves, filters, transformers, circuit breakers, relay/metering/control devices and ancillary buildings and equipment. From the HVDC Substation Site, a 300 MW underground HVDC and fiber optic upland direct burial cable interconnection system will travel in a northerly and northeasterly direction through a 30 foot wide utility easement to be leased by CSCNY through lands and easements to be acquired by **LIPA** from **MarketSpan**, a distance of approximately 1,600 feet to the centerline of the intake canal of the former **Shoreham** Nuclear Power Facility. Thence, a 300 MW underground HVDC and fiber optic direct burial submarine cable system will travel in a northerly direction through a 30 foot wide utility easement on the westerly side of the centerline of the intake canal to be

leased by CSCNY through easements to be acquired by LIPA from MarketSpan, a distance of approximately 1,300 feet to the northerly end of the intake canal. Thence, a 300 MW underground HVDC and fiber optic submarine direct burial cable system will travel in a northerly direction under the seabed of Long Island Sound through a grant, lease or lesser real property interest to be obtained by CSCNY from the New York State Office of General Services, a distance of approximately 24 miles to the Connecticut State Line, being the end of the Facility in New York State.

2. Maps showing the overall location of the project in Long Island Sound, and detail of the landfall location at the Shoreham Site have been incorporated into this Agreement as Appendix A, pages 1-2.

III. Environmental Compatibility and Public Need

The Commission must consider the totality of all of the relevant factors in making its determination of environmental compatibility and public need. The relevant factors include, without limitation, the electric system, the cost, the environmental impact, the availability and impact of alternatives, undergrounding considerations, conformance to long-range plans, state laws and local laws, and the public interest, convenience and necessity.

A. The *Electric System*

1. As a result of limited import capability onto Long Island, there is a pressing need for the construction of additional transmission capacity. This is not only obvious because of the geography of Long Island as an island, but it is also corroborated from an electrical system perspective by the New York Independent System Operator (ISO) report *Locational Installed Capacity Requirements Study* of February 15, 2001 which shows an even higher on-island

installed capacity (ICAP) requirement for Long Island than for New York City (Supplemental Exhibit 1). Long Island is a load pocket vulnerable to the exercise of market power by electric generators due to transmission constraints and the concentration of generation resources in few hands. This vulnerability is currently mitigated somewhat by LIPA's existing long-term power purchase contracts and the pricing provisions incorporated into such contracts that limit opportunities to exercise market power.

2. Actual Long Island peak load in July, 1999 (4,622 MW), significantly exceeded forecasted peak load (Felder direct testimony, p. 5). The actual peak load in 1999 exceeded the ISO forecast for 2002 and the State Energy Plan (SEP) forecast for 2003. Felder direct testimony, p. 5.

3. The Long Island Installed Reserve Requirement (18% installed reserve margin) is projected to have a 34 MW shortfall in 2003, and a 115 MW shortfall in 2004 (Felder - Base Case) or a 31 MW shortfall in 2002, a 180 MW shortfall in 2003, and a 262 MW shortfall in 2004 (Felder - Escalated Case) (Supplemental Exhibits 2 and 3) (Revised Exhibits _ FAF-3 and FAF-4). However, the Project's capacity does not count towards meeting the installed reserve capacity requirements.

4. The Long Island Locational Capacity Requirement (98% of peak load) is projected to have a small surplus that diminishes significantly between 2002 and 2004 (Supplemental Exhibits 2 and 3). Even though the Project's capacity does not count towards traditional locational capacity requirements, the Project will, in operation, have a real effect on the system similar to adding approximately 300 MW of new generation.

5. Continuing opportunities for displacement of higher cost generation made possible by the Project should result in a measurable improvement in the overall economic

efficiency of power markets in the Northeast and should keep wholesale electric prices at lower levels than would otherwise be the case, ultimately redounding to the benefit of retail consumers in New York State. However, without examining the details of the contractual relationship between LIPA and the Applicant, it is **difficult** to quantify the impact on prices.

6. The Project would increase the opportunities for transactions among buyers and sellers in the wholesale markets thereby generally enhancing competition in the electric industry in New York State.

7. The Project will improve the reliability of the electric system serving Long Island by creating opportunities for bulk power sales and transfers and increasing access to additional supplies in the event of system emergency.

8. The Applicant is making every effort to complete the Project and commence commercial operation by May 2002 in order that it be available to help meet peak load conditions by the summer of 2002.

B. *The Cost*

The following cost comparison relies in part on taking administrative notice of the record in Case 99-T-1423:¹

Cross Sound Cable Project	\$ 0.38M/MVA ²
DSM	\$ 0.50M/MVA ³
Generation	\$ 1.60M/MVA ⁴
Distributed Generation	\$ 1.92M/MVA ⁵

¹ Case 99-T-1423 - Application of the Long Island Power Authority for a Certificate of Environmental Compatibility and Public Need for the Construction of an approximately 22.5 mile long underground electric transmission line in the Town of **Southampton**, Suffolk County.

² The total cost of **\$125** million divided by the Project's capacity of 330 **MVA**.

³ Case 99-T-1423, Tr. 159.

⁴ Case 99-T-1423, Tr. 160.

C. *The Environmental Impact*

1. *The Application* and supplemental materials supplied for the record by CSCNY, describes the nature of the probable environmental impacts of the Project and are briefly summarized below. The environmental impacts of the Project are expected to be minimal, limited to temporary construction disturbance and the visual introduction of a single structure into an industrial landscape (Appendix C to the Application, Figures 2, 6 and 7).

2. Exhibit 4 of the Application addresses all expected environmental effects. Section 4.3 addresses existing topography, geology and soils and potential impacts and mitigation measures. The Application demonstrates no significant impact in these areas.

3. The Project has been sited and designed to avoid impacts to inland surface waters in the vicinity of the **Shoreham** Site and is not expected to have an impact on the quantity or quality of the groundwater at the **Shoreham** Site. Exhibit 4, Section 4.4.

4. The installation and operation of the cable is also not expected to have a significant impact on the bathymetry, seabed characteristics or geology beneath the waters of Long Island Sound. Exhibit 4, Section 4.5.2.1.

5. The installation and operation of the cable is not expected to have any significant long-term impact on the physical or chemical properties of the existing sediments and no new or foreign sediments will be introduced as fill along the cable route. The Applicant conducted physical and chemical sampling on February 8, 2001 which documents the nature of existing sediments (Supplemental Exhibits 4 and 5). However, monitoring of suspended solids content

will be performed to determine the extent of disturbance during installation. Exhibit 4, Section 4.5.

6. The application addresses potential installation impacts on **finfish** which are anticipated to be localized and temporary. Exhibit 4, Section 4.6 and Response to NYSDEC Comments prepared by Environmental Science **Services** dated February 20, 2001 (Supplemental Exhibit 6, pp. 2-7). The cable is a solid-dielectric HVDC cable and, therefore, cannot release any fluids in the unlikely event of external damage or breakage. Exhibit 4, Section 4.5.1.4. and 4.6.

7. Benthic organisms and habitats associated with the cable route are considered in Section 4.7 of Exhibit 4 and were further addressed (Supplemental Exhibit 6, pp. 8-9). Cable installation will have only localized and short-term impacts on benthic communities. No water quality impacts associated with the project are likely to adversely affect benthic **biota**.

8. Commercial shellfish resources are primarily limited to nearshore areas of Long Island Sound. Direct impacts to lobsters and the commercial lobster industry can not be quantified; however, since the project area encompasses a very small portion of the total area of the Sound, the number of shellfish impacted during construction are expected to be minimal in New York waters. Exhibit 4, Section 4.8 and Supplemental Exhibit 6, p. 10.

9. Exhibit 4, Section 4.9 of the Application addresses wetlands and coastal resources. The Project was sited to avoid wetland resource areas along the shoreline in the vicinity of the **Shoreham** Site. No permanent impacts to tidal or freshwater wetlands or adjacent areas are expected from the construction or operation of the Project. Potential temporary impacts from the installation of the cable are limited to land mainly under Long Island Sound and the

intake canal. These areas are classified as the littoral zone, a tidal wetland resource. These areas will be restored to pre-construction conditions once the Project is completed.

10. Construction techniques will minimize the impacts on wildlife and wildlife habitats. Construction impacts on wildlife and wildlife habitat will be minimal due to the existing industrial nature of the site and placement of the cable in paved access ways or previously disturbed land. After construction, disturbed areas will be stabilized in accordance with their previous and continued use. No significant impact on protected species and habitats is expected as a result of construction or operation of the Project. Exhibit 4, Section 4.10 and 4.11.

11. The Project has been sited and designed and will be constructed and operated in a manner that is consistent with the applicable New York State Department of State Coastal Management Program and State Coastal Policies. Exhibit 4, Section 4.12.4 and Attachment 4-B to the Application.

12. Exhibit 4, Section 4.13 addresses archaeological and historical resources. No historic or archaeological sites have been identified within the **Shoreham** Site as **confirmed** by letter dated March 16, 2001 from the New York State Office of Parks, Recreation and Historic Preservation (Supplemental Exhibit 7). Therefore, no impacts on such resources are expected and no mitigation has been proposed.

13. Exhibit 4, Section 4.14 addresses visual and aesthetic resources. The Project has been sited and designed to minimize impacts to visual and aesthetic resources. The visibility and visual impact assessment indicates that the addition of the Project's facilities to the already developed **Shoreham** Site will not significantly change the existing appearance of the area as a result of compatibility with existing facilities, the modest size of the Projects' facilities, effective screening and the distance between the site and sensitive viewer locations.

D. *The Availability and Impact of Alternatives*

1. The Project was selected as part of a process initiated by LIPA calling for the development of a submarine cable of a specific capacity (Rotger direct testimony, p. 13). The support of the Federal Energy Regulatory Commission (FERC) for merchant transmission facilities is evident from its Order approving market-based rates for the Project. *Order Approving Proposal Subject to Conditions*, Transenergie U.S. Ltd. 91 FERC ¶ 61,230 (2000) Docket No. ER00-1-000. At this time, the **only** reasonably comparable transmission alternatives to the Project are other cables beneath Long Island Sound having similar environmental attributes.

2. The selection of the **Shoreham** facility for the landfall is reasonable in light of the following objectives: providing access to the bulk transmission systems, using industrial land available for construction, avoiding the disturbance of pristine land, and allowing for a reasonable distance from non-industrial land uses and the existing roadway infrastructure (Exhibit 3, Section 3.2). The proposed route of the cable is preferred because of seabed conditions and the avoidance or minimization of navigational impacts (Exhibit 3, Section 3.3.1). Generation alternatives could supplant the need for the Project in the future, but are speculative, have significantly greater environmental impacts, and are not likely to be built in time to address short-term needs. New generation is being planned, but the actual construction is dependent upon a host of items including the siting process, environmental permits, zoning, and factory availability of the unit.

3. Demand side management (DSM) and distributed generation programs cannot reasonably be expected to be provided in the short-term in such quantities as to offset the

capacity provided by the Project. There is a continuing need for DSM on Long Island and elsewhere in New York State. The Long Island Power Authority has adopted a significant DSM program, and needs to continue its efforts to identify and provide feasible DSM opportunities. However, the high rate of load growth on Long Island and its historical lack of adequate transmission ties makes even a vigorous DSM program insufficient as an alternative to the Project.

E. *Undergrounding Considerations*

The Project is already designed for sub-surface installation except for the Substation and one structure required to tie into the Substation.

F. *Conformance to Long-Range Plans*

The Project does not violate any long-range plans, is consistent with the most recent State Energy Plan (“SEP”) (1998), and does not adversely impact the electrical system.

G. *System Reliability Impact Studies*

1. System reliability impact studies (**SRIS**) to evaluate the impact of the Project on system reliability and security and to determine what AC reinforcements are necessary for the New York State transmission system were submitted with the application as Appendix E.

2. The **SRIS** for the New York system was conducted under the direction and review of **LIPA**. The NYISO was consulted on the scope of the study and the system representations incorporated in the dynamic analysis portion of the **SRIS**. On July 25, 2000, the NYISO Transmission Planning Advisory Committee (**TPAS**) approved a work scope that required a report to be prepared in accordance with NYISO Transmission Planning Guideline No. 1 .O. The

Applicant submitted such a report in October 2000 and subsequently revised the report on December 1, 2000 to address concerns raised by the NYISO, LIPA and KeySpan Energy.

3. The TPAS report of December 19, 2001 addressed thermal, voltage, stability, short circuit and extreme contingency analyses and concluded that, after taking appropriate specific system reinforcement actions as required by LIPA, the Project “will have no significant adverse impact on the New York Power System.” Supplemental Exhibit 8, p. 5.

4. On January 17, 2001, the NMSO Operating Committee met and approved the TPAS report on the Project. Supplemental Exhibit 9.

H. *State and Local Laws and Real Property Considerations*

1. *The* proposed transmission facility will comply with the applicable requirements of the Brookhaven Town Code. Surveys, maps and plans provided by the Applicant demonstrate that setback and building area limitations in Brookhaven’s zoning code will be met (with regard to setbacks, see Supplemental Exhibit 12). The Applicant will consult with engineers from LIPA or its representatives to ensure that construction of the Substation and the interconnection to LIPA’s transmission grid are built in conformance with applicable safety and reliability standards. The Applicant agrees to obtain the services of an engineer to inspect the Facility to ensure that it complies with the New York State Uniform Fire Prevention and Building Code. The Applicant has supplemented the record underlying its Certificate to demonstrate that the architectural and aesthetic features of the proposed structures will conform to and enhance the architectural features of the neighborhood. Supplemental Exhibit 10.

2. The Applicant has entered into an Agreement of Lease with LIPA for the real property on which the Substation will be located, subject to LIPA’s acquisition of the underlying real property from MarketSpan. LIPA has granted the Applicant the necessary easements for

ingress and egress purposes for the installation, operation and maintenance of the cable, subject to **LIPA's** acquisition of the underlying real property from **MarketSpan**. The Applicant intends to have **LIPA** construct, own and operate the 13.8 kV overhead AC Interconnection between the Substation and **LIPA's Shoreham** Substation on lands to be acquired by **LIPA** from **MarketSpan**, subject to **LIPA's** acquisition of the underlying real property from **MarketSpan**. Within a reasonable time after Commission Article VII certification of the Project, **MarketSpan** will transfer to **LIPA** the 46-acre parcel on which the Substation and AC Interconnection will be located. The property transfer from **MarketSpan** to **LIPA**, however, will occur prior to the commencement of any construction work on the AC Interconnection, Substation or the Upland portion of the cable. Prior to any site preparation or construction of the AC Interconnection, the Applicant, jointly with **LIPA**, will apply and obtain approval under Public Service Law Section 121(2) to transfer to **LIPA**, and shall transfer to **LIPA**, that portion of the certificate necessary to allow **LIPA** to construct, own and operate the AC Interconnection. The Signatory Parties acknowledge that Commission Article VII certification of the Project will have no effect on any authority of the Town of Brookhaven to require subdivision approval or compliance with building setback requirements in connection with the property transfer **from MarketSpan to LIPA**.

3. Exhibit 4, Section 4.12 of the Application demonstrates that the Project is consistent with the Final 1996 Comprehensive Land Use Plan of the Town of Brookhaven. The Project is an industrial use consistent and compatible with existing industrial uses. A prime objective of Brookhaven's Land Use Plan is to protect and enhance the coastal zone of the town by balancing the preservation and restoration of significant environmental resources, ecological habitats and surface waters with the need to develop additional water dependent facilities,

provide opportunities for public access and maintain the characteristics of the waterfront. The Project has been sited and designed consistent with these objectives.

4. The record contains a flood hazard map (Exhibit 4, Figure 4-1 1) demonstrating that the substation is not located in a special flood hazard area.

5. The Applicant has established that the ownership of the land underneath Long Island Sound resides with the State of New York (Letter dated March 14, 2001 from Office of General Services, Supplemental Exhibit 11). The Applicant will submit an application to the Office of General Services for the necessary temporary license and easement permitting it to construct and operate that portion of the transmission line underneath the Long Island Sound that is within the boundaries of the State of New York.

I. *Electromagnetic Fields, Noise and Communications*

I. AC Electric and Magnetic Fields

(a) Electric and magnetic field calculations for the AC overhead span between the Substation and LIPA's existing AC bus in the Shoreham Switchyard are shown in graphs included in Figures 6 and 7 of Appendix D to the Application. The input/output data supporting these graphs are included in this Appendix as well.

(b) Magnetic field calculations show that the AC Interconnection meets the Commission's 200 mG standard at a distance of 50 feet on either side of the centerline⁶. The lower panel of Figure 6 of Appendix D to the Application shows that at +/-50 feet, the magnetic

⁶ In the absence of a defined right-of-way, the PSC policy on magnetic fields (1990) specifies that compliance of transmission lines with voltages below 230 kV with the standard be tested for a typical 100-foot right-of-way width.

field levels for the transition span to the **LIPA** bus at Winter Normal conductor loading are **65/117 mG**. At this same distance from the centerline of the vertical span, the lower panel of Figure 7 shows the magnetic field levels as **54/116 mG**.

(c) Similarly, electric field calculations show that the AC Interconnection meets the Commission's **1.6 kV/m** standard at a distance of 50 feet on either side of the centerline. The upper panels of Figures 6 and 7 of Appendix D to the Application show that at **+/-50** feet, the electric field levels at maximum conductor sag during the summer for the transition span are **0.38/0.78 kV/m**, and for the vertical span to the **LIPA** bus, the electric field levels are **0.07/0.35 kV/m**.

(d) The minimum distance between the AC Interconnection and the parcel that will be owned by **KeySpan** as a turbine generator site is approximately 80 feet and EMF calculations at that distance also meet the Commission's standards.

2. **DC Electric and Magnetic Fields**

(a) **The** Commission's EMF standards were developed to apply to power frequency AC fields. DC magnetic fields were, nevertheless, considered in Appendix D to the Application for examining potential impacts unrelated to these standards.

(b) Magnetic field calculations for the Upland and Sound portions of the cable are shown in Figures 8 and 9, respectively, of Appendix D to the Application. For the Upland route, assuming a **30-foot** right-of-way, the calculated maximum contribution of the cable to DC magnetic field at the edge of the right-of-way, one meter above ground is **55 mG** (calculation based on referenced Figures 8 and 9).

(c) Electric field calculations were not provided for the DC underground cable because the metallic internal cable sheathing and the ground effectively shield the cable, resulting in no electric field in the air above ground (Appendix D to the Application, pp. 3-4).

3. The Project, therefore, complies with applicable electric field strength standards, as set forth in Opinion No. 78-13 and the applicable provisions of the Commission's Interim Statement on Magnetic Fields dated September 11, 1990.

4. The equipment at the Substation will be designed to comply with Chapter 50 of the Brookhaven Town Code which classifies the **Shoreham** Site as Industrial Source Property. Sound pressure levels will be verified at adjacent receptors. The **EM&CP** will detail these sound measurements as well as any necessary mitigation measures. Exhibit 4, Section 4.16.

5. Exhibit E-5 of the Application evaluates the effect of the Project on telecommunications and radio and television signal transmissions. The Application demonstrates that there are no significant effects on communications.

IV. Proposed Findings

The Signatory Parties agree that the record in this proceeding supports the following findings:

1. The transmission facility proposed by CSCNY is needed to facilitate exchanges of power between producers and purchasers located in New England and on Long Island, to enhance regional and local competition in the electric power industry and to improve system reliability.

2. Construction of the transmission facility along the route proposed in **CSCNY's** application conforms to the most recent New York State Energy Plan which sets forth the State's energy policies and long-range planning objectives and strategies.

3. The nature of the probable environmental impact will be temporary in that it will be associated primarily with the construction activity necessary to dig the trench and lay the cable. No significant impacts are expected with regard to the physical or chemical properties of existing sediments during construction or operation and any changes in turbidity are expected to be localized and temporary (and subject to a suspended solids monitoring provision set forth below). Impacts on **finfish** and commercial shellfish during construction are expected to be minimal. No impact on fish resources is expected as a result of the cable's operation nor is any release of fluids possible as a result of damage to the solid dielectric HVDC cable. No significant visual impacts will result from any of the buildings, structures or equipment associated with the proposed transmission facility. All of the construction methods for this project will be contained in the **EM&CP** and are designed to minimize impacts on the physical environment.

4. The facility, as proposed, represents the minimum adverse environmental impact, considering the state of available technology and the nature and economics of the various alternatives, and other considerations such as the effects on agricultural lands, wetlands, parklands and river corridors because the trenching operation for laying the cable is expected to produce only localized and temporary effects on turbidity and the Project is otherwise confined to already disturbed industrial property.

5. The location of the facility will not pose an undue hazard to person or property along the area traversed by the facility, and the location of the facility conforms to applicable state and local laws and regulations because the cable meets EMF guidelines, has no effect on communications and will be buried at a depth that avoids potential navigational impacts; the

upland portion of the cable will be buried and connected to the Substation in conformance with NYISO and LIPA safety and construction requirements.

6. The proposed transmission facility will serve the public interest, convenience and necessity because it will, with minimum environmental impact, add needed transmission capability on Long Island, improve system reliability, enhance opportunities for market-based transactions and help further the transition to a competitive electric industry in New York State. A Certificate of Environmental Compatibility and Public Need is hereby granted subject to the terms and conditions of the ordering clauses below.

V. Ordering Clauses

The Signatory Parties **agree** that the following Ordering Clauses are acceptable and appropriate for the certificated Project:

1. Subject to the conditions set forth in this Opinion and Order, the Cross Sound Cable Company (New York) LLC (the Applicant, the Company) is granted a Certificate of Environmental Compatibility and Public Need authorizing construction and operation of a 300 MW DC, underground electric transmission system along the project route detailed herein. The conditions set forth in this Opinion and Order shall apply only to the portions of the certified facility within the State of New York.

2. The Applicant will be permitted at its own commercial risk to commence site preparation and construction of the AC Interconnection, Substation and the Upland portion of **the** cable on the **Shoreham** Site prior to receiving certification from the Connecticut Siting Council for the Connecticut portion of the Project. The Applicant agrees to include in periodic reports to the Commission the status of its efforts to achieve certification in Connecticut. In the event the Applicant is unable to achieve certification in Connecticut, the Applicant agrees to stop work in

New York State and to restore the site to a condition acceptable to the owner of the property on which any site preparation or construction has occurred.

3. Notwithstanding Ordering Clause 2, construction of any part of the Project, whether on land or under water, shall not commence until the Applicant has received from the New York State **Office** of General Services such authorizations as are necessary to permit construction to commence and until the Applicant has received such leases and easements from LIPA as are necessary to permit construction to commence.

4. The Applicant shall not begin site preparation or construction with respect to any portion of the certified facility (except for surveying, boring and such other related activities as are necessary to prepare final design plans) before it has submitted to the Commission, and the Commission has approved, an Environmental Management and Construction Plan (**EM&CP**) for that portion of the facility which is generally consistent with the guidelines set forth in Appendix B hereto.

5. The Applicant shall submit three copies of the **EM&CP** to the Commission, serve one copy on the Commissioner of the DEC and the Commissioner of the New York State **Office** of Parks, Recreation and Historic Preservation [pursuant to 9 NYCRR Part 428 Section 428.2(c)], serve at least one copy on any other New York State agency (and its relevant region offices) which requests the document, serve one copy on active parties on the service list who request the document, and place copies for inspection by the public in at least one public Library or other convenient location in each municipality in which construction will take place. Contemporaneously with the submission and service of the **EM&CP**, the Applicant shall provide notice, in the manner specified below, that the **EM&CP** has been filed.

6. The Applicant shall serve written notice(s) on all active parties to this proceeding, on each person on the Commission's service list considered potentially affected by the subject matter in the **EM&CP**, and on all statutory parties to this proceeding, and shall attach a copy of the notice to each copy of the **EM&CP**. The Applicant also shall attempt to serve similar written notice(s) on each person from whom rights-of-way are required, on each person owning the underlying land right to an easement being acquired **from** another utility and on each person currently leasing a portion of any right-of-way to be used for the certified facility. Further, the Applicant shall publish the notice(s) in a newspaper or newspapers of general circulation in the vicinity of the certified facility.

7. The written notice(s) and the newspaper notices(s) shall contain at a minimum, the following: a statement that the **EM&CP** has been filed; a general description of the **EM&CP**; a listing of locations where the **EM&CP** is available for public inspection; a statement that any person desiring additional information about a specific geographical location or specific subject may request it from the Applicant; the name, address, and telephone number of the Applicant's representative; the address of the Commission, and a statement that any person may comment on the **EM&CP** by filing written comments with the Commission and the Applicant within 30 days of the filing date with the Commission of the **EM&CP** (or within 30 days of the date of the newspaper notice, whichever is later). A certificate of service indicating upon whom all **EM&CP** notices and documents were served and a copy of the written notice shall be submitted to the Commission at the time the **EM&CP** is filed and shall be a condition precedent to approval of the **EM&CP**.

8. Except where this Opinion and Order requires otherwise, the terms of the Settlement Agreement in the proceeding (set forth as Appendix _ to this Opinion and Order) and

the environmental protection measures contained in the application and in the related statements made by the Applicant, shall be applied during preparation of the EM&CP and during construction, operation and maintenance of the certified facility. Applicable provisions of the EM&CP and orders approving the EM&CPs shall be accommodated in contracts associated with the Project.

9. The Applicant shall, within 30 days after the issuance of the Certificate, submit to the Commission either a petition for rehearing or a verified statement that it accepts and will comply with the Certificate. Failure to comply with this condition shall invalidate the Certificate.

10. Prior to any site preparation or construction of the AC Interconnection, the Applicant shall either (a) obtain an easement, lease or lesser real property interest over the affected land necessary to allow the Applicant to construct, own and operate the AC Interconnection itself (at a location no closer than 50 feet to the nearest property line); or (b) if approved by the Commission pursuant to Public Service Law Section 121(2), transfer to LIPA that portion of the certificate necessary to allow LIPA to construct, own and operate the AC Interconnection on its own real property.

11. (a) Each substantive state and local law and regulation applicable to the location of the facility authorized by the Certificate shall apply, except any substantive local law or regulation which the Commission has refused to apply as being unreasonably restrictive.

(b) No state or local legal provision purporting to require any approval, consent, permit, certificate or other condition for the construction or operation of the facility authorized by the Certificate shall apply, except those of the Public Service Law and regulations

and orders adopted thereunder, and those provided by otherwise applicable State law for the protection of employees engaged in the construction and operation of the facility.

(c) Nothing herein shall preclude the Applicant from voluntarily subjecting itself to any such state or local approval, consent, permit, certificate or other condition.

12. (a) The **EM&CP** may be segmented in order to permit commencement of construction of on-land components of the Project not subject to the permitting authority of the Army Corps of Engineers. In all other respects, prior to commencement of construction of the CSCNY 300 MW DC Underground Transmission Line, the Applicant shall receive all required governmental authorizations and shall deliver copies thereof to **Staff**.

(b) the Applicant shall comply with any conditions contained in a Water Quality Certification issued pursuant to Section 401 of the Federal Clean Water Act.

(c) the Applicant shall obtain the services of an engineer to inspect the Facility prior to the commencement of operation to ensure that it complies with the New York State Uniform Fire Prevention and Building Code. The Applicant may seek a variance in accordance with Section 381 (l)(f) of the Executive Law.

13. The Applicant shall construct the facilities in accordance with the Case 70100 *Standard and Practices for Environmental Management and Construction of Gas Transmission Facilities in New York State (Standards and Practices)* applicable to this proceeding and not specifically prescribed in the EM&CP, particularly with regard to archaeological resources, construction practices and techniques, water bodies and wetlands, erosion control, right-of-way, clearing and maintenance, and right-of-way restoration, except as otherwise specified herein. Construction of the cable shall not occur after January 15 or before October 15 in any calendar year. With the prior written consent of DEC, however, Applicant may petition the Commission

for a modification of this construction window provided copies of the petition are served on all parties to this proceeding. The Applicant shall utilize erosion protection measures to prevent sedimentation into tidal wetlands. The Applicant shall not store heavy machinery or equipment in the beach area on the east side of the intake canal.

14. The Applicant shall report any proposed changes in the approved **EM&CP** to Staff. ~~Staff will~~ refer to the Secretary of the Commission (or a designee) reports of any proposed changes that do not cause substantial change in environmental impact or are not related to contested issues decided during the proceeding. All other proposed changes in the **EM&CP** shall be referred by Staff to the Commission for approval. Upon being advised that Staff will refer a proposed change to the Commission, the Applicant shall notify all affected statutory and active parties as well as all property owners or lessees whose property is affected by the proposed change. The notice shall describe the requested change and state that documents supporting the request are available for inspection at specified locations, and state that persons may comment by writing or calling (followed by written confirmation) to the Commission within 10 days of the notification date. Any delay in receipt of written confirmation will not delay Commission action on the proposed change. The Applicant shall not execute any proposed change until it receives oral or written approval, except in emergency situations threatening personal injury, property damage or severe adverse environmental impact or as specified in the **EM&CP**.

35. The Applicant shall make available to the public a toll ~~free~~ or local phone number of an agent or employee where complaints may be received during construction of the certified facilities. In addition, the phone number of the Commission, and the phone number of its Environmental Compliance Section, shall also be provided in the event there are questions or concerns. Phone complaints shall be logged and made available to Staff upon its request.

During Staffs compliance inspections, the Applicant shall report to Staff every unresolved complaint.

16. Before commencing site preparation, the Applicant shall give notice to local **officials** and emergency personnel. The Applicant shall also provide such notice for dissemination to local media and display in public places (such as general stores, post offices, community centers and conspicuous community bulletin boards). The notice shall contain a map and description of the project in the local area, the anticipated date for start of construction and name, address and local or toll-free telephone number of an employee or agent of the Applicant. The notice shall also contain a statement that the project is under the jurisdiction of the Public Service Commission which is responsible for enforcing compliance with environmental and construction conditions, which may be contacted at an address and telephone number to be provided. Where possible, the notice will be written in language reasonably understandable to the average person, as determined by the Applicant. Upon distribution, a copy shall be submitted to the Secretary of the Commission.

17. The Applicant shall provide construction contractors with complete copies of the Certificate, EM&CP, 401 Water Quality Certification, and 6 NYCRR Parts 700-704.

18. The authority granted in the Certificate and any subsequent order(s) in the proceeding is subject to the following conditions necessary to ensure compliance with such order(s):

(a) the Applicant shall regard the **Staff** representatives (certified pursuant to Public Service Law Section 8) as the Commission's designated representatives in the field. In the event of any emergency resulting from the specific construction or maintenance activities

that violate or may violate the terms of the Certificate or any other order in this proceeding, such Staff representatives may issue a stop-work order for that location or activity.

(b) A stop-work order shall expire within 24 hours unless confirmed by a single Commissioner. If a stop-work order is confirmed, the Applicant may seek reconsideration from the confirming Commissioner or the whole Commission. If the emergency prompting the issuance of a stop-work order is resolved to the satisfaction of the Commissioner or the Commission, the stop-work order will be lifted. If the emergency has not been satisfactorily resolved, the stop-work order will remain in effect.

(c) Stop-work authority shall be exercised sparingly and with due regard to the potential economic costs involved and possible impact on construction activities. Before exercising such authority, Staff field representatives shall attempt (wherever practicable) to direct preventive or remedial action through representatives of the Applicant possessing comparable authority. In the event **that** Staff field representatives issue a stop work order, neither the Applicant nor the contractor will be prevented from undertaking such safety-related activities as they deem necessary and appropriate under the circumstances.

(d) In **the** event of any emergency involving specific construction or maintenance activities that violate or threaten to violate the terms of the Certificate or any other order in this proceeding, Staff field representatives may direct the Applicant to install appropriate mitigative measures or devices.

Notifications

19. The Applicant shall inform the Secretary and **Staff (of** the Public Service Commission and DEC) at least five days before commencing construction or clearing on this project.

20. The Applicant shall provide Staff with weekly status reports summarizing the previous weeks construction and indicating locations of construction scheduled for the next two weeks.

21. Within ten days after the facility is in service, the Applicant shall notify the Commission of **that** fact.

Rights-of-Way Clearing

22. **The** Applicant shall **confine** clearing and subsequent maintenance to the certified right-of-way.

23. Any fines, penalties or environmental damage resulting from actions performed by contractor personnel working on this project (from work directly or indirectly associated with this project) shall be the responsibility of the contractor. **The** Commission may also seek appropriate penalties from the Applicant as a result of its contractors' actions.

Transmission Line Construction

24. (a) The Applicant has concluded that the majority of the sediment suspended during trenching and installation of the cable will settle within 350 feet of the trench. To verify this determination, the Applicant will monitor for total suspended solids at the surface of the water and at near-bottom depth following installation of the cable at one (1) mile intervals within the boundaries of New York State as follows:

i) six (6) hours after trenching and cable installation, a sample will be taken 100 feet from the center of the trench on both sides of **the** cable;

ii) six (6) hours after trenching and cable installation, a sample will be taken 300 feet from the center of the trench on both sides of **the** cable.

iii) twenty-four (24) hours after trenching and cable installation, a sample will be taken 100 feet from the center of the trench on both sides of the cable;

iv) twenty-four (24) hours after trenching and cable installation, a sample will be taken 300 feet from the center of the trench on both sides of the cable.

b) Two additional locations will be sampled at 6 and 24 hours at surface and near-bottom depth at a distance of 500 feet on both sides of the trench. These two sample locations will be in areas where the trench crosses siltier areas of Long Island Sound.

c) The Applicant may ask DEC to dispense with the twenty-four **(24)-hour** samples should the six (6)-hour samples warrant it.

d) The Applicant will provide the Department of Environmental Conservation with the results of suspended solids monitoring in time for DEC to determine if a seventy-two (72) hour sample is warranted.

25. To protect sensitive life stages of marine species, construction of the cable shall not **occur** after January 15 or before October 15 in any calendar year. With the prior written consent of DEC, however, the Applicant may petition the Commission for a modification of this construction window provided copies of the petition are served on all parties to this proceeding.

26. The Applicant shall install sedimentation/erosion control devices to prevent sedimentation into tidal wetlands during construction. These erosion control structures shall be installed prior to construction and shall remain in place while working within 100 feet of the wetland. Erosion and sedimentation controls will be maintained until the right-of-way has been revegetated **and/or** stabilized in accordance with pre-existing conditions.

27. During construction in the intake canal, no side casting, or temporary storage of dredged material is authorized. This prohibition does not apply to work done with the hydraulic jet plow or with directional drilling.

28. The Applicant shall not store or operate heavy machinery or equipment in the beach area east of the intake canal. All equipment and machinery shall be operated, stored and safely contained 500 feet from the nesting and foraging areas of the piping plover and least terns east of the intake **canal**.

29. The Applicant shall take appropriate measures as outlined in the **EM&CP** to minimize fugitive dust and airborne debris **from** construction activity.

30. Noise mitigation procedures shall follow those set forth in the approved **EM&CP**, with the exception that Staff shall be notified at least 24 hours in advance if planned weekend, evening or holiday construction becomes necessary.

31. No vehicular or equipment access across streams or wetlands is permitted. Equipment turn outs may be provided for machinery and equipment to pass at intervals in non-sensitive areas.

32. The Applicant shall instruct its contractors to park in designated areas, which do not interfere with normal traffic, do not cause any safety hazard or interfere with existing land uses.

Erosion Control

33. In areas of the right-of-way subject to soil erosion, the Applicant shall install temporary erosion control devices as soon as practicable and appropriate as indicated in the **EM&CP** and any stormwater and erosion control plans.

Environmental Supervision

34. The Applicant's environmental inspector, engineer or a qualified designee shall be on site at the start-up of each field operation and at all times during environmentally sensitive phases of construction in areas such as water crossings, significant wildlife or rare plant habitats. Each environmental inspector, engineer or designee and construction inspector shall be equipped with **sufficient** documentation, and transportation and communication equipment to monitor effectively contractor compliance with the provisions of this Opinion and Order, applicable sections of the Public Service Law and the Commission approved **EM&CP**.

35. The Applicant shall organize and conduct site compliance inspections as needed but not less frequently than once a month during the clearing, construction and restoration phases of the project, and at least annually for two years after the project is operational. The inspection shall include a review of the status of all certification conditions, requirements, and commitments, as well as a field review of the project, if necessary. The inspection may also include:

- (a) reviews of all complaints received, and their proposed or actual resolutions;
- (b) reviews of any significant comments, concerns or suggestions made by the public, local governments, or other agencies;
- (c) reviews of the status of the project in relation to the overall schedule established prior to the commencement of construction; and
- (d) any other items the Applicant or Staff consider appropriate. A written record of the results of the inspection will be circulated to involved agencies by the Applicant.

Rights-of-Way and Maintenance

36. The Applicant, where necessary, shall negotiate for additional temporary easement for construction purposes as identified in the **EM&CP** and approved by the Commission. Any temporary easement or construction areas not identified in the approved **EM&CP** will be requested through changes thereto. Unless otherwise specified in the **EM&CP**, the Applicant shall, following restoration, let the temporary construction area revegetate naturally or return to its original land use to the extent that forest canopy development does not interfere with the inspection, operation or maintenance of the utility facilities. Except where otherwise specified in the **EM&CP**, in areas where forest canopy growth precludes aerial inspections of the right-of-way, stem-specific removal of trees or side trimming shall be conducted in accordance with long-range right-of-way management plans.

37. No herbicides will be used for facility construction or maintenance. The Applicant shall employ appropriate non-chemical techniques and apply environmental restrictions in the Applicant's Detailed Specifications for Transmission Right-of-Way Vegetation Maintenance.

Conservation Measures

38. In all portions of the right-of-way where these measures may prove beneficial, topsoil shall be removed from the combined width of the subsoil stockpile area, trench, construction assembly and traffic zones. The depth of topsoil removal shall include all of the "A" horizon down to the beginning of the subsoil "B" horizon, generally not to exceed a maximum of 12 inches. All topsoil shall be stockpiled separate **from** the other excavated materials. The exposed surface of the subsoil shall be the work surface. All topsoil material

shall be stripped, stockpiled, and returned in its natural sequence to restore the original soil profile. During the clearing/construction phase, site- specific depths of topsoil stripping shall be monitored by the Applicant. Where right-of-way construction requires cut-and-fill of the soil profile across grades, all topsoil shall be stripped and separately stockpiled, where practical, on the **upslope** edge of the right-of-way.

Archaeological

39. (a) The Applicant shall submit to the Commission as part of its **EM&CP**, or thereafter as available, the archaeologist's final report describing the survey, the basis for decision concerning the design and extent of the survey, along with any findings. The Applicant has consulted with the New York State **Office** of Parks, Recreation and Historic Preservation (OPRHP) which by letter dated March 16, 2001 stated that, based upon its review, it was "**OPRHP's**" opinion that the project "will have No Effect upon cultural resources in or eligible for inclusion in the National Register of Historic Places."

40. Should archaeological materials be encountered during construction, the Applicant shall stabilize the area and cease construction activities in the immediate vicinity of the find and protect the same from further damage. Within twenty-four hours of such discovery, the Applicant shall **notify** Staff and Parks to determine the best course of action. No construction activities shall be permitted in the vicinity of the find until such time as the significance of the resource has been evaluated and the need for the scope of impact mitigation has been determined.

41. Should human remains or evidence of human burials be encountered during the conduct of archaeological data recovery fieldwork or during construction, all work in the vicinity of the find shall be immediately halted and the remains shall be protected from further damage.

Within twenty-four hours of any such discovery, the Applicant shall notify the Commission and Parks.

42. The Applicant shall refrain from undertaking construction in areas where cultural resource surveys have not been completed and until such time as the results of any additional cultural resource surveys that are required have been reviewed by the appropriate authorities, including OPRHP and **Staff**. **Staff** shall be contacted prior to commencement of construction in any such areas.

Other Facilities

43. The Applicant shall engineer its facilities to be fully compatible with the operation of nearby electrical and gas facilities and to ensure proper coordination of the cathodic protection of the pipeline with the transmission structures' foundations. The Applicant shall take remedial measures with regard to its cathodic protection system if, upon monitoring, such measures are indicated.

44. The Applicant shall coordinate maintenance of these facilities with those of any and all adjacent electric and gas facilities.

45. The Applicant shall identify and mark-out all existing in-ground utilities in accordance with **16** NYCRR Part 753

Rights-of-Way Restoration

46. Roadside boring and receiving pits shall be backfilled for a distance of at least 15 feet from the travel portion of the road within one week of the facility installation unless conditions or circumstances warrant a different period as determined by the construction foreman, environmental inspector, engineer, or Staff inspectors.

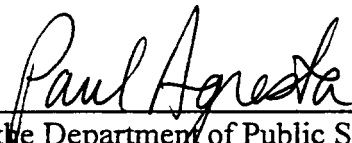
47. No woody vegetation was observed along the upland cable easement and, therefore, no replacement or rearrangement of existing plants will be necessary. The upland cable easement is partially disturbed and partly vegetated with common herbaceous successional species. A suitable seed mixture will be applied to these areas to revegetate and stabilize the cable easement.

48. All trees over two inches in diameter (measured four feet above ground) or shrubs over four feet in height damaged or destroyed by the Applicant's activities during construction, operation, or maintenance, regardless of where located, shall be replaced by the Applicant with the equivalent type trees or shrubs, except where:


- (a) permitted by any approved **EM&CP**;
- (b) equivalent-type replacement trees or shrubs would interfere with the proper clearing, construction, operation, or maintenance of the facility;
- (c) replacement would be contrary to sound right-of-way management practices or to any approved long-range right-of-way management plan applicable to the project;
or
- (d) a property owner (other than the Applicant) on whose land the damaged or destroyed trees or shrubs were located declines replacement.

49. Within ten days of the completion of final restoration, the Applicant shall notify the Commission that all restoration has been completed in compliance with the **EM&CP**.

IN WITNESS WHEREOF, the Parties hereto have this day signed and executed this Agreement.



Staff of the Department of Public Service

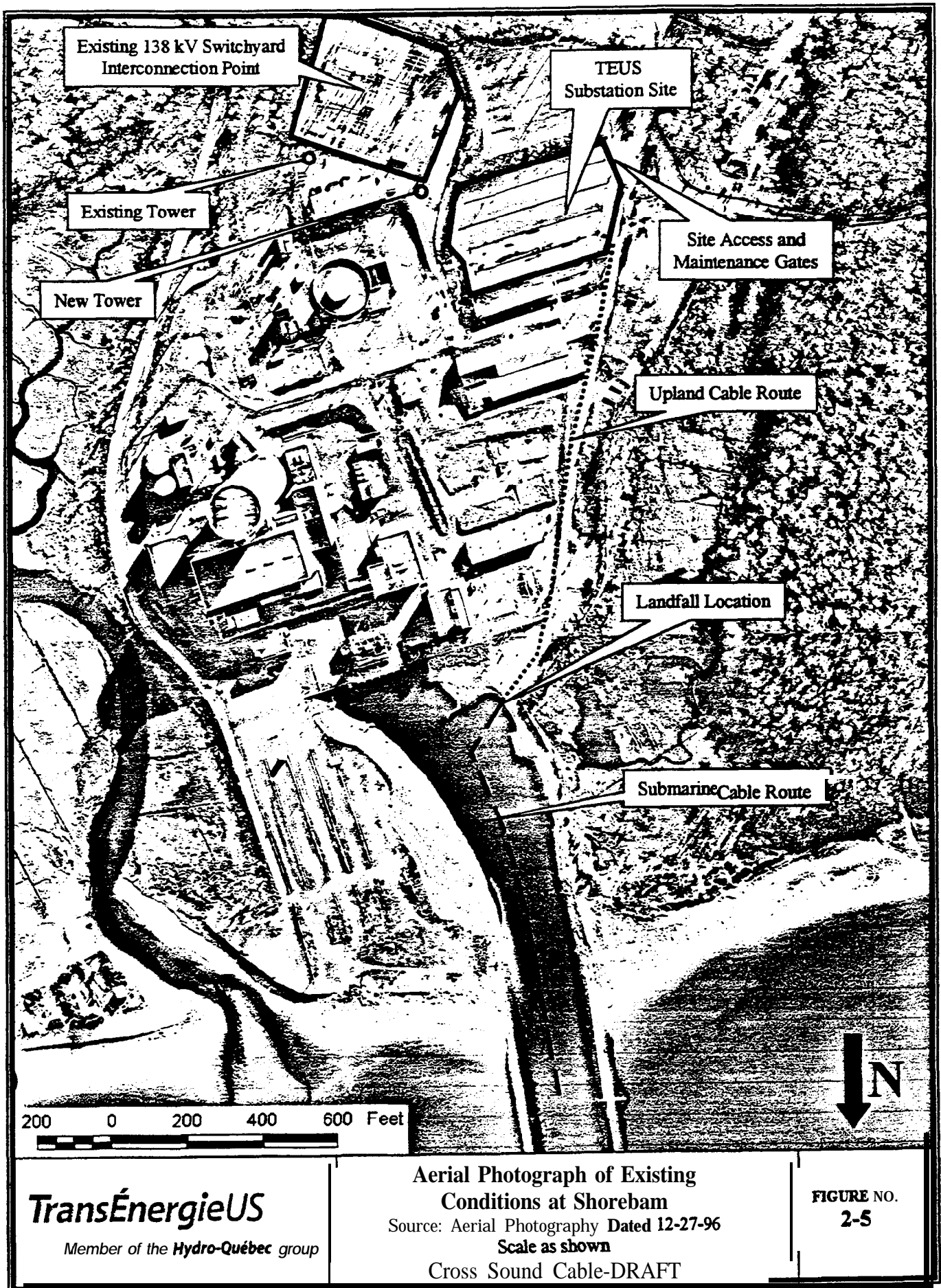


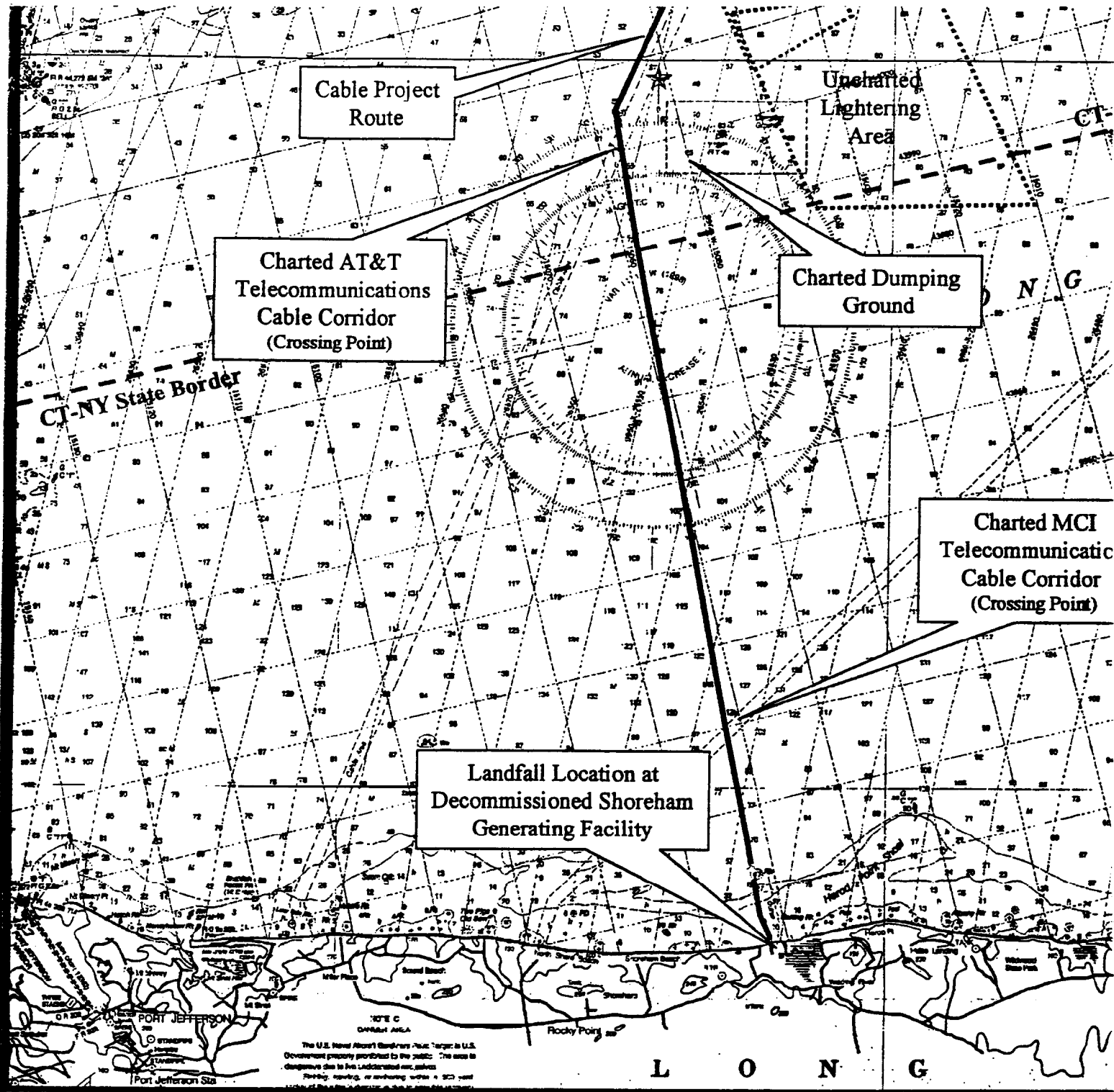
New York State Department of Environmental
Conservation



Cross Sound Cable Company (New York) LLC

APPENDIX A





Legend

— Submarine Cable
 - - - System Route

TransÉnergieUS

Member of the **Hydro-Québec** group

Project Location Map of Submarine Cable System Route from New Haven, CT to Brookhaven, NY

Source: NOAA 12363 (1984)

Approximate scale as shown
 Cross Sound Cable

FIGURE NO.
 23

PROJECT NO.
 LPA RFP

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APPENDIX B

Appendix B

General Guidelines for Environmental Management and Construction Plan(s)

The plan(s), consisting of appropriate maps, charts, illustrations, and text, shall include, but need not be limited to, the following:

- I. A Line Profile (at an appropriate scale) and plan drawings (scale 1 inch equals 20 feet minimum for portions of this project not within the confines of Long Island Sound and 1 inch equals 200 feet minimum for portions within the Sound) showing:
 - A. the boundaries of any new, existing and/or expanded right-of-way (or road boundaries if cables are located in streets) plus areas contiguous to the **right-of-way** (R/W) or street within which the Applicant will obtain additional rights and their respective purposes;
 - B. the location, depth and width of the **trench(es)**. (Show the relationship of the facilities to features within 50 feet of the trench, including but not limited to the following: roads used or crossed, fences, property lines, parks, transition stations, substations, waterbodies, wetlands, bridges, culverts, railway lines, known underground facilities, residences, oil or gas storage facilities, and any other significant facility or obstacle);
 - C. the location of any manholes and any above-ground structures required for the facility;
 - D. the location and approximate size of the splicing pits:

- E. the location of any existing utility or non-utility structures on any pre-existing utility right-of-way followed or crossed, whether such structures are to be removed, relocated, or not;
- F. the proposed location for any relocated or undergrounded facility;
- G. the location of any proposed new or expanded switching station, substation, transition station or other terminal facility (attach plan and elevation views at appropriate scales);
- H. the name, if any, and location within **the** proposed right-of-way (or within the road boundaries if located in streets) of all streams or other aquatic features.

Show to the nearest 20 feet the designated “buffer zone” in which construction activities will be regulated to the **maximum** extent necessary to protect aquatic resources. (Discuss in text the measures to be taken to protect stream and aquatic habitat and water quality, and specify the precautions to be observed in buffer zones. Describe the manner and method for each stream and waterbody crossing, and indicate any plans to minimize environmental impact. Provide information about the following:
 - (1) width and depth of trenches and depth of fill between the top of pipes and cables and the restored bed;
 - (2) maximum length of time the trenches will be open;
 - (3) source and type of material to be used to backfill trenches;
 - (4) measures to minimize siltation and damage to banks and shorelines;
 - (5) the type and description of water diversion devices, if any, used during preparation for, or construction through streams and waterbodies;

- (6) type and method of bank restoration with provisions for monitoring and inspection;
- (7) location of trench in relation to edge of pavement. **headwall** or abutment of any bridge or culvert at a stream or shoreline to be crossed;
- (8) techniques for diffusing the outlet stream of any pipe, which may be installed as a diversion device, to minimize disturbance to the receiving waters;
- (9) precautions to be taken, when crossing a stream or protected waterbody by bridge or elevated roadway, to prohibit the deposition of debris in same);
- I. locations of vegetative plantings to screen or landscape the substation and transition stations. (Describe in text any screening or landscaping plans);
- J. location and size of proposed fabrication, equipment parking, staging and storage sites, and constructed access. (Indicate in text or on the drawings any **planned** fencing or screening of storage and staging areas);
- K. locations, if any, where soil stabilization and other erosion control measures are expected to be employed. (Indicate and justify in text the choice of both temporary and permanent measures proposed for each site to protect exposed soils, stabilize disturbed soils, preserve natural drainage patterns and to effect proper control of water collected or diverted by construction activities – including the prevention of back-up or ponding. Supply design and construction standards of details for each type measure proposed);
- L. the location and type of any wetland (e.g.: marsh, meadow, bog, or wooded swamp), one acre in size or larger to be crossed by the line. (Indicate in text or on

the drawings on a site-by-site basis the precautions or measures to be taken to protect such wetland drainage patterns, flora and fauna);

- M. locations (if on the proposed right-of-way) where recreation plans, if known to the Applicant at the time of the submission of the EM&CP, would affect, or be affected by, construction or other right-of-way preparation. Explain in text how these recreational plans were (or can be) accommodated]; locations of any buildings to be acquired, demolished or removed. (In text, provide the rationale for the acquisition, demolition or removal); the locations of noise-sensitive areas along the project corridor. (In text, define “noise-sensitive areas” and describe the procedures to be followed to minimize clearing, construction and operational noise impacts. Indicate: the types of major equipment to be used in construction; sound levels at which such equipment operates; the days of the week and hours of the day during which such equipment will normally be operated; any possible exceptions to these schedules; and any **measures** to be taken to minimize audible noise levels caused by either construction equipment or facility operation);
- N. locations of any other ecologically or environmentally sensitive sites, including archaeological resource sites within 50 feet of the proposed trench centerline or any transition station, which **influenced** details of the **EM&CP**. (In text, explain their sensitivity and indicate what special provisions will be used to accommodate them); and,
- O. location and identification of sensitive land uses and resources (i.e., hospitals, emergency service, etc. ...).

II. Provide statements of principles and techniques dealing with:

- A. project site restoration, including removal of temporary access, finish grading of all scarified or rutted areas, removal of scrap materials or equipment, restoration of compatible pre-existent vegetation (including scheduled dates of reseeding or planting), and provisions to assure that disturbed sidewalks, curbs and roadways are restored adequately. Include specification for backfill, repaving or replacement of all man-made surfaces;
- B. **worksite** safety during working and non-working hours, such as covers, signs, lights barricades and warning devices to minimize potential hazards from open trenches across sidewalks or roadways, and to maintain safe and expeditious flow of vehicular and pedestrian **traffic** generally;
- C. precautions to be followed during clearing, construction and site restoration to control the storage, handling and transport of fuel, oil, chemicals and other potentially harmful substances, to avoid spillage or improper placement in the vicinity of areas frequented by children and near any wetland aquatic feature;
- D. precautions to be followed to protect buried utility and public works facilities encountered during construction;
- E. supervision of demolition, clearing (including any use of herbicides), construction and restoration to assure compliance with the Certificate and **Commission-** approved **EM&CP**. Include qualifications of personnel to be responsible for assuring compliance, whether and to what extent supervision would be on a full-time basis, which activities might require 24 hour supervision, the number of supervisory personnel to be available, and the geographical placement of

supervisors. Explain how the environmental protection provision of the Commission's Order and approved EM&CP will be incorporated into contractual specifications or otherwise imparted to those engaged in clearing, construction, and restoration;

- F. details of the methods to be used for removal and disposal of broken pavement and trenched spoil, including disposal site(s); and
- G. any subjects deferred for submittal as part of the EM&CP, which are not addressed elsewhere in the EM&CP, along with statements of plans for any other significant environmental protection measures not previously discussed, which may be employed during clearing, demolition, construction, and restoration, as appropriate.

III. In addition, the Applicant shall:

- A. supply a proposed construction schedule for the facility;
- B. identify which features of the project will be paid for on a unit basis;
- C. indicate any provision (other than permit requirements) of any local ordinance not previously resolved by the Commission's certificate which the Applicant believes to be unduly restrictive and provide justifications for any request that those conditions not be required by the Commission;
- D. include a copy of the Commission's Order indicating the location in the EM&CP of each required item.

POINT

HEROD

Fishing Rock.

Wading River
Laguna

Farking

Wading

TOWN OF SHOREHAM

1000 0 1000 2000 Feet

June, 2001
NYSDPS - GIS Unit

General Guidelines for
Environmental Management and Construction Plan(s)

The plan(s), consisting of appropriate maps, charts, illustrations, and text, shall include, but need not be limited to, the following:

- I. A Line Profile (at an appropriate scale) and plan drawings (scale 1 inch equals 20 feet minimum for portions of this project not within the confines of Long Island Sound and 1 inch equals 200 feet minimum for portions within the Sound) showing:
 - (a) the boundaries of any new, existing and/or expanded right-of-way (or road boundaries if cables are located in streets) plus areas contiguous to the right-of-way (R/W) or street within which the Applicant will obtain additional rights and their respective purposes;
 - (b) the location, depth and width of the trench(es).
(Show the relationship of the facilities to features within 50 feet of the trench, including but not limited to the following: roads used or crossed, fences, property lines, parks, transition stations, substations, waterbodies, wetlands, bridges, culverts, railway lines, known underground facilities, residences, oil or gas storage facilities, and any other significant facility or obstacle);
 - (c) the location of any manholes and any above-ground structures required for the facility;
 - (d) the location and approximate size of the splicing pits;
 - (e) the location of any existing utility or non-utility structures on any pre-existing utility right-of-way followed or crossed, whether such structures are to be removed, relocated, or not;

- (f) the proposed location for any relocated or underground facility;
- (g) the location of any proposed new or expanded switching station, substation, transition station or other terminal facility (attach plan and elevation views at appropriate scales);
- (h) the name, if any, and location within the proposed R/W (or within the road boundaries if located in streets) of all streams or other aquatic features. Show to the nearest 20 feet the designated "buffer zone" in which construction activities will be regulated to the maximum extent necessary to protect aquatic resources. (Discuss in text the measures to be taken to protect stream and aquatic habitat and water quality, and specify the precautions to be observed in buffer zones. Describe the manner and method for each stream and waterbody crossing, and indicate any plans to minimize environmental impact. Provide information about the following:
 - (1) width and depth of trenches and depth of fill between the top of pipes and cables and the restored bed;
 - (2) maximum length of time the trenches will be open;
 - (3) source and type of material to be used to backfill trenches;
 - (4) measures to minimize siltation and damage to banks and shorelines;
 - (5) the type and description of water diversion devices, if any, used during preparation for, or construction through streams and waterbodies;
 - (6) type and method of bank restoration with provisions for monitoring and inspection;

- (7) location of trench in relation to edge of pavement, headwall or abutment of any bridge or culvert at a stream or shoreline to be crossed;
- (8) techniques for diffusing the outlet stream of any pipe, which may be installed as a diversion device, to minimize disturbance to the receiving waters;
- (9) precautions to be taken, when crossing a stream or protected waterbody by bridge or elevated roadway, to prohibit the deposition of debris in same);
- (i) locations of vegetative plantings to screen or landscape the substation and transition stations. (Describe in text any screening or landscaping plans);
- (j) location and size of proposed fabrication, equipment parking, staging and storage sites, and constructed access. (Indicate in text or on the drawings any planned fencing or screening of storage and staging areas);
- (k) locations, if any, where soil stabilization and other erosion control measures are expected to be employed. (Indicate and justify in text the choice of both temporary and permanent measures proposed for each site to protect exposed soils, stabilize disturbed soils, preserve natural drainage patterns and to effect proper control of water collected or diverted by construction activities - including the prevention of back-up or ponding. Supply design and construction standards of details for each type measure proposed);
- (l) the location and type of any wetland (e.g.: marsh, meadow, bog, or wooded swamp), one acre in size or larger to be crossed by the line. (Indicate in text or on the drawings on a site-by-site basis the

precautions or measures to be taken to protect such wetland drainage patterns, flora and fauna);

- (m) locations (if on the proposed R/W) where recreation plans, if known to the Applicant at the time of the submission of the EM&CP, would affect, or be affected by, construction or other right-of-way preparation. [Explain in text how these recreational plans were (or can be) accommodated]; locations of any buildings to be acquired, demolished or removed. (In text, provide the rationale for the acquisition, demolition or removal); the locations of noise-sensitive areas along the project corridor. (In text, define "noise-sensitive areas" and describe the procedures to be followed to minimize clearing, construction and operational noise impacts. Indicate: the types of major equipment to be used in construction; sound levels at which such equipment operates; the days of the week and hours of the day during which such equipment will normally be operated; any possible exceptions to these schedules; and any measures to be taken to minimize audible noise levels caused by either construction equipment or facility operation);
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- (e) supervision of demolition, clearing (including any use of herbicides), construction and restoration to assure compliance with the Certificate and Commission-approved EM&CP. Include qualifications of personnel to be responsible for assuring compliance, whether and to what extent supervision would be on a full-time

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- (d) include a copy of the Commission's Order indicating the location in the EM&CP of each required item.