

TO: Connecticut Siting Council  
Melanie Bachman  
Executive Director  
123 Main St  
New Britain, CT 06051

**RE: PETITION NO. 1120** – The United Illuminating Company petition for a declaratory ruling that no Certificate of Environmental Compatibility and Public Need is required for the proposed modifications to the Hawthorne Substation located at 180 Hawthorne Drive, Fairfield, Connecticut.

Dear Ms. Bachman and members of the Council

In connection with the above-referenced petition, please find under this cover a list of further comments to be entered as pre-filed testimony for public hearing to be held March 31, 2015. The list is a response to the interrogatories filed March 17, 2015 by myself, Intervenor Vincent Giandurco (145 Hawthorne Drive, Fairfield, CT) to United Illuminating, regarding Petition Number 1120. This will be copied to the email list and 15 copies will be mailed to the CSC office.

Respectfully submitted,

Vincent Giandurco  
Intervenor  
145 Hawthorne Drive  
Fairfield, CT 06825  
203-520-2666

cc. Parties and Intervenors

Connecticut Siting Council  
Melanie Bachman  
Executive Director  
123 Main St  
New Britain, CT 06051

**RE: PETITION NO. 1120** – The United Illuminating Company petition for a declaratory ruling that no Certificate of Environmental Compatibility and Public Need is required for the proposed modifications to the Hawthorne Substation located at 180 Hawthorne Drive, Fairfield, Connecticut.

Intervenor Vincent Giandurco has reviewed responses to his interrogatories submitted by United Illuminating in regards the above-referenced petition, and would like to submit the following comments to assure a thorough review by the Council to be included as evidence in public hearings March 31, 2015. I will list my comments under the listing methods provided in the UI response, that is, answers listed GIA-1, GIA-2, etc.

GIA – 1 – Affidavit provided does not include all abutting property owners.

GIA – 3 - UI response referenced their response to Town of Fairfield question 3. In this response, UI lists their environmental reports. The Stormwater Pollution Control plan submitted states in section 5-3 that “the post-development runoff characteristics will not differ significantly from the pre-development conditions.” UI’s site plans show a newly extended addition of leveled land covered in a semipervious material measuring approximately 160 by 80 feet. This substantial addition of level area with less permeability than the current sloped grasses does not seem to be addressed with a casual conclusion that it “will not differ significantly” in runoff characteristics.

GIA – 4 – (Regarding potential effects to designated wetlands) UI responded by referring to response to CSC-004. That response does include references to wetlands, and also a stormwater discharge permit. That permit offers instructions about how to preserve the Eastern Box Turtle habitat. It does not answer how the plan will effect the wetlands, nor does it offer a map showing exact location of wetlands.

GIA- 5 – See my comment on GIA-3, above.

GIA- 7 – (Regarding effects of plan on Eastern Box Turtle habitat). UI response referred to answer CSC-003-A, which included reference to discharge permit referenced in CSC-004. I believe that this is incomplete, as research indicates that so-called blue rich white outdoor high-intensity lighting (which types include the halides and the LED lights to be installed according to UI answer attachment TOF-4-A) negatively effects the sleep and other habits of turtles. Light pollution is in itself an environmental impact, and is unaddressed by this answer. Toward this point, I submit into evidence a white paper on the topic distributed by the Dark Sky Foundation seen at <http://www.darksky.org/assets/documents/Reports/IDA-Blue-Rich-Light-White-Paper.pdf> . See pp. 13, para 2, effects on turtles.

GIA – 8 (Regarding increasing number of lightning masts) UI refers to answer TOF-II-3. This answer references consideration of several factors, but does not (a) include standardized modeling of

height/area ratio to masts required, or (b) why an increase in protected area of less than 50% would require more than double the number of masts. This answer is incomplete.

GIA – 9 (Why lighting fixtures not depicted in Simulation) – UI responded that fixtures would be on masts, which are depicted. However, this Intervenor was informed by a UI employee on the previous site visit that the fixtures will be very large, similar to highway fixtures. Such a large and easily visible (and highly controversial) element of the plan should have been visible in the Simulation, and seems to represent an intent to dissemble about the true nature and effects of the planned addition.

GIA -10 – (Increased lighting power) UI response refers to response TOU-II-7. This response is not available on the CSC website. Please respond.

GIA – 11 – See GIA -9, above.

GIA – 12 – (Cutting down trees) – UI response references response TOU-II-14. This is not available on the CSC website. Please respond. Also, be aware that this area is a wild turkey habitat, and the turkeys nest/sleep in the trees in the area of the substation. See GIA-13, below.

GIA – 13 – (Regarding turkey habitat) – UI response notes that no “wild fowl habitat of State Special Concern” is identified on the site. This does not answer how the plan will impact the habitat of the wild turkeys that live on the site. UI's response A-TOF-II-1 states “the lighting system is NOT designed to minimize light dissipation outside the substation perimeter.” This specifically indicates that light emissions from the site will be, according to plan, infringing and impacting the surrounding area. I would like to reference the Dark Sky Foundation White Paper, page 13, para 4. The lights to be installed can have an effect on the Circadian and feeding patterns of these and other fowl, as they effect the swarming patterns of insects. Also the Circadian rhythms of other nocturnal wildlife (such as raccoons, foxes, possum, skunks, et al) may be disrupted by this plan, potentially harming these and other populations and thus negatively effecting biodiversity and the overall ecosystem in the area. Toward this end see attached photos, which show turkey tracks in the immediate area surrounding the site. Flocks of turkeys with as many as twenty in the flock can frequently be seen in the vicinity. To summarize, from Dark Sky Foundation white paper page 12: “The alteration of the ambient light level at night can result in an otherwise suitable habitat being avoided or unusable. Artificial light in the environment may thus be considered a chronic impairment of habitat. Light pollution has demonstrable effects on the behavioral and population ecology of organisms in natural settings... derived from changes in orientation, disorientation, or misorientation, and attraction or repulsion from the altered light environment, which in turn may affect foraging, reproduction, migration, and communication.” (Longcore and Rich, 2004)

GIA – 15 – (Aluminum cutting) UI response references answer TOU-II-23. This is unavailable on SC website. Please provide.

GIA – 16 - (Regarding catastrophic failure of capacitors) – UI refers to response TOF-1. This response states that in the event of a failure, systems would remove equipment from service. This may not be a fail-safe plan, nor adequate response. My interrogatory asks about mitigation plan in the event of an actual failure, in order to protect humans, animals and property from harm. This answer is incomplete.

GIA – 17 (Aesthetic impact) – UI response refers to answer CSC-006. It states UI “can” place disguising plant life around the site, without specificity nor clarity. What concrete plans does UI have to lessen the visual impact of this expansion, including the light pollution referenced in the Dark Sky Foundation white paper, pp. 7 -11, effects on human Circadian rhythms and eyesight.

It is my submission that light pollution is just as much a pollution as any other type. This type of pollution can effect the biosystem in the area, and also negatively effect the sleep patterns and thus health of the humans in the area. Because of this, this is an environmental impact which UI has nnot addressed substantially or at all. Indeed, this may be the most pressing, as they have admitted in responses that they have no plan to keep the light within the footprint, so that light pollution will escape the site and be visible throughout the area, truly altering the look and feel of both the residential neighborhood and also the wildlife habitats. This impacts the environment negatively, and should be given consideration as to why this petition should be denied.

GIA – 20 (Effects on wetlands) – UI responds that “wetlands are outside the UI property and will not be impacted.” Please provide map showing exact distances between site, runoff areas, and wetlands, a s this response is incomplete.

To close, another UI response seeks an increase in allowable noise emission from 45 dBa (Fairfield residential limit) to 51 dBa at night, which is the State of Conn. night limit but also the Town of Fairfield industrial emitter limit. The combination of adding many tall masts; high-intensity blue rich white light that will illuminate much of the surrounding properties in a manner similar to a stadium or a penitentiary; and also increasing sonic emissions to industrial levels seems to indicate a subtle plan to gradually achieve the right to have a full-scale industrial site in this residential neighborhood. This raises quality of life issues that have not been addressed. But as we have seen, these lighting issues also increase pollution and can have critical, measurable and negative effects on health, well-being, and ecosystems. As per evidential Dark Sky Foundation white paper, “Dusk - to - dawn lighting such as roadway and area lighting or lighting on neighbors' property can penetrate into homes where people are sleeping. Some studies indicate that the illumination threshold for sleep disruption is quite low.” Combined with UI's promise to NOT minimize light emission outside of the site, this is a serious matter. Because of these examples of potential negative environmental and health impacts as per the existing plan, the petition should be denied.











