

**STATE OF CONNECTICUT  
CONNECTICUT SITING COUNCIL**

Application of The United Illuminating Company for a ) Docket # 406  
Certificate of Environmental Compatibility and Public )  
Need for the Construction, Maintenance, and Operation )  
of a Wireless Telecommunications Facility in Orange, )  
Connecticut ) December 16, 2010

**POST-HEARING BRIEF OF  
THE UNITED ILLUMINATING COMPANY**

The United Illuminating Company (“UI” or the “Company”) submits this brief to the Connecticut Siting Council (the “Council”) in support of the Council’s grant of an Application for a Certificate of Environmental Compatibility and Public Need for the construction, maintenance and operation of a wireless telecommunications facility (the “Facility”) in Orange, Connecticut. This brief addresses (i) the public need for this Facility, (ii) the lack of adverse environmental impact of the Facility, (iii) UI’s selection of lattice tower construction, and (iv) the proximity of the proposed Facility to an operations center of Southern Connecticut Gas.<sup>1</sup>

**I. Background.**

On September 7, 2010, in accordance with §§ 16-50g et seq. of the Connecticut General Statutes, as amended, and §§ 16-51j-1 et seq. of the Regulations of Connecticut State Agencies, as amended, UI submitted to the Council an Application for a Certificate of Environmental Compatibility and Public Need for the construction, maintenance and operation of the Facility on property located at 100 Marsh Hill Road in Orange, Connecticut (the “Application”). (Hearing Exhibit 1, Application, p. 1.)<sup>2</sup>

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<sup>1</sup> In connection with this brief, UI will submit Proposed Findings of Fact regarding this Application.

<sup>2</sup> For the Council’s convenience, all subsequent page references to Hearing Exhibit 1, which is UI’s Application, are made as “App., p. \_\_\_”. All subsequent references to exhibits attached to the application are made as App. Att. \_\_\_.”

UI proposes to construct a 100-foot self-supporting, three legged telecommunications tower (the “Tower”) and a single-story equipment shelter (the “Equipment Shelter”) on an approximately 35-acre property located at 100 Marsh Hill Road in Orange, Connecticut (the “Site”). The Site, which is owned by UI and situated adjacent to Exit 41 of Interstate 95, is the future site of the Operations Center for UI’s Central Facility. (App., pgs. 1, 6.) Previously developed for a movie theatre, the Site is comprised of two contiguous parcels that form a single tract of land and is zoned Light Industrial District 2 per the Town of Orange Zoning Regulations. (App., p. 2.) The western portion of the Site, which is undeveloped, is protected by a conservation easement (the “Conservation Easement”) and is characterized by shrubs, woodland and wetland areas. (App., p. 6.) This area provides a forested buffer between the developed portion of the Site and nearby residences along Indian River Road. (The closest residence is approximately 940 feet from the proposed location of the Tower.) (App. Atts. 4, 5).

The Operations Center will be constructed substantially within the footprint of the previously developed area and will consist of a complex of buildings that will house UI’s operations functions, including offices, a parking garage and parking lot, a field crew training area and a service and maintenance area for vehicles. (App., pgs. 2, 7.) The proposed Tower will be used exclusively by UI to facilitate operations and internal communications between the Operations Center, UI’s field crews and remote electric system devices in order to provide for the efficient operation and maintenance of the electric transmission and distribution systems within UI’s service territory. (App., p. 1.)<sup>3</sup>

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<sup>3</sup> Because the Operations Center will be a secure site, UI has no plans to share the Tower with outside entities at this time. However, the Town of Orange has expressed an interest in the possible future use of the Tower for placement of public safety antennas. The Tower has room to accommodate the Town’s antennas and UI is willing to incorporate any public safety antennas onto the Tower whenever the Town asks UI to do so. (App., p. 10; see also Hearing Transcript (afternoon, p. 7.)

The Tower and Equipment Shelter will be situated within the Site adjacent to the service and maintenance area of the Operations Center. (App., Att. 8.) The Tower has been designed to allow UI to achieve and maintain high quality, reliable wireless communications with its personnel and operating systems without interruption and in conformity with applicable standards and regulations. At this time, UI expects to install up to ten antennas of various types, including dipole, omni-directional, and directional Yagi, on the Tower. (App. Att. 1.) Access to the Tower and Equipment Shelter will be available via Marsh Hill Road. (App. Att. 4.)

**II. UI Has Met The Criteria Under C.G.S. § 16-50p For The Issuance Of A Certificate Of Environmental Compatibility And Public Need.**

**A. A Significant Public Need Exists For The Proposed Tower.**

Section 16-50p(a) of the Connecticut General Statutes mandates that the Council “shall not grant a certificate . . . unless it shall find and determine: (1) a public need for the facility and the basis of the need . . . .” The record demonstrates that there is significant public need for the Tower. UI owns and operates several radio systems that are necessary for the efficient, reliable and safe operation of its electric system. (App., p. 5.) The mobile radio systems allow electric system dispatchers and emergency response personnel to communicate with UI’s field crews, providing for quick response to emergency situations, thus enhancing the safety of UI’s employees and the general public. (App., p. 5.) The Connecticut Valley Electric Exchange (“CONVEX”) radio system allows for emergency communications to UI’s substations and CONVEX. (App., p. 5.) Construction of the proposed Tower will allow UI to consolidate these radio communications systems at the new Operations Center, which will enhance systems operations in order that UI better serve the public. (App., p. 5.)

**B. The Proposed Tower Will Have Minimal Environmental And Visual Impact.**

**(1) The Facility Will Not Have A Significant Impact On The Environment.**

UI conducted a complete and comprehensive environmental analysis of the proposed Tower and Equipment Shelter, as presented in the Application and supporting materials. (See also UI's Response to Interrogatory CSC-6; 11/16/10 Hearing Transcript (afternoon), pgs. 20-22).<sup>4</sup> Since the Tower and Equipment Shelter will be constructed entirely within the footprint of the area of the Site that previously was developed for a movie theater, impacts to the natural environment will be minimal. (App., pgs. 10, 13, 14.) The western portion of the Site, which is protected by the Conservation Easement, is undeveloped and is characterized by shrubs, woodland and wetland areas. (App., p. 6.) UI does not intend to disturb any areas within the Conservation Easement either during construction or in connection with its activities on the Site. (App., p. 21.) The Wetlands Report (App. Att. 14) concluded that the Operations Center, including the proposed Tower, would not adversely impact wetlands and watercourses on-Site or off-Site. In addition, pursuant to the Site Plans approved by the Orange Town Plan and Zoning Commission, UI will implement appropriate construction management practices and a soil erosion and control plan to ensure that no pollutants will be discharged to any nearby watercourse or wetlands areas or to area groundwater during the construction while the Site is being permanently established. (App., p. 21).

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<sup>4</sup> For the Council's convenience, all subsequent references to the 11/16/10 Hearing Transcripts are made as "11/16/10 Tr. (afternoon), p. \_\_\_" or "11/16/10 Tr. (evening), p. \_\_\_".

**(2) The Proposed Tower Will Not Have A Significant Visual Impact On The Surrounding Area.**

The proposed Tower has been carefully situated within the Site in order to mitigate and reduce potential visual impacts to the surrounding area. (App., p. 10.) Land uses in the vicinity of the Site are industrial, commercial and residential. (App., p. 10.) As described in the Visual Resource Evaluation Report prepared by VHB/Vanasse Hangen Brustlin, Inc. (the “VHB Report”) submitted as Attachment 11 to the Application and shown in the accompanying photosimulations, year-round visibility is minimized by both the relatively low height of the proposed Tower and the intervening topography and vegetative screening. The existing Conservation Easement provides a forested buffer between the developed portion of the Site and nearby residences along Indian River Road (the closest residence is approximately 940 feet from the proposed location of the Tower). (11/16/10 Tr. (afternoon), p. 12.) Although the proposed Tower would be visible above the tree canopy year-round from approximately 48 acres, the majority of year-round visibility associated with the Tower occurs on the Site and its immediate vicinity (generally within approximately 0.25 mile), primarily to the north and east along Marsh Hill Road. VHB estimates that only ten residential properties will have partial views of the proposed Tower and that most of these views will be distant (approximately one mile from the proposed Tower) and feature only the upper portion of the proposed Tower. (App., p. 12.) Finally, approximately 35 additional acres located generally south and east of the Site will have seasonal (i.e., during “leaf off” conditions) views through the trees. (App., p. 12.) VHB anticipates that three additional residential properties may have seasonal views of the proposed Tower from select portions of their respective properties. (App., pgs. 12, 13.)

### **III. UI's Operational Needs Require Lattice Construction Of The Proposed Tower.**

#### **A. Availability Of Future Expansion Space And Flexibility.**

At this time, UI intends to install up to ten antennas of various types on two of the three legs of the proposed Tower. However, the Tower has been designed to accommodate additional antennas in order to allow for future expansion to serve UI's operational needs. (11/16/10 Tr. (afternoon), p. 42.) Lattice construction will allow UI to install additional antennas on the third leg of the Tower in the future. Unlike with monopole construction, in which antennas are hung off the sides of the tower and expansion is constrained by the diameter of the monopole due to the running of antenna cables through the center of the monopole, lattice construction, with its more flexible open weave and three-legged construction, allows for antennas to be mounted on each of the three legs, providing increased expansion space. (11/16/10 Tr. (afternoon), pgs. 42-44.) The availability of future expansion space is critical to meeting UI's operational needs. (11/16/10 Tr. (afternoon), pgs. 42-44.)

#### **B. Ease Of Reconfiguration And Maintenance.**

Lattice towers are more easily reconfigured and maintained than monopole towers for the following reasons: (i) antenna mounts can be clamped directly to tower legs without extensive drilling or welding (11/16/10 Tr.(afternoon), pgs. 36-37), (ii) the rigidity and open weave of a lattice tower allows for easy access to complete maintenance and repair work. (11/16/10 Tr. (evening), p. 20.) The ease of reconfiguration and maintenance of a lattice tower will allow UI to quickly and efficiently maintain, upgrade and repair the proposed Tower, enhancing the reliability of its internal communications system and the larger electric system it serves.<sup>5</sup>

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<sup>5</sup> As a public service company whose costs are recovered in customer rates, UI is keenly aware of the costs of its operations. Although a lattice tower itself is not significantly less expensive than a monopole, construction of a monopole tower foundation, which may require drilled piers and blasting, could increase costs further. Although the incremental cost difference between lattice tower construction and monopole construction was not a primary factor

**C. Lack Of Adverse Visual Impacts.**

Importantly, as discussed above in Section IIB(2), the proposed Tower will have minimal adverse visual impacts. It has been carefully situated to the rear of the Operations Building on the Site in order to reduce visibility. (App., p. 11.) Residences about the Site on its west side along Indian River Road, but are separated from the Site by the forested Conservation Easement which serves as a buffer. (App., pgs. 10, 11.) As described in the VHB Report, year-round visibility is minimized by both the relatively low height of the proposed Tower and the intervening topography and vegetative screening. No views are anticipated from Town open space properties and only minimal views from residential properties (most of which would be distant and feature only the upper portion of the proposed Tower). See *supra*, § IIB(2). Thus, even if lattice towers were perceived as having more significant visual impacts than monopole towers, in this case the lack of visual impacts of the proposed Tower make the type of tower construction less relevant.

**IV. The Proximity Of The Proposed Tower To The Southern Connecticut Gas Company Does Not Present A Significant Security Risk.**

**A. The Southern Connecticut Gas Company Site Houses Operations And Some Offices.**

UI's proposed Tower is situated across Interstate 95 from The Southern Connecticut Gas Company's dispatch center and some offices, located at 60 Marsh Hill Road in Orange, Connecticut (the "SCG Site").<sup>6</sup> No critical gas line assets or infrastructure are located at the SCG Site. As such, the proximity of UI's proposed Tower to the SCG Site does not present a significant threat to critical gas infrastructure. Moreover, in the event that an emergency on the

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in the selection of tower type, it did enter into UI's calculus. (11/16/10 Tr. (afternoon), pg. 26; 11/16/10 Tr. (evening), pgs. 19-20.)

<sup>6</sup> On November 16, 2010, UI acquired The Southern Connecticut Gas Company. (Hearing Transcript (evening), p. 23, 24.)

SCG Site shut down its operations center, SCG, like UI, has the ability to operate its dispatch and communications activities from another site to ensure continuity in operations.

**B. The Site Of The Proposed Tower Will Be Subject To Strict Security Measures As Required By Law And Business Continuity Planning.**

**(1) Site Security Measures.**

Portions of the Site are subject to security requirements imposed by the North American Electric Reliability Corporation (“NERC”), which is subject to the oversight of the Federal Energy Regulatory Commission (“FERC”). (11/16/10 Tr. (evening), p. 14.) In addition, Site security measures will include the following: (i) an eight-foot high perimeter fence on three sides and a six-foot high decorative fence along Marsh Hill Road and the entrance drive; (ii) a security checkpoint housed in a small guard house to be staffed 24 hours a day, seven days a week; and (iii) such other security measures necessary to prevent and detect unauthorized entry. (App., pgs. 7, 8; see also 11/16/10 Tr. (evening), p. 14, 15.) In addition, access to the Site will be limited, with card key access required for all entries. Outside contractors requiring entry onto the Site will be escorted by UI personnel. (11/16/10 Tr. (evening), p. 15.)

**(2) UI’s Business Continuity Planning.**

As part of its business planning and in order to mitigate against emergencies and possible terrorist threats, UI has in place comprehensive Business Continuity Plans which are continuously tested and refined. As part of this plan, UI has built into its electric, dispatch and communications systems certain back-ups and redundancies in order to ensure the continuity of its critical business functions and allow it to continue to operate and control the electric system in the event of an emergency. (11/16/10 Tr. (evening), p. 27.) Similarly, UI has the ability to operate and maintain its bulk electric system, including its dispatch and operations activities, from other locations should it need to. (11/16/10 Tr. (evening), p. 26.)

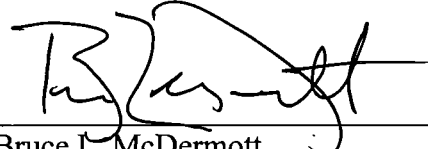


**V. Conclusion.**

The record before the Council amply supports the issuance of a Certificate of Environmental Compatibility and Public Need for the construction, maintenance and operation of the proposed Tower and related Equipment Shelter. The Tower is necessary in order to allow UI to provide high-quality, reliable wireless service between its Operations Center, field crews and remote electric system devices, which will enable UI to increase its overall efficiency and improve customer service and safety. As the record demonstrates, the construction of the proposed Tower at the Site will not have any significant adverse environmental effects on the surrounding area. Accordingly, UI respectfully requests that the Council issue a Certificate for the proposed Tower.

Respectfully submitted,  
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By: \_\_\_\_\_



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