DOCKET NO. 217 - Northeast Utilities Service Company application for a Certificate of Environmental Compatibility and Public Need for the construction of a 345-kV electric transmission line and reconstruction of an existing 115-kV electric transmission line between Connecticut Light and Power Company's Plumtree Substation in Bethel, through the Towns of Redding, Weston, and Wilton, and to Norwalk Substation in Norwalk, Connecticut.	}	Connecticut Siting Council September 9, 2003

Revised Opinion

Introduction

On October 15, 2001, Northeast Utilities Service Company, on behalf of the Connecticut Light and Power Company (CL&P), applied for a Certificate of Environmental Compatibility and Public Need for the construction of a 345-kV electric transmission line and reconstruction of an existing 115-kV electric transmission line between CL&P's Plumtree Substation in Bethel, through the Towns of Redding, Weston, and Wilton, and to CL&P's Norwalk Substation in Norwalk, Connecticut. This application included the addition of necessary electrical components within the existing fenced compound of the Plumtree Substation and the expansion and installation of the electrical components to the Norwalk Substation.

Under Section 16-50p of the Connecticut General Statutes (CGS), the Council in deciding this application must consider and balance the public need for the proposed 345-kV transmission line and reconstruction of a 115-kV line with the probable environmental impacts created by construction and operation of the these facilities. The Council may not grant a Certificate if it finds insufficient need for the facilities, unmitigated effects to the environment, undue health effects, and/or is in conflict with State policies.

This proceeding consisted of 21 hearings with thirty parties and intevenors. Common issues shared by the parties and intevenors at the beginning of the process included no assessment of alternative solutions to resolve both electric demand and transmission limitation in “Southwest Connecticut” (SWCT), no 115-kV alternatives, and an incomplete application lacking data too effectively evaluate development of the proposed project. In addition, other claims purported adverse affects to properties; wetlands and wildlife habitat; water quality; aesthetics; and the quality of life along the proposed transmission route. However, if a 345-kV facility was needed the parties and intevenors asserted throughout the entire process that this facility could be placed underground.

The Council takes these concerns seriously. Many of the concerns expressed by the parties, intervenors, and residents who spoke or submitted written comments to the Council can be mitigated through the thoughtful implementation of detailed Development and Management (D&M) Plans , which we will require prior to commencement of construction or installation.

Need and Reliability

Southwest Connecticut's electric energy needs have been growing at or ahead of the State's and even New England's electricity demands. This occurrence is not new to SWCT because SWCT was experiencing similar growth rates in the early 1970s. CL&P proposed a 345-kV transmission system expansion for SWCT -- a "loop" beginning at Plumtree Substation south to Norwalk Substation and back north to a proposed Beseck Substation in Wallingford. However, the Council certified, only a portion of the 345-kV transmission system expansion plan, a 345-kV transmission line between Long Mountain Switching Station in New Milford to Plumtree Substation in Bethel.

In the late 1970s to early 1980s a lower load growth developed. The United Illuminating Company and CL&P studied the need for 345-kV transmission expansion in SWCT and concluded that a 345-kV transmission line would not be needed until the beginning of the 21st century. Consequently, CL&P embarked on reinforcing the existing 115-kV transmission system serving SWCT during the late 1980s, including the construction of a new 115-kV transmission line in the early 1990s. These existing 115-kV transmission lines serving SWCT have been operating near or at maximum system capacity during peak demand days.

Extra high voltage overhead transmission line systems, such as 345- kV or greater, are able to move large amounts of energy over long distances and more efficiently than lower voltage lines. By way of analogy, 345-kV lines are somewhat like interstate highways, with 115-kV lines being analogous to state highways. Another analogy would be a water delivery system, in which a large water main is used to transmit water over a long distance to multiple smaller lines for distribution into local areas.

In July of 2000, the Connecticut Department of Public Utility Control (DPUC) investigated electric capacity and distribution and identified SWCT as having operational difficulties and a near term need for reinforcement of the transmission and distribution system. Again in 2002 the Legislature directed the DPUC to conduct an investigation in the possible shortages of electricity in SWCT during periods of summer peak demand. The DPUC identified occasions where the existing 115-kV transmission system came precipitously close to failing. This would have resulted in "shedding loads", otherwise known as interruption to service, or the collapse of the transmission grid.

For reliability purposes, the integrated transmission grid is constructed in a series of “loops,” so that if interruption occurs on one of the lines to an area served by a loop system service can still be provided to the area from the other end of the loop. Accordingly, the existing CL&P 345- kV system includes several interconnected loops within Connecticut, and portions of loops that extend beyond Connecticut into Rhode Island, Massachusetts, and New York. Most of the load centers and generation in the eastern and central parts of Connecticut are connected to loops on the 345-kV transmission grid; however, SWCT lacks any such 345-kV "loop." An area of high load demand that lacks sufficient generation and transmission to serve this load, such as SWCT, is referred to as a "load pocket". The State, ISO-NE, and the nation have recognized that SWCT is an inefficient and vulnerable portion of transmission infrastructure that is isolated from the 345-kV transmission system and much of the available lower cost power generated from within the state and the surrounding region. In order to maintain a reliable power supply, the limited

and older generation resources in the SWCT area must run under many system operating conditions, while other newer, lower cost generators inside and outside of SWCT cannot operate because of limitations on the 115-kV transmission system. To meet demand in SWCT, ISO-NE entered into a single "reliability must run" contract at an annual cost of 12 million dollars and could rise to over 100 million dollars if other "reliability must run" contracts were considered. This cost is referred to as "uplift costs" and is a component of transmission congestion costs.

The Independent System Operator of New England, (ISO-NE) further reinforced the reality that SWCT is vulnerable to losing transmission and local generation. Local generation in SWCT is about 40 years in age and the present owners (NRG) have notified ISO-NE that certain generators would be retired. While this action could jeopardize the need for electric resources to SWCT and the State, ISO-NE warns that the existing 115-kV transmission system in the SWCT area is inadequate to deliver the energy necessary to meet demand on a peak day. In the last two years, ISO-NE has studied and concluded there is a need for up to 300 MW for the summer of 2003 above existing generation and transmission resources serving the SWCT area. Thus, ISO-NE issued Requests for Proposals seeking between 100 and 300MW of load reduction and/or emergency generation in the SWCT area at a cost of about 50 million dollars. Furthermore, ISO-NE would continue to seek such demand response and emergency generation for summer peak demand periods until the transmission system's power transfer capability into SWCT is substantially increased. Consequently, ISO-NE recommends a 345-kV transmission line a solution for energy delivery in SWCT.

Pursuant to CGS Section 16-50r(a), the Council has the legislative charge to annually review the ten-year forecast of the State's electric loads and resources. These annual reviews help the State monitor the pulse of the demand for electricity and the resources to meet that need. There have been numerous additions and modifications to the electric generation and transmission systems. The need for 345-kV lines in SWCT was certainly on the industry's radar screen since the early 1970s and was identified in the annual forecast reports up until 1990. Notwithstanding CL&P's effort to not include the potential of a new 345-kV "loop" in the SWCT area in its annual forecast of electric loads and resources during the 1990s, evidence in this proceeding leads the Council to determine there is a need for a 345-kV transmission line between the Plumtree Substation in Bethel and the Norwalk Substation in Norwalk.

Proposed Solutions

The State needs to carefully weigh the advantages and disadvantages of each proposal and pursue cost-effective strategies that resolve our problems without overbuilding or underbuilding infrastructure. "No build" (or lack of action), new generation, distributed generation, conservation and load management, 115-kV alternatives and 345-kV transmission have been examined as a means to provide for SWCT's future electric demands.

The Council believes that the "no build" alternative is not a solution and taking no action at a time when potential brownouts are imminent would be irresponsible.

SWCT is in a deficit situation in terms of generation; however, placements of new generation resources require a transmission system capable of transporting simultaneous blocks of electric generation available land proximate to electric transmission infrastructure and fuel availability;

and requisite financing. The only new electric generation facility in the SWCT area is a 544-MW gas-fired combined -cycle plant in Milford, certificated by the Council in 1998; nevertheless this facility is not yet commercially available nor, because of transmission system limits, could it operate simultaneously with other electric generators in SWCT. While development for new electric generation in SWCT has been contemplated since the passage of the Electric Restructuring Act, the lack of a reliable infrastructure; suitable land; and finances have delayed development in this area. The Council recognizes there will not be any new large electric generation facility in the near future to help meet SWCT's demands for electricity.

Distributed generation is a new term of art, but not a new concept. It involves the placement of small electric generating facilities proximate to load, using new technology such as high efficient turbines fueled by natural gas or low-sulfur fuel oil, fuel cells, wind turbines, or photovoltaic. While these units are generally very efficient, it would take hundreds if not thousands of them to offset the growing demand for electricity, regardless of other barriers like the coordination with grid operations, fuel availability, and technology maturation.

Conservation and load management (C&LM) has been a long-standing tool to curb demand for electricity. The Council appreciates its value and urges continued development of innovative technologies to reduce unnecessary consumption of electricity. Indeed C&LM programs resulted in about 450 MW in peak-demand savings statewide over the past decade (approximately equal to the output of a large electric generating facility), and saved SWCT 15 MW over the past year. However, the Council does not see this as a long-term, permanent solution in an area where electric demand growth outpaces that of the state, or even New England.

Over the past two decades CL&P has made several modifications to its existing 115-kV transmission system in SWCT. To continue modifications, reinforcements, and new line construction at this voltage would ignore the fact that SWCT is lacking a suitable and stable platform to move electricity efficiently. The initial 115-kV transmission alternative proposed by ~~the~~ Bethel, Redding, Weston Wilton, and Norwalk (Five Towns), and a similar concept proposed by the Attorney General, would only postpone the need for 345-kV system, prohibit the ability for additional electric generation to tie into the electric grid, and would not provide the appropriate platform for an extension of the interconnected 345-kV system into Southwest Connecticut.

For the above -stated reasons the Council concludes a 345-kV system extension into SWCT is appropriate for SWCT. A 345-kV transmission system extension would yield the most cost-effective system for relieving transmission congestion. However, various proposals for implementing a 345-kV infrastructure are at the basis of this decision.

Proposed Transmission System

The applicant initially proposed to construct a new 345-kV overhead transmission line and reconstruct the existing 115-kV transmission line within the existing 115-kV line’s corridor between Plumtree Substation in Bethel and Norwalk Substation in Norwalk on single steel monopoles with average heights of 130 feet (F-1). Alternatives the applicant proposed consist of a 345-kV overhead transmission line on H-frame wood pole structures and steel monopole structures with average heights of 90 feet and 108 feet, respectively; and placement of a single

115-kV solid dielectric cable underground within existing roadways (F-2) or leaving the existing 115-kV line as is and placing 345-kV solid dielectric cables underground in existing roadways (F-3).

The applicant's first preference in building extra high voltage electric transmission lines is an overhead configuration. The electric transmission industry has long-standing experience in constructing, operating, maintaining, and improving upon such electric transmission systems. Overhead electric transmission systems are very reliable because faults can be identified quickly and most are self-correcting. 345-kV line structures that are relatively short and made of wood blend in well with wooded areas but require right-of-ways widths of 150 feet or greater. Structures made of steel are usually taller but require less right-of-way. There is a fine balance between the height of a structure that affects visibility and the width of a right-of-way that impacts landowners. This is particularly sensitive issue in a State that is well developed and densely populated.

Over the past 50 years the electric transmission industries have been developing and using cables that can be used underground. The principal underground cable technologies available today include high-pressure gas filled; high-pressure fluid filled (HPFF); self-contained fluid-filled (SCFF); and cross-linked polyethylene (XLPE). A high-pressure gas -filled system is used at voltages of 138 kV or below and would not be considered in this application. SCFF is rarely used in land-based transmission lines in North America and is being technologically replaced worldwide by XLPE cable. HPFF is the most common type of transmission cable used in the U.S., is the only type of cable typically applied above 230 kV in this country, and is as reliable as overhead lines. HPFF cable systems require dielectric fluid in great quantities (250,000 gallons for a single 21-mile circuit) in the pipe to electrically insulate and transfer heat away from the cable. This is a concern for leaks into the environment. XLPE cables at voltages of 115- kV and less are a technology now commonly applied worldwide. A solid dielectric cable has no fluids associated with its operation. While use in lines at voltages at or below 115- kV is reliable, applications of XLPE at higher voltages and at distances greater than 5 miles present system operation and reliability concerns. Today, the electric transmission industry accepts and makes increasing use of XLPE underground cables at voltages of 115- kV or less.

Properly built and maintained transmission lines are reliable as components of a transmission network whether placed overhead or underground. However, these two types of line are diametrically opposed when dealing with repairs of faults. While overhead lines are susceptible to interruptions from external forces, the problems are easier to find and repair (hours) versus underground lines that are less susceptible to external forces but problems take longer to find, and repair (weeks). The shorter time to return an overhead transmission line to service lowers the risk of a multiple contingency outage event.

Many variations, or "mix and match" options, of the overhead and underground technologies were examined. The applicant and the Towns of Bethel, Redding, Weston, and Wilton (Four Towns) devised a configuration from the 18 iterations of the "mix and match" configurations of the 345/115-kV overhead and underground transmission lines, and referred to it as Configuration X. Configuration X represents a consensus on the Four Towns' part, recognizing a need for an extra high voltage transmission line. Configuration X marries both overhead and underground technology in an unorthodox manner. Both the Four Towns and the applicant assert this

configuration would be reliable, less damaging to the environment, and would eliminate the taking of residences.

This proposal or settlement filed late in the proceeding represents a recommendation by the applicant and the Four Towns that may not be shared by other parties and intevenors nor this Council. The Council is not bound to grant such agreements.

Configuration X

The applicant and the Four Towns proposed a configuration X using XLPE cable, overhead line, and HPFF cable technologies. The 345/115-kV lines would exit Plumtree Substation overhead on the same structure for 0.6 miles to Whittlesey Road. The 345/115-kV lines using XLPE cables would transition underground. A transition station would be needed for 345- kV and a transition pole for 115 kV. The 115-kV underground cables would extend from Whittlesey Road to a point north of Route 302 where it will transition at a pole to existing overhead for 0.8 miles to the Route 58/Hoyts Hill Road intersection, and then transition again to underground and follow Route 58, Route 107, and Gallows Hill Road. The first part of this undergrounding would remove much of the existing 115-kV line that traverses the Bethel Educational Park The 345-kV cables would be underground from Whittlesey Road to Route 58/Hoyts Hill Road where they would transition to overhead and replace the existing 115-kV line on the right-of-way from Route 58/Hoyts Hill Road to Gallows Hill Road, using H-frame structures. At Gallows Hill Road the underground 115-kV line transitions at a pole to overhead and combines with the overhead 345-kV line on the same structures to cross the Saugatuck River and Saugatuck Falls Natural Area to Archers Lane, Redding. The 115-kV line then continues overhead on existing H-frame structures, and the 345-kV line would transition underground using HPFF for 9.7 miles to Norwalk Junction. The underground 345-kV line would transition back to overhead and join the 115-kV overhead line on new common steel-pole structures to Norwalk Substation. Within Norwalk Substation, the 345- and 115-kV lines would transition again to underground XLPE cables before terminating.

Transition station sites for 345-kV overhead to underground or vice-versa require up to about a 180-foot by 300-foot compound for equipment to tie the two technologies together. The 345-kV transition station sites in Bethel are on Town land and in areas close to roadways and removed from adjacent residents. The transition station site at Norwalk Junction in Wilton would be on commercially zoned property, but residents and open space surround the Archers Lane transition station site area in Redding. Five locations for an Archers Lane transition station were identified, but the Archery Range site and the Saugatuck Falls Natural Area A and B sites require long access roads over steep topography and clearing of open space and would not be sites the Council would approve. The Diamond Hill Road site and the Archers Lane (Town-owned property) site are closer to residents than the previous three sites but offer short access roads that could be constructed within the right-of-way. The Council believes either of these sites are viable and will order the applicant to provide detailed designs for development of these parcels for a transition site in a Development and Management Plan.

Configuration X has a characteristic referred to as "porpoising." This application is not typical for high voltage electric transmission and is the applicant's and Four Towns' effort to balance effects on the environment and provide for a reliable method to transport electricity to SWCT.

Configuration X Modification

The Council has concerns as to the reliability of using XLPE cables at 345- kV, without it being anchored to Plumtree Substation, and will order that the short 0.6 -mile section between Plumtree Substation and Whittlesey Road be underground. This will eliminate a transition station, so as to enhance the aesthetics of the Bethel Educational Park while increasing reliability.

Furthermore, a design of bridge and road plans crossing East Swamp Brook in the vicinity of Whittlesey Road are substantially complete and inclusion of undergrounding of the 345-kV XLPE cable as part of the bridge/road reconstruction would be prudent. We are aware that this short addition of XLPE adds to the capacitance of operating the line with underground sections. Evidence in the record supports a design that includes measures to mitigate the operation of the underground 345-kV cables and that we find this acceptable. Therefore, the Council orders the applicant to include the design plans within a Development and Management Plan.

Configuration X did not include the City of Norwalk in its settlement to the Council. This proposed transmission line route traverses five municipalities and the Council believes that any settlement proposal should have included all Towns concerned. Consequently, the Council will order that the one of the existing115-kV lines be replaced underground from Norwalk Junction to Norwalk Substation and the 345-kV cables be constructed on H-frame structures or on steel poles in a delta configuration to limit visibility to many urban residents. We see no technical barriers that would preclude this order. Throughout the hearing for Configuration X, the applicant expressed confidence in the design and operation of Configuration X, including the 345-kV modification in Bethel, as well as confidence in 115-kV XLPE cables in 115-kV lines. Therefore, we conclude that Configuration X, as modified, will serve the interests of electric system reliability, and we see no reason to deny Configuration X as modified.

Cost

Costs ranged between 124 million dollars (2002 dollars) for the initial 345/115-kV overhead system to 209 million dollars for a hybrid of overhead and underground 345-kV lines and complete underground 115-kV line. Configuration X was proposed to cost 177 million dollars, in 2002 dollars, not including the cost of necessary shunt reactors to compensate cable capacitance. The modifications to Configuration X that the Council is ordering will add $15 to $20 million to this cost. The Council finds that the costs of proposed Configuration X, as modified, are reasonable and are cost effective for a hybrid system using three types of technologies, and that Configuration X, as modified, will serve the interests of electric system economy. More specifically the Council finds that the overhead portions of the facility are cost effective and the most appropriate alternative based on a life-cycle cost analysis of the facility and underground alternatives to such facility, and are consistent with the purposes of the Public Utility Environmental Standards Act, the regulations of the Council, and the Federal Energy Regulatory Commission guidelines for the protection of natural, historic, scenic, and recreational values in the design and location of rights-of-way and transmission facilities.

Environmental

The existing transmission right-of-way has been established for over 60 years with periodic vegetative maintenance. The proposed construction ROW and the proposed temporary workspace areas would be cut and cleared of woody vegetation. We are cognizant of the fact that access roads are needed to each transmission structure location. However, vegetation located within the construction ROW, but beyond the immediate area of constructing transmission line structure foundations and establishment of pulling sites serve important functions. In addition to providing havens for wildlife, this vegetation provides visual buffers. According, we shall order the applicant to design a plan for vegetative clearing.

The Council is very concerned that the proposed construction activities could change the values and functions of wetlands traversed by, or adjacent to, the proposed transmission line. Unfortunately, the proposed transmission line cannot completely avoid wetlands, or indirect impact to wetlands. The proposed placement of construction access roads in wetlands would result in the temporary filling of a wetland, which may change the nutrient and oxygen levels, vegetation types, and hydrology of the wetlands. Furthermore, the removal of vegetation and changes in wetland conditions may invite the establishment of invasive plants that may impair or cause a loss of biological diversity. Consequently the applicant shall minimize and mitigate impacts to wetlands by requiring that construction activities be limited within a buffer area, between 25 and 50 feet in width, near wetlands; that specialized construction activities be undertaken in and near wetlands; that an invasive species management plan be developed, which includes provisions for post-construction monitoring, and removal of excessive invasive plants; and that a wetland restoration plan be developed to restore and improve the condition of wetlands disturbed by the proposed transmission line construction. A wetland restoration plan would promote native plant species and the habitats in which they occur, and decrease the time it would take to restore the transmission line ROW to pre-construction conditions.

The Connecticut DEP identified eight endangered, threatened, or special concern species along the transmission line route. Lizards's tail and Sedge are plants known to inhabit areas in the Wolf Pit Brook and Saugatuck River areas and the Eastern box turtle is known to inhabit an area near the transmission line in Weston. Therefore, the Council orders the applicant to conduct a pre-construction survey, field marking locations of Lizards's tail and Sedge and sweeping the area in Weston for Eastern box turtle prior to construction.

Numerous archaeological resources exist in Bethel, Redding, Weston, Wilton, and Norwalk. Resources of concern would be any archaeological artifacts, such as firebacks uncovered during the construction of access roads, excavation of about 200 foundations and the undergrounding of approximately 11 miles of transmission cables. Consequently, the Council orders the applicant to conduct a Phase II Archeological Reconnaissance Survey prior to construction for foundation locations, and underground cable route, or in the alternative retain a registered archeologist for excavation operations for the protection of these resources.

There are hundreds of historic resources in the five towns this proposed transmission line would cross. In particular, the existing 115-kV transmission line crosses over the east boundary of the Georgetown Historic District, directly over the center of the Cannondale Historic District, and the east boundary of the Wilton Center Historic District. Since Configuration X adds an

underground 345-kV transmission line nearby these Districts, visual impacts would not change from existing conditions except for construction in the roadways through these historic districts. For that reason the Council concludes that there is no additional impact to these historic resources.

Both overhead and underground construction will be involved. Consequently, the applicant shall provide an erosion and sediment control plan consistent with the 2002 Connecticut Guidelines for Erosion and Sediment Control.

Public Health and Safety

There are four public water supply sources and many private wells along the 115-kV transmission line corridor between Bethel and Norwalk. While both the overhead and underground XLPE transmission technologies have minimal impact to soil and groundwater resources, the use of HPFF with its dielectric insulating fluid could pose an impact if leaks or dig-ins were to occur. This fluid is a polybutene that the EPA classifies as a non-toxic and non-hazardous material. HPFF systems are reliable, and most leaks have occurred due to dig-ins. The Council finds use of HPFF technology reasonable compared to construction of access roads and transmission structures in wetland and watercourse areas, and through historic districts.

The applicant would conduct borings at structure locations to identify soil conditions and use dewatering processes as needed. Construction of underground transmission lines would primarily be within existing roads and previously disturbed soils. If blasting is necessary, the applicant shall comply with State statute and we will order that a blasting plan be provided in a development and management plan.

Configuration X, as modified, utilizing the existing 115-kV right-of-way and existing roads with overhead and/or underground distribution electric lines would not significantly increase environmental effects in these corridors. Configuration X, as modified, will be constructed in compliance with the National Electrical Safety Code, and will not pose an undue hazard to persons or property. There is insufficient evidence to conclude that exposure to the electric and magnetic fields surrounding the lines would pose any risk to human health. Nonetheless, the Council will order the applicant to comply with the Council's Best Management Practices for Electric and Magnetic Fields.

Permits and Appeals

Initially, the City of Norwalk's Zoning and Conservation Commissions rendered different decisions to CL&P's proposed site plan expansion for the Norwalk Substation. The Zoning Commission approved CL&P's substation expansion with conditions while the Conservation Commission denied CL&P's substation expansion. Subsequent to those actions CL&P filed appeals to the Council consistent with CGS Section 16-50x(d) for arbitration. At the same time, CL&P consulted with the City's Zoning and Conservation Commissions by presenting a plan that would include reducing the area of expansion on the west side, making provisions for a bike trail on the site, installing groundwater contamination monitoring wells, additional landscaping, eliminating some new 115-kV line terminations, and enclosing the new gas-insulated substation equipment within a long building which addresses the both commissions' concerns. While both

the City of Norwalk and the applicant have not retracted their respective decisions and appeals, neither entity would object to a Council decision that would include the revised expansion plans for the substation. Therefore, the Council orders the applicant to consult with the staffs of the City of Norwalk's Zoning and Conservation Commissions on the revised Norwalk Substation expansion plans prior to submitting a Development and Management Plan for Norwalk Substation to the Council for review and approval.

Conclusions and Orders

For the above -stated reasons and with the conditions listed above, the Council will issue a Certificate of Environmental Compatibility and Public Need for the construction of a 345-kV electric transmission line and reconstruction of an existing 115-kV electric transmission line as proposed in Configuration X, as modified, between Connecticut Light and Power Company's Plumtree Substation in Bethel, through the Towns of Redding, Weston, and Wilton, and to Norwalk Substation in Norwalk, Connecticut.

In order to verify consistency with the Council's Decision and Order, we will require the Certificate holder to hire an independent inspector(s), subject to Council approval, to document compliance with environmental requirements, prepare status reports, and act as a liaison between the Council, and the Certificate holder's environmental inspector(s) and contractors. This independent inspector(s) will provide weekly progress reports in writing to the Council and to the chief elected official, or their representative, of each municipality affected by the proposed project describing all significant construction activities and all associated environmental effects. This independent inspector(s) will have formal training and experience in civil and environmental engineering and have sufficient oversight and authority to stop construction practices that are inconsistent with the Council's Decision and Order; the approved Erosion and Sedimentation Control Plan; or that may cause significant damage or disruption to the environment.

To ensure that the proposed project is properly developed, we will require the applicant to submit D&M Plans which will include provisions for public comment and review; detailed site plans identifying structure locations and transition stations; an erosion and sediment control plan consistent with the 2002 Connecticut Guidelines for Soil Erosion and Sediment Control; a Spill Prevention, Control, and Countermeasures Plan; provisions for revegetation and maintenance of the proposed ROW; provisions for inspection and monitoring of the proposed ROW; and pre-construction and post-construction measurements of electric and magnetic fields.