# STATE OF CONNECTICUT CONNECTICUT SITING COUNCIL

The Connecticut Light and Power

DOCKET NO. 272

Company and the United Illuminating

Company Application for a Certificate

of Environmental Compatibility and :
Public Need for the Construction of a :

New 345-kV Electric Transmission Line and Associated Facilities between the

Scovill Rock Switching Station in

Middletown and the Norwalk Substation

in Norwalk, Connecticut



MARCH 11. 2005 OUNCIL

# <u>Linda D. Wilson, Allison Wilson, Ralph Wilson, & the South Main Street Irrevocable Trust's</u> Proposed Findings of Fact

Parties Linda D. Wilson and South Main Street Irrevocable Trust (collectively, the "Wilsons") hereby submit the following proposed findings of fact in Docket Number 272, currently before the Connecticut Siting Council.

#### The Wilson Parcel

- 1. Party Linda D. Wilson owns a fifty percent interest in a parcel of real property in the towns of Durham, Connecticut and Middletown, Connecticut (the "Wilson Parcel"). (Hrg. Tr. 1/19/05, Testimony of Ralph Wilson, at 34-35, ).
- 2. Party South Main Street Irrevocable Trust holds a fifty percent interest in the Wilson Parcel. (Hrg. Tr. 1/19/05, Testimony of Ralph Wilson, at 34-35, ).
- 3. Ralph Wilson is the Trustee of the South Main Street Irrevocable Trust, and his daughter, Allison Wilson, is the beneficiary of that trust. (Hrg. Tr. 1/19/05, Testimony of Ralph Wilson, at 34-35).
- 4. There is no existing electric utility easement or Right of Way in the Middletown portion of the Wilson Parcel. (Hrg. Tr. 1/19/05, Testimony of Ralph Wilson, at 79-80).
- 5. The Wilsons consider any intrusion by the Applicants onto the Middletown portion of the Wilson Parcel, as proposed as the "Royal Oak Bypass," which would avoid Durham's current Right of Way, by siting the transmission line in Middletown on the Wilson

Parcel, a situation that would entail eminent domain. (Hrg. Tr. 1/19/05, Testimony of Ralph Wilson, at 80).

#### Residential Area Involved

- 6. The Wilson Parcel is zoned as residential property. (Wilson Exhibit 3).
- 7. The Wilson Parcel is taxed as residential property. (Hrg. Tr. 1/19/05, Testimony of Ralph Wilson, at 67-68).
- 8. The Wilsons began the process of seeking subdivision approval for a 25 lot residential development in the Summer of 2004, and the Wilsons intend to develop that subdivision as planned. (Hrg. Tr. 1/19/05, Testimony of Ralph Wilson, at 61-63).
- 9. Employing the Royal Oak Bypass would Run transmission lines through the Wilson Parcel, essentially bisecting the proposed subdivision and would run across fourteen residential lots in the proposed twenty-five lot subdivision. (Wilson Exhibit 5 (overlay admitted on 1/19/05)).

## The Existing Easement

- 10. There is an existing 125 foot wide electric utility easement or Right of Way in the Durham portion of the Wilson Parcel (the "Existing Easement") which is part of the Right of Way used for the existing overhead lines that extend through the Royal Oak subdivision. (Hrg. Tr. 1/19/05, Testimony of Ralph Wilson, at 79-80; Wilson Exhibit 2).
- 11. The Existing Easement is part of the current Durham Right of Way that runs through the Royal Oak subdivision, and which has two 115-kV transmission lines running overhead on two separate series of utility poles. (Application).
- 12. The Applicants proposed monopole construction would add a 345-kV transmission line to the two existing 115-kV transmission lines on the Existing Easement and the current Durham Right of Way, which would remove the separate utility poles that now support the 115-kV transmission lines, thus improving the aesthetics of the Existing Easement and the Durham Right of Way. (Application).
- 13. Utilizing the current Durham Right of Way would not impact any residential property not already in proximity to the existing power transmission lines. (Application).

# **Environmental Impact**

14. The consolidation of transmission lines has been proposed, either underground or above ground along the Existing Easement and the current Durham Right of Way (Application, CL&P Exhibit 96) and these alternatives would represent technologically feasible means to avoid an environmental impact on the Wilson Parcel, and specifically upon the subdivision proposed on the Wilson Parcel. (Hrg. Tr. 1/19/05, Testimony of Dr. Boggs, at 112; Wilson Exhibit 1 (Prefiled Testimony of Dr. Boggs)).

#### Wetlands

- 15. The Wilson subdivision plan submitted to the town of Middletown contains conservation easements to protect the wetlands on the Wilson Parcel, wetlands which would be bisected and adversely impacted by employing the Royal Oak Bypass. (Hrg. Tr. 1/19/05, Testimony of Ralph Wilson, at 66-67; Wilson Exhibit 2 (Subdivision Plan); Wilson Exhibit 5 (overlay admitted on 1/19/05)).
- 16. Diverting power lines through the proposed Royal Oak Bypass on the Wilson Parcel would have a greater impact on wetlands than would running the lines along the Existing Easement and the current Right of Way through Durham. (Wilson Exhibit 5 (overlay admitted on 1/19/05)).
- 17. Diverting power lines through the proposed Royal Oak Bypass in the area near Route 17 would specifically and adversely impact a greater area of wetlands in comparison to the Existing Easement and the current Durham Right of Way. (Wilson Exhibit 5 (overlay admitted on 1/19/05)).

### Line of Sight

- 18. The Wilson Parcel occupies a higher elevation than surrounding real property in contrast to the current Right of Way through Durham. (Wilson Exhibit 2; Wilson Exhibit 4).
- 19. The Wilson Parcel's elevation reaches 492 feet, which provides views of Hartford and Powder Ridge from the proposed subdivision. (Hrg. Tr. 1/19/05, Testimony of Ralph Wilson, at 69-70; Wilson Exhibit 2).
- 20. Any transmission lines and poles placed in the Royal Oak Bypass on the Wilson Parcel would negatively impact this line of sight, and thus, would have a significant negative impact upon the aesthetics of the proposed development and the community. (Wilson Exhibit 5 (overlay admitted on 1/19/05); Hrg. Tr. 1/19/05, Testimony of Ralph Wilson, at 69-70).

21. The current Right of Way through Durham has a line of sight already impacted by existing utility poles. (Application).

## Length of Easement

22. The EMF, environmental, and aesthetic impacts of employing the discussed Royal Oak Bypass would be substantially greater than those involved in using the Existing Easement and the current Right of Way through Durham, because the Royal Oak Bypass is nearly one and one half times longer than the existing Right of Way in Durham. (Wilson Exhibit 5 (overlay admitted 1/19/05).

#### Deforestation

- 23. The Wilson Parcel is predominantly forest. (Wilson Exhibit 5 (overlay admitted on 1/19/05); Hrg. Tr. 1/19/05, Testimony of Ms. Bartoswewicz, at 115).
- 24. Running transmission lines along the discussed Royal Oak Bypass would require significant deforestation of the Wilson Parcel, clearing no less than a one hundred-twenty five foot swath through the existing wooded parcel, which would amount to a significant environmental impact. (Wilson Exhibit 5 (overlay admitted on 1/19/05)).
- 25. The Existing Easement and the current Right of Way through Durham already have a vegetative clearance for the existing overhead utility lines and not result in further destruction of natural resources. (Wilson Exhibit 5 (overlay admitted on 1/19/05); Application).

#### **Direct Pecuniary Impact on Wilsons**

- 26. Any re-location of high voltage lines outside of the existing Durham Right of Way and onto the Wilson Parcel, including the Royal Oak Bypass discussed in this docket, would drastically impact the value and utility of the property through the creation of a buffer zone through the proposed subdivision, and by forcing people to be fearful of purchasing the property. (Hrg. Tr. 1/19/05, Testimony of Ralph Wilson, at 101-02).
- 27. The Applicant's 345-kV transmission line Application, as proposed, would not affect any real property in Durham or Middletown not already in the vicinity of the two existing 115-kV overhead transmission lines in the Existing Easement and current Right of Way through Durham. (Application).

# Applicants Above Ground and GITL Alternative

- 28. The Applicants have identified several above ground alternatives that would preclude having to route transmission lines through the Royal Oak Bypass on the Wilson Parcel, and these are presented in the Application as well as in CL&P Exhibit 96. These alternatives would be routed along the Existing Easement and current Right of Way through Durham, which runs through the Royal Oak subdivision. (Application, CL&P Exhibit 96).
- 29. The 12-arm pole combination 345 kV, 115 kV split phase alternative identified as alternative number 5 in CL&P Exhibit 96 would not be a feasible option for the Middletown and Durham transmission line, because of the difficulty in maintaining that type of configuration. (Hrg. Tr. 1/19/05, Testimony of Dr. Boggs, at 112).
- 30. GITL is an available and feasible alternative to overhead lines and underground cable, which could be installed to run the length of the Existing Easement and current Durham Right of Way through the Royal Oak subdivision. (Hrg. Tr. 1/19/05, Testimony of Dr. Boggs, at 78).

# **GITL Properties**

- 31. GITL has roughly half the capacitance of XLPE high voltage cable. (Hrg. Tr. 1/19/05, Testimony of Dr. Boggs, at 93).
- 32. With proper design and placement, GITL emits roughly one tenth the EMFs of XLPE high voltage cable. (Hrg. Tr. 1/19/05, Testimony of Dr. Boggs, at 95-96).
- 33. GITL is more efficient than underground cable, because one 345-kV GITL could take the full ampacity of the overhead line, whereas with buried cable, additional circuits would be required. (Hrg. Tr. 1/19/05, Testimony of Dr. Boggs, at 83-84).
- 34. GITL technology has been used and refined over the course of a longer period than XLPE transmission class high voltage cable. (Hrg. Tr. 1/19/05, Testimony of Dr. Boggs, at 92).
- 35. If two circuits of GITL were installed, this would provide 100 percent redundancy, permitting the second circuit to carry the entire load in the case of a failure without any outage whatsoever. (Hrg. Tr. 1/19/05, Testimony of Dr. Boggs, at 90).
- 36. GITL lines are reliable, with the locally available CGIT lines experiencing only 5 failures in 40,000 circuit meter years; in other words, for the roughly one kilometer circuit

through the Existing Easement and Durham Right of Way, this would predict one failure every 80 years. (Hrg. Tr. 1/19/05, Testimony of Dr. Boggs, at 90).

37. The Utilization of GITL along the Existing Easement through Durham and the Royal Oak subdivision would have a negligible impact on system capacitance; therefore, a GITL line of the length involved to go through the Existing Easement and current Right of Way through Durham would be feasible. (Hrg. Tr. 1/19/05, Testimony of Dr. Boggs, at 110).

#### **GITL** Installation

- 38. Several installation options are available to install GITL along the Existing Easement that runs through the Royal Oak subdivision and Existing Easement in Durham, Connecticut. (Hrg. Tr. 1/19/05, Testimony of Dr. Boggs, at 53).
- 39. GITL can be installed underground at a depth of 2 to 3 feet in a trench with a width between 10 feet and 15 feet depending upon how many phases were to be installed. (Hrg. Tr. 1/19/05, Testimony of Dr. Boggs, at 49).
- 40. Grating would cover the GITL trench, while at the same time providing for air circulation to maximize current carrying capacity. (Hrg. Tr. 1/19/05, Testimony of Dr. Boggs, at 50).
- 41. GITL can be successfully installed under roadways by using a variety of techniques, including backfilling with concrete and fly ash or employing a grate. (Hrg. Tr. 1/19/05, Testimony of Dr. Boggs, at 51).
- 42. The Applicants could reconductor one of the existing 115 kv lines with ACSR so that it could carry the entire current now being transmitted through those lines. This would permit removal of one set of the tower structures in the Existing Easement for installation of GITL. (Hrg. Tr. 1/19/05, Testimony of Dr. Boggs, at 53-56).
- 43. If the Applicants reconductor one the existing 115 kv transmission lines in the Existing Easement, the Applicants could install GITL in a trench situated in or near the center of that existing Right of Way. (Hrg. Tr. 1/19/05, Testimony of Dr. Boggs, at 55-56).
- 44. A local vendor, CGIT, specializes in making long runs of GITL. (Hrg. Tr. 1/19/05, Testimony of Dr. Boggs, at 58).
- 45. Siemens also makes a good GITL product. (Hrg. Tr. 1/19/05, Testimony of Dr. Boggs, at 58).

Respectfully Submitted, LINDA D. WILSON and SOUTH MAIN STREET IRREVOCABLE TRUST, RALPH WILSON TRUSTEE

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# **CERTIFICATION**

I hereby certify that a copy of the foregoing was mailed, U.S. Mail, postage prepaid and sent via email to all parties and intervenors on the service list on this 11<sup>th</sup> day of March, 2005.

Thomas M. Armstrong