

Docket 370  
Response to Inquiries/Public Contacts

Town	Date	Property Owner Name & Address	Type of Contact	Description of Contact	Resolution	Written Documentation
Bloomfield	7/1/08	Carl Forster 44 Tarriffville Rd (as requested by David Lamenzo)	E. Granby Open House Comment Sheet	Mr. Lamenzo requested info for 85 yr old neighbor, Forster. Had several questions and comments: concerns over cows drinking water and possible contamination of stream on property.	Project provided a map and cross-section from the MCF and an info packet.	Yes
Bloomfield	7/15/09	Mayor Sydney Schulman Town of Bloomfield	Letter	Forwarded Mayor copy of comment received from a Bloomfield resident who attended an Open House in East Granby	None	Yes
Bloomfield	8/18/08	Leonard Schlude 16 Hoskins Rd	Inland-Wetland Commission Meeting	Requested EMF reading. Bothered by auto-transformer at substation; wants sound barrier to mitigate noise from auto transformer; wants to minimize impacts to stream and trees on property.	Project reps spoke with property owner; installed green privacy slats.	No
Bloomfield	8/22/08	Joe Merritt 31 Woods Rd	Hotline	Called to notify CL&P and Project that a group is proposing a bike marathon path along the ROW between Bloomfield to Simsbury over next five years	None, FYI only.	No
Bloomfield	8/27/08	Carl Forster 44 Tarriffville Rd (as requested by David Lamenzo)	Hotline	Speaking on behalf of neighbor, wants to know if proposed structures can be moved entirely on NU's adjacent property, instead of Forster's property. Also concerned about testing conducted near stream where his cows drink.	Project manager spoke with resident that we will look into the requested structure move. Also stated that a number of agencies oversee wetlands testing and in case the stream is affected in any way, the project would compensate.	No
Bloomfield	9/2/08	Thomas Hooper Bloomfield Planning & Zoning Commission	Letter to Project	Letter of support stating that the expansion of Bloomfield substation is necessary and doesn't feel, after 50 years, that it would be a detriment for surrounding residents. Commended Project's communication with concerned residents.	None.	Yes
Bloomfield	9/19/08	Godfrey Pearlson 217 Duncaster Rd	Hotline	Called requesting map of proposed Project route be emailed to him.	Project emailed maps from MCF.	Yes

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Bloomfield	9/22/08	Bloomfield Town Council	Bloomfield Town Council Meeting	Requested update on all NEEWS Projects affecting town, maps, advantages of leaving structures in place, and project benefits.	Project managers prepared and sent response letter to Town Council members.	Yes
Bloomfield	10/2/08	Leonard Schlude 16 Hoskins Rd	Direct Contact with Project	Thanked NU for installing noise barrier slats. Requested what can be further done to address noise.	NU met with resident to follow-up issues. Still evaluating the noise as part of Project but it would be some time before a determination could be made whether noise levels meet State standards and several years before anything could be placed in the field, if required.	No
Bloomfield	10/16/08	Leonard Schlude 16 Hoskins Rd	Project Meeting w/ Resident	Property owner requested wood once clearing occurs.	Noted in records for future reference.	No
Bloomfield	10/17/08	Bloomfield IWW Commission	Field	Contractor contacted IWWC who in turn requested that borings do not occur in wetlands	Project confirmed for the agency that none of the boring locations in Bloomfield are in wetlands. Also provided status of compensatory wetland mitigations plan.	No
Bloomfield	11/18/08	Carl Forster 44 Tarriffville Rd (as requested by David Lamenzo)	Direct Contact with Project	Lamenzo called on behalf of Mr. Forster inquiring about the requested structure move.	Project confirmed that the move is feasible. (Note: resident's property will still be used during different phases of construction. Project sent response and map from MCF to Mr. Lamenzo.	Yes
Bloomfield	3/24/09	Leonard Schlude 16 Hoskins Rd	Direct Contact with Property Owner	Property owner is on advanced notification list. Was contacted by BMcD about upcoming mowing to occur on ROW near his property. Not concerned, but he is upset that NU trims the tree buffer that he has near the substation, every three months.	Project forwarded concern to NU Vegetation Management dept.	No

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Bloomfield	6/5/09	Carl Forster 44 Tarriffville Rd (as requested by David Lamenzo)	Direct Contact with Property Owner	Mr. Lamenzo called about Project's impacts on the cow's water source on Mr. Forster's property.	Project rep called Mr. Lamenzo back and stated that the Project will have adequate erosion and sedimentation controls in place during all phases of construction. Rep met with Lamenzo and Forster.	No
East Granby	11/26/07	Edward Pelletier 196 Newgate Rd	NEEWS Email	Inquired if NU proposes to replace the current 115-kV line, located within 60ft of house, with a 345-kV line. If so, requested that it be placed underground.	Project provided written email response stating that CL&P will not be replacing the existing 115-kV line but will add the 345-kV line to the east of existing line in current ROW. Also stated that CL&P is in process of designing Project proposal, expects to file detailed report with munis in early 2008; mentioned upcoming Open House and provided hotline number.	Yes
East Granby	11/28/07	Roy & Barbara Dupuis 20 Barton St	Hotline	Resident called asking about survey request left on his property. Owner declined to sign the survey access permission form as they are against having "Towers" in their backyard.	Field Project Team left survey request at the resident's house after attempting to make numerous contacts.	No
East Granby	2/8/08	Nancy Reardon (Prudential) 9 Cooper Hill Terrace	NU	Realtor obtained EMF readings for this property directly from NU. Staff provided her with the hotline number for Project information.	None.	No
East Granby	6/9/08	Michael Krammen 28 Wynding Hills	NEEWS Email	Follow-up inquiry after receiving Project postcard.	Project provided written response and invited them to upcoming Open House.	Yes
East Granby	6/25/08	Anonymous	Open House Comment Sheet	Provided comments and offered suggestions on the format of the Open House.	None	Yes
East Granby	6/25/08	Michael Krammen 28 Wynding Hills	Open House Comment Sheet	Attended Open House and had questions about Tarriffville Dam area.	None, questions answered at Open House.	Yes

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East Granby	6/25/08	Robert Brown 2 Wynclairne Dr	Open House Comment Sheet	Property owner provided concerns: environmental impact to existing forest, reforesting, line design and size, OH vs. UG, property values and EMF. Specifically wanted to verify UG route in Suffield and East Granby along Newgate Rd.	Project attempted to schedule a site visit with owner. After several attempts over a number of weeks, property owner called and Project sent maps of UG route from MCF.	Yes
East Granby	6/25/08	Richard Ferrari, State Representative, 62nd District	Open House Comment Sheet	Requested that he receive copies of all comment sheets received from Open House.	Letter and comment sheets provided on July 11.	Yes
East Granby	6/25/08	Glenn & Eleanor Zaugg 3 Wyncourte	Hotline	Owner called after receiving NEEWS info packet from neighbor, R. Brown. Had general Project questions, concerned with EMF and visual impact, and was impressed about NU conducting Open House session.	Resident attended open house and spoke with Project officials. Planned to send in comment card. He mentioned forming a "resident group" to communicate opinions to the E. Granby Mayor.	No
East Granby	6/25/08	John Rusnock 7 Tuckahoe Road	Open House Comment Sheet	Provided feedback on the Open House session.	None	Yes
East Granby	7/7/08	Edward Pelletier 196 Newgate Rd	Open House Comment Sheet and NEEWS Email	After attending Open House, resident sends email about the following concerns: health, aesthetics, property values, drainage issues.	None	Yes
East Granby	7/7/08	Noel & Talina Posson 212 Newgate Rd	NEEWS Email	Resident concerned with EMF and impact on his small children and property values. He prefers the new line be located at least 500 yards away from his house.	Project coordinated meeting between resident and Project Managers. Also conducted EMF reading for resident.	Yes
East Granby	7/9/08	Walter & Jane Rebenske 248 Newgate Rd	Direct Contact with Project	Owner concerned about clearing impacts and vegetation removal, EMF and possible interference with his pacemaker, and Project impacts on property values.	Project team met with owner and explained that the new proposed OH line would be placed further away from their house than the existing line.	No
East Granby	7/11/09	James Hayden, First Selectman, Town of East Granby	Letter	Forwarded all comments received from June 25 Open House to First Selectman	None	Yes
East Granby	7/11/08	Richard Ferrari, State Representative, 62nd District	Letter	Forwarded all comments received from June 25 Open House to State Representative per his request	None	Yes

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East Granby	7/29/08	James Hayden, First Selectman, Town of East Granby	Letter	Forwarded additional comment received from June 25 Open House to First Selectman	None	Yes
East Granby	8/4/08	Margaret Ouellette 6 Wyncairne Rd	Hotline	Property Owner had general questions. Project explained Open House session. On a follow-up call, she was upset that a NU meeting was being held for E. Granby residents and that she wasn't offered the same; she complained to the Mayor. Resident was not able to make the scheduled meeting.	Set up separate meeting with resident and Project Team. After discussion about options, the resident stated preference for underground. Owner will provide the Town officials with letter indicating their preference.	No
East Granby	8/18/08	Peter Kuhn 118 Holcomb St	Hotline	Resident requested general project info after seeing surveyors in area.	Project provided written response, along with drawing and cross section from the MCF.	Yes
East Granby	8/22/08	Noel & Talina Posson 212 Newgate Rd	Project Inquiry	After meeting with Project Team, property owner requested EMF reading.	NU conducted EMF reading.	No
East Granby	8/27/08	Eraldo Poletto (via assistant, Trish Counter) 5 Wyncairne Rd	Hotline	Ms. Counter (for Mr. Poletto) inquired why he didn't receive any mailings re. the Project.	The Project confirmed that Poletto is on our mailing list and was sent the materials. Project then sent info packet and hotline and website info.	No
East Granby	8/28/08	Kelly Gagnon 154 Newgate Rd (potential house purchase at 9 Cooper Hill Terrace)	Hotline	Resident requested project info specifically for the property she is interested in purchasing at 9 Cooper Hill Terrace, E. Granby. She's concerned that the ROW takes up about 1/2 of the entire property that she's interested in purchasing.	Project Team spoke to resident, explained Project route in relation to the new house, and that the new line will be placed on the other side of the 115 structures and not closer to the house.	No
East Granby	9/2/08	Betty Bradley (Real estate agent for 9 Cooper Hill Terrace)	NU Customer Service	Customer Service referred call to NU. Realtor stated that several people have made but then dropped offers on the house after hearing about Requested aerial photos.	Project Team informed her that the new line was going to be placed on the other side of the existing 115 line and not closer to the house. Maps from the MCF were sent via email.	Yes

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East Granby	9/11/08	Tom Ficaro 56 Copper Hill Rd	Direct Contact with NU	Inquired how Project upgrades will affect his property. Also asked if CL&P would consider giving up ROW rights in his area.	Project sent letter and maps from MCF explaining proposed Project in vicinity of his house. Also stated that CL&P is not eliminating or revoking easements as part of the NEEWS Project. Info packet sent to resident.	Yes
East Granby	9/21/08	Noel & Talina Posson 212 Newgate Rd	Direct Contact with Project	Letter from resident to Suffield First Selectman about several Project-related issues: EMF, property values, and request for UG construction.	None, letter noted in records.	Yes
East Granby	9/29/08	Laurie Giannotti (Dept Env. Protection 79 Elm Street, Hartford CT)	Direct Contact with Project	Giannotti contacted the Project regarding Airline Trail in Lebanon. Lebanon Town Mgr suggested NU keep her aware of review process for Interstate Project; has implications for blue trail in East Granby.	Noted for future reference.	No
East Granby	10/10/08	James Hayden, First Selectman, Town of East Granby	Direct Contact with Project	During MCF process, Town noted impacts: public health and safety; property values and taxes; environmental and visual; and Metacomet Trail. Recommended proposed lines be underground from East Granby to Suffield.	Noted for future reference.	Yes
East Granby	10/16/08	East Granby IWWC	Field	Contractor notified IWWC of upcoming geotech work	No issues.	No
East Granby	10/23/08	Kirk MacNaughton (landowner for parcel on which CL&P has gate between 1146 and 1170 Newgate Rd.) Info provided by Mr. Bruce Millick, 1170 Newgate Rd.	Field	Permission to use gate and access ROW across his property was granted, eliminating need to mobilize drill rig through wetland on ROW north of his property.	Owner requested information regarding soil sampling activities. Project mailed him information.	Yes
East Granby	10/23/08	Lenny Bull 245 Newgate Rd	Field	Survey crew met with resident at stream located on property. Field contractor requested permission to access owner's stream for drilling purposes as a water source, if possible.	Property owner agree to allow contractor access to water source.	No

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East Granby	10/28/08	Peter Kuhn 118 Holcomb St	Direct Contact with Project	Requested on-site meeting with Project reps. Concerned about clearing and asked about compensation for clearing and reduction of property values.	Project met with owner to discuss ROW clearing and property impact.	No
East Granby	10/31/08	Noel & Talina Posson 212 Newgate Rd	Email to Project	Owner bought EMF meter to take readings of similar structures proposed for his property in other locations. CSC application too lengthy for him to review. Wants to know distance of proposed structure of his house to take appropriate measurements.	Project sent email with info from Application to owner and project rep followed-up with email on specific EMF questions. Owner responds back with email and copies to First Selectman and CSC. CSC provides response as well as NU Legal.	Yes
East Granby	12/2/08	Noel & Talina Posson 212 Newgate Rd	Letter to Project	Resident previously requested advanced notifications for Project-related field activities.	Project continued making advanced notifications to resident.	No
East Granby	12/13/08	Kirk & Rebecca Junco 151 Newgate Rd	NEWS Email	Sent an email requesting on-site visit from the Project	Project attempted numerous times to reach her. Resident never called back to schedule an appt.	Yes
East Granby	12/16/08	East Granby Land Trust (Mary Goodhouse) 86 Newgate Rd	Direct Contact with NU	Provided letter about their concerns about and recommendations to mitigate potential environmental impacts due to the Project.	Project noted their input has been documented and that final decisions will be made by the CSC, ACOE and CT DEP. Encouraged public participation through CSC hearing process	Yes
East Granby	1/8/09	Joy Turner 216 Turkey Hills Rd	Direct Contact with Project	Resident sent complaint about beavers and flooding issue in area.	Project recorded complaint for future reference.	No
East Granby	1/9/09	Kirk & Rebecca Junco 151 Newgate Rd	Direct Contact with Project	Inquired about participating in decision making process regarding Project.	Project explained siting process and notified owner of CSC hearing dates.	No
East Granby	3/26/09	Grady & Elizabeth Glover 177 Newgate Rd	Field	Property owner approached field crews about their presence on ROW. Also requested Project update and info on tree clearing.	Project reps explained their work on ROW then provided hotline number to get their questions answered.	No

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East Granby	4/3/09	Noel & Talina Posson 212 Newgate Rd	Direct Contact with Project	In response to Project letter sent to Mr. Posson in November, resident requested similar estimates regarding UG alternatives using the existing ROW in the area.	Project emailed response to inquires.	Yes
East Granby	4/27/09	James Hayden, First Selectman, Town of East Granby	Direct Contact with Project	Requested link for the site that provides Project's Google Earth tool.	Per Project Team, this capability is not available to the public at this time due to licensing and security issues. Project informed Hayden directly.	No
East Granby	6/3/09	Jennifer Frank, President East Granby Land Trust	Hotline	Called requesting to speak at CSC hearings.	Project called her back and provided information on the CSC hearing process.	No
East Granby	6/8/09	Noel & Talina Posson 212 Newgate Rd	Direct Contact with Project	Resident inquired if project reps were on his property that morning because they accessed the ROW through the woods. Also informed Project that he has filed as a party status and will be attending the upcoming bus tour and hearings. Again expressed EMF concerns and favored UG route.	It was determined that Project reps were not in the area. Other information noted.	No
East Granby	6/9/09	Suzanne Oconor 29 Washington Ridge Rd	E. Granby Public Hearing	Questions on EMF and Project design. Also requested CSC's BMP's and public participation guidelines.	Project sent response to inquires.	Yes
East Granby	6/9/09	John Miller 3 Woodbridge Rd	E. Granby Public Hearing	Requested info on the cost increase per household for UG lines for home with avg use of 700-kwh. Also asked amount of clearing needed for UG vaults.	Project emailed response to inquires.	Yes
East Granby	6/9/09	John Rusnoch 7 Tuckahoe Rd	E. Granby Public Hearing	Resident member of E. Granby IWWC, requested copy of ACOE application.	Project delivered full copy of application after it was filed.	No
East Granby	6/9/09	Dave Kieseewitter 12 Adams Circle	E. Granby Public Hearing	Had questions about Project plans for drainage (extensive drainage and erosion issue with pond on property); Also, ATV's and gates are concerns.	Project is preparing plan and a site visit was held in early August. Property will be added to list where gates need to be installed.	No
East Granby	6/9/09	Felice Mara Granger Circle	E. Granby Public Hearing	Resident requested EMF charts of proposed levels be mailed. Concerned about new structure design/height and location.	Project mailed response to inquires.	Yes



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East Granby	6/9/09	Jennifer Frank President, East Granby Land Trust 86 Newgate Rd	E. Granby Public Hearing	Spoke and submitted written copy of Trust's concerns about Project's environmental and visual impacts.	None.	Yes
East Granby	6/16/09	R. Tino 195 Newgate Rd	E. Granby Public Hearing	Resident attended hearing and spoke to Project reps. Requested info on EMF from the WHO and CSC and process on providing input to the CSC.	Project mailed response to inquires.	Yes
East Granby	7/24/09	Jennifer Frank President, East Granby Land Trust	Letter to Project	Frank requested info on mitigation strategies for E. Granby and Suffield.	Project explained CL&P still in process of evaluating all mitigation options and are expected to select best options based on environmental and cost variables.	No
East Granby	7/29/09	Gary Hayes IWWC	Letter to Project	Town IWWC requested follow-up meeting with Project once more details are known.	Project will set up meeting, pending project approval, after decision and order.	No
Enfield	8/5/08	Concetta Arre 13 Sword Ave	Hotline	Questioned the factors that determined the alternate route through Enfield and the probability of that occurring. Requested information on alt. route.	Project response via phone message and followed up by sending requested info from Application.	No
Enfield	8/12/08	Scott Bertrand 21 Tanglewood Ave	NEWS Email	Sent an email inquiring about Project's alternate route through Enfield.	Project emailed response to inquires.	Yes
Enfield	6/11/09	Marty Levitz	Suffield Public Hearing	A Hartford realtor who was looking for info on the Enfield alternate route. He requested supporting Project documentation of the Enfield route from the Application.	Project sent requested materials from Application; followed-up with a phone call.	No
Manchester	11/19/08	Manchester to Meeville Project	Field	Provided outreach for geotech field activity.	Project Team contacted Town CEO, IWWC, abutters, and Police Dept	No

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Manchester	6/16/09	Hockanum River Group Frank Belknap	Manchester Public Hearing	Questions regarding structure types and ACOE's wetland mitigation plan.	At the hearing, Project provided info on route and showed cross-sections of proposed structures. Project noted that they will provide the ACOE information to the resident after the application is submitted and receives the required state and town approvals.	No
Suffield	1/17/08	George Kolvek Lot 58A Newgate Rd	Field	Project surveyors were approached by property owner with questions about Project.	Surveyor provided hotline number.	No
Suffield	1/17/08	Harry Wood 3165 Phelps Rd	Field	Project surveyors were approached by property owner about what he was doing on property.	Surveyor provided hotline number.	No
Suffield	1/22/08	Roger & Ruth Oltsch Lot 6B Phelps Rd	Field	Project surveyors were approached by property owner about what he was doing on property.	Surveyor provided hotline number.	No
Suffield	1/22/08	Henry & Marjorie Wilson 1140 Newgate Rd	Field	Project surveyors were approached by property owner about what he was doing on property.	Surveyor provided hotline number.	No
Suffield	1/22/08	Suffield Police Department	Field	Police stopped a Project surveyor's car stating that they cannot park cars without first notifying police dept of license numbers. Residents have complained about unknown cars in the area and stopped them.	Project managers reiterated to contractors to inform local police with requested information while traveling the CL&P job site.	No
Suffield	1/25/08	Henry & Susan Wilson 2720 Mountain Rd	NU Customer Service	Resident called to complain that they hadn't received any notification about Project survey work taking place.	Project provided general Project information and hotline number for future requests.	No
Suffield	2/6/08	Suffield Dept of Public Works 2715 Mountain Rd	Field	Surveyor for Project contractor met Town DPW employee.	No issue reported.	No

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Suffield	2/27/08	John Graff 168 S. Grand St	Direct Contact with NU	After reading newspaper article on project, resident inquired about Project to NU employee, who provided hotline info. Info was forwarded to Project. Resident never followed-up with inquiry.	None.	No
Suffield	6/10/08	Tim Harris 1208 Newgate Rd	Hotline	Resident had general Project questions.	Project called resident and provided information requested and Open House information.	No
Suffield	6/10/08	Shawn Sorrow 2609 Mountain Rd	Hotline	Property owner wanted info about the Project's clearing impact relative to the Gun Club across the street. Also concerned about three ailing trees on his property; does not want to wait for them to be removed during Project -- feels it should be done sooner.	Project informed resident of Open House session which he attended. NU Veg Management group responded to property owner that they would handle the tree removal request as part of their normal maintenance and not wait for the Project clearing.	No
Suffield	6/21/08	Donald Wright No address provided	NEEWS Email	Resident saw newspaper article on Project and wrote email requesting detailed Project information.	Project responded via email; provided hotline number for specific questions; mentioned that the MCFs are located in the Town libraries and Town Halls. Invited him to the upcoming Open Houses. Resident never responded back.	Yes
Suffield	6/24/08	Charles & Bobbie Kling 1120 Newgate Rd	Open House Comment Sheet	Resident mailed in her open house comment sheet stating her preference to replace 115-kV lines; go underground, and leave buffer of trees. Also, offered suggestions on format of Open House sessions.	None.	Yes
Suffield	6/24/08	Richard Legere 1204 Newgate Rd	Open House Comment Sheet	Noted that he prefers the UG alternative	None	Yes
Suffield	6/24/08	Shawn Sorrow 2609 Mountain Rd	Open House Comment Sheet	Again mentioned the three trees in poor health that, in his opinion, need to be taken down.	See June 10, 2008 record	Yes
Suffield	6/24/08	Anonymous	Open House Comment Sheet	Submitted comment asking that we complete the power line Project.	None	Yes

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Suffield	6/24/08	Tim Harris 1208 Newgate Rd	Open House Comment Sheet	Resident requested an on-site meeting with Project reps and his neighbor, Richard Legere.	Project scheduled a meeting with Mr. Harris and other residents in his area.	Yes
Suffield	6/26/08	Steven Giller 1073 Ratley Rd	Hotline	Requested Open House comment sheet be mailed to him as he forgot to complete one while there.	Project forwarded comment sheet to resident.	No
Suffield	7/7/08	Robin Newton Suffield Conservation Commission	Direct Contact with Project	After Project presentation, the head of the Commission sent letter with names of commission members and a copy of the zone regulations discussed during the presentation. Also concerned about wetlands, maintenance and herbicides.	Response letter from Project states CL&P's policy on preserving wetlands, use of herbicides, and general info about permits and conditions enforced by ACOE and CSC.	Yes
Suffield	7/11/08	Scott Lingenfelter First Selectman, Town of Suffield	Letter	Forwarded all comments received from June 24 Open House to First Selectman	None	Yes
Suffield	7/11/08	David Gauthier 3219 Phelps Road	Letter	Sent letter to Project providing comments on effects of power line project on his town.	None	Yes
Suffield	7/15/08	Richard & Diane Legere 1204 Newgate Rd	Direct Contact with Project	Resident is head of the new opposition group, "NoPowerTowers".	Project becomes aware of the group and its website to garner opposition to GSRP.	No
Suffield	7/17/08	Carl Trippodo 930 North Stone St	Suffield Open House / Hotline	Resident had follow-up questions from open house and called Project for answers to the number of structures proposed in the area and the distance from proposed to existing structures.	Project responds to his inquires via phone call and sends maps from MCF.	Yes
Suffield	7/29/08	Scott Lingenfelter First Selectman, Town of Suffield	Letter	Forwarded additional comment received from June 24 Open House to First Selectman	None	Yes
Suffield	8/18/08	Richard & Diane Legere 1204 Newgate Rd	Hotline/Suffield Open House	Requested Project info after seeing surveyors in yard. Resident represents "Citizens Against Overhead Power Lines". Also requested confirmation of the UG option.	Project referred resident to upcoming Open House, which he attended, and coordinated meeting with Project managers who responded to UG information request.	Yes
Suffield	8/18/08	Rachel & Gary Powell 1945 Colson Street	Hotline	Requested voltage information on existing power lines	Project responded to inquiry via phone call.	No

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Suffield	8/19/08	Scott Lingenfelter First Selectman, Town of Suffield	Letter	Project Manager sent letter to First Selectman summarizing issues received and communications with the Town to-date.	None	Yes
Suffield	8/25/08	Robert Laviana 1462 North Grand St	Letter to Project	Property owner is an attorney who sent a letter to Project Manager stating: He requested modifications to the proposal and attached recommended licensed contractor to conduct construction at no cost to NU for the UG route. He noted that he will be participating as an intervenor during this Project and he will institute litigation if necessary.	Project informed property owner of Suffield Board of Selectmen meeting and sends written response.	Yes
Suffield	8/26/08	Carl Trippodo 930 North Stone St	Hotline	Resident requested info on distance between existing and proposed structures	Project responded to inquiry via phone call.	No
Suffield	8/27/08	Shawn Sorrow 2609 Mountain Rd	Hotline	Resident called requesting a call back.	EMcD CR called resident; left message. Received no response after numerous calls.	No
Suffield	8/29/08	Richard & Diane Legere 1204 Newgate Rd	Field	Resident had a sign in his yard re. CL&P, which inhibited survey crews from entering area. Project contacted resident learning that he believes CL&P has abused easement rights. He agreed to allow crews on property to conduct survey work.	Project assured resident that we would keep him informed of field work schedule.	No
Suffield	9/3/08	Kim DiPietro 801 Ratley Rd	NEWS website	Resident visited the website and had questions about the Project route.	Project called owner to acknowledge request and left message. Followed up with written response and info kit.	Yes
Suffield	9/16/08	James Sasanecki 3035 Phelps Rd	Letter to Project	Resident concerned about ROW clearing, property values, and visual impact.	Project sent letter explaining Project proposal and provided Chalmers report on property values.	Yes Also see "Written Documentation: Chalmers' Report"
Suffield	9/17/08	Scott Lingenfelter First Selectman, Town of Suffield	Letter to Project	First Selectman responds to Project Manager's 8/19/08 letter about proposed Project; refutes some issues.	Noted for future reference.	Yes

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Suffield	9/22/08	Tom Frenaye P. O. Box J 489 Warnertown Rd	Direct Contact with Project	Requested Project's Chalmer's Report on property values.	Project sent Chalmers report on property values.	Yes Also see "Written Documentation: Chalmer's Report"
Suffield	9/24/08	Richard & Diane Legere 1204 Newgate Rd	Hotline	Inquired if CL&P filed with CSC yet.	Project notified resident that he would be placed on notification list for application filing date. Called him prior to filing.	No
Suffield	9/29/08	Bob Rossow 2200 Mountain Rd	Hotline	Inquired about Project location in his area.	Project sent maps from the MCF via email.	Yes
Suffield	10/1/08	Bruce & Dorothy Millick 1170 Newgate Rd	Field	Inquired about Project work to be performed on his property, access via the utility gate in the area, and that one of the gateposts has rotted.	Project reps obtained agreement to work on resident's property. NU to repair rotted post.	No
Suffield	10/13/08	Richard & Diane Legere 1204 Newgate Rd	Direct Contact with Project	Resident called after receiving Project outreach mailer on geotech activities. Requested he be notified prior to crews arriving on his property. Also requested the exact tools the project uses to determine property and ROW locations	Project verbally responds with survey info and response.	No
Suffield	10/13/08	Shawn Sorrow 2609 Mountain Rd	Direct Contact with Project	Requested info on the UG alternative (he and some residents are against the UG route). Had specific questions on EMF levels between OH and UG; location of UG route in Suffield; and timeline and impact of UG road construction.	Project sends response to inquires.	Yes
Suffield	10/16/08	Suffield IWWC	Field	Project surveyors notified IWWC of upcoming geotech work	No issues.	No
Suffield	10/16/08	Robin & Craig Wachs 1334 Newgate Rd	Hotline	Requested Project information about the ROW that crosses their area and would like to know if there will be disruption to the grazing area on the property.	Project provides verbal response to inquires.	No
Suffield	10/21/08	Roger & Ruth Oltsch Lot 6B Phelps Rd	Field	Landowner approached Project crew with general project questions and requested that crew leave hardwood on the ground after clearing for drilling operations.	Crew did so.	No

Docket 370  
Response to Inquiries/Public Contacts

Town	Date	Property Owner Name & Address	Type of Contact	Description of Contact	Resolution	Written Documentation
Suffield	10/23/08	Ray Boldey Newgate Rd	Field	Contractor approached landowner requesting use of dirt road to conduct geotech probes.	Project agreed to pay attention to the landowner's use of truck, which moves logs and earth materials in the area, and avoid damage to newly planted christmas trees.	No
Suffield	10/27/08	Shawn Sorrow 2609 Mountain Rd	Direct Contact with Project	Requested a visual of proposed transition station on Phelps Rd.	Project sends map from CSC Application Records note that there are grazing animals on this property for future reference when conducting field activities.	No
Suffield	10/30/08	Robin & Craig Wachs 1334 Newgate Rd	Direct Contact with Project	Resident has area for grazing animals. Concerned about survey work.	Crew moved the logs and said they would put them back when work is completed.	No
Suffield	11/12/08	Roger & Ruth Oltsch Lot 6B Phelps Rd	Field	Property owner approached Project crew about geotech work. He inquired if the crew could move the logs in the ROW to prevent vehicles from entering into the area.	Project sends written response and cross-section from the CSC Application. Offered to meet with her if she has any additional questions.	Yes
Suffield	1/6/09	Laurie Beneski Re. 1899 Mapleton Ave	Hotline	Soon-to-be resident purchasing house at this location. Had general Project questions.	None.	Yes
Suffield	1/27/09	Richard & Diane Legere 1204 Newgate Rd	Direct Contact with Project	Property owner wrote letter to Project Manager stating that in about two weeks, he will send an update on his design suggestions.	Project informed him that crews are measuring the elevations similar to the operation performed on streets.	No
Suffield	2/4/09	Richard & Diane Legere 1204 Newgate Rd	Direct Contact with Project	After receiving advanced notification of survey work in his area, he requested to receive a summary of the exact survey activity occurring plus tools that are being used.	Project referred Director to Vol. 9 of the online Application or to find the volume in Suffield Town Hall.	No
Suffield	2/25/09	Patrick McMahon (Economic Development Director for Town of Suffield) 83 Mountain Rd	CL&P Business Development	Asks for detailed GSRP maps.		

**Docket 370  
Response to Inquiries/Public Contacts**

Town	Date	Property Owner Name & Address	Type of Contact	Description of Contact	Resolution	Written Documentation
Suffield	3/25/09	Shawn Sorrow 2609 Mountain Rd	Direct Contact with Project	Requested update on Project.	Project responded that the Application has been submitted to the CSC and provided a link to the CSC website for more information.	Yes
Suffield	3/30/09	William White 916 Newgate Rd	Hotline	Inquired about the vegetation flyer he received; not about the Project. He was concerned about some vegetation that was dozed over last year and thought the utility had done it.	Project stated that his request was not project-related but would refer it to the proper department at CL&P. Follow-up conducted the next week.	No
Suffield	3/31/09	Harry Wood 3165 Phelps Rd	Field	Resident approached field rep while mowing was being conducted on the ROW. Owner doesn't have issue with small vehicles in his area but does not want heavy equipment there because he claims damage was done during reductoring a couple of years ago.	Information noted in records and provided to NUJ's vegetation management group to update their records.	No
Suffield	3/31/09	Richard & Diane Legere 1204 Newgate Rd	Field	Resident was approached by project field rep to request permission for access to the ROW from his driveways.	Project rep was allowed to use driveway and abided by resident's request not to use herbicides or cut any trees.	No
Suffield	4/1/09	Chester McGurk 851 N. Stone Rd.	Field	Resident was approached by project field rep to request permission for access to the ROW from his driveways.	Project rep was allowed to use driveway. Owner informed crew that he is opposed to the proposed OH structures and prefers the UG route.	No
Suffield	4/24/09	Bruce & Dorothy Millick 1170 Newgate Rd.	Direct Contact with Project	Property owner wrote email about EMF concerns, citing disturbing information that Mr. Posson received from the Project. Two additional letters followed.	Project prepared two letters in response and cited the upcoming CSC public information sessions to which he can attend.	Yes
Suffield	5/28/09	Tracy Kedzierski 6 Goodrich Drive, Cromwell	NU Customer Service	Cromwell resident interested in purchasing a home at 1171 Newgate Rd. Heard about the Project and requested information.	Project called and left resident a message to collect specific questions; no reply.	No
Suffield	6/8/09	Richard & Diane Legere 1204 Newgate Rd	Direct Contact with Project	Resident called Project rep requesting EMF information	Project mailed information requested.	Yes



Docket 370  
Response to Inquiries/Public Contacts

Town	Date	Property Owner Name & Address	Type of Contact	Description of Contact	Resolution	Written Documentation
Suffield	6/10/09	Shawn Sorrow 2609 Mountain Rd	Direct Contact with Project	Resident emailed Project petition of signatures supporting OH vs. UG construction.	Project responded via email.	Yes
Suffield	6/11/09	Raymond Boldy 35 Sunset Dr	Suffield Public Hearing	Requested address to send a written statement to the CSC regarding his preference for the UG route.	Project provided the CSC address via email.	Yes
Suffield	6/17/09	Shawn Sorrow 2609 Mountain Rd	Direct Contact with Project	Owner has questions about clearing and construction impacts to property and any effects to grazing cattle. Also wants to know where monopole switches back to H-frames. Interested in knowing if he could plant corn and use the adjacent NU-owned property for pasture.	Project met with resident to discuss impacts of clearing and answered general questions. Project is in process of scheduling a meeting with property owner in September.	No
Suffield	6/30/09	Richard & Diane Legere 1204 Newgate Rd	Direct Contact with Project	Resident sent letter to Project on behalf of Citizens Against PH Power lines, containing many detailed questions.	Project suggested that, since Mr. Legere's group "Citizens Against Overhead Power Lines Construction" had become an intervenor in Docket 370, he should submit his questions as interrogatories in the proceeding. Mr. Legere replied that he would do so.	No
Suffield	6/30/09	Harry Wood 3165 Phelps Rd	Direct Contact with Project	Mr. Wood's attorney sent Project Mgr letter stating the Project caused damage to resident's driveway with heavy equipment.	The alleged damage to the driveway would have occurred a few years ago from CL&P re-conductoring project and not from GSRP. There are no signs of damage to the driveway. Contacted attorney with response.	Yes
Suffield	7/16/09	Bruce & Dorothy Milkick 1170 Newgate Rd	Field	Resident inquired about survey work being conducted on property and assisted crew through the fenced in area	None	No
Suffield	8/3/09	Chester McGurk 851 N. Stone Rd.	Field	Approached by field rep to gain access to property	Working on access solution with resident.	No
Suffield	8/3/09	Stanley Falkowski Lot 3, Colson St	Field	Resident approached field rep to inquire about work being done.	Resident informed of geotech surveys. No issues.	No

**Docket 370**  
**Response to Inquiries/Public Contacts**

Town	Date	Property Owner Name & Address	Type of Contact	Description of Contact	Resolution	Written Documentation
Suffield	8/3/09	William & Diane Kuras 1628 Ratley Rd	Field	Resident approached field crew to inquire about work being done and general Project questions.	Resident informed of archeological survey. No issues.	No

# Written Documentation: Town of Bloomfield

# YOUR COMMENTS, PLEASE

**THANK YOU FOR ATTENDING.** Please use this sheet to provide your comments. You can deposit it at one of the Comment stations or fill it out and mail it after you get home. We will convey your comments to your municipal official and state siting authority.

In what town do you reside? Bloomfield

**Your Comments:**

I am a friend of Carl Forster, an 85 year old farmer, who resides at 42 Tariffville Road in Bloomfield (24"x36")

Please send me a large-scale drawing (your page 1 of 1) titled "Bloomfield, Project Study Area Greater Springfield Reliability Project".

With the above requested drawing in hand, I will be able to share with Carl your proposed plan in its ROW that crosses a corner of his property

A 24" x 36" Cross-Section (XS-1) should accompany the above drawing.

Thank you!

David A. Lamenzo, 6/25/00

(SPOKE w/ Jim HOGAN, IF YOU HAVE QUESTIONS)

If you have a concern specific to your property, please provide us with your name and address. (See Above)

Name: David A. Lamenzo

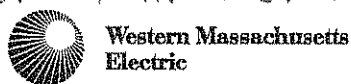
Address: 4 Maple Edge Drive

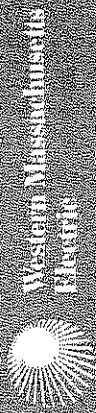
Bloomfield, CT 06002-1616

Tel: 860-242-7729

Thank You.

ALSO REQUESTED SHEET 10 OF 11 OF P & P  
RISK MAP 1 OF 10

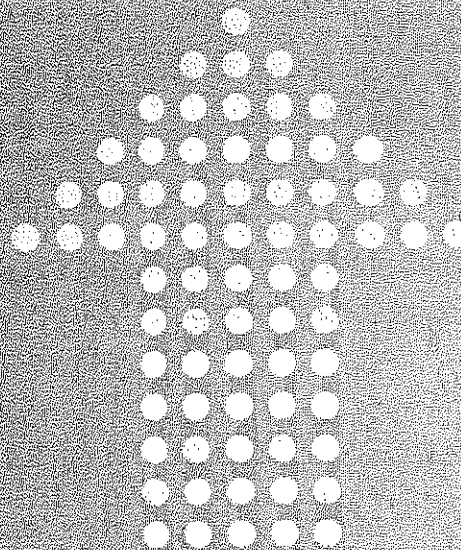




The Northeast Utilities System



Open House Survey



Northeast Utilities  
c/o NEEWS  
PO Box 270  
Hartford, CT 06141-0270

What did you find helpful about the open house?

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How might we improve the open house?

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# YOUR COMMENTS, PLEASE

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In what town do you reside? \_\_\_\_\_

Your Comments: His friend is speaking on his behalf

42 Talithville Broomfield

CARL ~~FOSTER~~ FOSTER

Need to protect the water - cows drink at

of here including stream -

with runoff the cows want drink the dirty water

If you have a concern specific to your property, please provide us with your name and address.

Name: \_\_\_\_\_

Address: \_\_\_\_\_

Thank You.

SCOTT is talking to him





Connecticut  
Light & Power

The Northeast Utilities System



Greater Springfield  
Reliability Project

July 15, 2008

Mayor Sydney T. Schulman  
Bloomfield Town Hall  
800 Bloomfield Avenue  
Bloomfield, CT 06002

**Re: Application of The Connecticut Light and Power Company ("CL&P" or the "Company")  
to the Connecticut Siting Council ("Council") Concerning the Connecticut Portion of the  
Greater Springfield Reliability Project ("Project")**

Dear Mayor Schulman,

As you are aware from my June 16, 2008 transmittal letter, you have an opportunity to send written comments on behalf of your town regarding CL&P's Municipal Consultation Filing for the Greater Springfield Reliability Project. To assist you in that effort, we will promptly forward any written comments that we receive directly from residents of your town. At a recent Open House held in East Granby, a Bloomfield resident provided us with the enclosed comments.

We look forward to receiving your comments and recommendations before the filing in September of a CL&P application to the Connecticut Siting Council, and of course, CL&P will share your response with the Council once it has submitted its application. Whether or not your town chooses to directly participate in the subsequent Council process on CL&P's application, your comments and recommendations will be "on the record" and will no doubt be addressed in questioning and testimony during the Council's public hearings.

Please also be advised that an expansion of CL&P's North Bloomfield Substation on Hoskins Road, Bloomfield is an element of the Greater Springfield Reliability Project for which CL&P will soon request a location review and approval by the Bloomfield Inland Wetlands and Watercourses Commission and by the Bloomfield Plan and Zoning Commission, pursuant to Section 16-50x(d) of the Connecticut General Statutes.

Very truly yours,

Robert E. Carberry, Project Manager  
NEEWS Siting and Permitting

# YOUR COMMENTS, PLEASE

**THANK YOU FOR ATTENDING.** Please use this sheet to provide your comments. You can deposit it at one of the Comment stations or fill it out and mail it after you get home. We will convey your comments to your municipal official and state siting authority.

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(24"x36")

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With the above requested drawing in hand, I will be able to share with Carl your proposed plan in its ROW that crosses a corner of his property.

A 24"x36" Cross-Section (XS-1) should accompany the above drawing.

Thank you!

David A. Lamenza, 6/25/08

(SPOKE w/ Jim HOGAN, IF YOU HAVE QUESTIONS)

If you have a concern specific to your property, please provide us with your name and address. (See Above)

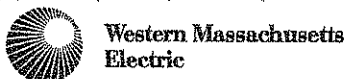
Name: David A. Lamenza

Address: 4 Maple Edge Drive  
Bloomfield, CT 06002-1616

Tel: 800-242-7729

Thank You.

ALSO REQUESTED SHEET 1 OF 11 OF P & P  
RWSR MAP 1 OF 10





Connecticut  
Light & Power



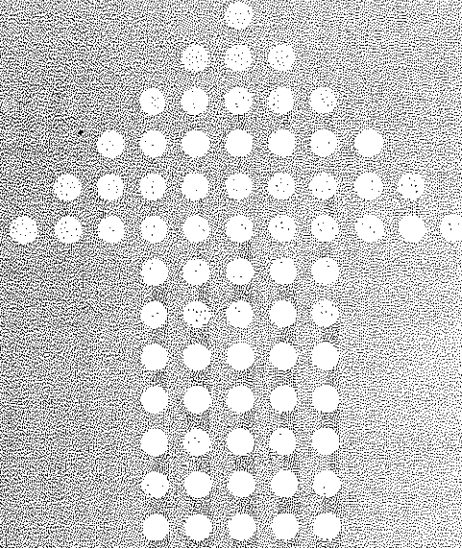
Western Massachusetts  
Electric



The Northeast Utilities System

NEW ENGLAND  
EAST WEST  
SOLUTION

Open House Survey



Northeast Utilities  
c/o NEEWS  
PO Box 270  
Hartford, CT 06141-0270

What did you find helpful about the open house?

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How might we improve the open house?

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In what town do you reside? \_\_\_\_\_

Your Comments:

His friend is speaking on his behalf

42 Tenthville Bloomfield

CARL ~~FOSTER~~ FOSTER

Need to protect the  
water - cows drink at

of here including stream -

with runoff the cows want drink  
the dirty water

If you have a concern specific to your property, please provide us with your name and address.

Name: \_\_\_\_\_

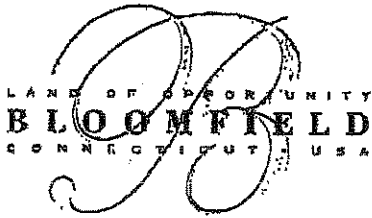
Address: \_\_\_\_\_

Thank You.

SCOTT is talking to him



Hooper 1 of 1



*Department of  
 Planning & Zoning*  
 TOWN OF BLOOMFIELD  
 800 BLOOMFIELD AVENUE  
 BLOOMFIELD  
 CONNECTICUT 06002  
 TEL 860.769.3515  
 FAX 860.769.3507

September 2, 2008

Mr. Jeffery M. Towle  
 Project Manager  
 Transmission Business -- Projects  
 Northeast Utilities Service Company  
 107 Seldon Street  
 Berlin, CT 06037

Dear Mr. Towle:

The Bloomfield Town Plan and Zoning Commission, at its regular meeting of August 28, 2008, reviewed the proposed North Bloomfield substation expansion as submitted August 7, 2008. It was the consensus of the Commission that this expansion was necessary and that since the facility had existed at the present location for over 50 years, the use would not be a detriment to the surrounding residential neighbors. In general, the Commission supported the plan as it would improve the service and reliability provided by Northeast Utilities to Bloomfield and the surrounding region.

The Commission also commended your organization for working with one neighbor in particular who had expressed concerns regarding your proposed expansion. Please continue to work with this person as the project moves forward.

Please feel free to contact me should you have any questions on this matter.

Sincerely,

*Thomas B. Hooper*  
 Thomas B. Hooper, AICP  
 Director of Planning

CC: Marianne Barbino Dubuque

Pearlson 10A1

**From:** Godfrey Pearlson [mailto:Gpearls@harthosp.org]  
**Sent:** Wednesday, September 24, 2008 10:12 AM  
**To:** Kranich, Elise  
**Subject:** Re: Greater Springfield Reliability Project Maps (requested)

Thanks- this was very helpful.  
GP

>>> "Kranich, Elise" <eckranich@burnsmcd.com> 9/23/2008 1:29 PM >>>

Good afternoon,

On behalf of the Greater Springfield Reliability Project, thank you again for your interest in the Project.

As we discussed on the phone, I have attached the maps from the Municipal Consultation Filing, a copy of which may be found in Bloomfield's town library. Also attached is an aerial photograph of your home in relation to the Project and the existing transmission lines. As our design is preliminary, please be aware that these structures and figures are subject to change as a result of the Connecticut Siting Council Process.

If you have any additional questions, please feel free to contact me directly.

Sincerely,  
Elise

Elise C. Kranich  
Community Relations Representative for Northeast Utilities  
203.949.2313 (office)

NEW ENGLAND  
EAST ⊕ WEST  
SOLUTION



**Connecticut  
Light & Power**  
The Northeast Utilities System



Greater Springfield  
Reliability Project

October 20, 2008

Bloomfield Town Council  
Bloomfield Town Hall  
800 Bloomfield Avenue  
Bloomfield, CT 06002

**Re: Proposal to construct the Greater Springfield Reliability Project; Response to Questions from the Town Council Meeting**

Dear Council Members,

Thank you for allowing us to address your Council on September 22, 2008. We trust that the meeting was informative and that it provided you with a sufficient level of detail and understanding of the Greater Springfield Reliability Project (GSRP), one of four major transmission projects designed to improve the reliability of the transmission system in southern New England.

As we discussed, the primary purpose of the GSRP is to strengthen the reliability of the New England grid. While the Project will also bring certain economic and environmental benefits to the areas it is being proposed, its primary purpose is to make sure the power can move reliably across the New England transmission system.

Several questions were raised during this meeting that required follow-up. For ease of reference, we have restated the question and provided a response below.

**Q: What are the advantages to leaving the existing structures in place?**

**A:** Once the GSRP is complete and the 115-kV line sections between North Bloomfield Substation and Granby Junction are removed from service, CL&P will follow internal procedures to determine whether either line can be removed. At that time, CL&P will consult with its transmission system planners and local distribution system planners to determine if there is potential near-future use for the idle line sections. In some places on the NU transmission system, former transmission lines now serve as distribution lines or remain in place for a transmission emergency or a line-construction-assistance use. If no such uses are foreseeable following the completion of the Project, and if no adverse environmental impacts will be caused by line-removal activities, CL&P will make plans to remove the idle line conductors and structures.

Currently, CL&P is producing post-construction, line-removal plans for the Middletown/Norwalk Transmission Project and another idle line (former 115-kV line) has recently been removed between Montville and East Haddam, Connecticut. Before undertaking such idle line removals, CL&P must petition to the Connecticut Siting Council for a declaratory ruling that the line removal will cause no significant adverse environmental effects.

Council, 2 of 2



Connecticut  
Light & Power

The Northeast Utilities System



Greater Springfield  
Reliability Project

**Q: How can Bloomfield be secure in knowing the Project will be conducted in a responsible manner?**

**A:** Please be assured that all project work will be conducted in a professional and courteous manner, and in a way that is always respectful of the people and properties affected by our projects. In addition, there are numerous state and federal agencies, such as the Army Corp of Engineering, the Connecticut Siting Council and the Department of Environmental Protection, who provide oversight and inspections during and following construction to assure compliance with issued permits.

If you would like to talk to a town representative where CL&P project work has recently been completed, I encourage you to contact Marcia Banach, South Windsor Director of Planning at the information provided below.

Marcia A. Banach  
Director of Planning  
1540 Sullivan Avenue  
South Windsor, CT 06074  
860-644-2511 ext 253  
marcia.banach@southwindsor.org

As requested, I have provided you with the attached project map. As our design is preliminary, please be aware that these structures and figures are subject to change as a result of the Connecticut Siting Council process.

I hope my responses have addressed your questions and concerns. I welcome your feedback and encourage your town to take an active part in the siting process. Should you have any additional questions, please do not hesitate to contact me at 860-665-3962.

Sincerely,

Jeffrey Towle  
Project Manager – Greater Springfield Reliability Project

c: Marcia Banach - Director of Planning, Town of South Windsor

Attachment



Connecticut  
Light & Power  
The Northeast Utilities System



Greater Springfield  
Reliability Project

December 5, 2008

Mr. David Lamenzo  
4 Maple Edge Drive  
Bloomfield, CT 06002

Dear Mr. Lamenzo,

Thank you again for your questions regarding the Greater Springfield Reliability Project (GSRP), one of the four New England East-West Solution (NEEWS) transmission projects designed to improve the reliability of the transmission system in southern New England.

As requested, enclosed is an aerial photograph of Mr. Forster's property located at 44 Tariffville Road in Bloomfield, CT. This photograph shows the intended structure locations in the right-of-way. Please be aware that according to this design, the new line's alignment will remain the same (i.e., centerline of the structures will be offset 75 feet from the existing structures) which means new conductor locations and clearing impacts will not change. The proposed structure changes shown in the attachment may also not necessarily eliminate all impacts to Mr. Forster's property as the edge of the crane pad may fall within his property. A permanent gravel crane pad (up to 100 feet x 100 feet) will be constructed to support equipment used in the installation of the new structure. Lastly, please be aware our design is preliminary and the line designs are subject to change as a result of the Connecticut Siting Council Process.

I hope this response has addressed your questions and concerns. If you have additional questions or concerns, please feel free to contact the Project Hotline at 1-866-99-NEEWS (3397).

Sincerely,

A handwritten signature in black ink, appearing to read "Jeffrey Towle".

Jeffrey Towle  
Project Manager

Cc: Mr. Carl Forster  
44 Tariffville Road  
Bloomfield, CT

# Written Documentation: Town of East Granby



(Pelletier 1 of 3)

Emailed Contact Form:  
To : CTTransmission  
Form information follows:

SUBJECT: NU Transmission - General Contact Form

URL: /forms/transmission/contact.asp

FName: Edward

LName: Pellettier

Company:

Title:

FROM: lpelle@cox.net

Phone: 860-844-8918

FAX:

Address: 196 Newgate Rd.

(Letter 2 of 3)

City: East Granby

State: Connecticut

Zip: 06026

Comments: I am an East Granby Ct. resident residing at 196 Newgate Rd. Through my property N.U. owns a right of way where a 115KV transmission line runs within 60ft. of my home. As part of the Greater Springfield Reliability Project, does N.U. propose to replace this line with a 345KV line? If so would the plan be to put this part of the line underground?

to: CTTransmission@nu.com

(Pelletier 3 of 3)

---

**From:** Newland, Scott  
**Sent:** Sunday, December 02, 2007 10:33 PM  
**To:** lpelle@cox.net  
**Cc:** hopkit@nu.com; sheaka@nu.com; Kranich, Elise; Fan, Jerry  
**Subject:** 196 Newgate Road Question - GSRP

Dear Mr. Pelletier,

Thank you for your inquiry concerning the Greater Springfield Reliability Project. The project will not involve the replacement of the existing 115-kv line that passes by your home. Rather, that line will be left in place. CL&P plans to construct the new 345-kV line to the east of the existing 115-kV line, within the same right-of-way. Thus, the existing 115-kV line would be between your home and the new 345-kV line.

CL&P is in the process of designing its proposal now and expects to provide a detailed report concerning the project to the chief elected officials of all of the municipalities along the route in early 2008, and to provide further information at "Open Houses" in each of these towns following publication of the report. In the meantime, if you have any further questions about the Project, please do not hesitate to call 1-866-996-3397.

Scott E. Newland, P.E.  
Program Manager  
35 Thorpe Avenue, Suite 201  
Wallingford, CT 06492  
(203) 949-2351  
(816) 509-4144 (mobile)

----- Forwarded by Matthew R. Pelletier/NUS on 06/18/2008 09:42 AM -----

<makrammen@cox.net>

To

NEEWGroupMailbox@NU

06/09/2008 02:44

Subject

Greater Springfield Reliability Project Questions

I received a flyer in the mail concerning the Greater Springfield Reliability Project. I live near the current (I guess 115 kV line) in East Granby. I have a few questions I would like answered:

- 1) What do the 345 kV supporting structures and lines look like compared to the current (115 kV) supporting structures and lines?
- 2) When the new, 345 kV lines are put in, what construction will occur? Will the current corridor be expanded in any way?
- 3) Will the 345 kV supporting structures and lines replace the current 115 kV supporting structures and lines? Or, will we have another set of supporting structures and lines running along the same corridor?
- 4) What will change in terms of the impact of lightning strikes or downed lines with the 345 kV supporting structures and lines compared to what we have come to expect with the current 115 kV supporting structures and lines?
- 5) Right now we have nice walking/biking trails along the corridor. Will the trails or their access change in any way with the 345 kV supporting structures and lines compared to the current 115 kV supporting structures and lines?
- 6) The current 115 kV lines are suspended over the Farmington River near the Tariffville Gorge area. Will the 345 kV lines be suspended over the Farmington the same way? Will there be any differences in how the lines cross the river?
- 7) There are lots of diverse wildlife species along the current 115 kV corridor. What will be the impact on the wildlife species due to the construction of the 345 kV supporting structures and lines? What will be the eventual impact on the wildlife species in the corridor once construction is completed?

Thanks for your attention. Although it may sound like I am against the project from the details of my questions, I am really only looking to be informed.

---

**From:** Kranich, Elise  
**Sent:** Monday, June 30, 2008 2:12 PM  
**To:** 'towlejm@nu.com'; Newland, Scott; 'hopkit@nu.com'; 'galliml@nu.com'; Fan, Jerry; Williams, Paul; Eckenroth, Lorraine; Bandzes, Patricia  
**Subject:** FYI Only - East Granby Email Inquiry - Closed

FYI

Following customer inquiry protocol, this gentleman's questions have been answered and sent to him today. No action items remain. Please see below for specifics.

Thanks,

Elise C. Kranich  
Burns & McDonnell  
203.949.2313 (office)  
860.209.2438 (mobile)

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**From:** Kranich, Elise  
**Sent:** Monday, June 30, 2008 2:09 PM  
**To:** 'makrammen@cox.net'  
**Subject:** Greater Springfield Reliability Project

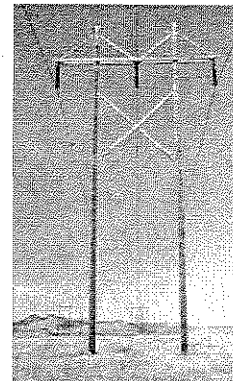
Dear Mr. Krammen,

Thank you very much for writing to the NEEWS Project inbox and attending our NEEWS Open House session. We appreciate your interest in the Project and the opportunity to answer your questions. Please see the answers to your questions below and contact me with any additional questions.

---

1) What do the 345 kV supporting structures and lines look like compared to the current (115 kV) supporting structures and lines?

Within East Granby, the proposed 345-kV lines will typically be supported by H-Frames (see photo), approximately 95 feet high. The height is dependent upon the existing grade, design parameters, pole type and line configuration. A single 345-kV circuit is proposed. Within East Granby the existing 115-kV lines within the proposed corridor are currently on steel lattice towers. Two circuits are currently located on the lattice towers. The 115-kV lattice towers are approximately 75 feet high. The height is dependent upon the existing grade, design parameters, pole type and line configuration.



2) When the new, 345 kV lines are put in, what construction will occur? Will the current corridor be expanded in any way?

The typical construction sequence is ROW clearing, construction of access roads, foundation drilling, construction of the foundations, structure setting, conductor stringing, and site restoration. The tasks above are sequential but not continuous. In the East Granby area, while the existing ROW is large enough to accommodate the new 345kV line, the existing ROW is not fully cleared. The ROW will need to be cleared an additional 125 feet to accommodate the new 345kV H-Frame structures.

3) Will the 345 kV supporting structures and lines replace the current 115 kV supporting structures and lines? Or, will we have another set of supporting structures and lines running along the same corridor?

**This will be a new set of lines alongside the existing structures. The existing structures will not be removed.**

4) What will change in terms of the impact of lightning strikes or downed lines with the 345 kV supporting structures and lines compared to what we have come to expect with the current 115 kV supporting structures and lines?

**Since the proposed H-Frame structures will be about the same height as the existing 115kV lattice structures, we do not expect a significant increase in the lightning strikes along the corridor. The new structures will not act as lightning rods protecting the surrounding area.**

5) Right now we have nice walking/biking trails along the corridor. Will the trails or their access change in any way with the 345 kV supporting structures and lines compared to the current 115 kV supporting structures and lines?

**During construction, the access roads into and along the ROW will have to be modified to accommodate the heavy equipment used during construction. After construction is finished, the access roads that remain will be maintained to a level that allows equipment to move along the ROW. While the actual location of the roads may change, the level of access will remain the same. Please be advised that the transmission line ROW is considered private property, because it is an easement, which is on property privately owned by others, so NU/CL&P cannot give public access permission to the transmission corridor.**

6) The current 115 kV lines are suspended over the Farmington River near the Tariffville Gorge area. Will the 345 kV lines be suspended over the Farmington the same way? Will there be any differences in how the lines cross the river?

**The existing 115-kV structures will not change. The Farmington River crossing span will be the same as the cross section in this area, an H-frame with an expected height of 80 to 90 feet is expected to be utilized. The conductor clearance over the river will meet or exceed the existing 115-kV span.**

7) There are lots of diverse wildlife species along the current 115 kV corridor. What will be the impact on the wildlife species due to the construction of the 345 kV supporting structures and lines? What will be the eventual impact on the wildlife species in the corridor once construction is completed?

**Preconstruction studies and designs are completed to minimize impacts to existing wetlands and wildlife species. Within East Granby, temporary and some permanent disruption will occur during construction of the transmission line. Generally many of the questions above and other questions are answered in more depth in the MCF. The MCF is located in the East Granby Library.**

Again, please contact me with any further questions.

Krammen 4 of 4

Best regards,

Elise C. Kranich  
Community Relations  
New England East-West Solution Project  
203.284.8590 ext) 502

NEW ENGLAND  
EAST  WEST  
SOLUTION

# YOUR COMMENTS, PLEASE

THANK YOU FOR ATTENDING. Please use this sheet to provide your comments. You can deposit it at one of the Comment stations or fill it out and mail it after you get home. We will convey your comments to your municipal official and state siting authority.

In what town do you reside? East Granby

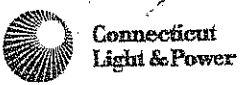
Your Comments:  
The Open House NEEWS presentation by representatives and their laptops did clearly define the proposed 345KV power line route. The additional information that addressed related general concerns was most helpful.

If you have a concern specific to your property, please provide us with your name and address.

Name: \_\_\_\_\_

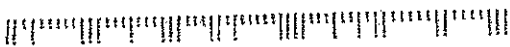
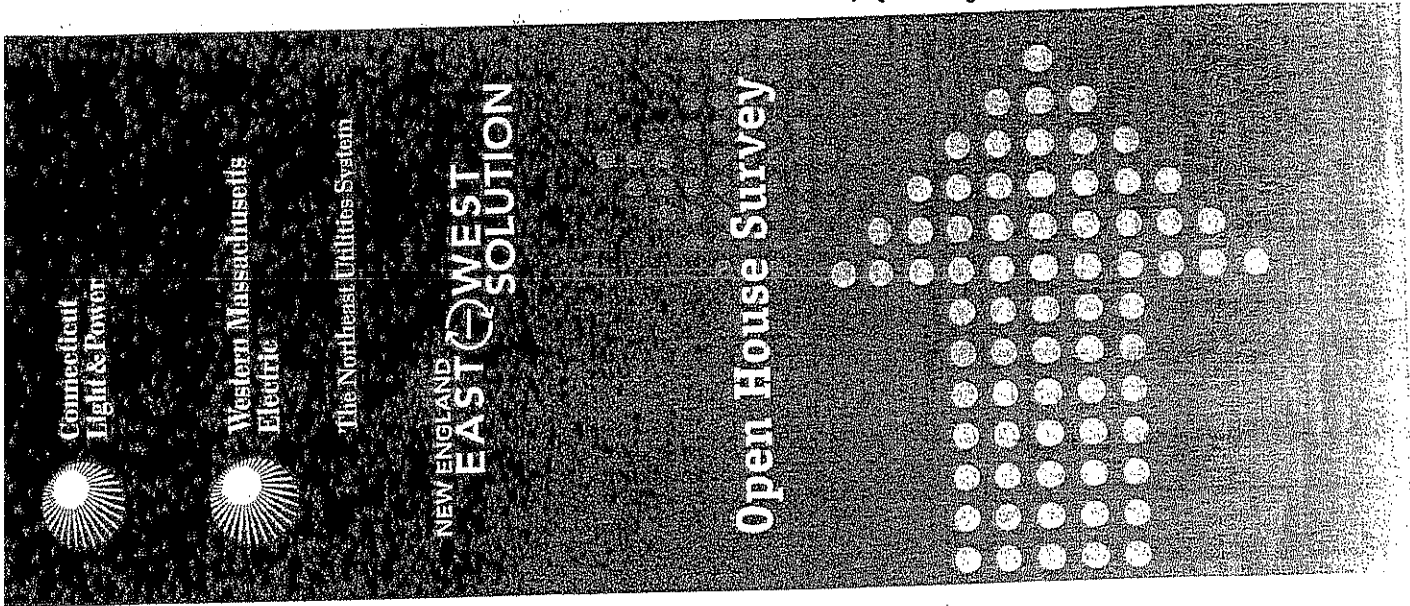
Address: \_\_\_\_\_

Thank You.





Anonymous 2092



06141+0270 8001

Northeast Utilities  
 c/o NEEWS  
 PO Box 270  
 Hartford, CT 06141-0270



What did you find helpful about the open house?

*Instead of a long drawn out speech - there was an ample amount of displays, videos, printed information available to cover the overall range of subjects. The representatives in all areas were eager to provide information, and answer any and all questions!*

How might we improve the open house?

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# YOUR COMMENTS, PLEASE

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In what town do you reside? East Granby

Your Comments:

WHAT ARE NUG'S INTENTIONS W/ RESPECT TO TARRIFFVILLE  
DAM AREA LAND USAGE? IN PARTICULAR, WHAT IS FEEDBACK  
W/RT WIND? SEEMC IN THIS AREA?

If you have a concern specific to your property, please provide us with your name and address.

Name: MIKE KRAMMEN  
Address: 28 WINDING HILLS, EAST GRANBY 06026

Thank You.



# YOUR COMMENTS, PLEASE

THANK YOU FOR ATTENDING. Please use this sheet to provide your comments. You can deposit it at one of the Comment stations or fill it out and mail it after you get home. We will convey your comments to your municipal official and state siting authority.

In what town do you reside? EAST GRANBY - 6/25/08

Your Comments:

Environmental Impact to existing forest - How wide  
A swath? Re-forest?

How tall will lines be? above ground? - visual impact?

Compensation for decrease in value of property?

What is the effect of the electromagnetic fields?  
how far?

If you have a concern specific to your property, please provide us with your name and address.

Name: Robert Brown

Address: 2 WYNCAIRNE DRIVE - EAST GRANBY

Thank You.

**From:** Kranich, Elise  
**Sent:** Thursday, September 11, 2008 10:04 AM  
**To:** 'Robert.Brown@po.state.ct.us'  
**Subject:** NEEWS Project Inquiry

Good morning Mr. Brown,  
It was very nice to speak to you the other day. On behalf of the Project team, I would like to thank you again for your interest in the Greater Springfield Reliability Project, one of the four NEEWS transmission projects.

As we discussed, I have attached the requested drawings from the Municipal Consultation Filing (MCF) (which may be found in the East Granby Public Library or online at [www.neewsprojects.com](http://www.neewsprojects.com)) of the underground variation route going through Suffield and East Granby.

If you have additional questions, please contact me directly.

Sincerely,

Elise C. Kranich  
Burns & McDonnell  
203.949.2313 (office)

NEW ENGLAND  
EAST  WEST  
SOLUTION

**From:** Kranich, Elise  
**Sent:** Thursday, September 11, 2008 11:46 AM  
**To:** 'Brown, Robert P.'  
**Subject:** RE: NEEWS Project Inquiry

Hi Robert,  
I am very happy the meeting went well. It's great to hear it was so well attended.

Regarding the maps, I believe this attachment from the MCF may be useful regarding Wyncairne.

Please let me know if you have anymore questions or concerns.  
Thanks again.

Sincerely,  
Elise  
203.949.2313

---

**From:** Brown, Robert P. [mailto:Robert.Brown@po.state.ct.us]  
**Sent:** Thursday, September 11, 2008 10:15 AM  
**To:** Kranich, Elise  
**Subject:** RE: NEEWS Project Inquiry

Elise; Thank you for the information. The map I am looking for is to the north on Newgate. I am on Wyncairne Drive which is just south of the Suffield line. I don't know what you have heard but last night's meeting was well attended and the discussion never got out of hand. It was a very good presentation and follow up. Thanks, B.Brown

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**From:** Kranich, Elise [mailto:eckranich@burnsmcd.com]  
**Sent:** Thursday, September 11, 2008 10:04 AM  
**To:** Robert.Brown@po.state.ct.us  
**Subject:** NEEWS Project Inquiry

Brown-4 of 4

**From:** Brown, Robert P. [mailto:Robert.Brown@po.state.ct.us]  
**Sent:** Thursday, September 11, 2008 12:44 PM  
**To:** Kranich, Elise  
**Subject:** RE: NEEWS Project Inquiry

Thanks Elise. I appreciate this .

CONNECTICUT GENERAL ASSEMBLY



REPRESENTATIVE RICHARD F. FERRARI

TELEPHONE  
HOME: (860) 659-2691  
CAPITOL: (860) 240-8700  
1-800-842-1423

62ND ASSEMBLY DISTRICT  
9 CARRIAGE LANE  
EAST GRANBY, CT 06026  
E-mail: Richard.Ferrari@housegop.state.ct.us

NEW ENGLAND  
EAST WEST  
SOLUTION

PLEASE

This sheet to provide your comments. You can deposit it at one  
mail it after you get home. We will convey your comments to  
authority.

In what town...

Your Comments:

wants copy of all comments - along  
w/ John Selectma

-KATHY SHEN

If you have a concern specific to your property, please provide us with your name and address.

Name: \_\_\_\_\_

Address: \_\_\_\_\_

Thank You.



Connecticut  
Light & Power



Western Massachusetts  
Electric



# YOUR COMMENTS, PLEASE

THANK YOU FOR ATTENDING. Please use this sheet to provide your comments. You can deposit it at one of the Comment stations or fill it out and mail it after you get home. We will convey your comments to your municipal official and state siting authority.

In what town do you reside? EAST GRANBY, CONNECTICUT

Your Comments:

THE PRESENTATIONS WERE WELL ORGANIZED AND INFORMATIVE. THE PERSONNEL INVOLVED WITH THESE PRESENTATIONS WERE KNOWLEDGEABLE, HELPFUL AND LISTENED TO YOUR QUESTIONS. THIS PROVIDED A GOOD EXCHANGE OF INFORMATION.

THE PROPOSED EXTENSION AND ROUTINE OF THE POWER LINES DO NOT AFFECT ME DIRECTLY. MY INTEREST WAS TO BE INFORMED AND GAIN KNOWLEDGE.

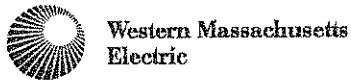
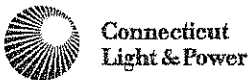


~~If you have a concern specific to your property, please provide us with your name and address.~~

Name: J. Rusnock

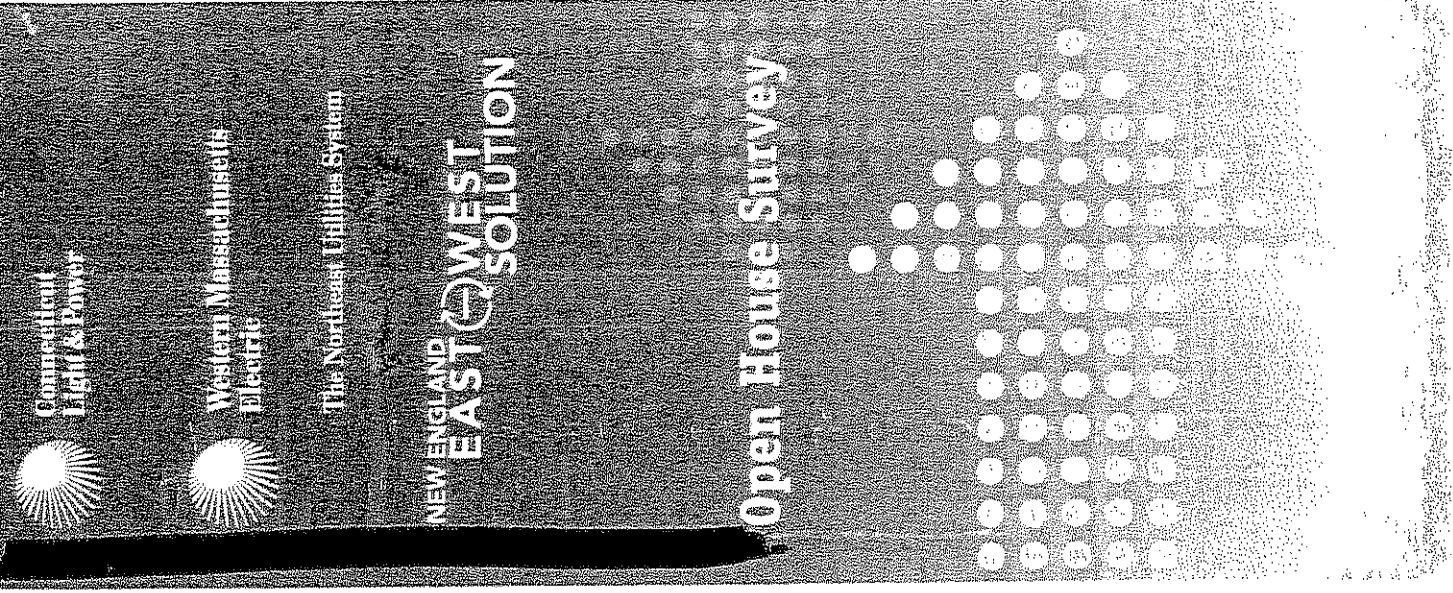
Address: 7 TUCKAHOE ROAD EAST GRANBY CONN 0602

Thank You.





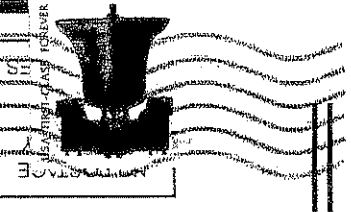
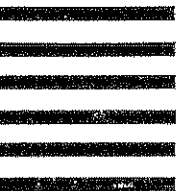
RUSNOCK 2 of 2



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Northeast Utilities  
c/o NEEWS  
PO Box 270  
Hartford, CT 06141-0270

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HARTFORD CT 061  
03 JUL 2008 PM 2 T

What did you find helpful about the open house?

THE ORGANIZATION - PRESENTATION - HANDOUTS

How might we improve the open house?

ELIMINATE THE PLASTIC BAGS - USE PAPER OR REUSABLE CANVAS BAGS GO GREEN !!

# YOUR COMMENTS, PLEASE

**THANK YOU FOR ATTENDING.** Please use this sheet to provide your comments. You can deposit it at one of the Comment stations or fill it out and mail it after you get home. We will convey your comments to your municipal official and state siting authority.

In what town do you reside? EAST GRANBY 196 NEWGATE RD

Your Comments:

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If you have a concern specific to your property, please provide us with your name and address.

Name: \_\_\_\_\_

Address: \_\_\_\_\_

Thank You.



July 7, 2008

Edward and Lori Pellettier  
196 Newgate Road  
East Granby, CT 06026  
860-844-8918

Dear Northeast Utilities,

First, Let me express my displeasure that Northeast Utilities is proposing adding an additional high power line directly behind my house in full view. My wife and I purchased our home five years ago with an existing 115kv tower within 50 feet of our home. Never did we dream at that time an additional high voltage line would be added to the existing right of way. We thought if anything, the existing line might be replaced.

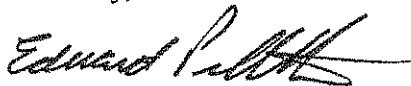
Our concerns are these:

- Health, due to the new lines being within 75 feet of our house, at three times the existing voltage, along with the other existing tower 50 feet from the our house.
- Aesthetic, due to the widening of the clearing from 50 ft to 150 ft, and the addition of a new tower directly adjacent to the old tower.
- Re-sale value, the additional tower, lines and the clearing of the trees will have a definite impact on the value of our home. Noise emanating from the lines will have an impact as well
- Drainage is also an issue. There is already a known drainage issue to the Town of East Granby between my home and that of our neighbor at 198 Newgate Road. During the winter, water flows from the right of way behind our homes and bisects our property creating erosion and then freezes inches thick on the roadway creating an extremely hazardous situation. The clearing of an additional 100 feet of vegetation buffer for the right of way will only exasperate this further.

We support and fully endorse the underground alternative under Newgate Road. This alternative can be made even shorter by re-entering the right of way at the junction of Newgate and Copper Hill Roads. The power line could then come back above ground at a location past Country Club Lane at a transition station that could be built in the Newgate Wildlife Management area. The overall distance could be cut from 5.6 miles to 3.5 miles making this alternative cheaper and hopefully more palatable to all.

We have also enclosed photos of our home to include the existing tower and high voltage lines. We would encourage further discussion on the subject with Town of East Granby elected officials and those employees and or contactors of Northeast Utilities.

Sincerely,



Edward Pellettier



Pelletier 4 of 4



From: Kranich, Elise  
Sent: Tuesday, July 08, 2008 8:15 AM  
To: 'sheaka@nu.com'; 'toweljm@nu.com'; 'hopkit@nu.com';  
'galliml@nu.com'; Newland, Scott; Fan, Jerry; 'carbereg@nu.com'; Bandzes,  
Patricia; Eckenroth, Lorraine  
Subject: FW: A resident with a NEEWS request

Team,  
This inquiry came into the NEEWS mailbox yesterday afternoon. Mr. Posson copied the  
I will call this gentleman and acknowledge his inquiry and let him know that we will

Thanks,  
Elise

----- Forwarded by Frank J. Poirot/NUS on 07/07/2008 03:28 PM -----  
Contact

Entered by: nposson on 07/07/2008 02:33:13 PM Emailed Contact Form:  
To : CTTransmission  
Form information follows:

SUBJECT: NU Transmission - General Contact Form

FName: Noel

LName: Posson

FROM: nposson@travelers.com

Phone: 860-922-5246

Address: 212 Newgate Road

City: East Granby

State: CT

Zip: 06026

Comments: To Anyone That Can Help Me and My Family,

In regards to the articles below, note that I missed the CL&P informational session  
"...Poirot said the project can be altered based on input from property owners and tow

This plan could be a very big deal to me. I just bought a house on Newgate Road in  
levels [under 3 as I recall (at least from what my research has found, although ther  
Regardless, now that the power lines could be carrying three times as much power, th

Secondly, and less important than my children's health, if the voltage increases and

How do I get help? Who can either alleviate my concerns with further education or s

Thanks and Best Regards,  
Noel Posson

Mr. Noel K. Posson  
212 Newgate Road  
East Granby, CT 0602  
(860)-922-5246 cell



## MEETING MINUTES/ NOTES

### Greater Springfield Reliability Project

**MEETING DATE:** August 14, 2008 at Posson residence, 2 p.m.

**ATTENDING:**

NU: Bob Carberry

BMcD: Paul Williams

Others: Noel and Talina Posson, 212 Newgate Road, East Granby, CT

**MEETING  
PURPOSE/OBJECTIVES**

- Respond to questions from an abutter who did not attend the open house.

**DISCUSSION**

- Paul Williams displayed (and left) aerial photos of the Posson's property in relation to the CL&P ROW and lines.
- The Posson's indicated that they do not have much of an aesthetic concern re: the project, but they have EMF and property value concerns.
- Mr. Posson prefers that the new line be located at least 500 yards away from his home, suggesting that there was town- or state-owned land up the mountain we could use to do so.
- The Posson's bought their property a little less than one year ago, and used a home inspection service which included MF measurements. They have a baby, perhaps also another young child.
- Mr. Posson indicated that this was a "dream home" purchase for them, and a good deal—they acquired the property for \$315K and knew that the previous owner had paid \$385K. This may have been a foreclosure-related circumstance.
- Bob Carberry measured 0.7 mG at the kitchen table.
- Mr. Posson wants no increase in MF levels on his property, the rear of which includes as much as 100 feet of the CL&P ROW.
- Mr. Posson stated his belief that policy regarding EMF, in the face of the uncertainty he sees in the literature he has read to date, should be to err on the side of extreme caution.
- Mr. Posson called himself a NIMBY, based on his EMF concerns, and based on the suggestions of high property value loss he is hearing from the No Power Towers group.
- Bob Carberry gave Mr. Posson a copy of the CSC's EMF BMPs.
- Bob Carberry suggested to Mr. Posson that there were property value studies which as a group would suggest little to no property value loss owing to new line construction like CL&P is proposing.
- Mr. Posson indicated he has not received any mailing on the project. Paul Williams will follow up with Elise Kranich to verify he is on the abutter mailing list.

**QUESTIONS**

- The Posson's indicated that they would like CL&P to take some magnetic field measurements on their property. Because of another appointment, we offered to return to do so, and asked her to contact Elise Kranich to make the arrangements.

**SUPPORT / OPPOSE**

- Owing to the proximity of the proposed new overhead line to their home, albeit further away than the existing 115-kV line, the Posson's are opposed to the project.

**ACTION ITEMS**

Action Items	Owner	Due Date	Comments
Paul Williams to arrange for brochure mailing	Paul Williams	8/19/08	





Connecticut  
Light & Power  
The Northeast Utilities System



Greater Springfield  
Reliability Project

July 11, 2008

First Selectman James M. Hayden  
Town Hall  
9 Center Street  
East Granby, CT 06026

**Re: Application of The Connecticut Light and Power Company ("CL&P" or the "Company") to the Connecticut Siting Council ("Council") Concerning the Connecticut Portion of the Greater Springfield Reliability Project ("Project")**

Dear First Selectman Hayden,

On behalf of myself and our Project Manager, Mr. Jeffrey Towle, thank you for allowing us to help you communicate the Greater Springfield Reliability Project to your town using the open house format. We hope you were satisfied with the information and approach we put together.

At the open houses, we provided a form for attendees to leave us their written comments, or to subsequently send comments by mail. As part of the siting process, you have an opportunity to send written comments on CL&P's Municipal Consultation Filing on behalf of your town. To assist you in that effort, we are hereby forwarding to you copies of the comment forms we have received to date from residents of your town. If we receive more such comment forms in the coming weeks, I will forward copies of those to you as well.

We look forward to receiving your comments and recommendations before the filing in September of a CL&P application to the Connecticut Siting Council, and of course, CL&P will share your response with the Council once it has submitted its application. Whether or not your town chooses to directly participate in the subsequent Council process on CL&P's application, your comments and recommendations will be "on the record" and will no doubt be addressed in questioning and testimony during the Council's public hearings.

Very truly yours,

Robert E. Carberry, Project Manager  
NEEWS Siting and Permitting

# YOUR COMMENTS, PLEASE

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In what town do you reside? East Granby

Your Comments:

*The Open House NEEWS presentation by representatives and their display did clearly define the proposed 345 KV power line route. The additional information that addressed related general concerns was most helpful.*

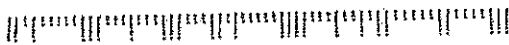
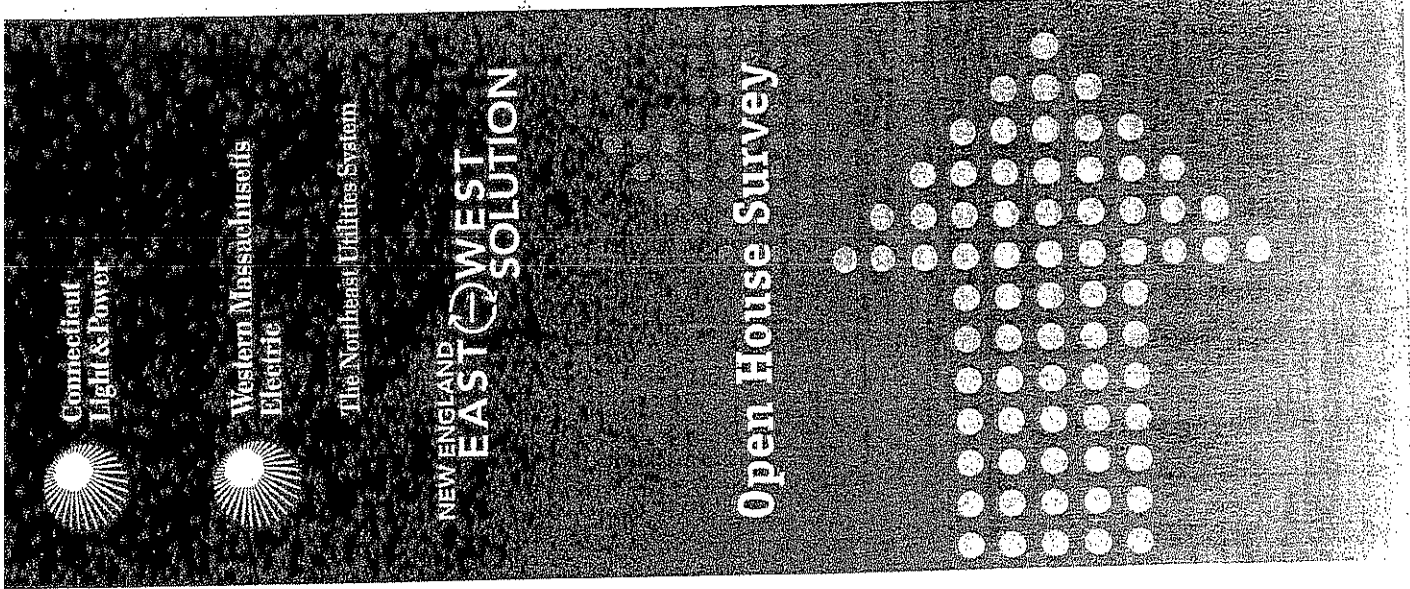
If you have a concern specific to your property, please provide us with your name and address.

Name: \_\_\_\_\_

Address: \_\_\_\_\_

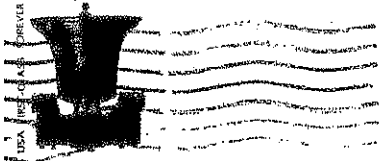
Thank You.





06141+0270 8001

Northeast Utilities  
 c/o NEWS  
 PO Box 270  
 Hartford, CT 06141-0270



What did you find helpful about the open house?

*Instead of a long drawn out speech - there was an ample amount of displays, videos, printed information available to cover the overall range of subjects. The representatives in all areas were eager to provide information, and answer any and all questions!*

How might we improve the open house?

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DAM AREA LAND USAGE? IN PARTICULAR, WHAT IS FEEDBACK  
WRT WIND? SCENIC IN THIS AREA?

If you have a concern specific to your property, please provide us with your name and address.

Name: MIKE KRAMMEN  
Address: 28 WINDING HILLS, EAST GRANBY 06026

Thank You.



# YOUR COMMENTS, PLEASE

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Your Comments:

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How tall will lines be? above ground - visual impact?

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What is the effect of the electromagnetic fields?  
how far?

If you have a concern specific to your property, please provide us with your name and address.

Name: Robert Brown

Address: 2 WINDMILL DRIVE - EAST GRANBY

Thank You.



CONNECTICUT GENERAL ASSEMBLY



REPRESENTATIVE RICHARD F. FERRARI

TELEPHONE  
HOME: (860) 652-2691  
CAPITOL: (860) 240-8700  
1-800-642-1423

62ND ASSEMBLY DISTRICT  
9 CARRIAGE LANE  
EAST GRANBY, CT 06026

E-mail: Richard.Ferrari@house.gop.state.ct.us



Use this sheet to provide your comments. You can deposit it at one  
mail it after you get home. We will convey your comments to  
authority.

In what town...

Your Comments:

Plants copy of all comments - along  
w/ Turkin Selectma

-KATHY Sheen

If you have a concern specific to your property, please provide us with your name and address.

Name: \_\_\_\_\_

Address: \_\_\_\_\_

Thank You.





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In what town do you reside? EAST GRANBY 196 NEWGATE RD

**Your Comments:**

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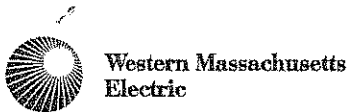
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Name: \_\_\_\_\_

Address: \_\_\_\_\_

Thank You.



July 7, 2008

Edward and Lori Pellettier  
196 Newgate Road  
East Granby, CT 06026  
860-844-8918

Dear Northeast Utilities,

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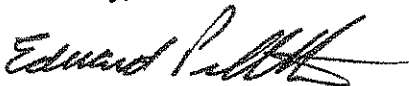
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- Aesthetic, due to the widening of the clearing from 50 ft to 150 ft, and the addition of a new tower directly adjacent to the old tower.
- Re-sale value, the additional tower, lines and the clearing of the trees will have a definite impact on the value of our home. Noise emanating from the lines will have an impact as well
- Drainage is also an issue. There is already a known drainage issue to the Town of East Granby between my home and that of our neighbor at 198 Newgate Road. During the winter, water flows from the right of way behind our homes and bisects our property creating erosion and then freezes inches thick on the roadway creating an extremely hazardous situation. The clearing of an additional 100 feet of vegetation buffer for the right of way will only exasperate this further.

We support and fully endorse the underground alternative under Newgate Road. This alternative can be made even shorter by re-entering the right of way at the junction of Newgate and Copper Hill Roads. The power line could then come back above ground at a location past Country Club Lane at a transition station that could be built in the Newgate Wildlife Management area. The overall distance could be cut from 5.6 miles to 3.5 miles making this alternative cheaper and hopefully more palatable to all.

We have also enclosed photos of our home to include the existing tower and high voltage lines. We would encourage further discussion on the subject with Town of East Granby elected officials and those employees and or contactors of Northeast Utilities.

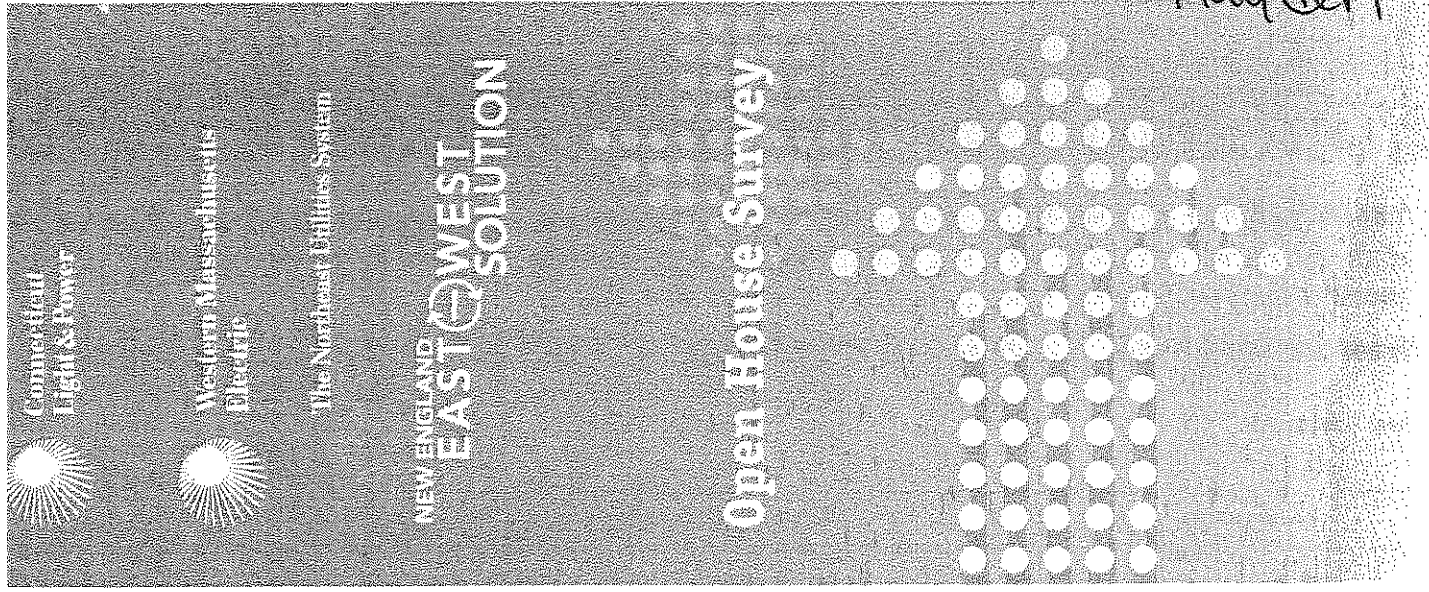
Sincerely,



Edward Pellettier



196 Newgate Road  
Hayden-9. of 1



Northeast Utilities  
c/o NEEWS  
PO Box 270  
Hartford, CT 06141-0270

What did you find helpful about the open house?

The open house was outstanding! Great Job, very informative

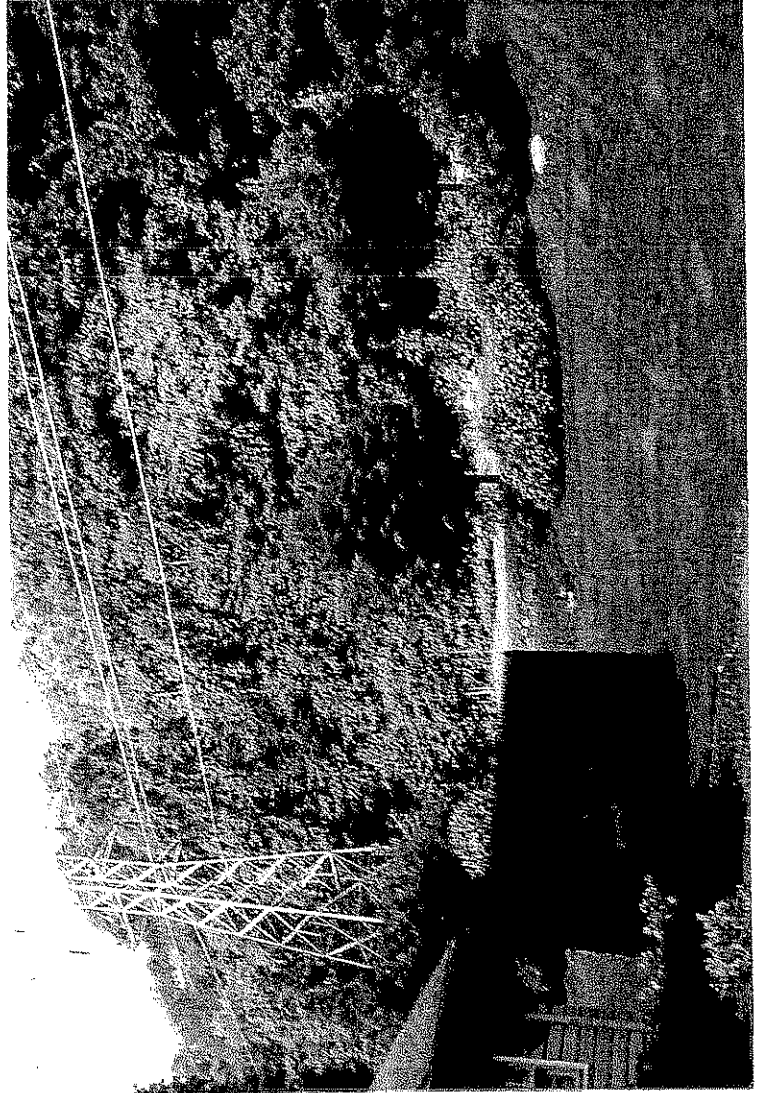
How might we improve the open house?

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Hayden - 11 of 11





Connecticut  
Light & Power  
The Northeast Utilities System



Greater Springfield  
Reliability Project

July 11, 2008

Representative Richard F. Ferrari  
62<sup>nd</sup> Assembly District  
9 Carriage Lane  
East Granby, CT 06026

**Re: Application of The Connecticut Light and Power Company ("CL&P" or the "Company")  
to the Connecticut Siting Council ("Council") Concerning the Connecticut Portion of the  
Greater Springfield Reliability Project ("Project")**

Dear Representative Ferrari,

On behalf of myself and our Project Manager, Mr. Jeffrey Towle, thank you for allowing us to help you communicate the Greater Springfield Reliability Project to your town using the open house format. We hope you were satisfied with the information and approach we put together.

At the open houses, we provided a form for attendees to leave us their written comments, or to subsequently send comments by mail. As part of the siting process, you have an opportunity to send written comments on CL&P's Municipal Consultation Filing on behalf of your town. To assist you in that effort, we are hereby forwarding to you copies of the comment forms we have received to date from residents of your town. If we receive more such comment forms in the coming weeks, I will forward copies of those to you as well.

We look forward to receiving your comments and recommendations before the filing in September of a CL&P application to the Connecticut Siting Council, and of course, CL&P will share your response with the Council once it has submitted its application. Whether or not your town chooses to directly participate in the subsequent Council process on CL&P's application, your comments and recommendations will be "on the record" and will no doubt be addressed in questioning and testimony during the Council's public hearings.

Very truly yours,

Robert E. Carberry, Project Manager  
NEEWS Siting and Permitting

# YOUR COMMENTS, PLEASE

THANK YOU FOR ATTENDING. Please use this sheet to provide your comments. You can deposit it at one of the Comment stations or fill it out and mail it after you get home. We will convey your comments to your municipal official and state siting authority.

In what town do you reside? East Granby

Your Comments:

*The Open House NEEWS presentation by representatives and their diptays did clearly define the proposed 345 KV power line route. The additional information that addressed related general concerns was most helpful.*

If you have a concern specific to your property, please provide us with your name and address.

Name: \_\_\_\_\_

Address: \_\_\_\_\_

Thank You.

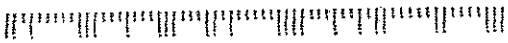
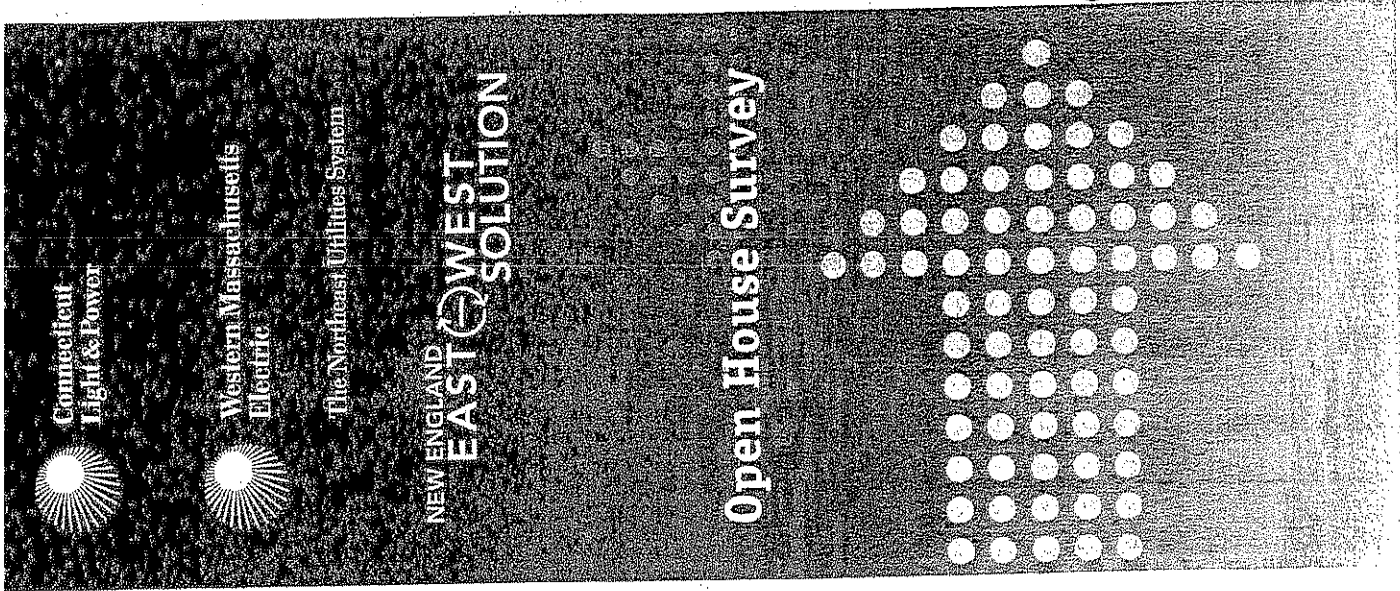


Connecticut  
Light & Power



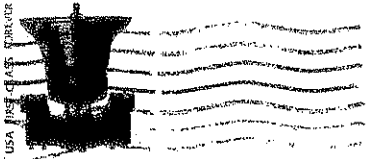
Western Massachusetts  
Electric





06141+0270 8004

Northeast Utilities  
 c/o NEWS  
 PO Box 270  
 Hartford, CT 06141-0270



What did you find helpful about the open house?

*Instead of a long drawn out speech - there was an ample amount of displays, videos, printed information available to cover the overall range of subjects. The representatives in all areas were eager to provide information, and answer any and all questions!*

How might we improve the open house?

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# YOUR COMMENTS, PLEASE

THANK YOU FOR ATTENDING. Please use this sheet to provide your comments. You can deposit it at one of the Comment stations or fill it out and mail it after you get home. We will convey your comments to your municipal official and state siting authority.

In what town do you reside? East Granby

Your Comments:

WHAT ARE NU'S INTENTIONS W RESPECT TO TARRIFFVILLE DAM AREA LAND USAGE? IN PARTICULAR, WHAT IS FEEDBACK WRT WIND? SCARC IN THIS AREA?

If you have a concern specific to your property, please provide us with your name and address.

Name: MIKE KEAMEN

Address: 28 WINDING HILLS, E GRANBY 06026

Thank You.





# YOUR COMMENTS, PLEASE

THANK YOU FOR ATTENDING. Please use this sheet to provide your comments. You can deposit it at one of the Comment stations or fill it out and mail it after you get home. We will convey your comments to your municipal official and state siting authority.

In what town do you reside? EAST GRANBY

Your Comments:

Environmental Impact to existing Forest - How wide  
A SWATH? REVERSE?

How tall will lines be? above ground? - visual impact?

Compensation for decrease in value of property?

What is the effect of the electromagnetic fields?  
how far?

If you have a concern specific to your property, please provide us with your name and address.

Name: Robert Brown

Address: 2 WINDMILL DRIVE EAST GRANBY

Thank You.





CONNECTICUT GENERAL ASSEMBLY



NEW ENGLAND EAST WEST SOLUTION

PLEASE

REPRESENTATIVE RICHARD F. FERRARI

TELEPHONE HOME: (860) 659-2691 CAPITOL: (860) 240-6700 1-800-842-1423

62ND ASSEMBLY DISTRICT 9 CARRIAGE LANE EAST GRANBY, CT 06026

E-mail: Richard.Ferrari@housegop.state.ct.us

This sheet to provide your comments. You can deposit it at one mail it after you get home. We will convey your comments to priority.

In what town...

Your Comments:

Want's copy of all comments - along w/ Turin Selectma

-KATHY SHEN

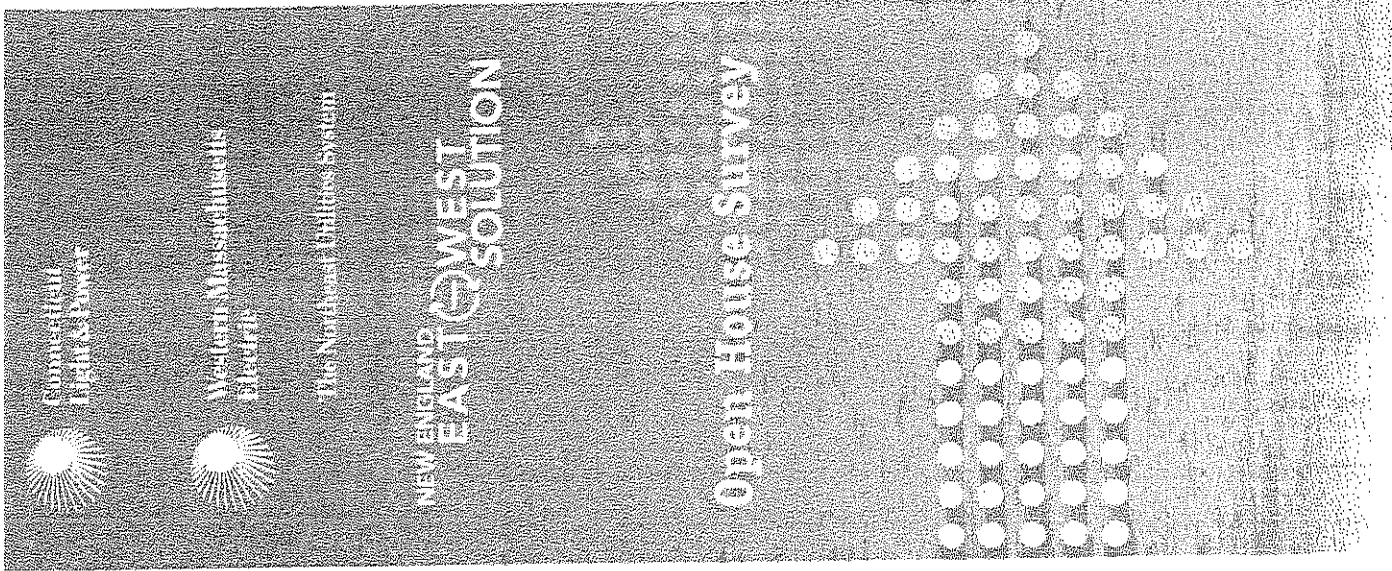
If you have a concern specific to your property, please provide us with your name and address.

Name: \_\_\_\_\_

Address: \_\_\_\_\_

Thank You.





(Edward Pelletier's)

Northeast Utilities  
 c/o NEWS  
 PO Box 270  
 Hartford, CT 06141-0270

What did you find helpful about the open house?

The open house was outstanding! Great Job, very  
 informative

How might we improve the open house?

July 7, 2008

Edward and Lori Pellettier  
196 Newgate Road  
East Granby, CT 06026  
860-844-8918

Dear Northeast Utilities,

First, Let me express my displeasure that Northeast Utilities is proposing adding an additional high power line directly behind my house in full view. My wife and I purchased our home five years ago with an existing 115kv tower within 50 feet of our home. Never did we dream at that time an additional high voltage line would be added to the existing right of way. We thought if anything, the existing line might be replaced.

Our concerns are these:

- Health, due to the new lines being within 75 feet of our house, at three times the existing voltage, along with the other existing tower 50 feet from the our house.
- Aesthetic, due to the widening of the clearing from 50 ft to 150 ft, and the addition of a new tower directly adjacent to the old tower.
- Re-sale value, the additional tower, lines and the clearing of the trees will have a definite impact on the value of our home. Noise emanating from the lines will have an impact as well
- Drainage is also an issue. There is already a known drainage issue to the Town of East Granby between my home and that of our neighbor at 198 Newgate Road. During the winter, water flows from the right of way behind our homes and bisects our property creating erosion and then freezes inches thick on the roadway creating an extremely hazardous situation. The clearing of an additional 100 feet of vegetation buffer for the right of way will only exasperate this further.

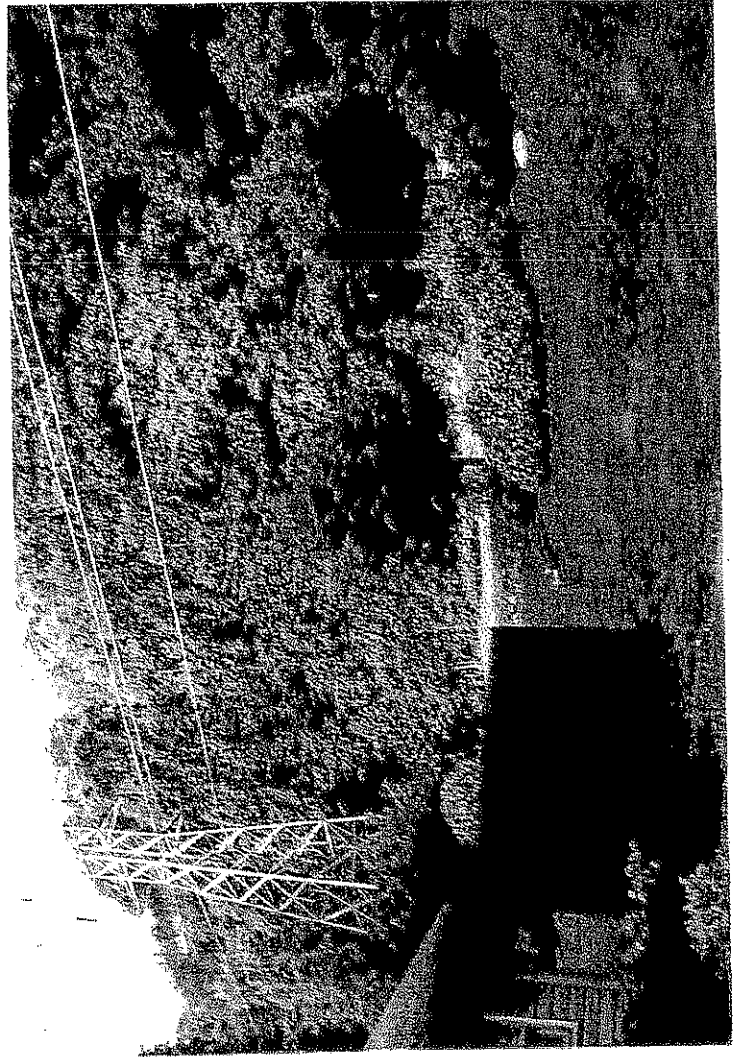
We support and fully endorse the underground alternative under Newgate Road. This alternative can be made even shorter by re-entering the right of way at the junction of Newgate and Copper Hill Roads. The power line could then come back above ground at a location past Country Club Lane at a transition station that could be built in the Newgate Wildlife Management area. The overall distance could be cut from 5.6 miles to 3.5 miles making this alternative cheaper and hopefully more palatable to all.

We have also enclosed photos of our home to include the existing tower and high voltage lines. We would encourage further discussion on the subject with Town of East Granby elected officials and those employees and or contactors of Northeast Utilities.

Sincerely,



Edward Pellettier





Hayden 1 of 2



Connecticut  
Light & Power  
The Northeast Utilities System



Greater Springfield  
Reliability Project

July 29, 2008

First Selectman James M. Hayden  
East Granby Town Hall  
9 Center Street  
East Granby, CT 06026

**Re: Application of The Connecticut Light and Power Company ("CL&P" or the "Company")  
to the Connecticut Siting Council ("Council") Concerning the Connecticut Portion of the  
Greater Springfield Reliability Project ("Project")**

Dear First Selectman Hayden:

As I indicated in my July 11, 2008 letter to you, please find enclosed an additional comment form we received from an East Granby resident subsequent to CL&P's open house event.

Very truly yours,

Robert E. Carberry, Project Manager  
NEEWS Siting and Permitting



# YOUR COMMENTS, PLEASE

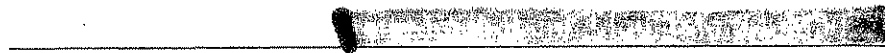
THANK YOU FOR ATTENDING. Please use this sheet to provide your comments. You can deposit it at one of the Comment stations or fill it out and mail it after you get home. We will convey your comments to your municipal official and state siting authority.

In what town do you reside? EAST GRANBY, CONNECTICUT

Your Comments:

THE PRESENTATIONS WERE WELL ORGANIZED AND INFORMATIVE. THE PERSONNEL INVOLVED WITH THESE PRESENTATIONS WERE KNOWLEDGEABLE, HELPFUL AND LISTENED TO YOUR QUESTIONS. THIS PROVIDED A GOOD EXCHANGE OF INFORMATION.

THE PROPOSED EXTENSION AND ROUTINE OF THE POWER LINES DO NOT AFFECT ME DIRECTLY. MY INTEREST WAS TO BE INFORMED AND GAIN KNOWLEDGE.

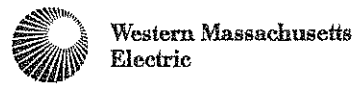
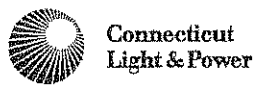


~~If you have a concern specific to your property, please provide us with your name and address.~~

Name: J. Rusnock

Address: 7 TUCKAHOE ROAD EAST GRANBY CT 0602

Thank You.



Kuhn 1 of 2



Connecticut  
Light & Power

The Northeast Utilities System



Greater Springfield  
Reliability Project

Aug 26, 2008

Mr. Peter Kuhn  
118 Holcomb Street  
East Granby, CT 06026

Dear Mr. Kuhn,

Thank you for your interest in the Greater Springfield Reliability Project (GSRP), one of the New England East-West Solution (NEEWS) transmission projects. I am pleased to follow-up with the detailed information you requested.

Connecticut Light & Power (CL&P) and the Western Massachusetts Electric Company (WMECO) are proposing to construct approximately 35 miles of new 345-kV transmission lines between CL&P's North Bloomfield Substation in Connecticut and WMECO's Ludlow Substation in Massachusetts. This new high capacity line, along with the proposed upgrades to the 115-kV transmission system in Massachusetts and substation upgrades in both MA and Connecticut, will resolve potential overloads on the 115-kV system that currently serves the load in Western Massachusetts and north-central Connecticut. The project will also increase the power-transfer capacity between Connecticut and Massachusetts and increase the reliability of supply to CL&P's North Bloomfield Substation.

The Connecticut portion of this 345-kV line would consist of an approximately 12-mile segment beginning at the North Bloomfield Substation and continuing northerly, through the municipalities of Bloomfield, East Granby and Suffield to the Connecticut/ Massachusetts state border. The line would be built predominantly within the boundaries of existing CL&P overhead transmission line rights-of-way, next to existing 115-kV transmission lines.

The current transmission right-of-way near your property in East Granby varies from 385 to 545 feet wide and contains two 115-kV lines – one supported on wood-pole H-frame structures and the other a double-circuit 115-kV line supported on lattice steel towers. CL&P is proposing to install an additional 345-kV line supported on wood- or steel-pole H-frame structures. Per our preliminary design plans, new structures would be located both north and south of your property. The proposed structures near your home would be a range from 85 feet to 125 feet. The proposed line will be parallel to the existing transmission lines, centered approximately 75 feet from the centerline of the existing lattice steel towers. Clearing limits will be approximately 150 feet wide, from the centerline of the existing lattice steel towers to the northeast. The proposed line's structures will be located adjacent to the existing lattice steel towers.

I am including a drawing of the proposed right-of-way cross-sections from our Municipal Consultation Filing. The complete report may be found on our NEEWS Project website ([www.neewsprojects.com](http://www.neewsprojects.com)) or in the East Granby Public Library. I am also including a NEEWS information packet to refer to for additional Project information. In this packet, a Public Participation sheet is included and will guide you through the



Kuhn 2 of 2



**Connecticut  
Light & Power**

The Northeast Utilities System



Greater Springfield  
Reliability Project

siting process. We are planning to file our application with the Connecticut Siting Council for the GSRP in mid-September.

I hope this information is helpful. If you have any questions please contact me directly.

Sincerely,

Elise C. Kranich  
Community Relations  
203.949.2313 (office)

**From:** kimbamw@nu.com [mailto:kimbamw@nu.com]  
**Sent:** Thursday, September 04, 2008 6:44 PM  
**To:** Bradley, Bettye  
**Subject:** Re:

I sent you two drawings (2 copies of each) in the mail today. One is the color version of the one of which I believe you have a B&W version. The color shows the details pretty well. The other drawing shows the existing structures and the proposed ones and the dimensions of the spacing and tree clearing line.

Re: underground. That is being considered in several areas throughout the route. But, it won't be finalized for a while. Options evaluation is part of the process of finalizing the route, structure spacing, underground options, etc.

After getting the drawings, let me know if you have other questions.

Regards, Mark.

Mark W. Kimball, P.E.  
Project Manager, Transmission Projects Group

Berlin: (860) 665-2440  
Wallingford: (203) 949-2354  
Cell: (860) 754-6566

-----"Bradley, Bettye" <Bettye.Bradley@coldwellbankermoves.com> wrote: -----

To: Mark W. Kimball/NUS@NU  
From: "Bradley, Bettye" <Bettye.Bradley@coldwellbankermoves.com>  
Date: 09/04/2008 06:14PM  
Subject:

Mark,

I spoke with the owner of the property today and he noted that the existing service road used by CL&P is on the rear property line--that the easement extends 50' onto his lot and that the existing lines are to the rear of the 50' area. That would indicate that the trees on the Ratchford property may not be in the swath to be cut---I'm sure the power company wants to have as little maintenance as possible while keeping the area under the lines open---Let me know if you have any further information.

Also, apparently there was a segment on last night's local news and people who saw it are under the impression that the lines will be placed underground. I thought that was only in certain sections.

**Bettye**  
*Bettye Bradley, GRI*  
*Relocation Specialist*  
*Coldwell Banker Residential Brokerage*

700 Hopmeadow Street, Simsbury CT 06070  
Serving both the Greater Hartford and Springfield areas  
860-614-9634  
413-748-6193

Nicholas V.  
Foligno/NUS  
ACCT EXEC CNTRL  
651-2463  
09/05/2008 01:01 PM

To  
Marcia E. Wellman/NUS@NU,  
Christopher C. Swan/NUS@NU  
cc

Subject  
Fw: Question on right of Way for CI&  
P Easement

Good afternoon,

Please see the email below from a residential customer in East Granby.  
Please let me know who would be the best person to answer his questions.

Thanks,  
Nick

Nicholas V. Foligno  
Connecticut Light & Power  
Phone: 860-651-2463  
Fax: 860-651-2567

----- Forwarded by Nicholas V. Foligno/NUS on 09/05/2008 12:59 PM -----

"Tom Ficaro"  
<Tom.Ficaro@domin  
os.com>

To  
Nicholas V. Foligno/NUS@NU  
cc

09/05/2008 12:08  
PM

Subject  
Question on right of Way for CI& P  
Easement

Ficaro 2013

I Live at 56 Copper Hill road in East Granby, CT 06026. Could you please tell me how the new recent upgrades will affect my property. I have an easement on my property, but from what I understand the upgrade will be taken place where there are existing high tension wires that run along Newgate Road and Wyncaime roads.

My second question would CL& P be willing to give up it's right away in the 56 Copper hill area?

\*\*\*\*\*

This e-mail, including any files or attachments transmitted with it, is confidential and intended for a specific purpose and for use only by the individual or entity to whom it is addressed. Any disclosure, copying or distribution of this e-mail or the taking of any action based on its contents, other than for its intended purpose, is strictly prohibited. If you have received this e-mail in error, please notify the sender immediately and delete it from your system. Any views or opinions expressed in this e-mail are not necessarily those of Northeast Utilities, its subsidiaries and affiliates (NU). E-mail transmission cannot be guaranteed to be error-free or secure or free from viruses, and NU disclaims all liability for any resulting damage, errors, or omissions.

\*\*\*\*\*

**From:** Kranich, Elise  
**Sent:** Wednesday, September 24, 2008 10:25 AM  
**To:** 'Tom.Ficaro@dominos.com'  
**Subject:** Greater Springfield Reliability Project Inquiry

Dear Mr. Ficaro,

Thank you again for your inquiry regarding the Greater Springfield Reliability Project, one of the four New England East-West Solution (NEEWS) transmission projects.

In your inquiry, you requested information about what CL&P is proposing to build in the area of 56 Copper Hill Road. The existing transmission corridor and location of the proposed project is approximately ½ mile from 56 Copper Hill Road. CL&P is proposing to build a 345-kilovolt (kV) transmission line approximately 75 feet (centerline to centerline) east of the existing 115-kV transmission lines on the existing rights-of-way. Please see the attached aerial photograph illustrating the proposed line in relation to your home.

In your inquiry, you also asked if CL&P is willing to revoke its easement rights along the Copper Hill area. At this time, CL&P is not eliminating or revoking easements as a part of the NEEWS Project.

I hope this information is helpful in addressing your questions. If you have additional questions or concerns, please feel free to contact me directly. I will be sending a NEEWS Information package to your home which contains information about the project including the siting process and how residents may participate.

Sincerely,

Elise Kranich  
Community Relations  
Burns & McDonnell (Representative for Northeast Utilities)  
203.949.2313

NEW ENGLAND  
EAST  WEST  
SOLUTION

POSSON - 1 OF 1

Mr. & Mrs. Noel & Talina Posson  
212 Newgate Road  
East Granby, CT 06026  
Home: (860)-844-8909  
Cell: (860)-922-5246  
E-mail: [tposson@hotmail.com](mailto:tposson@hotmail.com)

Sunday, September 21, 2008

**James M. Hayden, First Selectman**  
**M. Thomas Short, Selectman**  
**Daniel J. Velcofsky, Selectman**  
East Granby Town Hall  
PO Box 1858  
East Granby, CT 06026

Dear Mr. Hayden, Mr. Short and Mr. Velcofsky,

Thank you for your service to our town and for your efforts over the past weeks to facilitate public education and debate regarding Connecticut Light & Power's imminent plan for East Granby in conjunction with the "Greater Springfield Reliability Project" (GSRP). We are writing in high hopes to influence and encourage you to **unanimously and strongly recommend** to the CT Citing Council that they:

1. **not allow CL&P/NU to proceed with the plan of installing new overhead power lines** on Newgate Road or any other area where the existing homes will come within 500 feet, and
2. **undertake a full review (with respect to power lines) of:**
  - a. **"BioInitiative Report: A Rationale for a Biologically-based Public Exposure Standard for Electromagnetic Fields (ELF and RF)"** and
  - b. **any other relevant and more recent information** that the Council may have not truly reviewed on electromagnetic fields (EMF), and
3. **only allow CL&P/NU to proceed with an alternative plan (in order of preference) of either:**
  - a. **re-routing all new overhead power lines away from Newgate Road** and at least 500 feet away from every home (like ours) that would be otherwise effected or
  - b. **running all new power lines underground** (whether that be along the current ROW on Newgate Road or some other route where existing homes would be affected) and at a depth of no less than eight feet, and
4. approve and recommend to the state that **if the overhead line plan is approved then every home owner of the effected properties in our town be wholly compensated for:**
  - a. **the loss in market value of their homes,**
  - b. **the difference in costs of acquiring a similar home in the area** (including differences in long-term amortized interest rates between a current mortgage and new mortgage, closing costs, and moving expenses), and
  - c. **mental anguish, pain and suffering** that has occurred and will continue to occur for several more years.

We want to ensure you that we do not want to move from our home. We have immediate family living here in East Granby one mile away from us, and that is very meaningful to us. In addition, we are not anti-development or anti-business. We understand the need for this project. But, as you are aware from the July 7, 2008 e-mail entitled "*Help! CL&P Details Proposed Power Line Work (...voltage upgrade on*

*transmission lines that would go through East Granby and Suffield..."),*" this issue is of grave concern to us, especially in regards to our two daughters (an infant and a toddler).

We discovered CL&P's plan by chance by reading the newspaper in July. Some residents just discovered it a few weeks ago by reading an insert in last month's utility bill. We continue to be awestruck by our observation that many of our town residents are either completely unaware or grossly uninformed about the plan or the issues. We submit to you that at no time during the public hearing process or in our utility bill inserts or when meeting with representatives or talking amongst neighbors did we hear that the Municipal Consultation Filing (MCF) was available online. Written materials merely said something like, "for more information, visit our website" and "a copy of the MCF is available at the town library." Given the limited hours our town library is actually open and the fact that many people now obtain their information online to read at convenient times, the effect of CL&P not clearly disclosing the availability of the MCF online had the effect of partially suppressing fuller public investigation and debate. We just discovered the MCF online this Friday night at <http://www.transmission-nu.com/residential/projects/springfield/PublicInvolvement.asp>. We were, however, glad to see that some 75 or so residents showed up to the September 13, 2008 meeting to hear and question representatives of CL&P and Burns MacDonnell.

Over the past several decades, East Granby has been transformed from a rural town into a residential, bedroom community. There are still several wooded areas that make this town attractive for this project. But, in particular, residences have sprung up along the entirety of Newgate Road since the power lines were installed eighty years ago. Many of these homes have been built on parcels of property for which easements had been purchased (and power lines subsequently installed) by CL&P (or its predecessor) as far back as the 1920's. CL&P's June 2008 MCF notes that:

"The existing transmission system serving the Greater Springfield geographical area is comprised largely of 115-kilovolt (kV) lines originally constructed from the 1940s through the early 1970s. 1

...  
1 Many of the towers supporting the 115-kV transmission line between the Agawam Substation in Massachusetts and the North Bloomfield Substation were constructed in the 1920s."

We recognize, in part, both the legitimacy of such easements held by CL&P and the fact that the current 115kV power lines have existed on our property (and other citizens' properties) for years (as far back as 1924). Our own home was built in 1978. However, we firmly believe that **the easements were granted in an age when either the existence of EMF's were unknown or the dangers of EMF's were not even remotely suspected by the parties involved.** [Note that the first generally-recognized comprehensive study and theory of the link between EMF's and childhood leukemia was released in 1979 (a year after our home was built and fifty years after the transmission lines were installed on our property).] Also, virtually no homes were located near the easements (where the power lines would be installed). No real guidance was even available to the general public until the around the 1990's. Thus, many builders constructed homes (such as ours) on parcels for which CL&P had easements (and hence the right of way). These existing homes are often within close proximity to the power lines. Our own home is located approximately 150 feet from the current 115kV power lines.

As explained by Bob Carberry in the Sept. 13, 2008 public meeting with CL&P, EMF generally radiates from power lines in a **bell-type distribution pattern**. Before we bid on our home in 2007 (recognizing the proximity of the existing lines), we had the property independently-tested for levels of EMF [measured in milligauss (or mG)] to see where in the bell distribution pattern our property fell. We were happy to discover [even on a 92-degree afternoon in August (peak time for electricity needs)], our habitable property was in what I'll call a "safe zone" (i.e. with readings less than 2 mG). This "safe zone" generally extends to the edge of CL&P's current right-of-way (about 100 feet away from our house)



during the summer [and assumed a little less in the winter (due to less foliage blockage, etc.)]. These readings allowed us to feel secure enough to purchase our home in the hopes of raising our two beautiful daughters here (Talina was pregnant with our second daughter at the time).

It was the furthest thing from our minds that the potential could exist for new lines to one day be added to the right-of-way on our property. Even if we had recognized such a potential, our conclusion would have been that the town, state, and even CL&P would by now recognize the growing consensus in the scientific community about the dangers of EMF and therefore none of them would even contemplate allowing the levels of EMF to be increased on existing homeowners' properties (i.e. installing new overhead power lines near residences). However, CL&P's preferred, proposed route for Newgate Road in East Granby will do just that, mainly because it's the most cost-effective route and it only affects a small number of people (when compared to the 1.2 million electricity ratepayers of the state). The CT Siting Council is our only hope to alter their plan.

Please note that we seized the opportunity last month to meet with Bob Carberry (CL&P) and Paul Williams (Burns & McDonnell Engineering). They explained to us that overhead power lines, when carefully configured (as they propose with such a structure as the 110-ft.-high delta monopole) can alter the size of the "EMF bell" that we described above. As a result, we asked them something along the lines of, "Doesn't  $1 + 3 = 4$ ?" (referring to the existing 115 kV lines and adding new 345 kV lines alongside them). Their answer was something like, "No, it depends on several factors such as line configurations, usage at any given time, foliage, weather, etc." But, they couldn't (or wouldn't) answer the fundamental questions of:

1. "What is the expected approximation of the increase to the size of the 'EMF bell' once the lines are all up and running?" and
2. "Will the 'EMF bell' now be enlarged to encompass our property (out of the 'safe zone')?"

We still have yet to hear that approximation, and to our dismay the answer was no less clear at the Sept. 13<sup>th</sup> meeting.

Out of respect and deference to the experts [and after reading as much of a lengthy MCF that two working parents of an infant and toddler can muster], we'll concede the point that " $1 + 3$  does not necessarily equal 4." But, even if (minimally) " $1 + 3 = 3$ ," then that means our (and many other homeowners') property will soon be within the newly enlarged "EMF bell" (out of the "safe zone"). We estimate that the start of the new "safe zone" would average out to be 250 feet away from the ROW (right of way) but fluctuating during peak (maybe 350) and off-peak periods (maybe 150), etc. However, if electric cars become a reality in the next five to twenty years, not only will these lines run at peak capacity nearly 24/7, but more lines may need to be added to the ROW. The CL&P representatives stated as much in the Sept. 13<sup>th</sup> public meeting. They also confirmed that (conceptually and pragmatically) up to three more sets of lines could possibly be installed in the 305-foot ROW (even if that would only happen gradually over decades). You can only imagine what the "EMF bell" would be then, and no one within at least 1,000 feet would be in the "safe zone."

It seems clear to us that we must be provided with estimates of what the EMF will be up to 300 feet away from the lines [again, our house (and, more specifically, our infant's bedroom and the swing set where our girls play) is only 150 feet away from the lines now]. The CT Siting Council's own document entitled "Electric and Magnetic Field Best Management Practices For the Construction of Electric Transmission Lines in Connecticut - December 14, 2007" states:

EMF Best Management Practices Page 6 of 11

....

#### A. MF Calculations

When preparing a transmission line project, an applicant shall provide design alternatives and calculations of MF for pre-project and post-project conditions, under 1) peak load conditions at the time of the application filing, and 2) projected seasonal maximum 24-hour average current load on the line anticipated within five years after the line is placed into operation. This will allow for an evaluation of how MF levels differ between alternative power line configurations. The intent of requiring various design options is to achieve reduced MF levels when possible through practical design changes. The selection of a specific design will also be affected by other practical factors, such as the cost, system reliability, aesthetics, and environmental quality.

EMF Best Management Practices Page 7 of 11

MF values shall be calculated from the ROW centerline out to a distance of 300 feet on each side of the centerline, at intervals of 25 feet, including at the edge of the ROW. In accordance with industry practice, the calculation shall be done at the location of maximum line sag (typically mid-span), and shall provide MF values at 1 meter above ground level, with the assumption of flat terrain and balanced currents. The calculations shall assume "all lines in" and projected load growth five years beyond the time the lines are expected to be put into operation, and shall include changes to the electric system approved by the Council and the Independent System Operator – New England.

As part of this determination, the applicant shall provide the locations of, and anticipated MF levels encompassing, residential areas, private or public schools, licensed child day care facilities, licensed youth camps, or public playgrounds within 300 feet of the proposed transmission line. The Council, at its discretion, may order the field measurement of post-construction MF values in select areas, as appropriate.

**We believe that the section of Newgate Road that we live on is a "residential area." As such, it is protected by CT 04-246 which is the CT law that dictates that underground power line construction should be used.**

It is also clear to us from the aforementioned document that they will **consider and review new evidence on the topic of EMF's:**

EMF Best Management Practices Page 5 of 11

...  
Additionally, the Council notes two general policies it follows in updating its EMF Best Management Practices and conducting other matters within its jurisdiction. One is a policy to support and monitor ongoing study. Accordingly, the Council, during the public hearing process for new transmission line projects, will consider and review evidence of any new developments in scientific research addressing MF and public health effects or changes in scientific consensus group positions regarding MF. The second is a policy to encourage public participation and education. The Council will continue to conduct public hearings open to all, update its website to contain the latest information regarding MF health effect research, and revise these Best Management Practices to take account of new developments in MF health effect research or in methods for achieving no-cost/low-cost MF mitigation.

Please note that the overwhelming majority of footnoted references in the aforementioned document are more than five years old. We would beg you to ensure that the CT Citing Council take under full review the 610-page report issued on 8/31/07 by the BioInitiative Working Group and any other recent information. We encourage you to peruse the findings at:

<http://www.bioinitiative.org/report/index.htm> (excerpt the 610-page report)

...  
**Table 1-1 BioInitiative Report Overall Conclusions**  
**Section 11 Leukemia**

- o The balance of evidence suggests that childhood leukemia is associated with exposure to power frequency EMFs either during early life or pregnancy.
- o ... Up to 80% of childhood leukemia may be caused by exposure to ELF.
- o Other childhood cancers except leukemia have not been studied in sufficient detail to allow conclusions about the existence and magnitude of the risk.
- o IEEE guideline levels are designed to protect from short-term immediate effects, long-term effects, such as cancer are evoked by levels several orders of magnitudes below current guideline levels.

- o Measures should be implemented to guarantee that exposure due to transmission and distribution lines is below an average of about 1 mG (0.1  $\mu$ T) and precautionary measures are warranted that can reduce all aspects of exposure.
- ...

[http://www.bioinitiative.org/press\\_release/index.htm](http://www.bioinitiative.org/press_release/index.htm)

August 31, 2007

**Serious Public Health Concerns Raised Over Exposure to Electromagnetic Fields (EMF) from Powerlines and Cell Phones.**

An international working group of scientists, researchers and public health policy professionals (The BioInitiative Working Group) has released its report on electromagnetic fields (EMF) and health. They document serious scientific concerns about current limits regulating how much EMF is allowable from power lines, cell phones, and many other sources of EMF exposure in daily life.

The report concludes the existing standards for public safety are inadequate to protect public health.

We can provide you and/or the CT Citing Council with reams of paper and pages of web links on the scientific studies that have been conducted on EMF's. For now, we can assure you that the consensus is growing on the dangers of EMF's, and the tide is turning away from the naysayers. EMF's are believed by many (even a majority by now) to cause or assist in the growth of diseases or medical problems such as leukemia (especially in children whose cells are growing and dividing), brain tumors, migraines, and fatigue. Power lines, of course, are not the only source of EMF's. Cell phones have been the recent focus of attention. We understand that there are government guidelines (which CL&P appears to truly try to abide by). However, government agencies in the US and abroad have not had a great historical track record: consider previous positions on cigarettes, lead paint, PCB's, asbestos, silicone, and climate change.

Can the public really afford to wait several more decades before reaching a true consensus on EMF's? Do we the people of Newgate Road really have to be another statistic in the research? Or can the CT Siting Council be moved to decide that underground installation of new power lines in residential areas (for which this section of Newgate Road in East Granby qualifies) is in the public's best interest despite the negligible added (but amortized) costs to Connecticut's electricity ratepayers?

The estimated cost to upgrade the lines for the 39-mile Greater Springfield Reliability Project is approximately \$716 million. Going underground in residential areas may add [says CL&P (depending on who you ask and on what day)] up to \$200 million. Those added costs will be born by the ratepayers of the state that mandates them. For this project, we estimate that \$133 million in added costs for Connecticut may have to be borne by 1.2 million ratepayers of this state, which averages out to about 50 cents a month over 40 years. We understand that this is not the only project that CT ratepayers will have to absorb and that "negligible costs" can add up to be "not-so-negligible" when multiplied across many projects. Such is the cost of a shared community resource, however.

For town tax projection purposes and judging from aerial photographs/maps in CL&P's MCF, we have estimated that at least 30 houses in East Granby could be directly impacted by higher EMF's (300 feet of the ROW), and perhaps double that number could be indirectly impacted by being located adjacent to those properties with diminished market value or within sight of the new lines. If the overhead lines go in as planned, note that we will be obligated to

1. demand a tax reassessment of our home's value by up to -50% off and
2. then:
  - a. put our home on the market and sell it at a loss (to likely vulture and non-family-oriented buyers),
  - b. move to a new home (out of town), and
  - c. litigate for compensation for:

- i. the loss in market value of our home,
- ii. the difference in costs of acquiring a similar home in the area (including differences in long-term amortized interest rates between a current mortgage and new mortgage, closing costs, and moving expenses), and
- iii. mental anguish, pain and suffering that we had endured and
- iv. attorney costs.

Regardless, unless the EMF issue is resolved in some acceptable fashion for us, we'll not be able to stay (heeding to good conscience over our family's health). We will also encourage our fellow citizens who will be effected to enlist for the same fight noted above.

Further, on the tax issue, if you take an average (conservative) assessment value of 30 directly-affected homes at \$200,000 (which the homes along Newgate probably have) at the mill rate of .031, then cut it by an average of -50%, you lower the tax base by \$93,000 annually. If you take another 30 indirectly-affected homes at a -10% assessment reduction, you reduce the tax base by another \$18,600. That's over \$100,000 less annually in tax revenue which will offset the \$300,000-\$400,000 that CL&P will additionally pay in new taxes for the newly installed overhead lines. However, an underground route would logically raise the tax revenues received by the town [whether CL&P pays a property-based tax for underground lines with much higher asset values than overhead or an income-based tax for higher revenues gained off charging ratepayers more). Plus, being that underground lines would cause minimal property devaluation, there would be virtually no offsetting of the tax revenues gained by the project. In actuality, the town could gain exponentially more with the underground variation.

The preceding paragraph could lead one to falsely allege we were merely making a tax revenue "play" for underground lines. However, we are only pointing out that not only are underground lines better for the 30-60 properties that could be affected (and the families that live there), but it's the right decision for the town. And, it would set a prudent precedent if (or when) additional lines need to one day be added to the ROW. There could come a point when over 50 homes in East Granby get abandoned or are so devalued that the quality and character of the town goes down. Let's also not forget that our town is struggling for tax revenue to address long-overdue needs like improving our schools. Therefore, a decision that would boost the tax base is a logical decision and one that the town residents would be expected to applaud. The CT Citing Council and the electric ratepayers of the state will not be concerned with what we stand to gain in taxes. Hence, taxes would be a very poor reason to cite in any recommendation to the CT Citing Council for the underground variations in East Granby. However, eventual (inevitable) lawsuits and compensation for monetary damages, mental anguish, pain and suffering should be considered. The real fact is that if EMF's weren't dangerous, we wouldn't even be having this debate or undergoing this lengthy struggle. People can live with scenic blight at a distance or can sell their house to a more open-minded buyer at an undiscounted price. But, if they're too close to the power lines then their (and their children's) lives can be threatened by EMF's, and it will be impossible to sell at a reasonable price [which is especially tough when so many of us are already maxed out on home equity value (pre-power lines)]. A quadruple whammy of falling home values in general, the current and tightening "credit crunch," inflation, and the addition of power lines to our backyards may spell financial disaster for many of us on Newgate Road. Desperate times will call for desperate measures, and compensation to us is only fair.

In conclusion, it is logical to believe that everyone in our town will be effected, either directly or indirectly. There is a true opportunity for a "win-win-win-win" outcome for all parties if underground lines are installed [except for the ratepayers of the state of CT (but whose burden will be minimal when spread over 40 years)]:

1. us (the directly-affected residents) by:
  - a. reduced health risks,
  - b. avoidance of property devaluation,

- c. avoidance of having to fight for property tax re-assessments,
  - d. scenic blight,
  - e. better mitigation of potential drainage/run-off problems, and
  - f. setting precedent for future line projects in our town;
2. the entire Town (the directly- and indirectly-affected residents) by:
- a. maintaining the current level of assessments on properties in town (and not offsetting the additional taxes to be received from CL&P),
  - b. avoiding health/pollution lawsuits years from now,
  - c. avoiding property devaluation and property tax re-assessment lawsuits years from now,
  - d. having a heightened sense of community that encourages residents to stay in and nurture the town for the future,
  - e. increased tax revenues from CL&P's higher assets or revenues in underground lines, and
  - f. setting precedent for future line projects in our town;
3. CL&P by:
- a. helping them meet their requirements to upgrade their facilities instead of facing excessive federal fines for failing to meet mandated electric grid reliability standards,
  - b. protecting or even increasing their profit margins by shared & amortized cost sharing, and
  - c. avoiding health/pollution lawsuits years from now, and
  - d. having a precedent to follow for future line projects in our town;
4. environmental and civic groups by:
- a. preserving the beauty of East Granby through the likes of the federally-recognized Metacomet Trail and
  - b. preserving the patronage of visitors to the federally-recognized Newgate Prison, and

Thank you for your time and consideration. We'll see you Tuesday, September 23 to hear your vote on the issue.

Sincerely,

Noel K. Posson

Talina M. Posson

October 10, 2008

Mr. Jeffrey M. Towle  
GSRP Project Manager  
NUSCO  
P.O. Box 270  
Hartford CT 06141-0270

*Re: Application of the Connecticut Light and Power Company (CL&P) to the Connecticut Siting Council ("Council") Concerning the Connecticut Portion of the Greater Springfield Reliability Project ("Project")*

Dear Mr. Towle:

The East Granby Board of Selectman has spent much time reviewing the CL&P Greater Springfield Reliability Project. We have listened to and read the information provided by both CL&P and by concerned residents regarding the proposed 345-kilovolt electric transmission line between Bloomfield, CT and Ludlow, MA. This proposed line will run through approximately six miles of East Granby. The Board of Selectman (BOS) unanimously voted to recommend that the lines be placed underground as has our neighbor, the Town of Suffield. The Board would also encourage CL&P to bury the existing 115-kv lines along with the new 345-kv line. The underground options provided by CL&P are not without challenges such as wetlands concerns in the current ROW or the Route 20 / 187 approach. Sections of Newgate Road, some of which are two hundred years old, provides little shoulder and an underground line would end up being located in residents' front yards. Additionally, parts of the historical site, Newgate Prison, are within ten feet of the road.

#### CONCERNS

East Granby has several concerns regarding the Project. Primary concerns include public health & safety implications along with decreasing property values, corresponding decreases in tax revenue to the town, environmental and visual impact concerns. Additionally, the Metacomet Trail abuts and overlooks the area where the overhead lines are planned.

#### PUBLIC HEALTH & SAFETY

The Board of Selectman and those residents who live around or underneath the lines, have significant concerns regarding the effects of electromagnetic fields (EMF's) which

will be created by the new overhead lines. While CL&P and their experts maintain that there are no adverse health effects as a result of the proposed lines, there is significant literature that says the opposite. In the August 31, 2007 BioInitiative Report: *A Rationale for a Biologically Based Public Exposure Standard for Electromagnetic Fields*, table 1-1, section 11 states that "The balance of evidence suggests that childhood leukemia is associated with exposure to power frequency EMF's either during early life or pregnancy." Additionally, "...up to 80% of childhood leukemia may be caused by exposure to electromagnetic fields." In this same report, the BioInitiative Working Group documents serious scientific concerns about current limits regulating how much EMF is allowable from power lines, cell phones, and many other sources of EMF exposure in daily life. The BioInitiative Report concludes that the existing standards for public safety are inadequate to protect public health. When it comes to the health of our residents, we would like CL&P and the Siting Council to continue to conduct more research on EMF's and their potential health effects. We feel that risk can be reduced by burying the lines underground.

While it will continue to be argued by CL&P that there is no conclusive evidence to show that there is any increase in health problems by exposure to EMF's, we do not think it prudent or fair to let our residents become the "test case" for future studies looking at the effects of EMF's. In the World Health Organization's Report, "*What are electromagnetic fields?*" they acknowledged that "results to date contain many inconsistencies". Without conclusive results, one way or the other, the BOS does not see the need to "potentially" put our residents at risk.

#### DECREASING PROPERTY VALUES & PROPERTY TAX

Since the 1950's, East Granby has been evolving from a rural town into a "bedroom community". Residences have sprung up along the entirety of Hatchet Hill, Holcomb and Newgate Roads since the power lines were installed eighty years ago. Many of these homes have been built on parcels for which easements had been purchased as far back as the 1920's. The easements were granted in an age where either the existence of EMF was unknown or the danger of EMF was not suspected by the parties involved. The original easements were in heavily wooded areas, a dynamic that has changed significantly. We are concerned that the placement of the 345-kv lines and additional towers will have a significant negative impact on property values. CL&P has provided information stating that there is no decrease in property value as a result of 345-kv line and towers. Verbally at our town hearing, one of the CL&P representatives mentioned that there is a report that he was aware of that projected a 5-10% property value decrease in the first year and that by the third year when people were used to the towers, the impact was negligible. That may have been true in times when the lines were in wooded areas and the towers were not 40 feet higher than the current towers. Combine those two factors with a lack of definitive science on the effect of EMF's and there lies a significant stressor on property values. Reasonable people would agree that these three factors could have an effect longer than a three year period and a ten percent reduction in values.

A realtor came in to see me prior to the hearing and said that during that particular week; a house for sale in the affected area had two offers which were withdrawn without any

reason. She also stated that houses in the area were taking longer to sell than in other areas of town. Visible power lines do affect the owner's opportunity to sell the house both in timeliness and in value. The Town would disagree with CL&P's position that existing lines have already impacted real estate values since the current Project proposal changes the equation. For the most part, present lines are difficult to see and are covered by trees and plants. The new towers will be significantly taller and the construction process will remove a buffer layer of trees. Increased visibility does not let the towers melt into the landscape and will affect property values.

Although the Town objection focuses primarily on potential health effects to our residents, the fact of the matter is that reduced property values equal reduced tax revenues as the Grand List decreases. This corresponding reduction of the Grand List translates to increased taxation for other residents. Underground lines including both the 345-kv & 115-kv lines, will ultimately protect the landowners and their property values.

#### ENVIRONMENTAL & VISUAL IMPACT

The proposed Project impacts over six miles of land in East Granby including over fifty residences, Old Newgate Prison and the Metacomet Trail. It should be noted that increased water run-off from the Project will directly impact Newgate Road neighbors. The run off from areas cleared of vegetation conceivably will follow the path of least resistance and could cross over Newgate Road impacting homes on both sides of the street. Current run off is substantial let alone after the proposed Project is completed. While the Town understands that CL&P will mitigate erosion issues, the topography encourages runoff and we have a serious concern for our property owners.

One only needs to look at the Wintonbury Golf Course in Bloomfield to look at the potential visual impact of the Project. There for all to see is a double tower and single tower above ground options which are side by side. The impact on the environs is significant since the above ground lines are substantial transmission lines that impact the quality of life aspect of town residents, deter the rural ambiance and potentially may injure the environment of our beautiful town.

#### METACOMET TRAIL

Wikipedia has the following description regarding the Metacomet Trail which will be impacted by the Project (bold sections indicate direct impact on East Granby and are adjacent to the Project):

*The Metacomet Trail traverses the trap rock Metacomet Ridge which extends from Long Island Sound to the Massachusetts/ Vermont border. This ridge, rising hundreds of feet above the Connecticut River, Farmington River, and Quinnipiac River valleys, is a prominent landscape feature of central Connecticut. From south to north, the trail uses the ridges of the Hanging Hills, Short Mountain, Ragged Mountain, Bradley Mountain, Pinnacle Rock, Rattlesnake Mountain, Farmington Mountain, Talcott Mountain, Hatchet Hill, Peak Mountain, and West Suffield Mountain. Abrupt vertical cliffs with visible talus slopes and frequent viewpoints are common throughout. Views are generally to the west from West Suffield Mountain south through Ragged Mountain; west and south in the*



*Hanging Hills. The Farmington River cuts through the ridgeline between Hatchet Hill and Talcott Mountain in the Tariffville Gorge (east of Simsbury). Historic features along the trail include Old Newgate Prison museum and copper mine in East Granby*

The Metacomet Trail is part of the recently designated New England National Scenic Trail and it abuts and overlooks the land where CL&P intends to construct their power towers and high voltage lines. This important piece of our natural resources can be preserved for future generations through constructing underground lines.

### **RECOMMENDATION**

*The Town of East Granby strongly recommends that the proposed Project including the current 115-kv line be run underground through our Town and Suffield.*

If the Siting Council decides against this Town recommendation and in favor of CL&P's current proposal, the Town would want the Siting Council and CL&P to seriously consider the following:

1. CL&P should disclose their internal distance guidelines for siting a 345-kv overhead power lines from a residential neighborhood and see how that compares to the East Granby segment of the Project and the "prudent avoidance requirement" in Connecticut and how / why that differs from the established Scandinavian / European best practice guidelines.
2. Absent an underground route, CL&P should build a single tower project through East Granby which will carry 115-kv and 345kv lines. Additionally, using existing technology the 345-kv line should be mitigated to emit the same amount of EMF's as the 115-kv line. The current towers would be demolished.
3. The Town's Wetlands and Conservation Commission has concerns about wetlands disruption on all of the options, but together with the East Granby Land Trust will work with CL&P for wetland mitigation consideration.
4. A project of this magnitude disrupts a lot of open space and has an impact on the Metacomet Trail. The Town would ask for CL&P to consider offsetting the loss of open space by transferring the following properties to the Town:
  - a.) Assessor Map #2, Lot 15 – A seventeen acre parcel off of Newgate Road. The Town would acquire this as open space for trail access to Metacomet Trail and to East Granby Farms.
  - b.) Assessor Map #7, Lot 5A and /or 27 – This is property off of Route 20 and would be used as a trail heading for Greenway Parking
  - c.) Assessor Map #22, Lot 62 – This 120 acre parcel is adjacent to Route 187 and Cowles Park and provides great views of sections of the Metacomet Trail.
5. Any above ground approach must re-route current towers away from residents. Some residents' property lines in the Newgate Road area are within 75 feet of existing lines.
6. Residents should be eligible for compensation from CL&P based on an independent valuation of the Project impact on property values. Additionally, the Town should be reimbursed for its tax revenue loss on a reduced Grand List.

Hayden 5 of 5

**CONCLUSION**

*The Town of East Granby strongly recommends that the Siting Council require CL&P to utilize an underground approach for the high voltage lines.*

Sincerely,

James M. Hayden  
First Selectman

Cc: Senator Joseph Lieberman  
Senator Christopher Dodd  
Congressman John Larson  
Connecticut Siting Council Chair Daniel Caruso  
State Senator John Kissel  
State Representative Richard Ferrari  
State Representative Ruth Fahrbach  
Attorney Don Holtman  
First Selectman Scott Lingenfelter

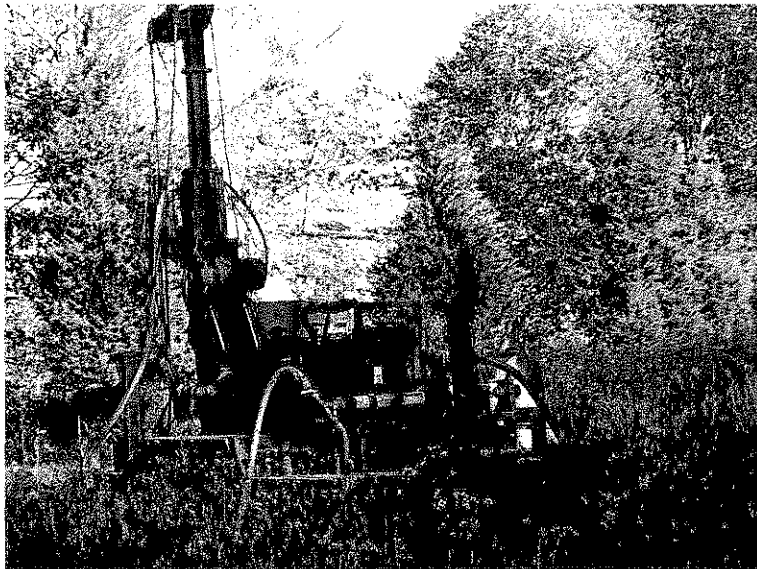
## Greater Springfield Reliability Project

Fall 2008

### Soil Sampling

As part of its continuing effort to improve reliability, CL&P and its contractors will be conducting ongoing engineering field investigations on the right-of-way in your area.

Over the next several weeks, the geotechnical consulting firm, Haley & Aldrich, will be taking soil samples near the proposed overhead transmission structure sites to help us evaluate the condition of the soils on the right-of-way. You may see machinery, similar to the one pictured here, on the right-of-way. Sampling is expected to take approximately 1-2 days per location. Some minor vegetation removal may be needed to access the sampling locations. Wood mats may also be used temporarily to protect environmentally sensitive areas. All contract personnel are expected to carry proper identification.



*Typical drill rig that may be used to draw soil samples.*

The soil sampling work is part of the ongoing preparations for the project, as the design and route of the proposed transmission line have not yet been finalized. In October 2008, CL&P submitted an application to the Connecticut Siting Council (CSC) for approval to construct this project. We anticipate the siting process will conclude in early 2010. Construction is planned to begin in 2010.

We welcome your participation and encourage residents to take an active part in the siting review process. For information regarding the CSC's siting process, please visit [www.ct.gov/csc](http://www.ct.gov/csc).

If you have questions, please call our project hotline at 1-866-99-NEEWS (996-3397) or visit our Web site at [www.NEEWSprojects.com](http://www.NEEWSprojects.com).



**Connecticut  
Light & Power**

The Northeast Utilities System



Greater Springfield  
Reliability Project

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From: Posson, Noel K [mailto:NPOSSON@travelers.com]  
Sent: Monday, December 01, 2008 2:03 PM  
To: carbere@nu.com  
Cc: Kranich, Elise; Phelps, Derek; Jim Hayden  
Subject: RE: Greater Springfield Reliability Project Inquiry

Mr. Carberry,

Disregard my reference to the technical phrase "prudent avoidance" and let me re-phrase my original statement as it appears it's your duty to refute things that someone like me asserts because you (a representative of a powerful corporation with unmatched legal & technical resources) can do this to me (a defenseless lay person w/ nothing more than a computer & some very limited spare time) so that your company & the state (i.e. ratepayers) don't have to compensate me for my expected loss and avoid setting precedent for compensating anyone else like me. The CSC, CL&P, et al won't set a limit on acceptable levels of EMF because it would prove too costly and you all feel you need to proactively limit your liability even if (giving you the benefit of the doubt) that it's in the best interest of society (due to costs). But, if the mere perception (even hysteria) of danger (whether conclusively proven or not by scientific data) leads to my property devaluation, then I must be compensated. Therefore, let me re-state what I actually meant... "Any reasonable parent who has done some research on the topic of power lines and EMF would conclude that it would be an unacceptable risk to raise children in a home that has EMF levels consistently above 3 mG. Being that my 4-bedroom family home (a) was in a zone of well under 3mG when I bought the house and before the new lines were constructed but (b) will most likely be in a zone above 3mG after the lines are constructed (based on the research I was given via your own associate a few weeks ago), I cannot live with that risk for my children's sake and it will be challenging to find a future buyer at anything but a substantial loss."

I have participated in the process via:

- a. public meetings,
- b. a personal meeting with you,
- c. meeting and writing my Town Selectmen, and
- d. I will file w/ the CSC as a Party in interest.

However, it appears that there is nothing but deaf ears when it comes to compensation for me and my family if you construct something that increases the EMF's in & around my home to a level above 3mG. Why can't anyone tell me how I go about getting compensated? I know I'm not the first case. Can't we just strike a deal like this?...

If (after the project is started) EMF measurements within 50 feet of my home consistently exceed 3mg and I decide I must sell to protect my family, then except for non-power-line-related devaluations (e.g. poor homeowner maintenance and general market trends for my town), I will be compensated for the loss in market value. Example:

- ❖ I paid \$318,000 in Aug. of 2007 [like houses in area sold about 10% higher (closer to \$350,000) as they were not near power lines, so market already recognized a devaluation]
- ❖ I've spent about \$10,000 in upgrades so far
- ❖ Assume that I continue to maintain the home well
- ❖ In 2011, the new lines become active and the EMF in my home exceeds 3mG

- ❖ Between 2007 and 2011, the market (not factoring in the new power lines) does the following:

Year	Market Trend	Effect on My Home
• 2007		\$318,000 + \$10,000 upgrades = \$328,000
• 2007-2008	-3%	\$318,160
• 2008-2009	-3%	\$308,615
• 2009-2010	-3%	\$299,356
• 2010-2011	0%	\$299,356

- ❖ So, I put my house on the market for \$299,350, but after 6-9 months I only get one offer and it is for \$200,000 [while other houses like it (not near the new power lines) would get the asking price of \$299,350 based on independent appraisal]... my loss therefore is \$99,350 is attributable to the NEW power lines (not the old power lines) and I would literally be in trouble to secure a new home for my family.

- The state/ratepayers should make me whole for the difference between the \$200,000 selling price and \$299,350 (not the \$318,000 that I originally paid for it). This would be fair and just. Note that we'd also be losing money on closing costs for selling the home and buying a new one, not to mention broker's fees and differences in interest rates for the new house vs. the old house, and moving costs.

Therefore, can you see why we have been fighting hard to keep EMF's away from our house??? This is a huge problem for us. We are living paycheck to paycheck now as it is and deep in debt. If the state/ratepayers don't compensate us, our choice would be either health danger or bankruptcy. I'd rather avoid both.

Thanks,  
Noel

-----Original Message-----

From: carbere@nu.com [mailto:carbere@nu.com]  
 Sent: Monday, December 01, 2008 12:02 PM  
 To: Posson, Noel K  
 Subject: Greater Springfield Reliability Project Inquiry

Dear Mr. Posson:

Your follow-up question to CL&P's November 17, 2008 response to your recent inquiry was referred to me. In your e-mail, you write, "...it's commonly accepted that persons should practice 'prudent avoidance' of areas where EMF exceeds 3 mG." That is not correct. The policy adopted for electric transmission lines in Connecticut can be found on page 4 of the Connecticut Siting Council's (CSC) "Electric and Magnetic Fields Best Management Practices (BMP) for the Construction of Electric Transmission Lines in Connecticut" which you can access on their web site, along with other EMF information, at:<http://www.ct.gov/csc/cwp/view.asp?a=952&Q=248298#EMF>.

In developing the EMF BMPs, the CSC considered the concept of "prudent

avoidance", which was first advanced in the late 1980s by Dr. M. Granger Morgan and colleagues at Carnegie Mellon University. Dr. Morgan's use of the phrase "prudent avoidance" meant (in his words) "the idea of avoiding exposure to power-frequency electric and magnetic fields when it can be done at modest cost and little inconvenience." There was nothing then or now in this concept about specific field levels to avoid, and the word "prudent" refers to modest cost and inconvenience. The CSC's EMF BMPs do not identify any specific levels of magnetic field levels as goals of their policy.

CL&P filed its siting application for the Greater Springfield Reliability Project with the Connecticut Siting Council (CSC) in October 2008. As an affected property owner and interested resident, the CSC siting process is available to you to make your views or concerns about the project known. There are multiple opportunities for you to participate in the CSC's proceedings. This process and how you can participate has been discussed by CL&P representatives at various times during public presentations and in previous correspondence and meetings with you.

I encourage your participation in the CSC's process so that you may continue to promote your views with regard to CL&P's project proposal. Information on the CSC process and how you can participate can be found on their web site at: <http://www.ct.gov/csc/> and clicking on the "Public Participation" link. We also have public involvement information posted on the NEEWS web site at: [www.NEEWSprojects.com](http://www.NEEWSprojects.com).

Sincerely,

Robert E. Carberry  
Project Manager - NEEWS Siting and Permitting

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From: Kranich, Elise  
Sent: Monday, November 17, 2008 3:05 PM  
To: 'Posson, Noel K'  
Subject: RE: Greater Springfield Reliability Project Inquiry

You're welcome. Someone will be in contact soon.  
Enjoy your day!  
Elise

Elise C. Kranich  
203.949.2313  
860.209.2438 (mobile)

---

From: Posson, Noel K [mailto:NPOSSON@travelers.com]  
Sent: Monday, November 17, 2008 3:00 PM  
To: Kranich, Elise  
Subject: RE: Greater Springfield Reliability Project Inquiry

That's quite OK. Just didn't know how to set my expectations. Thanks!

---

From: Kranich, Elise [mailto:eckranich@burnsmcd.com]  
Sent: Monday, November 17, 2008 2:58 PM  
To: Posson, Noel K  
Subject: RE: Greater Springfield Reliability Project Inquiry

Hi Noel,  
Sorry for the delay and yes I am looking into this.  
I will be in contact soon.  
Thank you,  
Elise

---

From: Posson, Noel K [mailto:NPOSSON@travelers.com]  
Sent: Monday, November 17, 2008 2:53 PM  
To: Kranich, Elise  
Subject: FW: Greater Springfield Reliability Project Inquiry  
Importance: High

Elise,

Are you looking into this question?

Thanks,  
Noel

---

From: Posson, Noel K  
Sent: Monday, November 17, 2008 9:12 AM  
To: 'Kranich, Elise'  
Subject: RE: Greater Springfield Reliability Project Inquiry  
Importance: High

Thanks, Elise. Given that:

- a. it's commonly accepted that persons should practice "prudent avoidance" of areas where EMF exceeds 3mG and
- b. you estimate that, "At the corner of your house closest to the transmission lines, the 2017 post-NEEWS AAL magnetic field level would be 8 mG"

it's clear that at least my:

- a. backyard
- b. master bedroom (which runs adjacent to the ROW and has large windows)
- c. infant daughter's bedroom (which also runs adjacent to the ROW and has large windows)
- d. kitchen/eating area (which also runs adjacent to the ROW and has large windows)
- e. family room (which also runs adjacent to the ROW and has large windows)

may all very well be in areas where "prudent avoidance" would be impractical. This would force us to move from out of our house. Knowing this, it will be hard to sell my house for anything but a significant loss on it (i.e. who wants a 2,900 square foot house that has readings greater than 3mG unless it's dirt cheap)? It's a house built for a family and no educated parents are going to

want to subject their children to the risk. So, what's the process for me to be compensated for my loss?

Thanks,  
Noel

---

**From:** Kranich, Elise [mailto:eckranich@burnsmcd.com]  
**Sent:** Monday, November 17, 2008 8:45 AM  
**To:** Posson, Noel K  
**Subject:** Re: Greater Springfield Reliability Project Inquiry

Good morning Noel,

Thank you again for your questions regarding the Greater Springfield Reliability Project (GSRP), one of the four New England East-West Solution (NEEWS) transmission projects designed to improve the reliability of the transmission system in southern New England.

The GSRP Team is pleased to answer your questions. If you have any additional questions, please follow-up with me directly.

In your inquiry, you asked where the structures are being proposed near your property. According to our aerial survey data, your home is located approximately 125 feet from the center of the existing lattice-steel tower line or 75 feet from the westerly edge of CL&P's transmission easement. The proposed 345-kV monopole line would be centered approximately 75 feet east of the existing line (see attached cross section), so the nearest point of your home would be approximately 200 feet from the centerline of the proposed line.

You also requested information regarding existing Electric & Magnetic Field (EMF) levels and how they may be affected by our proposed upgrade. As part of CL&P's Connecticut Siting Council (CSC) Application, electric and magnetic fields were modeled along this right-of-way (ROW) segment as follows:

- Magnetic fields in 2012 ("pre-NEEWS"), without the new line, for three example system load levels
- Magnetic fields in 2017 ("post-NEEWS"), with the new line and all other NEEWS projects completed, for three example system load levels
- Electric fields in 2012 and 2017 for a mid-span cross-section where conductor clearances would be lowest, therefore producing the highest ground level electric fields that will exist near the lines

Magnetic field levels from transmission lines vary with the minute-to-minute power flows on the lines, and we selected three example load levels for calculating magnetic fields. The three example load levels represent a forecast annual peak load hour ("APL"), a forecast average on the peak-load day ("PDAL"), and a forecast average annual load ("AAL"). Many assumptions are associated with determining each of these future load levels, including future power demands in CT, the future system configuration, and a generation dispatch within CT which corresponds with relatively high uses of the CT import capability and the east-west transfer capability that



would exist in 2012 and in 2017.<sup>[1]</sup> CL&P's general approach on these assumptions was to lean towards high-side estimates of the magnetic field levels for each of the three loading conditions.

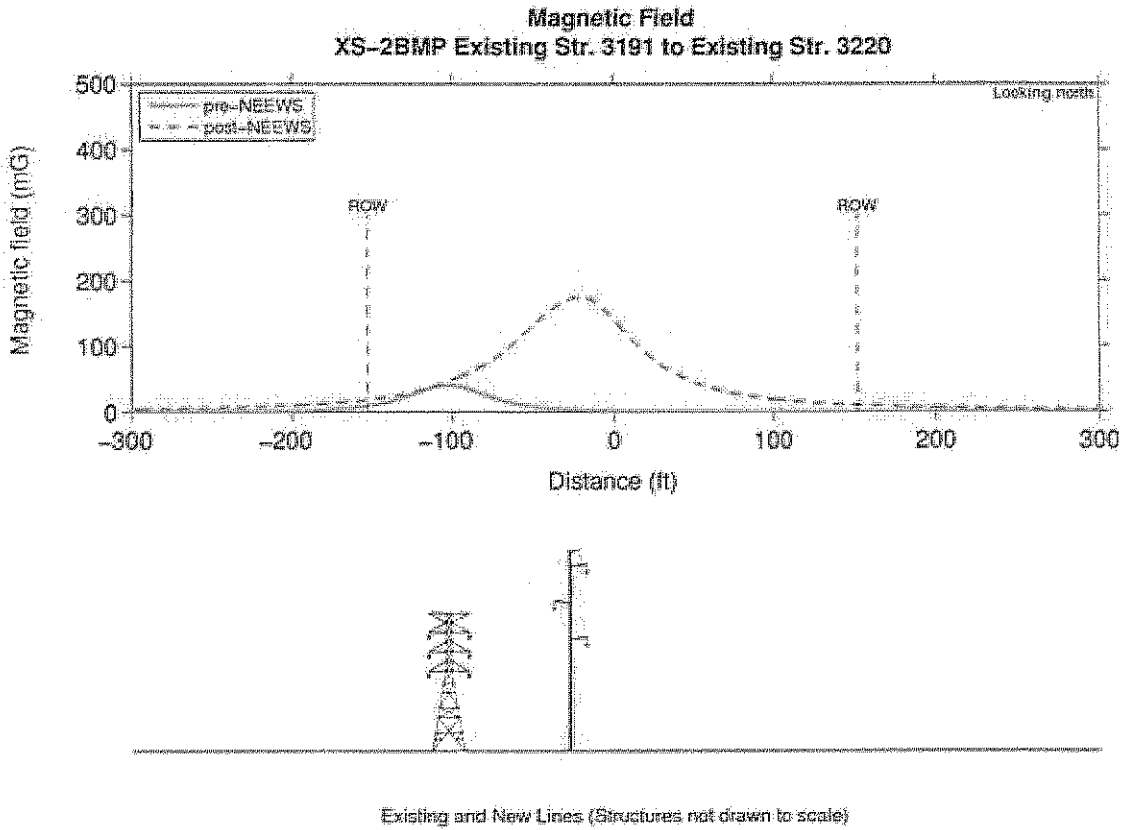
Modeling of the system for each of the three example loading conditions yields line currents which are then used in a magnetic field calculation program. Below is figure O-8 from the application, one example of a magnetic field calculation result from Section O. This result applies to the ROW segment that passes by your home, and it depicts a 2012 pre-NEEWS and a 2017 post-NEEWS calculation result for the AAL loading condition with CL&P's proposed line configuration here (which is depicted below the graph). Relative to the zero point on the horizontal axis on this graph, the nearest point of your home is located at the distance of -227.5 feet. You can readily see on the graph that the magnetic field levels drop considerably over the distance between the lines and your home. At the edge of the ROW in this example, the 2007 post-NEEWS AAL magnetic field level would be 18 mG (milligauss, a unit of measurement for magnetic fields), as compared to 9 mG for the existing 2012 pre-NEEWS AAL circumstance.. At the corner of your house closest to the transmission lines, the 2017 post-NEEWS AAL magnetic field level would be 8 mG, as compared to 1 mG for the 2012 pre-NEEWS AAL circumstance. For purposes of relative comparison, the electric wiring and appliances within your home will also produce background magnetic field levels within your home which generally can be expected to range up to 4 mG.

Turning now to electric fields, please refer to Table O-15 in CL&P's application to the CT Siting Council to see that our calculated electric field level at the west edge of the ROW opposite a mid-span of the lines passing by your home would increase from 0.09 to 0.15 kV/m. Because electric field levels will continue to drop over the additional distance to your home, and because vegetation (and also house walls) effectively screens these fields, we would expect to see no discernable change in electric fields within your home.

Lastly, you requested the location of an existing 345-kV delta line. Similar lines with this design may be found in Mansfield Hollow State Park in Mansfield, CT and in south Wilton, CT just north of Kent Road. When measuring magnetic fields near to transmission lines, please keep in mind that magnetic fields are a function of line currents and that spot-in-time measurements at any given location will reflect whatever line load exists at the time of measurement.

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Figure O-8 Profile XS-2 BMP: Existing Str. 3191 to Existing Str. 3221 – Magnetic fields under pre-NEEWS (2012) and post-NEEWS (2017) conditions at AAL



I hope my responses have addressed your questions and concerns. As our design is preliminary, please be aware that the line designs (and corresponding field levels) are subject to change as a result of the Connecticut Siting Council Process.

If you have additional questions or concerns, please feel free to contact me directly.

Sincerely,

Elise Kranich  
Community Relations Representative for Northeast Utilities



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**From:** Phelps, Derek [mailto:Derek.Phelps@ct.gov]  
**Sent:** Wednesday, December 03, 2008 12:20 PM  
**To:** Posson, Noel K  
**Cc:** Kranich, Elise; Jim Hayden; carbere@nu.com  
**Subject:** RE: Greater Springfield Reliability Project Inquiry

Mr. Posson:

I must ask that you refrain from including me in email exchanges between you and the applicant. The transmission line project that is the subject of your correspondence below is currently before the Connecticut Siting Council as a pending application.

As you may know the Siting Council is a quasi-judicial agency whereupon the rules of evidence apply, pursuant to the Uniform Administrative Procedure Act (UAPA). As such your inclusion of me in any extra-record communications, even if I am simply copied, is improper given that such distribution of information to this office is not properly entered into the record and is therefore ex-parte (off the record).

Please feel free to contact our staff attorney, Melanie Bachman (860 827-2951), for guidance as to how your concerns may be properly entered into the record. Thank you very much for your understanding and cooperation.

Derek Phelps

S. Derek Phelps  
Executive Director

---



Connecticut  
Light & Power  
The Northeast Utilities System



Greater Springfield  
Reliability Project

December 19, 2008

Mr. Noel Posson  
212 Newgate Road  
East Granby, CT 06026

**Re: Greater Springfield Reliability Project**

Dear Mr. Posson,

This letter is to respond to your e-mail message of December 1, 2008 to Robert Carberry and others. In order to respond fully, I have also reviewed your previous exchange of e-mail correspondence with Mr. Carberry and with Elise Kranich. Your letter was referred to me for a response because it poses legal and policy questions, rather than requests for factual and technical information about the project, which has been supplied to you by Mr. Carberry, Ms. Kranich, and other CL&P representatives in correspondence and in person meetings since July of 2008.

You are correct to conclude that CL&P does not have a "process" for compensating homeowners if magnetic fields of 3 mG or greater can be measured near their homes. As far as I am aware, no other electric public utility provides any such process or otherwise compensates property owners under these circumstances.

Your proposal for measuring a devaluing effect on your property shows substantial thought and ingenuity on your part. However, while I respect your opinion, I must respectfully advise you that CL&P does not share it, either with respect to the premise that the market value of homes is affected by whether magnetic fields in its immediate vicinity are above or below 3 mG, nor that such an effect could be reliably measured by the methodology you suggest.

It would not be totally surprising if the market value of your home were affected, at the time that you bought it in 2007 and now, by the burden of the existing transmission line easements that your predecessors in title granted to CL&P in 1924 and 1971. An easement limits the use that an owner may make of his property, and the extent to which it may affect value can vary according to the scope of the uses that it authorizes.

Very truly yours,

Jane P. Seidl  
Senior Counsel of Northeast Utilities Service Company

c: James M. Hayden - First Selectman, Town of East Granby  
Robert E. Carberry - Project Manager, Siting and Permitting

Junco  
1 of 1

----- Forwarded by Matthew R. Pelletier/NUS on 12/15/2008 07:32 AM -----

rjunc1@aol.com

12/13/2008 12:34 PM To  
NEEWSGroupMailbox@NU  
cc

Subject  
Greater Springfield Reliability  
Project

Kirk and Rebecca Junco  
151 Newgate Road  
East Granby, CT 06026  
860-413-3716  
rjunc1@aol.com

Dear Sir:

I am writing because my property borders the power line right of way of the proposed Greater Reliability Project. I am interested in meeting with someone that I can talk to in order to address some concerns I have about the proposed towers. I attended the public information meeting you had at the East Granby High School and it was very informative. I felt encouraged there that the NEEWS was open to listening to individual concerns and possible solutions.

Would you e-mail or call me to let me know who I can contact.

Regards,  
Kirk and Rebecca Junco

**Environmental Mitigation Projects as Compensation to Town of East Granby  
Resulting From the CL&P Greater Springfield Reliability Project**

**Submitted by the East Granby Land Trust**

From a cursory review of the on-line application by CL&P to construct the 345-kV Line through East Granby, it is apparent that the impact on the town will be substantial.

The Metacomet Ridge in East Granby is of regional importance as a Connecticut Blue Trail, and has long been the highest priority for natural, scenic and recreational preservation in the town. Along with its recreational value, it is unique as a trap-rock ridge environment, and is home to several rare and endangered species. The scenic views are extremely vulnerable under the current CL&P proposal.

The proposal will also impact primary biodiversity conservation areas that have been identified through biological field studies conducted by the Farmington Valley Biodiversity Project.

In reviewing CL&P's comments as to compatibility with town and regional plans, EGLT would like to point out the following information from national, regional and town studies and plans.

- The reference to the Town of East Granby 2004 Plan of Conservation and Development on L-41 says that the plan "focuses predominantly on the growth of the East Granby village center and on balanced growth in general." While almost all Connecticut town plans urge balanced growth, a significant portion of the East Granby 2004 Plan of Conservation and Development is devoted to identifying East Granby's natural, wetland, scenic, open space and historic resources and outlining strategies for their preservation.
- The Farmington Valley Greenway and the Metacomet Trail are of regional importance, and provide two of East Granby's best economic development opportunities for tourism.
- The United States House of Representatives passed the New England Scenic Trail Designation Act on January 29, 2008. This legislation will amend the National Trail System Act to designate the Monadnock, Metacomet and Mattabesett (MMM) Trail System as the New England National Scenic Trail. This trail runs for 7.9 miles through East Granby and offers many of the best views along the trail. The proposed project will have a profoundly negative effect on the scenic qualities of the Metacomet Trail in East Granby, to the detriment of hopes to make it a premier attraction as part of the National Trail. The legislation would rename the trail "The New England Scenic Trail." East Granby does not want to be an asterisk along the trail, wherein it is stated that the trail here was scenic until the construction of the new power line.

- Farmington Valley Biodiversity Project (FVBP). The primary objective of the FVBP was to identify and map priority conservation areas to help guide municipal planning and decision making regarding land use. Using biological field surveys, this study mapped the areas of East Granby richest in biodiversity so that core habitats and the corridors that connect them could be identified and used for planning purposes. The study showed that numerous high quality wetland, forest, talus rockslide, and traprock ridge natural communities exist along the CL&P right of way.

The FVBP identified eight primary and three secondary conservation areas in East Granby. The proposed CL&P project will be occurring in these conservation areas. Please refer to the attached pages from the project study, which describe the conservation areas, and the East Granby Biodiversity Map on Page 33 of the published study, available at [www.frwa.org/FVBP.html](http://www.frwa.org/FVBP.html).

- Connecticut Conservation and Development Policies Plan. Except for the area of Bradley International Airport, East Granby is not mapped as a growth area. The town center is mapped as a rural community center. The remainder of the town is mapped as preservation area, conservation area, or rural land.

The CL&P project will have a significant impact on East Granby's scenic and natural resources. The proposed route is 6.2 miles through East Granby. The existing right of way is 300 feet wide in most places, and within this right of way, an additional 75 to 100 feet will be cleared. The route crosses 13 watercourses, and 41 delineated wetlands will be disturbed.

To compensate the town for the loss of scenic, wetland and biological resources, the following projects are suggested:

1. CL&P, Northeast Utilities and its holding company shall deed all properties that are excess to power generation and transmission needs to either the Town of East Granby or CT DEP. Land adjacent to the Newgate Wildlife Management Area (state-owned) should be deeded to DEP. Land adjacent to the Metacomet Trail or town-owned land should be deeded to the Town of East Granby. East Granby has identified the utility's land as having significant open space values. Three of the properties are shown as "Managed Open Space" (see light green shaded areas) on the East Granby 2004 Plan of Conservation & Development.
2. CL&P shall purchase for the Town land areas identified as "desirable open space" in the Town Open Space Plan. See attached map from the 2004 Plan of Conservation and Development, also available at [www.eastgranby.net](http://www.eastgranby.net) through a link at the page for Planning and Zoning Commission. These are the green cross-hatched areas. They are located along the Metacomet Trail and the Farmington River corridors.

3. CL&P shall purchase for public use the privately-held portions of the Metacomet Trail in East Granby. Parts of the trail are in public or EGLT ownership, but significant portions remain in private ownership. Most of the trail south of Route 20 is privately held. Please refer to the map of East Granby's Open Space Plan.
4. CL&P shall be required to eradicate/control invasive plants on their property and along their right of way. As a major landowner in town, CL&P must undertake, as part of its property management, the removal of invasive species from their land holdings and monitor the properties to control invasive species.
5. CL&P shall purchase Copper Hill Country Club (currently for sale), located at Copper Hill & Griffin Roads, and convey it to the Town of East Granby for public recreational use or for wetland and grassland habitat creation. The area is shaded pink on the Open Space Plan and labeled "commercial recreation."
6. CL&P shall purchase easements that permanently protect wetlands, thereby buffering critical marsh and wetland habitats identified in the Farmington Valley Biodiversity Project, particularly: Beaver Dam Marsh, Great Marsh, and Pickerel Cove. The study and study maps are available at [www.frwa.org/FVBP.html](http://www.frwa.org/FVBP.html).
7. CL&P shall create protected riverine or riparian buffers along the following watercourses: Farmington River, Salmon Brook, Muddy Brook, Holcomb Brook, Sheldon Brook, Sandborn Brook, Stony Brook, and Creamery Brook.



January 7, 2009

Ms. Mary Goodhouse  
East Granby Land Trust  
P.O. Box 39  
East Granby, CT 06026

**Re: The Connecticut Light & Power Company (CL&P)  
Greater Springfield Reliability Project (GSRP)  
December 5, 2008 Email Correspondence**

Dear Ms. Goodhouse:

We are in receipt of your e-mail correspondence, dated December 5, 2008, and the attachment entitled, "*Environmental Mitigation Projects as Compensation to Town of East Granby Resulting from the CL&P Greater Springfield Reliability Project.*"

On behalf of CL&P, we would like to express our appreciation and thanks to the East Granby Land Trust for offering recommendations for potential environmental mitigation elements related to the Greater Springfield Reliability Project (GSRP or "the Project"). Your suggestions will be evaluated as CL&P continues to develop a comprehensive mitigation proposal for the Project. As part of this process, CL&P will consult with state and federal permitting agencies, including the CT Siting Council, the U.S. Army Corps of Engineers, and the CT Department of Environmental Protection, as well as with local boards and commissions. As you may be aware, the final decision as to appropriate mitigation components will be made by these regulatory agencies through the siting and permitting process.

CL&P encourages public participation as this Project undergoes the referenced review processes, and will continue to reach out to stakeholders and local officials as the Project moves forward.

Once again, we and CL&P thank you for your participation in this effort.

EGLT 5 of 5

ENSR | AECOM

Letter to East Granby Land Trust  
January 7, 2009

Page 2

Sincerely,



James Durand  
Senior Scientist/Program Manager  
ENSR/AECOM Environment

cc: Gary Haynes, Director of Community Development, Town of East Granby  
George Cornelius, Chairman of the East Granby Inland Wetlands Commission and  
member of the East Granby Land Trust  
Jeffrey M. Towle, CL&P Project Manager for the GSRP

**From:** Kranich, Elise  
**Sent:** Friday, April 03, 2009 11:52 AM  
**To:** 'Posson, Noel K'  
**Subject:** RE: Greater Springfield Reliability Project Inquiry

Hi Mr. Posson,  
I hope you are well. I will process your request and get back to you early next week.

Have a great weekend – thanks goodness it's Friday(!)

Please call me with any additional questions in the meantime.

Sincerely,  
Elise  
203-949-2313

---

**From:** Posson, Noel K [mailto:NPOSSON@travelers.com]  
**Sent:** Friday, April 03, 2009 10:59 AM  
**To:** Kranich, Elise  
**Subject:** Re: Greater Springfield Reliability Project Inquiry

Hi Elise,

Thanks again for this summary. I do appreciate the effort. However, I am still nervous about the risks for my two daughters (and any potential future children) living in our house and playing in our backyard. So, I was wondering if similar estimates could be drawn up for me with regard to the underground alternatives (particularly the one using the existing ROW)? I suspect that the estimated reading for the underground alternative (if properly configured) would be well below the 8mG 2017 post-NEEWS estimate estimated below for the overhead version.

Thanks and Best Regards,  
Noel Posson  
212 Newgate Rd  
East Granby, CT 06026  
860-844-8909 home  
860-922-5246 cell  
860-277-1631 work

---

**From:** Kranich, Elise [mailto:eckranich@burnsmcd.com]  
**Sent:** Monday, November 17, 2008 8:45 AM  
**To:** Posson, Noel K  
**Subject:** Re: Greater Springfield Reliability Project Inquiry

Good morning Noel,

Thank you again for your questions regarding the Greater Springfield Reliability Project (GSRP), one of the four New England East-West Solution (NEEWS) transmission projects designed to improve the reliability of the transmission system in southern New England.

The GSRP Team is pleased to answer your questions. If you have any additional questions, please follow-up with me directly.

In your inquiry, you asked where the structures are being proposed near your property. According to our aerial survey data, your home is located approximately 125 feet from the center of the existing lattice-steel tower line or 75 feet from the westerly edge of CL&P's transmission easement. The proposed 345-kV monopole line would be centered approximately 75 feet east of the existing line (see attached cross section), so the nearest point of your home would be approximately 200 feet from the centerline of the proposed line.

You also requested information regarding existing Electric & Magnetic Field (EMF) levels and how they may be affected by our proposed upgrade. As part of CL&P's Connecticut Siting Council (CSC) Application, electric and magnetic fields were modeled along this right-of-way (ROW) segment as follows:

- Magnetic fields in 2012 ("pre-NEEWS"), without the new line, for three example system load levels
- Magnetic fields in 2017 ("post-NEEWS"), with the new line and all other NEEWS projects completed, for three example system load levels
- Electric fields in 2012 and 2017 for a mid-span cross-section where conductor clearances would be lowest, therefore producing the highest ground level electric fields that will exist near the lines

Magnetic field levels from transmission lines vary with the minute-to-minute power flows on the lines, and we selected three example load levels for calculating magnetic fields. The three example load levels represent a forecast annual peak load hour ("APL"), a forecast average on the peak-load day ("PDAL"), and a forecast average annual load ("AAL"). Many assumptions are associated with determining each of these future load levels, including future power demands in CT, the future system configuration, and a generation dispatch within CT which corresponds with relatively high uses of the CT import capability and the east-west transfer capability that would exist in 2012 and in 2017.<sup>[1]</sup> CL&P's general approach on these assumptions was to lean towards high-side estimates of the magnetic field levels for each of the three loading conditions.

Modeling of the system for each of the three example loading conditions yields line currents which are then used in a magnetic field calculation program. Below is figure O-8 from the application, one example of a magnetic field calculation result from Section O. This result applies to the ROW segment that passes by your home, and it depicts a 2012 pre-NEEWS and a 2017 post-NEEWS calculation result for the AAL loading condition with CL&P's proposed line configuration here (which is depicted below the graph). Relative to the zero point on the

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<sup>[1]</sup> Please read pages O-10 through O-15 of CL&P's application to the CSC (located at <http://www.transmissionnu.com/residential/projects/springfield/PublicInvolvement.asp>) to fully understand the assumptions.

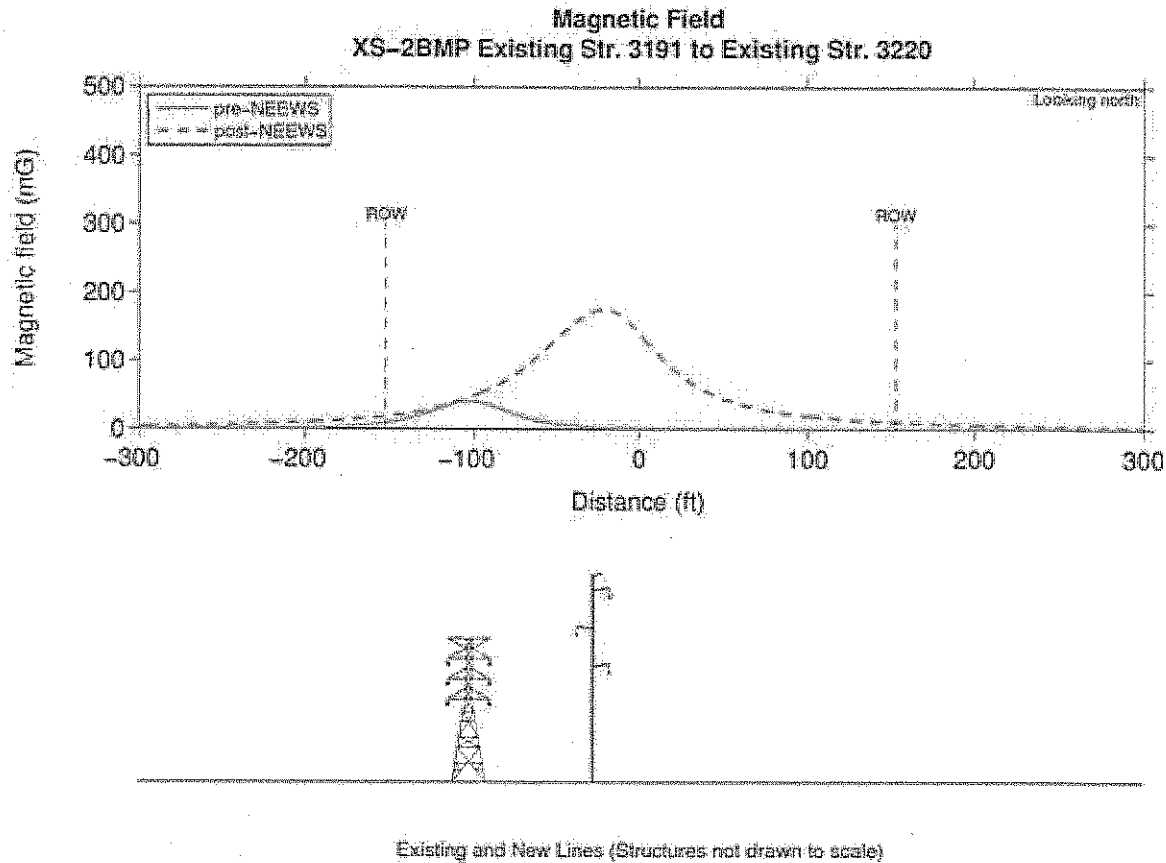
horizontal axis on this graph, the nearest point of your home is located at the distance of -227.5 feet. You can readily see on the graph that the magnetic field levels drop considerably over the distance between the lines and your home. At the edge of the ROW in this example, the 2007 post-NEEWS AAL magnetic field level would be 18 mG (milligauss, a unit of measurement for magnetic fields), as compared to 9 mG for the existing 2012 pre-NEEWS AAL circumstance. At the corner of your house closest to the transmission lines, the 2017 post-NEEWS AAL magnetic field level would be 8 mG, as compared to 1 mG for the 2012 pre-NEEWS AAL circumstance.

For purposes of relative comparison, the electric wiring and appliances within your home will also produce background magnetic field levels within your home which generally can be expected to range up to 4 mG.

Turning now to electric fields, please refer to Table O-15 in CL&P's application to the CT Siting Council to see that our calculated electric field level at the west edge of the ROW opposite a mid-span of the lines passing by your home would increase from 0.09 to 0.15 kV/m. Because electric field levels will continue to drop over the additional distance to your home, and because vegetation (and also house walls) effectively screens these fields, we would expect to see no discernable change in electric fields within your home.

Lastly, you requested the location of an existing 345-kV delta line. Similar lines with this design may be found in Mansfield Hollow State Park in Mansfield, CT and in south Wilton, CT just north of Kent Road. When measuring magnetic fields near to transmission lines, please keep in mind that magnetic fields are a function of line currents and that spot-in-time measurements at any given location will reflect whatever line load exists at the time of measurement.

Figure O-8 Profile XS-2 BMP: Existing Str. 3191 to Existing Str. 3221 – Magnetic fields under pre-NEEWS (2012) and post-NEEWS (2017) conditions at AAL



I hope my responses have addressed your questions and concerns. As our design is preliminary, please be aware that the line designs (and corresponding field levels) are subject to change as a result of the Connecticut Siting Council Process.

If you have additional questions or concerns, please feel free to contact me directly.

Sincerely,  
Elise

Elise Kranich  
Community Relations Representative for Northeast Utilities

**From:** Kranich, Elise  
**Sent:** Monday, April 13, 2009 5:58 PM  
**To:** 'Posson, Noel K'  
**Subject:** RE: Greater Springfield Reliability Project Inquiry

Hi Mr. Posson,

I hope you are well. Thank you again for your inquiry regarding the Greater Springfield Reliability Project, one of the four New England East-West Solution (NEEWS) projects designed to improve southern New England's reliability. In your recent email, you requested information regarding underground Electric & Magnetic Fields (EMF) configurations.

In the attached figure and table you will find our calculated magnetic fields associated with CL&P's lines to the rear of your property under pre-NEEWS (year 2012) and post-NEEWS (year 2017) conditions at Average Annual Load (AAL). As you requested, the figure shows the post-NEEWS (year 2017) results assuming that the proposed 345-kV line was constructed underground on CL&P's right-of-way just to the east of the existing 115-kV line (XS-2UG), and one row of the table notes the Magnetic Field (MF) levels at the two edges of the right-of-way for this configuration. In this table, note that the "XS-2 - Post" row depicts post-NEEWS levels if the proposed 345-kV line were constructed overhead as an H-frame line. CL&P's proposal under the Field Management Design Plan is to construct an overhead 345-kV line in a delta configuration. The XS-2 - BMP-Post row in the table reflects that line configuration.

The calculated MF level for the XS-2UG at AAL is 3.2 mG on the west edge of right-of-way (ROW). The level at the nearest corner of your home to the west of the ROW is 0.9 mG.

I hope that this response addresses your questions and concerns. As our design is preliminary, please be aware that the line designs (and corresponding field levels) are subject to change as a result of the Connecticut Siting Council (CSC) process. As part of the CSC process, the CSC hosts local public comment hearings to gather feedback from communities along the Project route. These local public comment hearings provide the opportunity for the public to express their opinion.

Please feel free to contact me directly with any additional questions.

Thank you,

Elise Kranich

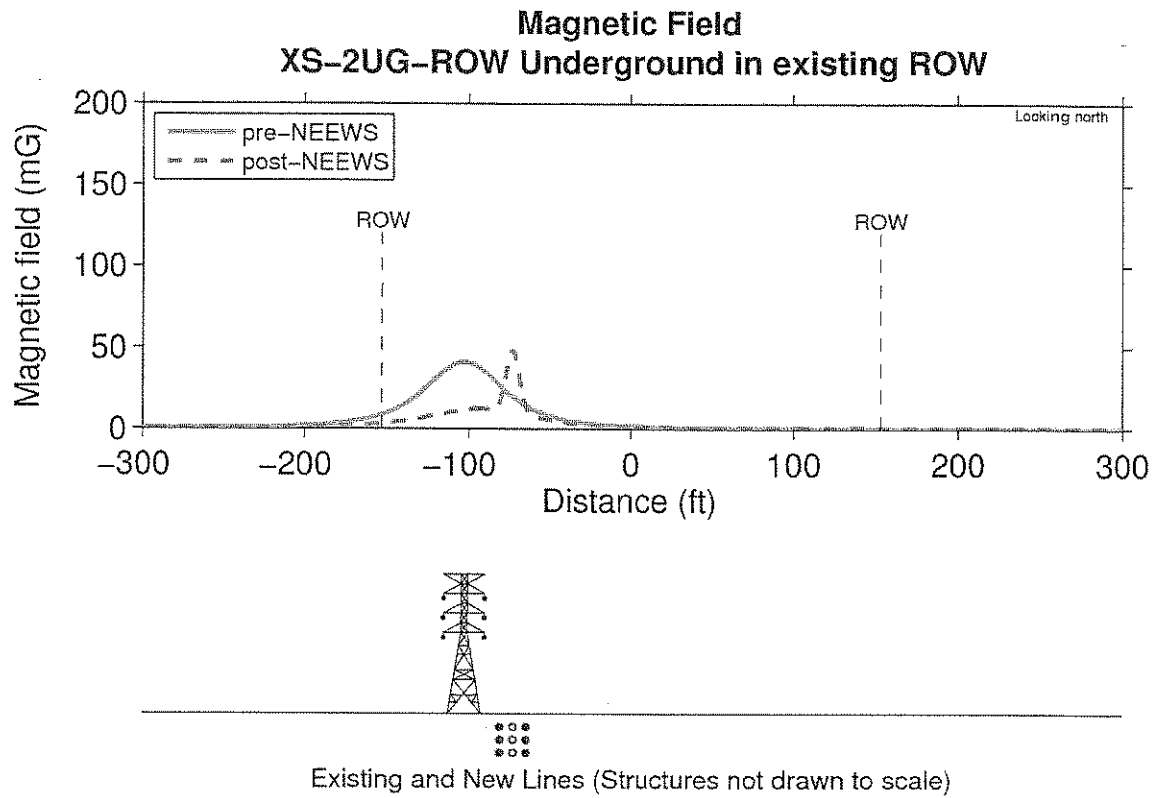
Community Relations

Representative for Northeast Utilities

203.949.2313

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Figure O-10: Profile XS-2 UG: 4.6-mile/3.6-mile UG line variations within ROW to Phelps Road transition station – Magnetic fields under pre-NEEWS (2012) and post-NEEWS (2017) conditions at AAL<sup>1</sup>



<sup>1</sup> Higher magnetic fields than shown in this profile would be produced over splicing vaults where the cables are more widely separated than shown here.



**Table O-7: Summary of pre-NEEWS (2012) and post-NEEWS (2017) magnetic field levels at annual average loading (AAL) – underground variations for part of Granby Junction to CT/MA State Border (XS-2)**

Magnetic Field (mG)		
Cross Section	West/North ROW*	East/South ROW*
XS-2 – Pre	8.7	0.1
XS-2 – Post	23.5	12.6
XS-2 BMP – Post	17.9	9.8
XS-2 UG variation– Post (in ROW)	3.2	0.5
XS-2 UG variation– Post (under streets)	2.6	5.6

\* 25 feet from centerline for in street underground construction

**Maturo, Patrice**

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**From:** Maturo, Patrice  
**Sent:** Monday, June 15, 2009 9:16 AM  
**To:** 'ray44sox@aol.com'  
**Subject:** Greater Springfield Reliability Project  
**Attachments:** CSC\_emf\_bmp\_12-14-07\_20080603083907.pdf; CSC Public Participation.pdf

**Categories:** Action required

Good Morning Suzanne,

It was nice speaking with you on Friday. As discussed, I forwarded your follow-up questions from the Connecticut Siting Council's (CSC) public hearing last Tuesday to our Project Team, and we are currently drafting a response. In the mean time, I wanted to forward you the information you requested about public participation. Please refer to the attached document from the CSC's Web site in regard to Public Participation. I also attached information on the CSC's "Electric & Magnetic Fields Best Management Practices for Construction of Electric Transmission Lines in Connecticut". If you would like to submit a letter to the CSC in writing, please use this address:

Connecticut Siting Council  
Attn: Chairman Daniel F. Caruso  
Ten Franklin Square  
New Britain, CT. 06051

In your letter, you can reference the Project with the following docket number:

**DOCKET 370A** - The Connecticut Light & Power Company application for Certificates of Environmental Compatibility and Public Need for the Connecticut Valley Electric Transmission Reliability Projects which consist of (1) The Connecticut portion of the Greater Springfield Reliability Project that traverses the municipalities of Bloomfield, East Granby, and Suffield, or potentially including an alternate portion that traverses the municipalities of Suffield and Enfield, terminating at the North Bloomfield Substation; and (2) the Manchester Substation to Meekville Junction Circuit Separation Project in Manchester, Connecticut.

I hope this information is useful. As requested, I will send both an electronic and hard copy response to your follow-up questions after I receive the information from the Project Team. Please feel free to contact me directly at the numbers provided below if you have any additional questions or concerns, and thank you for your interest in the Greater Springfield Reliability Project.

Regards,  
Patty

**Patty Maturo**  
**Community Relations**  
Burns & McDonnell  
35 Thorpe Avenue, Suite 201  
Wallingford, CT 06492  
Direct: 203-949-2320  
Mobile: 860-218-7523

**Maturo, Patrice**

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**From:** Maturo, Patrice  
**Sent:** Tuesday, June 16, 2009 3:05 PM  
**To:** 'ray44sox@aol.com'  
**Subject:** Greater Springfield Reliability Project  
**Attachments:** CSC Hearing Response\_Oconor\_6-15-09.doc

**Categories:** Action required

Good Afternoon Suzanne,

As requested, please refer to the attached letter in response to the questions you presented to Marcia Wellman in regard to the Greater Springfield Reliability Project at the Connecticut Siting Council's (CSC) Public Hearing in East Granby on June 9. A hard copy of this letter as well as the CSC's EMF best management practices, CSC Public Participation Guidelines and CL&P's Field Management Design Plan are also included in the package.

I hope that you find this information useful, and please feel free to contact me with any additional questions or concerns.

Regards,

Patty

**Patty Maturo**  
**Community Relations**

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June 15, 2009

Ms. Suzanne Oconor  
29 Washington Ridge Road  
East Granby, CT. 06026

**RE: Greater Springfield Reliability Project**

Dear Ms. Oconor,

Thank you for attending the Connecticut Siting Council (CSC) Public Hearing in East Granby last week in regard to Docket 370A—The Connecticut Light & Power Company application for Certificates of Environmental Compatibility and Public Need for the Connecticut Valley Electric Transmission Reliability Projects which consist of (1) The Connecticut portion of the Greater Springfield Reliability Project and the Manchester Substation to Meekville Junction Circuit Separation Project.

As requested, CL&P prepared a response to the questions you presented to Marcia Wellman at the hearing.

**1.) How do you decide when to use a reduced EMF tower or install the lines underground? What is the criterion for determining which tower to use?**

CL&P decides whether to propose a line as overhead or underground based on technical, cost, and environmental considerations. If it decides to propose that the line be constructed overhead, then it first identifies a “base” design for the support structures, again taking into account technical considerations (such as the available right-of-way width for the new line), cost, and environmental considerations. Then, CL&P determines if there are any areas along the line where other line designs should be proposed in accordance with the Connecticut Siting Council’s (CSC) Electric & Magnetic Fields Best Management Practices for Construction of Electric Transmission Lines in Connecticut (BMP).

According to the BMP:

“The Council directs the Applicant to initially develop a Field Management Design Plan that depicts the proposed transmission line project designed according to standard good utility practice and incorporating 'no-cost' MF mitigation design features. The Applicant shall then modify the base design by adding low-cost MF mitigation design features specifically where portions of the project are adjacent to residential areas, public or private schools, licensed child day-care facilities, licensed youth camps, or public playgrounds. The Council's decision documents in Docket 272 provide an indication of what the Council considers to be an "adjacent residential area.”

CL&P was guided by this CSC document in the preparation of the Greater Springfield Reliability Project's Field Management Design Plan. I have attached CL&P's Field Management Design Plan from Appendix O-1 of the CSC Application where you will see that CL&P's base design is a horizontal line configuration using H-frame structures, and where you may see the comparison to other possible overhead line design choices. Please also refer to Figures O-10 and O-11 in the Application for our calculation results, under a set of assumptions described in Section O of the Application, for magnetic fields associated with the 345-kV underground cable-system variations we considered.

**2.) Can the de-energized lines be re-energized without public notice?**

Depending upon how long these line sections were de-energized, CL&P may need to obtain an approval from the CT Department of Public Utility Control to re-energize them. However, these line sections could be re-energized without public notice because siting of a new line is not required. Of course, the lines could not be re-energized to serve as 115-kV circuits again unless a substation or more line was built out of Granby Junction for these line sections to connect to, and such new facilities could not be built without public notice and Council approval. However, power line facilities operating at voltages below 69 kV are not subject to CT Siting Council jurisdiction, so if either line was re-energized instead to serve as a 23-kV distribution line, public notice would not be required.

**3.) Will the de-energized lines be removed?**

Under the current project, no, the de-energized lines will not be removed due to increased cost as well as environmental impacts. Sections of the existing lines that will be de-energized are located in wetland areas, which would be disturbed by heavy equipment upon removal. Leaving the de-energized lines in place gives CL&P the flexibility of possible reuse in the future, rather than having to initiate a new project to re-construct those lines.

It's possible, however, that a Council decision to approve CL&P's proposed project would include a condition of approval to report at some point on the status of the de-energized lines, or to remove them by a certain date unless a new use can be explained to the Council. Typical Council decisions include several conditions of approval.

**4.) Are you able to describe the reduction in EMF per foot?**

No, but if you know the instantaneous level at one distance from a line (at 100 feet for example), you can expect that at twice this distance from the line the MF level will typically be less by a factor of about 1/4 from what it was at 100 feet. As a practical matter, the MF levels beyond distances of 300 feet from most any transmission line are sufficiently small as to not be distinguishable from the background MF levels produced by other local MF sources in or near homes.

**5.) In this residential area, should the lines be placed underground? What would the reduction be from H-frame to "T" to underground?**

Although lower magnetic fields would exist nearby to the proposed 345-kV line if it were constructed as an underground cable system, higher costs to consumers and many other construction, operating and reliability issues associated with such an underground cable system led CL&P to propose an all-overhead 345-kV line. The existing CL&P line is so far away from the homes on your street that it makes no noticeable difference to the existing background magnetic field levels in or near your home. The new line would be even further away, since it will be approximately 171 feet beyond the existing line. Regardless of the type of structure used for an overhead line, and regardless of whether the new line were to be built overhead or underground, it would not change the magnetic field levels in and around your home or along your street. Accordingly, your street would not qualify for consideration as a "residential area" that is "adjacent" to the new line.

**6.) Please provide a description of the "danger zone" associated with the distance my home/neighborhood is from the proposed lines.**

No "danger zone" has been designated for the proposed lines. You may be referring to what the Connecticut Siting Council and CT law refer to as a "buffer zone". By law, a buffer zone in the context of transmission line siting is deemed, at a minimum, to be the distance between the proposed transmission line and the edge of the utility right-of-way. As long as the existing right-of-way width provides sufficient space for new and existing lines to operate in conformance with the National Electrical Safety Code, previous Council decisions have determined that the existing right-of-way constitutes the buffer zone. Your home at 29 Washington Ridge Road is approximately 600 feet from the centerline of CL&P's right-of-way, so it is well beyond the buffer zone.

**7.) What address do I use to submit a letter to the CSC in regard to the Project?**

Please send all letters of testimony to the address below prior to the July 7, 2009 deadline:

Connecticut Siting Council  
Attn: Chairman David F. Caruso  
Ten Franklin Square  
New Britain, CT. 06051

As requested, I am sending a paper copy of the CSC's Public Participation Guidelines and the BMP to you by regular mail. These documents, as well as this letter, are also being provided to you via e-mail. Please call the Project Hotline at 1-866-99-NEEWS (63397) if you have any additional questions or concerns.

Regards,



Jerry Fortier  
Project Manager—Greater Springfield Reliability Project

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**The Details of attaining party/intervenor status  
and  
How to participate in the public comment hearing**

\*Please note the material below is not a substitute for legal advice. If there is conflict with the text below and relevant statutes and regulations, the statutes and regulations shall prevail.

<b>Status in Proceeding</b>	<b>Relevant Connecticut Statutes</b>	<b>Relevant Council Regulations</b>	<b>Summary of participation</b>	<b>Council approval required</b>
<b>Party</b>	4-177a; 16-50n; 16-50o; 22a-120; 22a-163j	16-50j-13 through 16-50j-17	Requires pre-filing and allows for cross-examination; full participation in evidentiary hearing	Yes. Must file at least five days prior to the hearing.  Must show legal rights and duties or privileges will be determined by Council decision.
<b>Intervenor</b>	4-177a(b); 16-50n; 16-50o; 22a-120; 22a-163j	16-50j-15a through 16-50j-17	Requires pre-filing and allows for cross-examination; full participation in evidentiary hearing	Yes. Must file at least five days prior to hearing.  Must show participation will furnish assistance to the Council to resolve issues of the case.
<b>Limited Appearance</b>	16-50n(f); 22a-120(b); 22a-163j(b)	16-50j-15	No preparation is required. Participation occurs at evening public comment	No filing required.



			session.	
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**Statement of Limited Appearance:**

Speaking at the evening public comment session or submitting written comments to the Council is considered a statement of limited appearance. One may speak at any time during the evening public comment session or submit written comments at the hearing or within 30 days following the hearing. The oral or written comments should explain facts and concerns for Council consideration. If a person has attained party or intervenor status they may not also submit a comment of limited appearance.

\*In a hazardous waste or low-level radioactive waste proceeding any person may file a statement of limited appearance and make a brief oral statement at the hearing.

**Request for Intervenor Status:**

When: At any time at least five days prior to the commencement of the hearing on a contested case, any person may request that the Council permit that person to participate as an intervenor.

How: In so requesting to participate as an intervenor, the proposed intervenor shall

- o submit their request in writing;
- o state their name and address;
- o describe the manner in which they are affected;
- o state in what way and to what extent they propose to participate; and
- o send a copy of their request to intervene to all other parties and intervenors who are also participating in the proceeding (this information can be obtained from the Siting Council's office).

Decision: The Council will determine the proposed intervenor's participation by taking into account whether such participation will furnish assistance to the Council in resolving the issues of the case. The Council will notify the petitioner of their decision either to grant or deny intervenor status.

**Intervenor Status:**

Participation as Intervenor:

- o filing pre-hearing questions to the applicant or other parties and intervenors;
- o presenting testimony at hearing sessions;
- o cross-examination of witnesses at hearing sessions; and
- o filing exhibits, briefs, and proposed findings of fact.

All testimony and filings will become part of the record for Council consideration

Obligations as Intervenor:

- o respond to pre-hearing questions filed by the Council, the applicant, and any party or intervenor of the proceeding;

- o submit to cross-examination from the Council, the applicant, and any party or intervenor of the proceeding;
  - o provide the Council with an original and 20 copies of all filings; and
  - o provide the applicant and all parties and intervenors who have not waived service with one copy of all filings.
- 

**Request for Party Status:**

**When:** At any time at least five days prior to the commencement of the hearing on a contested case, any person may request that the Council permit that person to participate as a party.

**Who:** Certain persons and corporations are statutorily deemed parties to a proceeding

- o the applicant or certificate holder;
- o each person entitled to receive a copy of the application or resolution under section 16-50l or 22a-163h, if such person has filed with the Council a notice of intent to be a party;
- o each person entitled to receive a copy of the application under section 22a-118(e) for a hazardous waste proceeding;
- o any domestic or qualified nonprofit corporation or association formed in whole or in part to promote conservation or natural beauty, to protect the environment, personal health or biological values, to preserve historical sites, to promote consumer interests, to represent commercial and industrial groups or to promote the orderly development of the areas in which the facility is to be located, if it has filed with the Council a notice of intent to be a party

**How:** Others may also become parties to a proceeding by submitting a written request to the Council at least five days prior to the hearing. The written request must illustrate the following:

- o their name and address;
- o the manner in which the petitioner claims to be substantially and specifically affected;
- o the contention of the petitioner;
- o the relief sought by the petitioner;
- o the statutory or other authority therefore; and
- o the nature of evidence that the petitioner intends to present.

**Decision:** The Council will name or admit as a party any person whose legal rights, duties, or privileges will be determined by the decision of the Council, or that the participation of such person as a party is necessary to the proper disposition of the case. The Council will notify the petitioner of their decision either to grant or deny party status.

**Party Status:**

**Participation as Party:**

- o filing pre-hearing questions to the applicant or other parties or intervenors;
- o presenting testimony at hearing sessions;
- o cross-examination of witnesses at hearing sessions; and
- o filing exhibits, briefs, and proposed findings of fact.

All testimony and filings will become part of the record for Council consideration.

**Obligation as Party:**

- o respond to pre-hearing questions filed by the Council, the applicant, and any party or intervenor of the proceeding;
- o submit to cross-examination from the Council, the applicant, and any party or intervenor of the proceeding;
- o provide the Council with an original and 20 copies of all filings; and
- o provide the applicant and all parties and intervenors who have not waived service with one copy each of all filings.

**Council Discretion:**

The Council in its discretion may limit testimony and group parties with the same interest to avoid redundant testimony and unnecessary delays in the proceeding. While the Council welcomes participation in accordance with its regulations and applicable statutes, asserting a person's rights and privileges is his or her responsibility. One must initiate a request for party or intervenor status on their own behalf. Although it is not obligatory, the Council recommends that parties and intervenors seek legal representation.

**Maturo, Patrice**

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**From:** Maturo, Patrice  
**Sent:** Tuesday, June 16, 2009 11:22 AM  
**To:** 'jmiller386@cox.net'  
**Subject:** Greater Springfield Reliability Project

**Categories:** Action required

Dear John,

My name is Patty Maturo and I work in Community Relations for the Greater Springfield Reliability Project. Thank you for attending the Connecticut Siting Council (CSC) Public Hearing in East Granby last week in regard to Docket 370A—The Connecticut Light & Power Company application for Certificates of Environmental Compatibility and Public Need for the Connecticut Valley Electric Transmission Reliability Projects which consist of (1) The Connecticut portion of the Greater Springfield Reliability Project and the Manchester Substation to Meekville Junction Circuit Separation Project.

As requested, CL&P prepared a response to the questions you presented to Marcia Wellman at the hearing.

**1.) What is the cost of UG power lines for a household using an average of 700kwh?**

CL&P is presently calculating the expected additionally monthly cost for a CL&P 700-kWh/month customer, and also for a representative large employer, for each of the underground cable-route variations developed in its application to the CT Siting Council. I will keep this question on file and will provide this information to you when the calculations are complete.

**2.) How much clearing is required for vault installation?**

A single, 345kV vault for 345-kV cables would require a cleared workspace of about 1/10 acre for its installation. However, the 345-kV underground lines for this project require three separate sets of cables and, therefore, three separate vaults at each vault location along the route.

The total cleared required to install a typical 3-vault arrangement would be approximately ¼ acre or about 11,000 sq. ft. The permanent cleared space required for ongoing maintenance work is a slightly smaller area. The clearing area indicated above is typical; the exact size of the cleared space would depend on site-specific conditions and assumes all of the vaults can be placed together.

I hope this information was helpful, and thank you for your interest in the Greater Springfield Reliability Project. Please call the Project Hotline at 1-866-99-NEEWS (63397) if you have any additional questions or concerns.

Regards,

Patty

**Patty Maturo  
Community Relations**

Miller 20F 2

Burns & McDonnell  
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Mara 1 of 2

June 23, 2009

Felice Mara  
7 Granger Circle  
East Granby, CT. 06026

**RE: The Greater Springfield Reliability Project**

Dear Ms. Mara,

At the Connecticut Siting Council's Public hearing in East Granby on June 9, 2009, you requested information regarding existing magnetic field levels produced by CL&P's transmission lines and how they may be affected by our proposed project. This information can be found in CL&P's Application to the Connecticut Siting Council in Section O where magnetic fields were modeled along this right-of-way (ROW) segment as follows:

- Magnetic fields in 2012 ("pre-NEEWS"), without the new line, for three example system load levels
- Magnetic fields in 2017 ("post-NEEWS"), with the new line and all other NEEWS projects completed, for three example system load levels

Magnetic field levels from transmission lines vary with the minute-to-minute power flows on the lines, and we selected three example load levels for calculating magnetic fields. The three example load levels represent a forecast annual peak load hour ("APL"), a forecast average on the peak-load day ("PDAL"), and a forecast average annual load ("AAL"). Many assumptions are associated with determining each of these future load levels, including future power demands in CT, the future system configuration, and a generation dispatch within CT which corresponds with relatively high uses of the CT import capability and the east-west transfer capability that would exist in 2012 and in 2017. CL&P's general approach on these assumptions was to lean towards high-side estimates of the magnetic field levels for each of the three loading conditions.

Enclosed is a cross-section of the proposed line on the right-of-way where it passes nearest to your home as well as a photo simulation. CL&P has proposed that the new line be constructed on so-called H-Frame structures in this area, and one of these new structures will be located on the right-of-way just to the south of Turkey Hills Road. The proposed height for the new H-Frame structure is approximately 90 feet.

I am also enclosing a copy of Figure O-6 from CL&P's Application which shows the magnetic field levels associated with the above-described configuration of the new line where it would pass closest to your residence, both before the Project in 2012, and several years after the Project in 2017. This particular figure graphs the modeling results for the AAL condition and with an assumption that the lowest line conductors are at a relatively low height above ground of 35 feet. Your home is located approximately 600 feet east from the center of the new line, and you will note that this graph of magnetic field levels ends at about 325 feet from the center of the new

line. At this distance from the new line, magnetic fields have dropped off to lower background levels. At the further distance to your home, the magnetic fields produced by CL&P's lines will at all times be lower than 1.5 mG. For your reference, I am including a "walk-about-town" MF recording to illustrate how such a level compares to the general background levels people encounter every day.

Transmission lines also produce electric fields, which do not vary over time as magnetic fields do, but otherwise look similar in profile graphs, decreasing in level rapidly with distance from the source. CL&P's Application includes electric field calculations for the Project. However, electric fields are shielded by objects such as the trees between the power lines and your residence location.


I hope that this response addresses your questions. As our design is preliminary, please be aware that the line designs (and corresponding field levels) are subject to change as a result of the Connecticut Siting Council process. Please call the Project Hotline at 1-866-99-NEEWS (63397) if you have any additional questions or concerns.

Regards



Patty Maturo

Community Relations Representative for Northeast Utilities

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Frank 1 of 16

Handed by Jennifer Frank on  
9/8 at public hearing  
Main concern is bike trail over

Provide comments to Dave Lukehart  
and Rob Young

CL&P GREATER SPRINGFIELD RELIABILITY PROJECT  
CT SITING COUNCIL MEETING, EAST GRANBY COMMUNITY CENTER JUNE 9, 2009

GOOD EVENING. MY NAME IS JENNIFER FRANK. I AM AN EAST GRANBY RESIDENT AND  
PRESIDENT OF THE EAST GRANBY LAND TRUST.

THE EGLT HAS MAJOR CONCERNS ABOUT THE ENVIRONMENTAL AND VISUAL DAMAGE  
THAT WILL RESULT FROM THE CONSTRUCTION OF THIS PROJECT..THE PROPOSED 6.2  
MILE ROUTE THROUGH EAST GRANBY CROSSES 13 WATERCOURSES AND WILL  
DISTURB 41 DELINEATED WETLAND AREAS. THE EXISTING RIGHT OF WAY IS 300'  
WIDE IN MOST PLACES, AND WITHIN THIS RIGHT OF WAY, AN ADDITIONAL 75-100' WILL  
BE CLEARED. ACCESS ROADS, TOWER FOUNDATIONS AND ESPECIALLY LARGE  
UNDERGROUND TRENCHES WILL CAUSE TREMENDOUS DAMAGE AND DISRUPTION TO  
THE STREAMS AND WETLANDS AREAS.

WE BELIEVE THAT TOWERS WILL CAUSE LESS WETLANDS DISTURBANCE THAN AN  
UNDERGROUND ROUTING, BUT THEY WILL CAUSE SIGNIFICANT VISUAL DAMAGE  
ALONG THE METACOMET TRAIL, WHICH WAS RECENTLY DESIGNATED BY THE  
FEDERAL GOVERNMENT AS A NEW ENGLAND NATL SCENIC TRAIL. AS PART OF CT  
TRAILS DAY, THE LAND TRUST LED A HIKE THIS PAST SATURDAY FROM HATCHET HILL  
ROAD ON THIS TRAIL HEADING NORTH. ALONG A SEVERAL HUNDRED FOOT LENGTH,  
WE SAW BRIGHT SURVEYOR MARKS WITHIN 30 TO 50 FEET OF THE TRAIL. IF TREES  
ARE CUT THIS CLOSE TO THE TRAIL THIS SECTION OF THE TRAIL WILL BE MARRED BY  
A CLOSE UP VIEW OF THE TOWERS AND CLEARED RIGHT OF WAY. THE TOWER  
ROUTE ALSO RUNS CLOSE TO THE METACOMET TRAIL AT THE NORTHERN TOWN  
BOUNDARY.



THE LEAST ENVIRONMENTAL AND VISUAL IMPACT WILL RESULT FROM A SINGLE COMBINED SET OF TOWERS CARRYING THE 345 AND 115 KV LINES, IF THIS CAN BE ENGINEERED AND BUILT. THIS SHOULD BE DESIGNED TO AVOID FURTHER CLEARING OF THE RIGHT OF WAY, ESPECIALLY AT LOCATIONS NEAR HOMES AND NEAR THE METACOMET TRAIL.

NO MATTER WHAT SHAPE THIS PROJECT TAKES, THERE WILL BE SIGNIFICANT LOSS OF SCENIC, WETLAND AND BIOLOGICAL RESOURCES IN EAST GRANBY. THE TOWN SHOULD BE COMPENSATED FOR THESE LOSSES. THE TOWN'S OCTOBER 10<sup>TH</sup> 2008 LETTER SUGGESTS SEVERAL PROPERTY TRANSFERS TO OFFSET THIS LOSS OF OPEN SPACE. THE EAST GRANBY LAND TRUST DECEMBER 4 2008 LETTER SUGGESTS ADDITIONAL MEASURES THAT CAN BE TAKEN, INCLUDING PURCHASING EASEMENTS THAT WILL PERMANENTLY PROTECT CRITICAL WETLANDS AREAS IDENTIFIED IN THE FARMINGTON VALLEY BIO-DIVERSITY PROJECT (BEAVER DAM MARSH, GREAT MARSH AND PICKERAL COVE) ALL OF THIS INFORMATION AND MAPS ARE INCLUDED IN COPIES BEING PROVIDED TO YOU TONIGHT.

BESIDES CONSIDERATION OF ALL OF THE ISSUES MENTIONED ABOVE, WE HOPE THAT THE SITING COUNCIL MAKES SURE THE BEST ENGINEERING PRACTICES ARE FOLLOWED TO PROTECT, REPAIR AND RESTORE THE DELICATE ENVIRONMENTAL AREAS THAT WILL BE AFFECTED BY THIS PROJECT.

**Environmental Mitigation Projects as Compensation to Town of East Granby  
Resulting From the CL&P Greater Springfield Reliability Project**

**Submitted by the East Granby Land Trust**

From a cursory review of the on-line application by CL&P to construct the 345-kV Line through East Granby, it is apparent that the impact on the town will be substantial.

The Metacomet Ridge in East Granby is of regional importance as a Connecticut Blue Trail, and has long been the highest priority for natural, scenic and recreational preservation in the town. Along with its recreational value, it is unique as a trap-rock ridge environment, and is home to several rare and endangered species. The scenic views are extremely vulnerable under the current CL&P proposal.

The proposal will also impact primary biodiversity conservation areas that have been identified through biological field studies conducted by the Farmington Valley Biodiversity Project.

In reviewing CL&P's comments as to compatibility with town and regional plans, EGLT would like to point out the following information from national, regional and town studies and plans.

- The reference to the Town of East Granby 2004 Plan of Conservation and Development on L-41 says that the plan "focuses predominantly on the growth of the East Granby village center and on balanced growth in general." While almost all Connecticut town plans urge balanced growth, a significant portion of the East Granby 2004 Plan of Conservation and Development is devoted to identifying East Granby's natural, wetland, scenic, open space and historic resources and outlining strategies for their preservation.
- The Farmington Valley Greenway and the Metacomet Trail are of regional importance, and provide two of East Granby's best economic development opportunities for tourism.
- The United States House of Representatives passed the New England Scenic Trail Designation Act on January 29, 2008. This legislation will amend the National Trail System Act to designate the Monadnock, Metacomet and Mattabesett (MMM) Trail System as the New England National Scenic Trail. This trail runs for 7.9 miles through East Granby and offers many of the best views along the trail. The proposed project will have a profoundly negative effect on the scenic qualities of the Metacomet Trail in East Granby, to the detriment of hopes to make it a premier attraction as part of the National Trail. The legislation would rename the trail "The New England Scenic Trail." East Granby does not want to be an asterisk along the trail, wherein it is stated that the trail here was scenic until the construction of the new power line.

- Farmington Valley Biodiversity Project (FVBP). The primary objective of the FVBP was to identify and map priority conservation areas to help guide municipal planning and decision making regarding land use. Using biological field surveys, this study mapped the areas of East Granby richest in biodiversity so that core habitats and the corridors that connect them could be identified and used for planning purposes. The study showed that numerous high quality wetland, forest, talus rockslide, and traprock ridge natural communities exist along the CL&P right of way.

The FVBP identified eight primary and three secondary conservation areas in East Granby. The proposed CL&P project will be occurring in these conservation areas. Please refer to the attached pages from the project study, which describe the conservation areas, and the East Granby Biodiversity Map on Page 33 of the published study, available at [www.frwa.org/FVBP.html](http://www.frwa.org/FVBP.html).

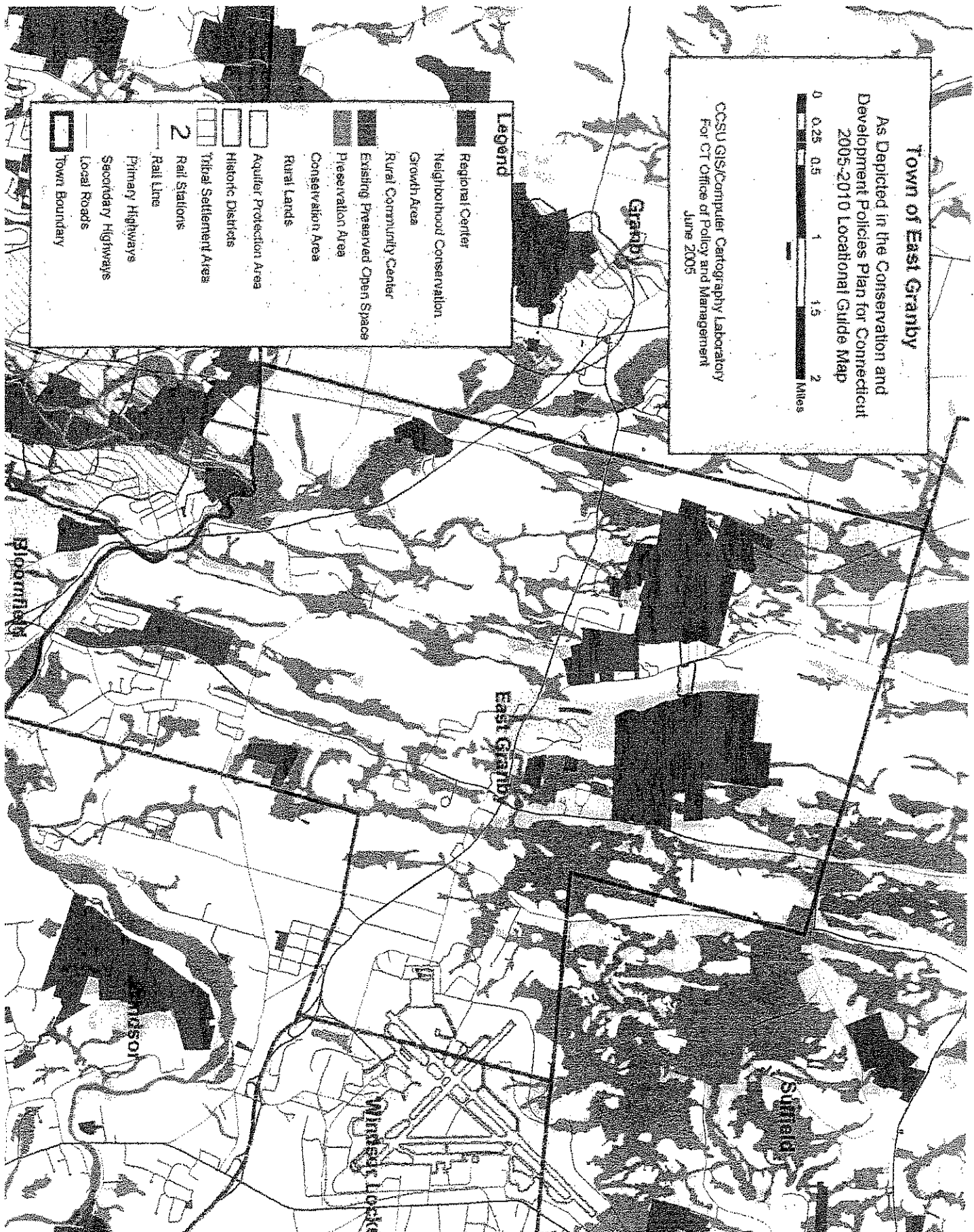
- Connecticut Conservation and Development Policies Plan. Except for the area of Bradley International Airport, East Granby is not mapped as a growth area. The town center is mapped as a rural community center. The remainder of the town is mapped as preservation area, conservation area, or rural land.

The CL&P project will have a significant impact on East Granby's scenic and natural resources. The proposed route is 6.2 miles through East Granby. The existing right of way is 300 feet wide in most places, and within this right of way, an additional 75 to 100 feet will be cleared. The route crosses 13 watercourses, and 41 delineated wetlands will be disturbed.

To compensate the town for the loss of scenic, wetland and biological resources, the following projects are suggested:

1. CL&P, Northeast Utilities and its holding company shall deed all properties that are excess to power generation and transmission needs to either the Town of East Granby or CT DEP. Land adjacent to the Newgate Wildlife Management Area (state-owned) should be deeded to DEP. Land adjacent to the Metacomet Trail or town-owned land should be deeded to the Town of East Granby. East Granby has identified the utility's land as having significant open space values. Three of the properties are shown as "Managed Open Space" (see light green shaded areas) on the East Granby 2004 Plan of Conservation & Development.
2. CL&P shall purchase for the Town land areas identified as "desirable open space" in the Town Open Space Plan. See attached map from the 2004 Plan of Conservation and Development, also available at [www.eastgranby.net](http://www.eastgranby.net) through a link at the page for Planning and Zoning Commission. These are the green cross-hatched areas. They are located along the Metacomet Trail and the Farmington River corridors.

3. CL&P shall purchase for public use the privately-held portions of the Metacomet Trail in East Granby. Parts of the trail are in public or EGLT ownership, but significant portions remain in private ownership. Most of the trail south of Route 20 is privately held. Please refer to the map of East Granby's Open Space Plan.
4. CL&P shall be required to eradicate/control invasive plants on their property and along their right of way. As a major landowner in town, CL&P must undertake, as part of its property management, the removal of invasive species from their land holdings and monitor the properties to control invasive species.
5. CL&P shall purchase Copper Hill Country Club (currently for sale), located at Copper Hill & Griffin Roads, and convey it to the Town of East Granby for public recreational use or for wetland and grassland habitat creation. The area is shaded pink on the Open Space Plan and labeled "commercial recreation."
6. CL&P shall purchase easements that permanently protect wetlands, thereby buffering critical marsh and wetland habitats identified in the Farmington Valley Biodiversity Project, particularly: Beaver Dam Marsh, Great Marsh, and Pickerel Cove. The study and study maps are available at [www.frwa.org/FVBP.html](http://www.frwa.org/FVBP.html).
7. CL&P shall create protected riverine or riparian buffers along the following watercourses: Farmington River, Salmon Brook, Muddy Brook, Holcomb Brook, Sheldon Brook, Sandborn Brook, Stony Brook, and Creamery Brook.



**Town of East Granby**  
As Depicted in the Conservation and  
Development Policies Plan for Connecticut  
2005-2010 Locational Guide Map  
CCSU GIS/Computer Cartography Laboratory  
For CT Office of Policy and Management  
June 2005



**Legend**

- Regional Center
- Neighborhood Conservation
- Growth Area
- Rural Community Center
- Existing Preserved Open Space
- Conservation Area
- Rural Lands
- Aquifer Protection Area
- Historic Districts
- Tribal Settlement Area
- Rail Stations
- Rail Line
- Primary Highways
- Secondary Highways
- Local Roads
- Town Boundary

Bloomfield

East Granby

Sunfield

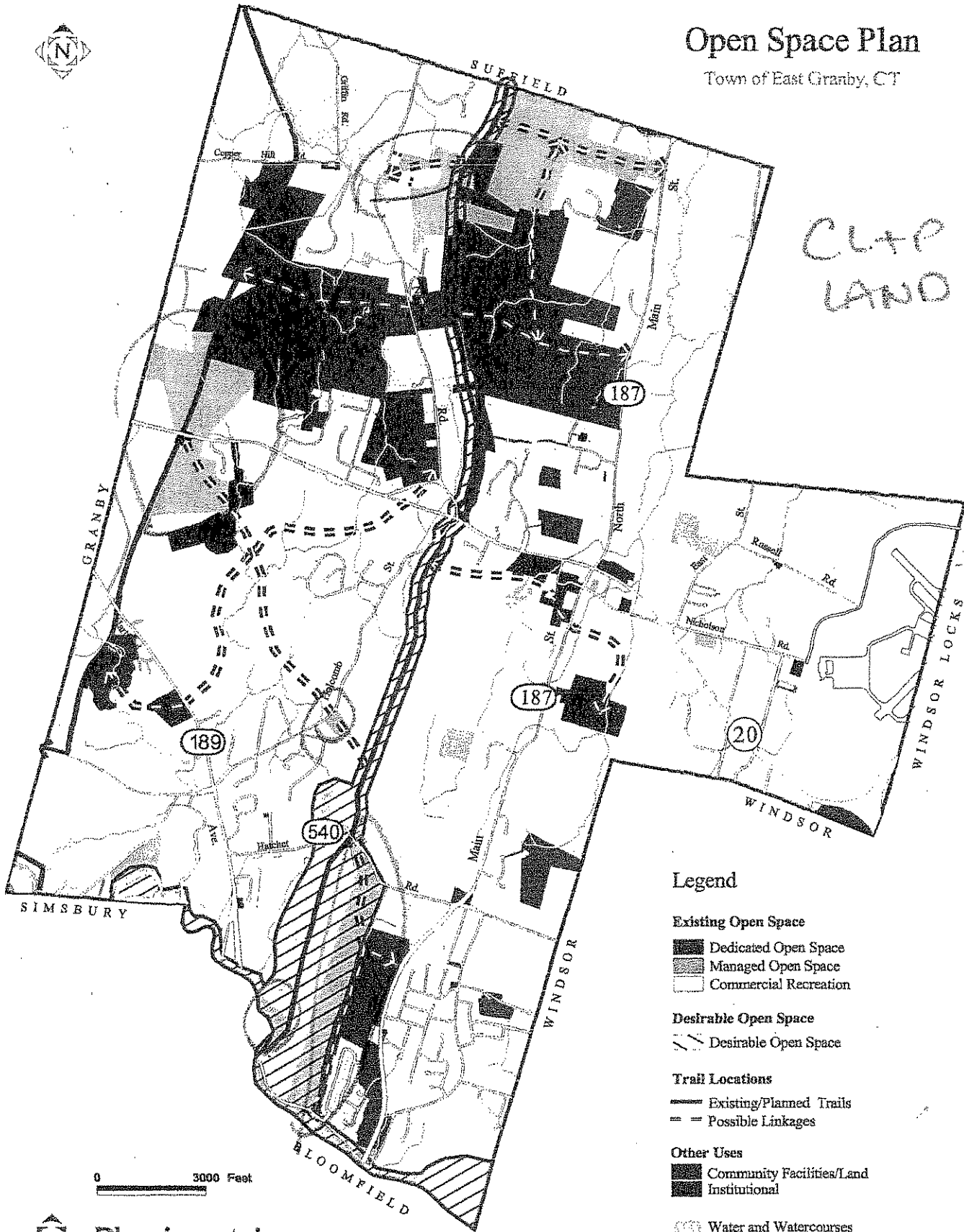
Winnepic Locks

Windsor

# Open Space Plan

Town of East Granby, CT

CLIP  
LAND

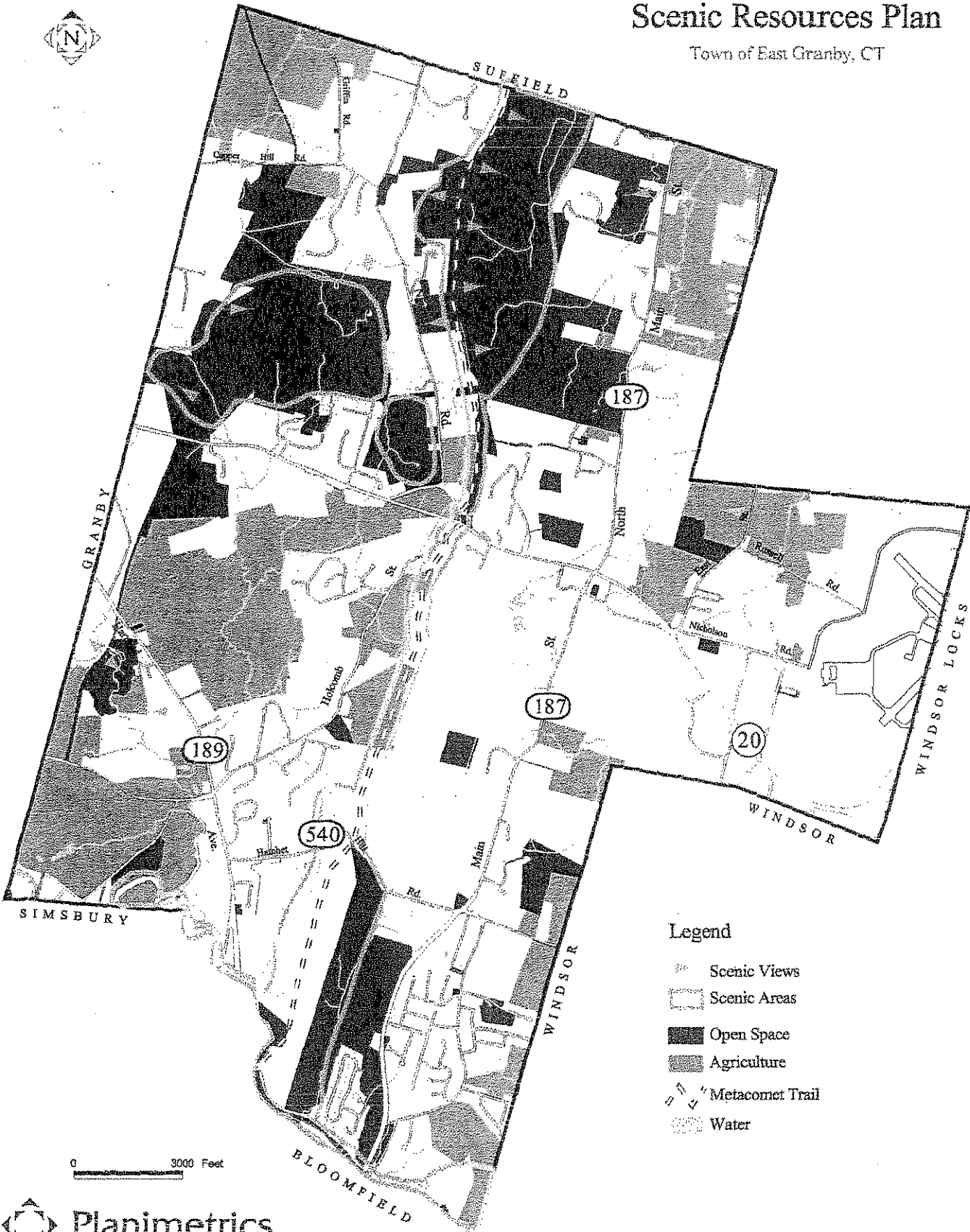


## Legend

- Existing Open Space**
  - Existing Open Space
  - Dedicated Open Space
  - Managed Open Space
  - Commercial Recreation
- Desirable Open Space**
  - Desirable Open Space
- Trail Locations**
  - Existing/Planned Trails
  - Possible Linkages
- Other Uses**
  - Community Facilities/Land
  - Institutional
  - Water and Watercourses

# Scenic Resources Plan

Town of East Granby, CT



### Legend

- Scenic Views
- Scenic Areas
- Open Space
- Agriculture
- Metacomet Trail
- Water

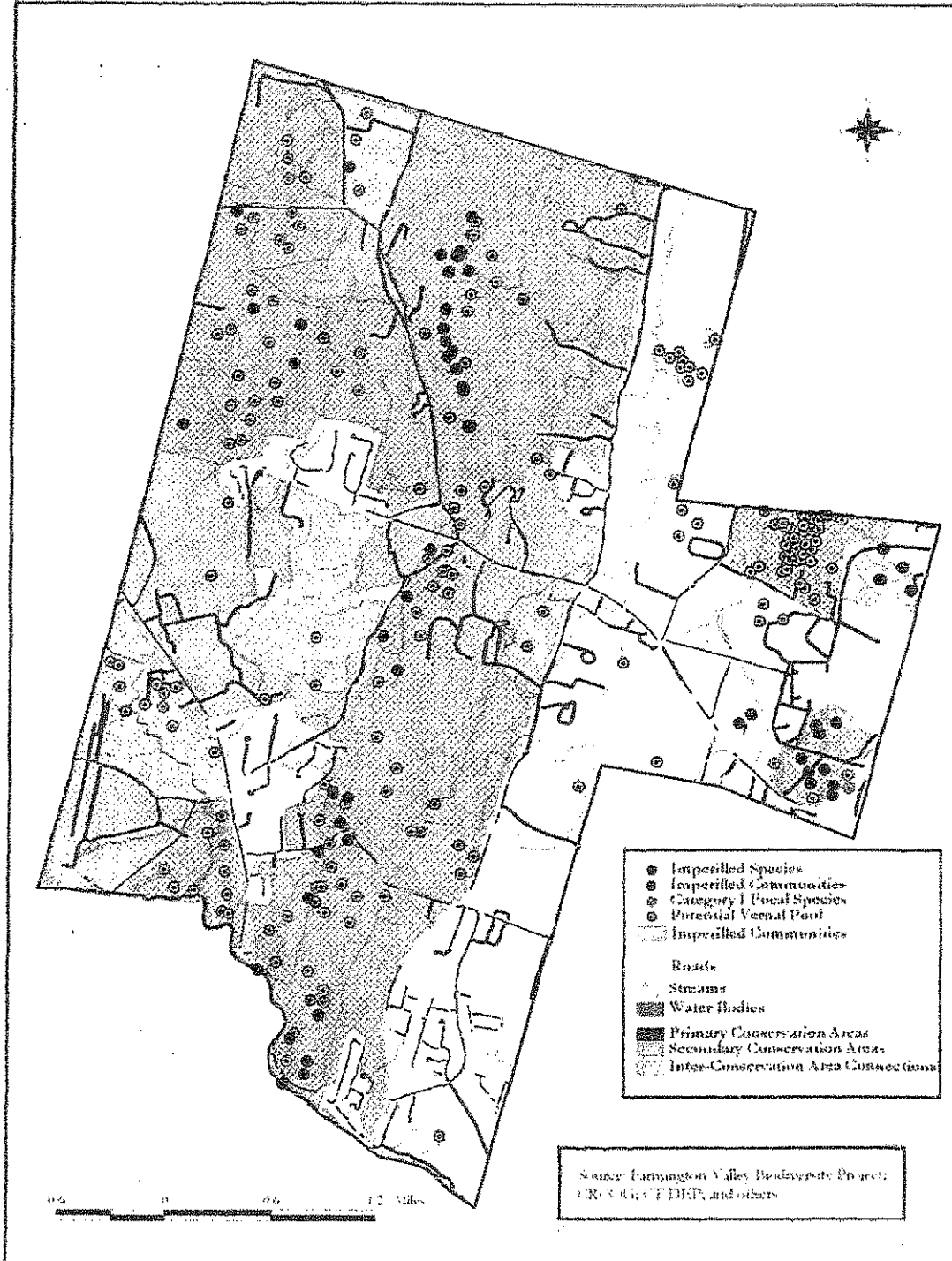
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## Planimetrics

11 Bragh Drive, Avon, CT 06001 860-677-5267

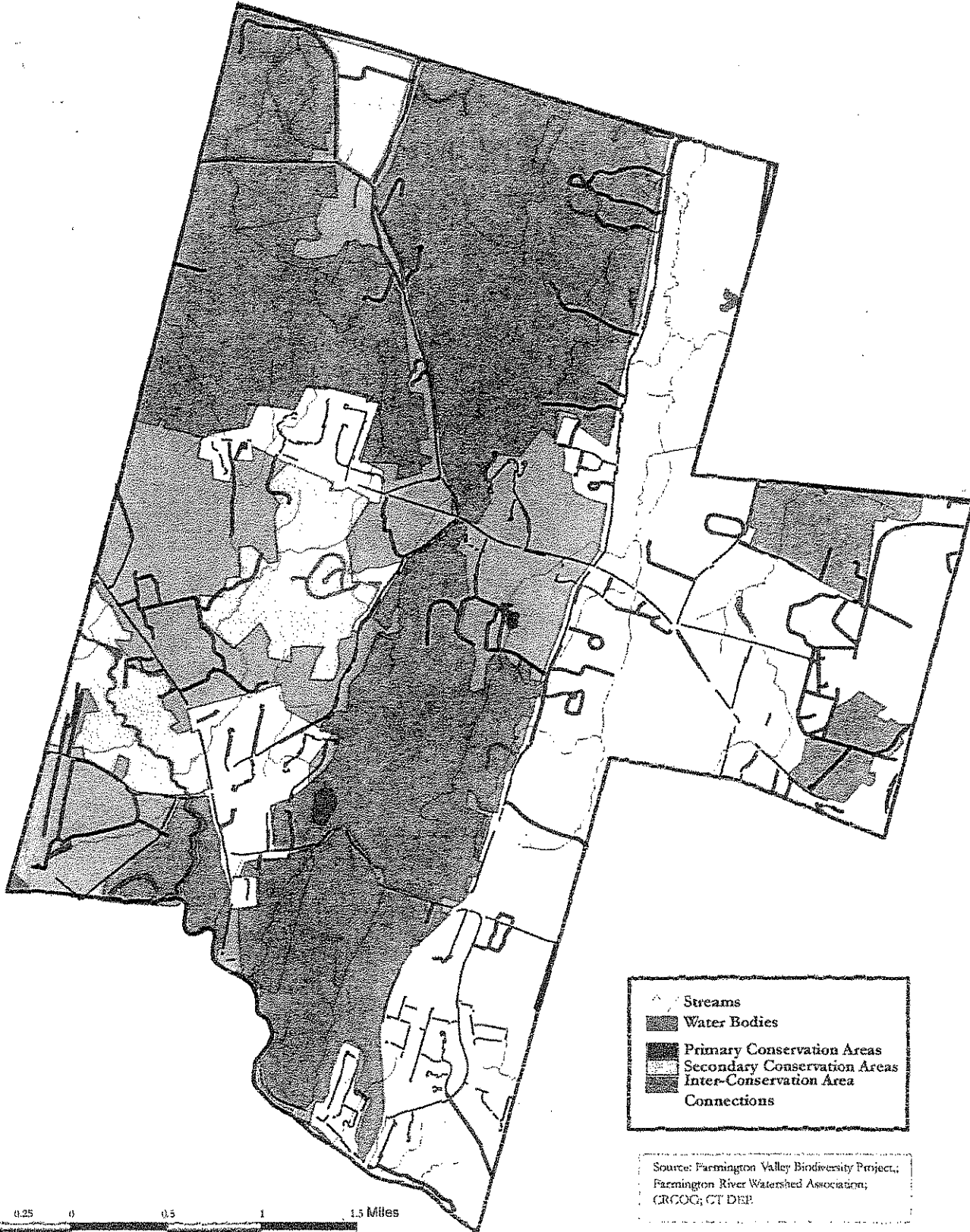
Figure 11: East Granby biodiversity map





# EAST GRANBY BIODIVERSITY MAP

## FARMINGTON VALLEY BIODIVERSITY PROJECT



## East Granby

The town of East Granby is categorized as “rural” and covers an area of 17.4 square miles within the Farmington River watershed. The FVP identified eight primary and three secondary core areas for biodiversity.

### Primary Conservation Areas

<u>Area Designation</u>	<u>Ecoregion</u>
Tariffville Gorge	Traprock Ridge
Hatchett Hill	Traprock Ridge
Peak Mountain	Traprock Ridge
Great Marsh	Grassland/Wetland
Beaverdam Marsh	Grassland/Wetland
Bradley Airport South	Grassland
Bradley Airport North	Grassland
Pickeral Cove	River Floodplain

### Secondary Conservation Areas

<u>Area Designation</u>	<u>Ecoregion</u>
Holcomb Brook	Corridor
Salmon Brook	Corridor
Newgate Swamp	Corridor

### Primary Conservation Areas

Three of the primary areas are located within the metacomet traprock ridge ecoregion. These include “Tariffville Gorge,” “Hatchett Hill,” and “Peak Mountain.” The Hatchett Hill site features a number of significant natural communities including wetland fen and marsh habitats supporting rare plants, blue-spotted salamanders (*Ambystoma laterale*), and wetland dependent breeding birds such as the Virginia rail (*Rallus limicola*). The extent and quality of the forested habitat along this ridge support good populations of breeding forest-interior dependent birds. The Tariffville Gorge natural communities include a unique riverside ledge system that support rare plants, including one species, spiked false oats, on the verge of extirpation in the study area. Volunteers were able to collect seeds from this small population for banking in the New England Wild Flower Society’s seed bank. This seed bank of native genotypic material can be used in the event that reintroduction or population augmentation is required to conserve the population (Moorhead 2002).

Other communities include ridgetop, shrub swamps and vernal pools that support a rich amphibian community as demonstrated by a high number of vernal pool-breeding salamanders, a strong indicator of high wetland and forest quality. The Peak Mountain site is an extensive forested ridge, extending north well into Suffield and contiguous with West Suffield Mountain. Numerous high quality wetland systems, talus rockslides and traprock ridgetop natural communities are contained within this site.

“Great Marsh” and “Beaverdam Marsh” are two primary areas located in the northwest corner of town that are dominated by extensive and highly diverse wetland habitat complexes situated among a mosaic of forest and open agricultural and post-agricultural habitats. Consequently, these sites were among the most biologically rich areas encountered during the survey. Great Marsh is contiguous with land tracts to the west in Granby and Beaverdam Marsh is contiguous with a large tract of land to the north in Suffield. The complex of forests and wetlands at these sites support a high number of vernal pool-breeding salamanders including blue-spotted, four-toed (*Hemidactylum scutatum*) and spotted salamanders, as well as high densities of ribbon snakes (*Thamnophis sauritus*), strong indicators of high quality wetland and forest habitat.

Wetland dependent birds such as sora (*Porzana carolina*) and Virginia rail, forest-interior dependent birds such as black-throated green warblers (*Dendroica virens*) and wood thrush (*Hylocichla mustelina*), and grassland dependent birds such as bobolink and American kestrel (*Falco sparverius*) are well represented within the mosaic of intact habitats among these sites. A high number of raptor species were recorded at the Beaverdam Marsh site.

The "Bradley Airport" and "Bradley Airport South" areas located in the eastern section of the town encompass well-documented and regionally significant natural communities situated within the sandplain and glacial lake plain ecoregions. The Bradley Airport South site supports a regionally (New England) significant grassland breeding bird population including upland sandpiper (*Bartramia longicauda*), grasshopper sparrow, savannah sparrow, eastern meadowlark and American kestrel, among others. This site is monitored by the CTDEP in cooperation with the Airport operations managed for grassland birds. The Bradley Airport site is located just to the north and includes property owned by the Airport that is contiguous with a large tract of unfragmented land extending into Suffield. This large tract features a high density of small vernal pools supporting a forest amphibian community including spotted salamanders and wood frogs, while small pockets of wet meadow and more open canopied wetlands on the periphery of the forest support breeding gray treefrogs (*Hyla versicolor*) and Fowler's toads (*Bufo fowleri*). Both of these sites harbor good sand barren habitat that support rare plants, hognose snakes (*Heterodon platirhinos*) and possibly rare insect communities.

The final primary area, "Pickerel Cove" is situated along the Farmington River within the alluvial floodplain ecoregion. A small section of this larger contiguous site that extends south into Simsbury falls within East Granby (refer to the Simsbury town profile for a description of this site).

#### Secondary Conservation Areas

"Holcomb Brook" was identified as an important ecological corridor between the Great Marsh/Beaverdam Marsh complex and other core primary habitat sites to the south.

"Salmon Brook" located in the southwest section of town was identified as an ecological connector between the northwest highlands and western traprock ridge ecoregions and the Farmington River. This site is contiguous with land tracts in neighboring Granby.

"Newgate Swamp" is an important large habitat parcel in proximity to the Newgate Wildlife Management Area.

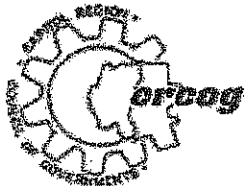
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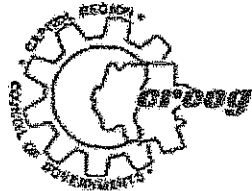
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### CL&P Land on Route 20

December 3, 2008



- Streets**
- Interstates
  - Major Highways
  - Arterials
  - Local Street
  - Other
  - Parcels
  - Towns



**Capitol Region  
Council of Governments**

241 Main Street  
Hartford, CT 06106-5310  
(860) 522-2217



1" = 1015 ft

Horizontal Datum: CT Stateplane Coordinate System, FIPS 0600, Datum NAD83, Feet

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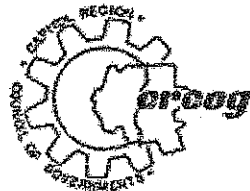
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### CL&P On Metacomet Trail, South

December 3, 2008



- Streets
- Interstates
- Major Hlgways
- Arterials
- Local Street
- Other
- Parcels
- Towns



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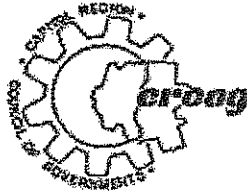
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### CL&P On Metacomet Trail, South (2)

December 3, 2008



- Streets
- Interstates
- Major Highways
- Arterials
- Local Street
- Other
- Parcels
- Towns



Capitol Region  
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Hartford, CT 06106-5310  
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**Electric and Magnetic Fields Best Management Practices  
For the Construction of Electric Transmission Lines in Connecticut**

**Approved on December 14, 2007**

**I. Introduction**

To address a range of concerns regarding potential health risks from exposure to transmission line electric and magnetic fields (EMF), whether from electric transmission facilities or other sources, the Connecticut Siting Council (Council) (in accordance with Public Act 04-246) issues this policy document "*Best Management Practices for the Construction of Electric Transmission Lines in Connecticut.*" It references the latest information regarding scientific knowledge and consensus on EMF health concerns; it also discusses advances in transmission-facility siting and design that can affect public exposure to EMF.

Electric and magnetic fields (EMF) are two forms of energy that surround an electrical device. The strength of an electric field (EF) is proportional to the amount of electric voltage at the source, and decreases rapidly with distance from the source, diminishing even faster when interrupted by conductive materials, such as buildings and vegetation. The level of a magnetic field (MF) is proportional to the amount of electric current (not voltage) at the source, and it, too, decreases rapidly with distance from the source; but magnetic fields are not easily interrupted, as they pass through most materials. EF is often measured in units of kilovolts per meter (kV/m). MF is often measured in units of milligauss (mG).

Transmission lines are common sources of EMF, as are other substantial components of electric power infrastructure, ranging from transformers at substations to the wiring in a home. However, any piece of machinery run by electricity can be a source of EMF: household objects as familiar as electric tools, hair dryers, televisions, computers, refrigerators, and electric ovens.

In the U.S., EMF associated with electric power have a frequency of 60 cycles per second (or 60 Hz). Estimated average background levels of 60-Hz MF in most homes, away from appliances and electrical panels, range from 0.5 to 5.0 mG (NIEHS, 2002). MF near operating appliances such as an oven, fan, hair dryer, television, etc. can range from 10's to 100's of mG. Many passenger trains, trolleys, and subways run on electricity, producing MF: for instance, MF in a Metro-North Railroad car averages about 40-60 mG, increasing to 90-145 mG with acceleration (Bennett Jr., W. 1994). As a point of comparison to these common examples, the Earth itself has an MF of about 570 mG (USGS 2007). Unlike the MF associated with power lines, appliances, or computers, the Earth's MF is steady; in every other respect, however, the Earth's MF has the same characteristics as MF emanating from man-made sources.

Concerns regarding the health effects of EMF arise in the context of electric transmission lines and distribution lines, which produce time-varying EMF, sometimes called extremely-low frequency electric and magnetic fields, or ELF-EMF. As the weight of scientific evidence indicates that exposure to electric fields, beyond levels traditionally established for safety, does not cause adverse health effects, and as safety concerns for electric fields are sufficiently addressed by adherence to the National Electrical Safety Code, as amended, health concerns regarding EMF focus on MF rather than EF.



MF levels in the vicinity of transmission lines are dependent on the flow of electric current through them and fluctuate throughout the day as electrical demand increases and decreases. They can range from about 5 to 150 mG, depending on current load, height of the conductors, separation of the conductors, and distance from the lines. The level of the MF produced by a transmission line decreases with increasing distance from the conductors, becoming indistinguishable from levels found inside or outside homes (exclusive of MF emanating from sources within the home) at a distance of 100 to 300 feet, depending on the design and current loading of the line (NIEHS, 2002).

In Connecticut, existing and proposed transmission lines are designed to carry electric power at voltages of 69, 115, or 345 kilovolts (kV). Distribution lines, i.e. those lines directly servicing the consumer's building, typically operate at voltages below 69 kV and may produce levels of MF similar to those of transmission lines. The purpose of this document is to address engineering practices for proposed electric transmission lines with a design capacity of 69 kV or more and MF health concerns related to these projects, but not other sources of MF.

## **II. Health Concerns from Power-Line MF**

While more than 40 years of scientific research has addressed many questions about EMF, the continuing question of greatest interest to public health agencies is the possibility of an association between time weighted MF exposure and demonstrated health effects. The World Health Organization (WHO) published its latest findings on this question in an Electromagnetic Fields and Public Health fact sheet, June 2007. (<http://www.who.int/mediacentre/factsheets/fs322/en/index.html>) The fact sheet is based on a review by a WHO Task Group of scientific experts who assessed risks associated with ELF-EMF. As part of this review, the group examined studies related to MF exposure and various health effects, including childhood cancers, cancers in adults, developmental disorders, and neurobehavioral effects, among others. Particular attention was paid to leukemia in children. The Task Group concluded "that scientific evidence supporting an association between ELF magnetic field exposure and all of these health effects is much weaker than for childhood leukemia". (WHO, 2007) For childhood leukemia, WHO concluded recent studies do not alter the existing position taken by the International Agency for Research on Cancer (IARC) in 2002, that ELF-MF is "possibly carcinogenic to humans."

Some epidemiology studies have reported an association between MF and childhood leukemia, while others have not. Two broad statistical analyses of these studies as a pool reported an association with estimated average exposures greater than 3 to 4 mG, but at this level of generalization it is difficult to determine whether the association is significant. In 2005, the National Cancer Institute (NCI) stated, "Among more recent studies, findings have been mixed. Some have found an association; others have not . . . . Currently, researchers conclude that there is limited evidence that magnetic fields from power lines cause childhood leukemia, and that there is inadequate evidence that these magnetic fields cause other cancers in children." The NCI stated further: "Animal studies have not found that magnetic field exposure is associated with increased risk of cancer. The absence of animal data supporting carcinogenicity makes it biologically less likely that magnetic field exposures in humans, at home or at work, are linked to increased cancer risk."

The American Medical Association characterizes the EMF health-effect literature as "inconsistent as to whether a risk exists." The National Institute of Environmental Health Sciences (NIEHS) concluded in 1999 that EMF exposure could not be recognized as "*entirely safe*" due to some statistical evidence of a link with childhood leukemia. Thus, although no public health agency has found that scientific research suggests a causal relationship between EMF and cancer, the NIEHS encourages "inexpensive and safe reductions in exposure" and suggests that the power industry continue its current practice of siting power lines to reduce exposures" rather than regulatory guidelines (NIEHS, 1999, pp. 37-38). In 2002 NIEHS restated that while this evidence was "weak" it was "still sufficient to warrant limited concern" and recommended "continued education on ways of reducing exposures" (NIEHS, 2002, p. 14).

Reviews by other study groups, including IARC (2002), the Australian Radiation Protection and Nuclear Safety Agency (ARPANSA) (2003), the British National Radiation Protection Board (NRPB) (2004a), and the Health Council of the Netherlands ELF Electromagnetic Fields Committee (2005), are similar to NIEHS and NCI in their uncertainty about reported associations of MF with childhood leukemia. In 2004, the view of the NRPB was:

"[T]he epidemiological evidence that time-weighted average exposure to power frequency magnetic fields above 0.4 microtesla [4 mG] is associated with a small absolute raised risk of leukemia in children is, at present, an observation for which there is no sound scientific explanation. There is no clear evidence of a carcinogenic effect of ELF EMFS in adults and no plausible biological explanation of the association can be obtained from experiments with animals or from cellular and molecular studies. Alternative explanations for this epidemiological association are possible...Thus: any judgments developed on the assumption that the association is causal would be subject to a very high level of uncertainty." (NRPB, 2004a, p. 15)

Although IARC classified MF as "possibly carcinogenic to humans" based upon pooling of the results from several epidemiologic studies, IARC further stated that the evidence suggesting an association between childhood leukemia and residential MF levels is "limited," with "inadequate" support for a relation to any other cancers. The WHO Task Group concluded "the evidence related to childhood leukemia is not strong enough to be considered causal" (WHO, 2007).

The Connecticut Department of Public Health (DPH) has produced an EMF Health Concerns Fact Sheet (May 2007) that incorporates the conclusions of national and international health panels. The fact sheet states that while "the current scientific evidence provides no definitive answers as to whether EMF exposure can increase health risks, there is enough uncertainty that some people may want to reduce their exposure to EMF."

[http://www.dph.state.ct.us/Publications/brs/eoha/emf\\_2004.pdf](http://www.dph.state.ct.us/Publications/brs/eoha/emf_2004.pdf)

In the U.S., there are no state or federal exposure standards for 60-Hz MF based on demonstrated health effects. Nor are there any such standards world-wide. Among those international agencies that provide guidelines for acceptable MF exposure to the general public, the International Commission on Non-Ionizing Radiation Protection established a level of 833 mG, based on an extrapolation from experiments involving transient neural stimulation by MF at much higher exposures. Using a similar approach, the International Committee on Electromagnetic Safety calculated a guideline of 9,040 mG for exposure to workers and the general public (ICNIRP, 1998; ICES/IEEE, 2002). This situation reflects the lack of credible scientific evidence for a causal relationship between MF exposure and adverse health effects.

### **III. Policy of the Connecticut Siting Council**

The Council recognizes that a causal link between power-line MF exposure and demonstrated health effects has not been established, even after much scientific investigation in the U.S. and abroad. Furthermore, the Council recognizes that timely additional research is unlikely to prove the safety of power-line MF to the satisfaction of all. Therefore, the Council will continue its cautious approach to transmission line siting that has guided its Best Management Practices since 1993. This continuing policy is based on the Council's recognition of and agreement with conclusions shared by a wide range of public health consensus groups, and also, in part, on a review which the Council commissioned as to the weight of scientific evidence regarding possible links between power-line MF and adverse health effects. Under this policy, the Council will continue to advocate the use of effective no-cost and low-cost technologies and management techniques on a project-specific basis to reduce MF exposure to the public while allowing for the development of efficient and cost-effective electrical transmission projects. This approach does not imply that MF exposure will be lowered to any specific threshold or exposure limit, nor does it imply MF mitigation will be achieved with no regard to cost.

The Council will develop its precautionary guidelines in conjunction with Section 16-50p(i) of the Connecticut General Statutes, enacted by the General Assembly to call special attention to their concern for children. The Act restricts the siting of overhead 345-kV transmission lines in areas where children congregate, subject to technological feasibility. These restrictions cover transmission lines adjacent to "residential areas, public or private schools, licensed child day-care facilities, licensed youth camps, or public playgrounds."

#### **Developing Policy Guidelines**

One important way the Council seeks to update its Best Management Practices is to integrate policy with specific project development guidelines. In this effort, the Council has reviewed the actions of other states. Most states either have no specific guidelines or have established arbitrary MF levels at the edge of a right-of-way that are not based on any demonstrated health effects. California, however, established a no-cost/low-cost precautionary-based EMF policy in 1993 that was re-affirmed by the California Public Utilities Commission in 2006. California's policy aims to provide significant MF reductions at no cost or low cost, a precautionary approach consistent with the one Connecticut has itself taken since 1993, consistent with the conclusions of the major scientific reviews, and consistent with the policy recommendations of the Connecticut Department of Public Health and the WHO. Moreover, California specifies certain benchmarks integral to its policy. The benchmark for "low-cost/no-cost" is an increase in aggregate project costs of zero to four percent. The benchmark for "significant MF reduction" is an MF reduction of at least 15 percent. With a policy similar to Connecticut's, and concrete benchmarks as well, California offers the Council a useful model in developing policy guidelines.

#### **No-Cost/Low-Cost MF Mitigation**

The Council seeks to continue its precautionary policy, in place since 1993, while establishing a standard method to allocate funds for MF mitigation methods. The Council recognizes California's cost allotment strategy as an effective method to achieve MF reduction goals; thus, the Council will follow a similar strategy for no-cost/low-cost MF mitigation.

The Council directs the Applicant to initially develop a Field Management Design Plan that depicts the proposed transmission line project designed according to standard good utility practice and incorporating "no-cost" MF mitigation design features. The Applicant shall then modify the base design by adding low-cost MF mitigation design features specifically where portions of the project are adjacent to residential areas, public or private schools, licensed child day-care facilities, licensed youth camps, or public playgrounds.

The overall cost of low-cost design features are to be calculated at four percent of the initial Field Management Design Plan, including related substations. Best estimates of the total project costs during the Council proceedings should be employed, and the amounts proposed to be incurred for MF mitigation should be excluded. It is important to note that the four percent guideline is not an absolute cap, because the Council does not want to eliminate prematurely a potential measure that might be available and effective but would cost more than the four percent, or exclude arbitrarily an area adjacent to the ROW that might be suitable for MF mitigation. Nor is the four percent an absolute threshold, since the Council wants to encourage the utilities to seek effective field reduction measures costing less than four percent. In general, the Council recognizes that projects can vary widely in the extent of their impacts on statutory facilities, necessitating some variance above and below the four percent figure.

The four percent guideline for low-cost mitigation should aim at a magnetic field reduction of 15 percent or more at the edge of the utility's ROW. This 15 percent reduction should relate specifically to those portions of the project where the expenditures would be made. While experience with transmission projects in Connecticut since 1993 has shown that no-cost/low-cost designs can and do achieve reductions in MF on the order of 15 percent, the 15 percent guideline is no more absolute than the four percent one, nor must the two guidelines be correlated by rote. The nature of guidelines is to be constructive, rather than absolute.

The Council will consider minor increases above the four percent guideline if justified by unique circumstances, but not as a matter of routine. Any cost increases above the four percent guideline should result in mitigation comparably above 15 percent, and the total costs should still remain relatively low.

Undergrounding transmission lines puts MF issues out of sight, but it should not necessarily put them out of mind. With that said, soils and other fill materials do not shield MF, rather, MF is reduced by the underground cable design (refer to page 9 for further information). However, special circumstances may warrant some additional cost in order to achieve further MF mitigation for underground lines. The utilities are encouraged, prior to submitting their application to the Council, to determine whether a project involves such special circumstances. Note that the extra costs of undergrounding done for purposes other than MF mitigation should be counted in the base project cost and not as part of the four percent mitigation spending.

Additionally, the Council notes two general policies it follows in updating its EMF Best Management Practices and conducting other matters within its jurisdiction. One is a policy to support and monitor ongoing study. Accordingly, the Council, during the public hearing process for new transmission line projects, will consider and review evidence of any new developments in scientific research addressing MF and public health effects or changes in scientific consensus group positions regarding MF. The second is a policy to encourage public participation and education. The Council will continue to conduct public hearings open to all, update its website to contain the latest information regarding MF health effect research, and revise these Best Management Practices to take account of new developments in MF health effect research or in methods for achieving no-cost/low-cost MF mitigation.

The Council will also require that notices of proposed overhead transmission lines provided in utility bill enclosures pursuant to Conn. Gen. Stats. §16-50(b) state the proposed line will meet the Council's Electric and Magnetic Fields Best Management Practices, specifying the design elements planned to reduce magnetic fields. The bill enclosure notice will inform residents how to obtain siting and MF information specific to the proposed line at the Council's website; this information will also be available at each respective town hall. Phone numbers for follow-up information will be made available, including those of DPH, and utility representatives. The project's final post-construction structure and conductor specifications including calculated MF levels shall also be available at the Council's website and each respective town hall.

Finally, we note that Congress has directed the Department of Energy (DOE) periodically to assess congestion along critical transmission paths or corridors and apply special designation to the most significant ones. Additionally, Congress has given the Federal Regulatory Commission supplemental siting authority in DOE designated areas. This means the Council must complete all matters in an expeditious and timely manner. Accordingly, the cooperation of all parties will be of particular importance in fulfilling the policies set forth above.

#### **IV. MF Best Management Practices: Further Management Considerations**

The Council's EMF Best Management Practices will apply to the construction of new electric transmission lines in the State, and to modifications of existing lines that require a certificate of environmental compatibility and public need. These practices are intended for use by public service utilities and the Council when considering the installation of such new or modified electric transmission lines. The practices are based on the established Council policy of reducing MF levels at the edge of a right-of-way (ROW), and in areas of particular interest, with no-cost/low-cost designs that do not compromise system reliability or worker safety, or environmental and aesthetic project goals.

Several practical engineering approaches are currently available for reducing MF, and more may be developed as technology advances. In proposing any particular methods of MF mitigation for a given project, the Applicant shall provide a detailed rationale to the Council that supports the proposed MF mitigation measures. The Council has the option to retain a consultant to confirm that the Field Management Design Plan and the proposed MF reduction strategies are consistent with these EMF Best Management Practices.

##### **A. MF Calculations**

When preparing a transmission line project, an applicant shall provide design alternatives and calculations of MF for pre-project and post-project conditions, under 1) peak load conditions at the time of the application filing, and 2) projected seasonal maximum 24-hour average current load on the line anticipated within five years after the line is placed into operation. This will allow for an evaluation of how MF levels differ between alternative power line configurations. The intent of requiring various design options is to achieve reduced MF levels when possible through practical design changes. The selection of a specific design will also be affected by other practical factors, such as the cost, system reliability, aesthetics, and environmental quality.

MF values shall be calculated from the ROW centerline out to a distance of 300 feet on each side of the centerline, at intervals of 25 feet, including at the edge of the ROW. In accordance with industry practice, the calculation shall be done at the location of maximum line sag (typically mid-span), and shall provide MF values at 1 meter above ground level, with the assumption of flat terrain and balanced currents. The calculations shall assume "all lines in" and projected load growth five years beyond the time the lines are expected to be put into operation, and shall include changes to the electric system approved by the Council and the Independent System Operator – New England.

As part of this determination, the applicant shall provide the locations of, and anticipated MF levels encompassing, residential areas, private or public schools, licensed child day care facilities, licensed youth camps, or public playgrounds within 300 feet of the proposed transmission line. The Council, at its discretion, may order the field measurement of post-construction MF values in select areas, as appropriate.

### **B. Buffer Zones and Limits on MF**

As enacted by the General Assembly in Section 4 of Public Act No. 04-246, a buffer zone in the context of transmission line siting is deemed, at minimum, to be the distance between the proposed transmission line and the edge of the utility ROW. Buffer zone distances may also be guided by the standards presented in the National Electrical Safety Code (NESC), published by the Institute of Electrical and Electronic Engineers (IEEE). These standards provide for the safe installation, operation, and maintenance of electrical utility lines, including clearance requirements from vegetation, buildings, and other natural and man-made objects that may arise in the ROW. The safety of power-line workers and the general public are considered in the NESC standards. None of these standards include MF limits.

Since 1985, in its reviews of proposed transmission-line facilities, the Massachusetts Energy Facilities Siting Board has used an edge-of-ROW level of 85 mG as a benchmark for comparing different design alternatives. Although a ROW-edge level in excess of this value is not prohibited, it may trigger a more extensive review of alternatives.

In assessing whether a right-of-way provides a sufficient "buffer zone," the Council will emphasize compliance with its own Best Management Practices, but may also take into account approaches of other states, such as those of Florida, Massachusetts, and New York.

A number of states have general MF guidelines that are designed to maintain the 'status quo', i.e., that fields from new transmission lines not exceed those of existing transmission lines. In 1991, the New York Public Service Commission established an interim policy based on limits to MF. It required new high-voltage transmission lines to be designed so that the maximum magnetic fields at the edge of the ROW, one meter above ground, would not exceed 200 mG if the line were to operate at its highest continuous current rating. This 200 mG level represents the maximum calculated magnetic field level for 345 kV lines that were then in operation in New York State.

The Florida Environmental Regulation Commission established a maximum magnetic field limit for new transmission lines and substations in 1989. The MF limits established for the edge of 230-kV to 500-kV transmission line ROWs and the property boundaries for substations ranged from 150 mG to 250 mG, depending on the voltage of the new transmission line and whether an existing 500-kV line was already present.

Although scientific evidence to date does not warrant the establishment of MF exposure limits at the edge of a ROW, the Council will continue to monitor the ways in which states and other jurisdictions determine MF limits on new transmission lines.

### C. Engineering Controls that Modify MF Levels

When considering an overhead electric transmission-line application, the Council will expect the applicant to examine the following Engineering Controls to limit MF in publicly accessible areas: distance, height, conductor separation, conductor configuration, optimum phasing, increased voltage, and underground installation. Any design change may also affect the line's impedance, corona discharge, mechanical behavior, system performance, cost, noise levels and visual impact. The Council will consider all of these factors in relation to the MF levels achieved by any particular Engineering Control. Thus, utilities are encouraged to evaluate other possible Engineering Controls that might be applied to the entire line, or just specific segments, depending upon land use, to best minimize MF at a low or no cost.

Consistent with these Best Management Practices and absent line performance and visual impacts, the Council expects that applicants will propose no-cost/low-cost measures to reduce magnetic fields by one or more engineering controls including:

#### Distance

MF levels from transmission lines (or any electrical source) decrease with distance; thus, increased distance results in lower MF. Horizontal distances can be increased by purchasing wider ROWs, where available. Other distances can be increased in a variety of ways, as described below.

#### Height of Support Structures

Increasing the vertical distance between the conductors and the edge of the ROW will decrease MF: this can be done by increasing the height of the support structures. The main drawbacks of this approach are an increase in the cost of supporting structures, possible environmental effects from larger foundations, potential detrimental visual effects, and the modest MF reductions achieved (unless the ROW width is unusually narrow).

#### Conductor Separation

Decreasing the distances between individual phase conductors can reduce MF. Because at any instant in time the sum of the currents in the individual phase conductors is zero, or close to zero, moving the conductors closer together improves their partial cancellation of each other's MF. In other words, the net MF produced by the closer conductors reduces the MF level associated with the line. Placing the conductors closer together has practical limits, however. The distance between the conductors must be sufficient to maintain adequate electric code clearance at all times, and to assure utility employees' safety when working on energized lines. One drawback of a close conductor installation is the need for more support structures per mile (to reduce conductor sway in the wind and sag at mid-span); in turn, costs increase, and so do visual impacts.

#### Conductor Configuration

The arrangement of conductors influences MF. Conductors arranged in a flat, horizontal pattern at standard clearances generally have greater MF levels than conductors arranged vertically. This is due to the wider spacing between conductors found typically on H-frame structure designs, and to the closer distance between all three conductors and the ground. For single-circuit lines, a compact triangular configuration, called a "delta configuration", generally offers the lowest MF levels. A vertical configuration may cost more and may have increased visual impact. Where the design goal is to minimize MF levels at a specific location within or beyond the ROW, conductor configurations other than vertical or delta may produce equivalent or lower fields.

### Optimum Phasing

Optimum phasing applies in situations where more than one circuit exists in an overhead ROW or in a duct bank installed underground. Electric transmission circuits utilize a three-phase system with each phase carried by one conductor, or a bundle of conductors. Optimum phasing reduces MF through partial cancellation. For a ROW with more than two circuits, the phasing arrangement of the conductors of each circuit can generally be optimized to reduce MF levels under typical conditions. The amount of MF cancellation will also vary depending upon the relative loading of each circuit. For transmission lines on the same ROW, optimizing the phasing of the new line with respect to that of existing lines is usually a low-cost method of reducing MF.

MF levels can be reduced for a single circuit line by constructing it as a "split-phase" line with twice as many conductors, and arranging the conductors for optimum cancellation. Disadvantages of the split-phase design include higher cost and increased visual impact.

### Increased Voltage

MF are proportional to current, so, for example, replacing a 69-kV line with a 138-kV line, which delivers the same power at half the current, will result in lower MF. This could be an expensive mitigation to address MF alone because it would require the replacement of transformers and substation equipment.

### Underground Installation

Burying transmission lines in the earth does not, by itself, provide a shield against MF, since magnetic fields, unlike electric fields, can pass through soil. Instead, certain inherent features of an underground design can reduce MF. The closer proximity of the currents in the wires provides some cancellation of MF, but does not eliminate it entirely. Underground transmission lines are typically three to five feet below ground, a near distance to anyone passing above them, and MF can be quite high directly over the line. MF on either side of an underground line, however, decreases more rapidly with increased distance than the MF from an overhead line.

The greatest reduction in MF can be achieved by "pipe-type" cable installation. This type of cable has all of the wires installed inside a steel pipe, with a pressurized dielectric fluid inside for electrical insulation and cooling. Low MF is achieved through close proximity of the wires, as described above, and through partial shielding provided by the surrounding steel pipe. While this method to reduce MF is effective, system reliability and the environment can be put at risk if the cable is breached and fluid is released.

Lengthy high-voltage underground transmission lines can be problematic due to the operational limits posed by the inherent design. They also can have significantly greater environmental impacts, although visual impacts associated with overhead lines are eliminated. The Council recognizes the operational and reliability concerns associated with current underground technologies and further understands that engineering research regarding the efficiency of operating underground transmission lines is ongoing. Thus, in any new application, the Council may require updates on the feasibility and reliability of the latest technological developments in underground transmission line design.



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WORLD HEALTH ORGANIZATION

# BACKGROUND



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## ELECTROMAGNETIC FIELDS AND PUBLIC HEALTH CAUTIONARY POLICIES

Potential health effects of man made electromagnetic fields (EMF) have been a topic of scientific interest since the late 1800s, and have received particular attention in the last 40 years. Common sources of these fields include power lines, household electrical wiring, appliances and motor driven instruments, computer screens, telecommunications and broadcast facilities, mobile telephones and their base stations.

Public exposure to EMF is regulated by a variety of voluntary and legal limits. The most important of these are international guidelines drafted by the International Commission on Non-Ionizing Radiation Protection (ICNIRP) together with various national safety standards. Guidelines are designed to avoid all identified hazards, from short and long term exposure, with a large margin of safety incorporated into the limit values. Actual exposure levels are nearly always far below recommended limits.

### Uncertainties about EMF

Assessment of potential health risks of EMF includes numerous uncertainties. In particular, a number of epidemiological studies suggest the existence of weak links between exposure to EMF and human disease. The studies involve a variety of diseases and exposure conditions. However, the largest body of evidence involves a possible increase in risk of leukaemia in children associated with exposure to electric and magnetic fields at power

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frequencies (50/60 Hz) in the home. Other scientific evidence, including a large number of animal studies, does not support this conclusion, and many of the epidemiology studies themselves suffer from problems including inadequate exposure assessment.

Expert committees that have reviewed this evidence have consistently found it to be too weak to be persuasive. For example, in 1997 the US National Research Council concluded, "the current body of evidence does not show that exposure to [power frequency electric or magnetic fields in the home] presents a human health hazard." Similarly, in its 1998 guidelines for EMF exposure, ICNIRP stated that the "results from the epidemiological research on EMF field exposure and cancer ... are not strong enough to form a scientific basis for setting exposure guidelines." No major committee has concluded that a hazard actually exists from low-level fields. But clearly there is considerable scientific uncertainty as well as a high level of public apprehension about the issue.

### Precautionary Policies

Throughout the world there has been a growing movement inside and outside of government to adopt "precautionary approaches" for management of health risks in the face of scientific uncertainty. As an international health agency, WHO does not normally advise national authorities to set policies that go beyond established knowledge. Yet within the declaration signed in London at the 1999 Third Ministerial Conference on Environment and Health, WHO was encouraged to take into account "the need to rigorously apply the Precautionary Principle in assessing risks and to adopt a more preventive, pro-active approach to hazards".

Several different policies promoting caution have been developed to address concerns about public, occupational and environmental health issues in the face of scientific uncertainty. These include:

- Precautionary Principle
- Prudent Avoidance
- ALARA (As Low As Reasonably Achievable)

**The Precautionary Principle** is a risk management policy applied in circumstances with a high degree of scientific uncertainty, reflecting the need to take action for a potentially serious risk without awaiting the results of scientific research.

For countries of the European Union, the Treaty of Rome states that "Community policy on the environment ... shall be based on the precautionary principle." A recent instance of adoption of the Precautionary Principle is the European Commission's decision to ban beef from the United Kingdom, with a view to limiting the risk of transmission of bovine spongiform encephalopathy (BSE). The European Court of Justice ruled that this decision

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was justified:

*In view of the seriousness of the risk and the urgency of the situation, and having regard to the objective of the decision, the Commission did not act in a manifestly inappropriate manner by adopting the decision, on a temporary basis and pending the production of more detailed scientific information*

*Where there is uncertainty as to the existence or extent of risks to human health, the Commission may take protective measures without having to wait until the reality or seriousness of those risks becomes apparent.*

On 2 February 2000, the European Commission approved an important communication on the Precautionary Principle providing guidelines for the application of the Principle. According to this communication, measures based on the precautionary principle should be

- tailored to the chosen level of protection,
- non-discriminatory in their application, i.e. they should treat comparable situations in a similar way,
- consistent with similar measures already taken, i.e. they should be comparable in scope and nature to measures already taken in equivalent areas in which all scientific data are available,
- based on an examination of the potential benefits and costs of action or lack of action (including, where appropriate and feasible, an economic cost/benefit analysis),
- provisional in nature, i.e. subject to review in the light of new scientific data, and
- capable of assigning responsibility for producing the scientific evidence necessary for a more comprehensive risk assessment.

In this definition, the Precautionary Principle is "risk-oriented", in that it requires an evaluation of risk research including cost-benefit considerations. It is clearly intended for use in drafting provisional responses to potentially serious health threats, until adequate data are available for more scientifically based responses.

**Prudent Avoidance** was initially developed as a risk management strategy for power frequency EMF by Drs. Morgan, Florig and Nair at Carnegie Mellon University. In their 1989 report to the US Office of Technology Assessment these authors defined Prudent Avoidance as "taking steps to keep people out of fields by rerouting facilities and redesigning electrical systems and appliances". Prudence was defined as "undertaking those avoidance activities that carry modest costs".

Since 1989 Prudent Avoidance has evolved to mean taking simple, easily achievable, low cost measures to reduce EMF exposure, even in the absence of a demonstrable risk. The terms "simple", "easily achievable", and "low cost", however, lack precise meaning.

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Generally, government agencies have applied the policy only to new facilities, where minor modifications in design can reduce levels of public exposure. It has not been applied to require modification of existing facilities, which is generally very expensive.

Defined in this way, Prudent Avoidance prescribes taking low-cost measures to reduce exposure, in the absence of any scientifically justifiable expectation that the measures would reduce risk. Such measures are generally framed in terms of voluntary recommendations rather than in terms of fixed limits or rules.

Prudent Avoidance (not necessarily identified as such) has been adopted as policy in parts of the electrical sector in Australia, Sweden and a few US states (California, Colorado, Hawaii, New York, Ohio, Texas, and Wisconsin). In 1997 Australia adopted a policy of Prudent Avoidance with regard to new transmission lines, with measures described by the government as "general guidance" to be implemented "without undue inconvenience." Measures that can be taken at "modest cost" include routing power lines away from schools, and phasing power line conductors to reduce magnetic fields near their rights of way.

In the United States, no national body has explicitly recommended a policy of Prudent Avoidance for powerline fields. However, in its recent recommendations to the US Congress, the National Institute for Environmental Health Sciences (NIEHS) came close, by suggesting that "the power industry continue its practice of siting power lines to reduce exposures and continue to explore ways to reduce the creation of magnetic fields around transmission and distribution lines without creating hazards. We also encourage technologies that lower exposures from neighbourhood distribution lines provided that they do not increase other risks, such as those from accidental electrocution and fire".

By contrast, in the cover letter to the NIEHS report to Congress, Kenneth Olden, Director of NIEHS, recommended instead "passive regulatory action" such as "educating both the public and the regulated community on means aimed at reducing exposure...". This recommendation is somewhat different from Prudent Avoidance in that it advocates educational measures, rather than taking actual measures to reduce exposure.

Prudent Avoidance has not been formally adopted in the US for regulation of communications or commercial broadcasting facilities. However, government agencies have made recommendations to the telecommunications industry that could be considered as forms of Prudent Avoidance. In 1999 the U.S. Food and Drug Administration (FDA) urged the mobile phone industry to design phones that minimize user exposure to RF fields to levels necessary for the device's function.

In Prudent Avoidance, as implemented by various countries, prudent refers to expenditures, not an attitude to risk. It does not imply setting exposure limits at an arbitrarily low level, and requiring that they be achieved regardless of cost, but rather adopting measures to reduce

public exposure to EMF at modest cost. There is no requirement for assessment of potential health benefits.

**ALARA** is an acronym for **As Low As Reasonably Achievable**. It is a policy used to minimize known risks, by keeping exposures as low as reasonably possible, taking into consideration costs, technology, benefits to public health and safety and other societal and economic concerns. ALARA today is mainly used in the context of ionizing radiation protection, where limits are not set on the basis of a threshold, but rather on the basis of "acceptable risk". Under these circumstances, it is reasonable to minimize risk that can be presumed to exist even at levels below recommended limits, on the grounds that what constitutes "acceptable risk" can vary widely among individuals.

ALARA has not been applied to setting public policy related to exposure to EMF. Indeed, it is not an appropriate policy for EMF (either powerline or radiofrequency fields) in the absence of any expectation of risk at low exposure levels and given the ubiquity of exposure.

### **Precautionary Policies for EMF**

Prudent Avoidance and other cautionary policies regarding EMF exposure have gained popularity among many citizens, who feel that they offer extra protection against scientifically unproven risks. However, such approaches are very problematic in their application. The chief difficulty is the lack of clear evidence for hazard from chronic exposure to EMF below recommended guidelines, or any understanding of the nature of a hazard should one exist. While the weight of evidence needed to trigger a cautionary policy is undoubtedly lower than that needed to set exposure guidelines, clearly a hazard must be identified and some understanding is needed of the conditions under which it is likely to be present.

Another difficulty is the ubiquity of EMF exposure in modern society, at highly variable levels and over wide frequency ranges. It is therefore difficult to create cautionary policies that have consistency and equity. For example, typical urban environments contain a multitude of radiofrequency transmitters, ranging from low power communications transmitters to very high power broadcast transmitters. It is difficult to envision a consistent and equitable cautionary policy that would minimize radiofrequency EMF exposures from cellular telephone base stations given the presence of far higher powered sources in the same urban area. Indeed, attempts to implement a cautionary policy for cellular telephone masts have typically been done on a piecemeal basis, with no attention to other (much stronger) sources of RF energy in the environment.

### **Implications for Guideline Limits**

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The above considerations suggest that a cautionary policy for EMF should be adopted only with great care and deliberation. The requirements for such a policy as outlined by the European Commission do not appear to be met in the case of either power or radio frequency EMF; however other related policies, such as Prudent Avoidance, may be justified.

A principle requirement is that such policies be adopted only under the condition that scientific assessments of risk and science-based exposure limits should not be undermined by the adoption of arbitrary cautionary approaches. That would occur, for example, if limit values were lowered to levels that bear no relationship to the established hazards or have inappropriate arbitrary adjustments to the limit values to account for the extent of scientific uncertainty.

It is possible to introduce cautionary policies without undermining science-based standards. In 1999, the New Zealand Government issued their RF exposure standards that follow the 1998 ICNIRP EMF guidelines. The Ministries of Health and Environment noted that it considered the basic restrictions and reference levels in its standard to "provide adequate protection". However, the Ministries noted that community concerns over RF exposure might be addressed by "...minimizing, as appropriate, RF exposure which is unnecessary or incidental to achievement of service objectives or process requirements, provided that this can be readily achieved at modest expense". This emphasis on reducing exposure at "modest expense" with no evidence of prospective health benefits or cost-benefit analysis, marks this policy as a form of prudent avoidance, not an application of the Precautionary Principle as outlined by the European Commission.

Other measures, not related to precautionary approaches, can help address public concerns, which typically arise when new electrical facilities are proposed. These might include public input or participation in decisions regarding siting of power lines, electrical substations or radiofrequency transmitters. In addition, individuals can choose to take whatever measures they feel are appropriate to their situation and circumstances. Such actions may include repositioning bedside electrical equipment, such as clock radios, or moving a child's bed to an area of the bedroom that has a lower magnetic field. Turning off electric blankets before going to bed may also be an option. People conducting extended mobile phone conversations could use an earphone-microphone headset (hands-free kit) and hold their mobile phone away from their bodies. Such actions should not be recommended by national authorities on health grounds but may be appropriate for individuals depending on their perception of the risks involved.

For further information, please contact WHO Office of Press and Public Relations, Geneva. Tel (4122) 791 2599, Fax (41 22) 791 4858. Email: [inf@who.int](mailto:inf@who.int). All WHO Press Releases, Fact Sheets and Features as well as other information on this subject can be obtained on Internet on the WHO



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home page <http://www.who.int/> WHO's International EMF Project maintains an updated set of fact sheets giving information about all major sources of EMF exposure. Fact sheets on key issues have been translated into many languages and are available from WHO or on the Project home page at [www.who.int/emf](http://www.who.int/emf)

# FACT SHEET



Connecticut Department of Public Health  
Environmental Health Section  
Environmental & Occupational Health  
Assessment Program  
410 Capitol Avenue MS# 11EOH, PO Box 340308  
Hartford, CT 06134-0308 (860) 509-7740  
[www.ct.gov/dph](http://www.ct.gov/dph)

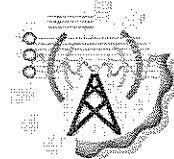
## Electric and Magnetic Fields (EMF): Health Concerns

EMF exposure is very common, and so are questions about what this exposure may mean. The following sections provide answers to some common questions about EMF and concerns about health.



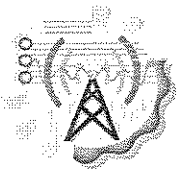
### What is EMF?

Electric and magnetic fields (EMF) are areas of energy that surround any electrical device. Power lines, electrical wiring, computers, televisions, hair dryers, household appliances and everything else that uses electricity are sources of EMF. The magnetic field is not blocked by buildings so outdoor sources like power lines can add to the EMF inside your home. However, the field decreases rapidly with distance so that most homes are too far from high voltage lines to matter.



### How Are Electromagnetic Fields Measured?

EMF are commonly measured in units of **gauss (G)** by an instrument known as a gaussmeter. A **milligauss (mG)** is 1000 times smaller than a gauss.



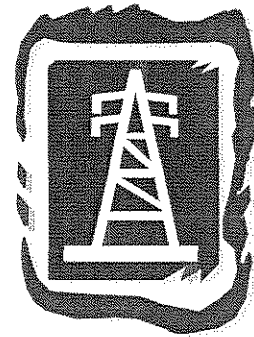
## What Are Typical EMF Levels Within A Home?

In a study that measured EMF in almost 1000 homes in the United States, 50% had average EMF levels of 0.6 mG or less, and 95% had average EMF levels below 3 mG. Keep in mind that these are *average* EMF levels within a home. EMF levels can be higher (5 mG or more) when you are near a household appliance (or anything else that uses electricity). EMF levels rapidly become weaker as you move away from the source.



## How High Are EMF Levels Near Power Lines?

Power lines that send electricity between towns and into neighborhoods generally have the highest voltage. They are bigger and have more wires than the distribution lines that are common on most streets. The high voltage lines can have EMF levels of 30 to 90 mG underneath the wires, depending on the voltage, height, and placement of the lines. EMF levels decrease rapidly with distance from the lines. At 300 feet (a football field), EMF is at background levels. In some cases, even closer distances are at background. The distribution lines that run up and down every street are smaller, contain lower voltage and are of less concern.

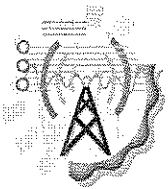


## Is EMF Exposure Harmful?

Despite extensive research over the past 20 years, the health risk caused by EMF exposure remains an open question. Two national research organizations (the National Research Council and the National Institute of Health) have looked at the studies and have concluded that there is not strong evidence that EMF exposures pose a health risk. However, some studies have shown an association between household EMF exposure and a small increased risk of childhood leukemia at average exposures above 3 mG. For cancers other than childhood leukemia, there is less evidence for an effect. For example, workers that repair power lines and railway workers can be exposed to much higher EMF

levels than the general public. The results of cancer studies in these workers is mixed. Some studies have suggested a link between EMF exposure in electrical workers and leukemia and brain cancer. Other similar studies have not found such associations. There is also some evidence that utility workers exposed to high levels of EMF may be at increased risk of developing amyotrophic lateral sclerosis (Lou Gehrig's Disease).

Although the current scientific evidence provides no definitive answers as to whether EMF exposure can increase health risks, there is enough uncertainty that some people may want to reduce their exposure to EMF.



## **How Can I Reduce My EMF Exposure?**

EMF exposure depends on what EMF sources are nearby and how much time you spend near them.

If you would like to reduce your exposure to EMF, you can take simple steps such as:

- Increase distance: for example, sit at arm's length from your computer or re-position electric alarm clocks farther away from your body while in bed.
- Repair faulty wiring which may be generating higher than usual EMF.
- Turn off electrical devices such as televisions and computers when not in use.
- Use electric blankets to warm the bed, turning them off before getting into bed.



## **What Should I Do if a Home I Want To Buy is Near High Voltage Lines?**

If the power lines are more than 300 feet away, there should be no cause for concern. At this distance EMF from the lines is no different from typical levels around the home.

If the power lines are less than 300 feet away from the home, you may want to obtain EMF measurements in the yard. Most electric utilities in Connecticut will take measurements for free. There are also private firms that will charge a fee for measurements. To understand your measurement, consider that typical EMF levels found inside homes

range from 0.1 to 4 mG. EMF levels above this range are not necessarily hazardous, but indicate EMF levels above what's typical background inside a home.

Deciding where to live rests upon different considerations for each individual. EMF exposure is just one of many factors in this decision. Other environmental health issues around a home can include: radon, lead paint, asbestos, soil or groundwater contamination, local traffic and noise. All of these factors should be considered when evaluating the home environment.

## What are Best Management Practices (BMPs)?

When new power lines are constructed, they have the potential to increase EMF levels in an area. The Connecticut Siting Council (CSC) reviews these plans. To ensure that the public's exposure to EMF is kept to a minimum, the CSC released a set of BMPs to be followed when constructing new lines. The plans for new lines and their adherence to the BMPs will be on file in town offices and are typically discussed at open forums prior to construction.



## Where Can I Find More Information?

National Institute of Environmental Health Sciences report on health effects from EMF  
<http://www.niehs.nih.gov/health/topics/agents/emf/>

California Dept of Health Services: Electric and Magnetic Fields  
[http://www.ehib.org/cma/topic.jsp?topic\\_key=7](http://www.ehib.org/cma/topic.jsp?topic_key=7)

Connecticut Siting Council Best Management Practices  
[http://www.ct.gov/csc/lib/csc/emf\\_bmp/emf\\_bmp\\_12-14-07.doc](http://www.ct.gov/csc/lib/csc/emf_bmp/emf_bmp_12-14-07.doc)

World Health Organization: International EMF Project  
<http://www.who.int/peh-emf/en/>



## Who Can I Call?

Connecticut Department of Public Health  
 Environmental Health Section  
 Environmental & Occupational Health  
 Assessment Program  
 410 Capitol Avenue MS# 11EOH,  
 PO Box 340308  
 Hartford, CT 06134-0308  
 (860) 509-7740  
[www.ct.gov/dph](http://www.ct.gov/dph)

Connecticut Siting Council  
 Ten Franklin Square  
 New Britain, CT 06051  
 Phone: (860) 827-2935  
[http://www.ct.gov/csc/site\\_siting.council@po.state.ct.us](http://www.ct.gov/csc/site_siting.council@po.state.ct.us)



(This fact sheet is funded in part by the Comprehensive Environmental Response, Compensation, and Liability Act trust fund through a cooperative agreement with the Agency for Toxic Substances and Disease Registry, Public Health Service, U.S. Dept of Health and Human Services.)

Revised 4/2008

# Written Documentation: Town of Enfield

Bertrand 1064

-----Original Message-----

From: pellemr@nu.com [mailto:pellemr@nu.com] On Behalf Of neews@nu.com

Sent: Tuesday, August 12, 2008 11:53 AM

To: Pelletier, Matthew

Subject: Fw: Question

----- Forwarded by Matthew R. Pelletier/NUS on 08/12/2008 11:51 AM -----

SBertrand1006@aol  
.com

To  
NEEWGroupMailbox@NU  
08/12/2008 09:02 AM cc  
Subject  
Question

Please provide me with more specific information regarding the Enfield 345-KV Underground Route Variation. Specifically, what streets, right of ways, etc. does this plan follow. It is not clear on the maps

Thank you.

Scott Bertrand

Bertrand 2 of 4

**From:** Kranich, Elise  
**Sent:** Tuesday, August 12, 2008 2:44 PM  
**To:** 'SBertrand1006@aol.com'  
**Subject:** NEEWS Project Inquiry

Hi Scott,  
My name is Elise Kranich and I work in Community Relations for the Greater Springfield Reliability Project. Thank you for taking the time to write to the NEEWS Project mailbox. We appreciate your questions and feedback.

To answer your questions efficiently, I will be getting back with you within the next few days. Please do not hesitate to call me personally if you need any assistance in the meantime.

Sincerely,  
Elise Kranich

Elise C. Kranich  
Burns & McDonnell  
203.949.2313 (office)  
860.209.2438 (mobile)

NEW ENGLAND  
EAST  WEST  
SOLUTION



Dear Mr. Bertrand,

My name is Elise Kranich and I work in the Community Relations department for the New England East-West Solution (NEEWS) Projects. Thank you for your interest in the Greater Springfield Reliability Project, one of the NEEWS transmission projects.

Below is the question you presented with an answer provided by our project representatives. Additionally, I have attached a drawing of the proposed cross-sections from our Municipal Consultation Filing, which may be found on our NEEWS Project website ([www.neewsprojects.com](http://www.neewsprojects.com)) or in the Enfield Public Library.

**Q. Please provide me with more specific information regarding the Enfield 345-KV Underground Route Variation. Specifically, what streets, right of ways, etc. does this plan follow? It is not clear on the maps.**

Connecticut Light & Power (CL&P) and the Western Massachusetts Electric Company (WMECO) are proposing a new 345-kV overhead transmission line between two substations in Massachusetts. The Massachusetts Energy Facilities Siting Board requires WMECO to indicate in its petition both a preferred and an alternate route for the new line. The preferred line route (the Preferred "Northern" Route) will follow an existing transmission line right-of-way located entirely within Massachusetts. The alternative route (the "Southern" Route Alternative) follows a different transmission line right-of-way which crosses into Connecticut for a distance of 5.5 miles, including a section of northern Enfield. This proposed, 5.5-mile portion of the "Southern" Route Alternative located in Connecticut would have to be approved by the Connecticut Siting Council, and so CL&P must tentatively apply for approval of this line route in recognition that the Massachusetts Energy Facilities Siting Board may choose to approve the "Southern" Route Alternative. In CL&P's application, as required by law, the tentative proposal for an overhead 345-kV transmission line along the "Southern" Route must also include an underground alternative. This underground section of the line is found in Enfield following state and local road routes. In the applications to the respective state siting authorities, both CL&P and WMECO will document their strong preference to use the Northern Route for a new overhead 345-kV line.

**Regarding the "Southern" Route Alternative (Overhead)** - The "Southern" Route Alternative would extend for approximately 4.5 miles in Enfield. This route would cross the Connecticut River near the Connecticut/Massachusetts border. Along this alternative route in Connecticut, the 345-kV line would be aligned within an existing CL&P right-of-way that is presently occupied by 115-kV line. The right-of-way width varies between approximately 280 and 385 feet and is wide enough (with additional tree clearing) to accommodate the construction of a 345-kV line alongside the existing 115-kV line. In this area, no right-of-way expansion is proposed at this time. The existing line structures located in Enfield currently average about 60 feet tall, and similar structures are proposed for a 345-kV line averaging about 90 feet tall.

**Regarding the Underground deviation in the "Southern" Route Alternative** - The underground line variation from the "Southern" Route would extend approximately 4.3 miles across the northern portion of Enfield and would replace a 3.7-mile segment of the overhead 345-kV line. This route

would be located primarily within or adjacent to state and local road right-of-ways. From west to east this underground line would begin where the existing overhead line right-of-way crosses Campania Road and end where the right-of-way crosses Mayfield Drive. Between these points, the underground line would traverse Campania Road, Manning Road, U.S. Highway 5, Brainard Road, and Mayfield Drive. Large line transition stations would be required on land at each end of this alternative underground line section. Attached are aerial maps that may help you visualize the proposed area. If you need any guidance viewing these, please contact me.

Please provide your mailing address so I may send you a NEEWS information packet to refer to for additional Project information. In this packet, a Public Participation sheet will be included and will guide you through the siting process.

I hope this information is helpful and should you have additional questions, please feel free to contact me directly.

Sincerely,

Elise C. Kranich  
Community Relations  
203.949.2313 (office)



**From:** SBertrand1006@aol.com [mailto:SBertrand1006@aol.com]

**Sent:** Friday, August 15, 2008 8:22 AM

**To:** Kranich, Elise

**Subject:** Re: NEEWS Inquiry

Thank you for the information.

My mailing address is:

Scott Bertrand  
21 Tanglewood Ave  
Enfield, CT 06082

---

# Written Documentation: Town of Suffield

Wright- 10#2

Kranich, Elise

---

**From:** pellemr@nu.com on behalf of news@nu.com  
**Sent:** Wednesday, June 25, 2008 11:36 AM  
**To:** Kranich, Elise  
**Subject:** Fw: Greater Springfield Reliability Project

----- Forwarded by Matthew R. Pelletier/NUS on 06/25/2008 11:35 AM -----

"Donald Wright"  
<dlwright44@gmail.com>  
To  
NEEWSGroupMailbox@NU  
cc  
06/21/2008 10:13  
AM  
Subject  
Greater Springfield Reliability  
Project

I just saw this proposal in this morning's Hartford Courant. I like to know how to find detailed maps of the proposed site(s), when this project became public knowledge, etc. I recently purchased a house which appears to be very close to the line going through Suffield. I know there is a town meeting June 24th but I can't adequately prepare for that without getting more detail than what is available on your web site.

thanks

Don Wright

\*\*\*\*\*

This e-mail, including any files or attachments transmitted with it, is confidential and intended for a specific purpose and for use only by the individual or entity to whom it is addressed. Any disclosure, copying or distribution of this e-mail or the taking of any action based on its contents, other than for its intended purpose, is strictly prohibited. If you have received this e-mail in error, please notify the sender immediately and delete it from your system. Any views or opinions expressed in this e-mail are not necessarily those of Northeast Utilities, its subsidiaries and affiliates (NU). E-mail transmission cannot be guaranteed to be error-free or secure or free from viruses, and NU disclaims all liability for any resulting damage, errors, or omissions.

\*\*\*\*\*

**Kranich, Elise**

---

**From:** Pelletier, Matthew  
**Sent:** Wednesday, June 25, 2008 11:29 AM  
**To:** dlwright44@gmail.com  
**Subject:** NEEWS Project Open Houses

Mr. Wright,

Thank you for writing to the NEEWS project inbox, we appreciate the opportunity to answer your questions.

If you have a question specifically about your property, feel free to call our project hotline at 866-996-3397. Also, to obtain more information about the project, there are copies of the documents submitted to the municipalities at your local library.

We will also be holding open houses at East Granby High School (95 South Main St) this evening beginning at 6PM and at the Enfield Street School (1318 Enfield Street) tomorrow evening at 7PM.

Thank you!



Matt Pelletier  
Community Relations  
New England East-West Solution Project  
35 Thorpe Ave  
Suite 201  
Wallingford CT 06492

KLING 10/2

# YOUR COMMENTS, PLEASE

**THANK YOU FOR ATTENDING.** Please use this sheet to provide your comments. You can deposit it at one of the Comment stations or fill it out and mail it after you get home. We will convey your comments to your municipal official and state siting authority.

In what town do you reside? Suffield

**Your Comments:**

- I think there should only be 1 row of towers - take down the 115 v line - place new line

① underground

② far side of easement to the far east

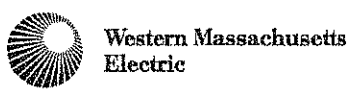
③ leave buffer of trees

If you have a concern specific to your property, please provide us with your name and address.

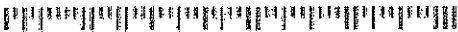
Name: Bobbie C. Keeney

Address: 1120 Newgate RD W. Suffield

Thank You.



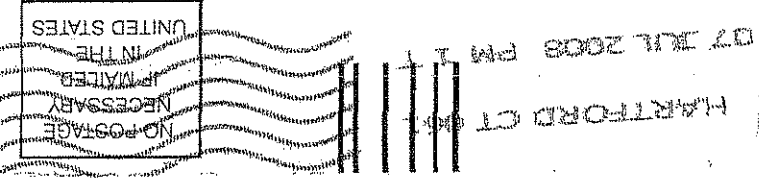
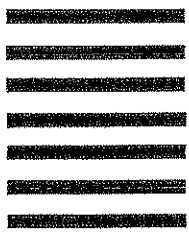
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What did you find helpful about the open house?

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How might we improve the open house?

A presentation would  
have be more  
informational -





# YOUR COMMENTS, PLEASE

THANK YOU FOR ATTENDING. Please use this sheet to provide your comments. You can deposit it at one of the Comment stations or fill it out and mail it after you get home. We will convey your comments to our municipal official and state siting authority.

What town do you reside? W. Suffield

Your Comments:

Richard Legere  
1204 Newgate

RLEGERE@COX.NET

other side of ROW from Kings  
prefer UG alternative

If you have a concern specific to your property, please provide us with your name and address.

Name: \_\_\_\_\_

Address: \_\_\_\_\_

Thank You.



Sorrow - 1 of 1

NEW ENGLAND  
EAST WEST  
SOLUTION

# YOUR COMMENTS, PLEASE

**THANK YOU FOR ATTENDING.** Please use this sheet to provide your comments. You can deposit it at one of the Comment stations or fill it out and mail it after you get home. We will convey your comments to our municipal official and state siting authority.

What town do you reside? \_\_\_\_\_

Your Comments:

I have three trees in poor health that need to be taken down. One of the trees has a Posted and Be ware of Dog sign on it

Please Call me about this

Home 860 668 2800

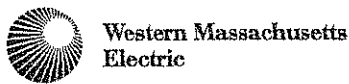
Cell 413 348 3474

If you have a concern specific to your property, please provide us with your name and address.

Name: Shawn Sorrow

Address: 2609 Mountain Rd

Thank You.



Anonymous 1 of 1



# YOUR COMMENTS, PLEASE

THANK YOU FOR ATTENDING. Please use this sheet to provide your comments. You can deposit it at one of the Comment stations or fill it out and mail it after you get home. We will convey your comments to our municipal official and state siting authority.

What town do you reside? Suffield

Your Comments:  
Please do complete the power line project.

If you have a concern specific to your property, please provide us with your name and address.  
Name: \_\_\_\_\_  
Address: \_\_\_\_\_

Thank You.



Harris 1091



# YOUR COMMENTS, PLEASE

THANK YOU FOR ATTENDING. Please use this sheet to provide your comments. You can deposit it at one of the Comment stations or fill it out and mail it after you get home. We will convey your comments to our municipal official and state siting authority.

What town do you reside? Suffield

Your Comments:

Wants a call back to further discuss his home than affected  
- UG net in lawn  
- net off to east of property

If you have a concern specific to your property, please provide us with your name and address.

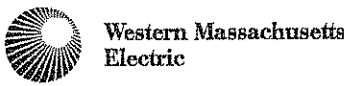
Name: Timothy Harris

Address: 1208 Newgate Road

harrist@fpsct.org  
673-8276

Thank You.

Director of School Facilities  
Farmington





# TOWN OF SUFFIELD

230C MOUNTAIN ROAD • SUFFIELD, CONNECTICUT 06078  
(860) 668-3847 FAX (860) 386-6696

Conservation Commission

August 8, 2008

Teresa Hopkins-Statton  
Northeast Utilities  
107 Phelden Street  
Berlin, CT 06037

RE: Conservation Commission Concerns

Dear Ms. Hopkins-Statton:

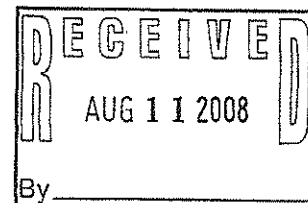
Please find attached a list with the names of the commission members who were present during your presentation on July 22, 2008. I have attached for your review the Ridgeline Protection Zone Regulations which were discussed during that presentation and which was a concern for some of the commission members. Additional concerns included wetland protections, in places where wetlands will be impacted, future maintenance items i.e. who oversees maintenance in wetlands once your permit has expired to ensure the future viability of wetland areas, herbicides and where they will be used, with special attention given to areas with private wells.

The Commission looks forward to reviewing your engineered plans once they have been completed and provided to the Connecticut Siting Council for their application process.

Thank you for taking the time to provide this information to the Commission and we look forward to hearing from you as the process proceeds.

Very Truly Yours,

Robin M. Newton  
Administrative Secretary  
Suffield Conservation Commission



LIST OF SUFFIELD CONSERVATION COMMISSION MEMBERS

CHAIRMAN

Arthur P. Christian

VICE CHAIRMAN

Glenn Neilson

REGULAR MEMBERS

Thomas Heffernan

Jack Leahey

Raymond Wilcox

Barbara Chain

Bob Roberts

ALTERNATE

Andrew Krar

## SECTION X: RIDGELINE PROTECTION ZONE

### A. STATEMENT OF PURPOSE

It is the purpose of this regulation to implement the provisions of Public Act 95-239 which amended Sections 8-2 and 8-23 of the General Statutes to permit regulations concerning the protection of traprock ridgelines. This regulation is intended to provide minimum standards for the preservation and of land within the Ridgeline Setback Area and is designed to promote development practices which will support the following goals:

1. Preservation of the aesthetic beauty and natural environment of the Town;
2. Preservation of the environmentally sensitive land within and adjacent to the ridgeline area of West Suffield Mountain and Manitook Mountain;
3. Preservation of the unique flora, fauna and other environmental attributes within and adjacent to the ridgeline area of West Suffield Mountain and Manitook Mountain; and
4. Preservation of ridgeline vistas of West Suffield Mountain and Manitook Mountain as seen from the Town.

### B. DEFINITIONS

*Building* (for purposes of this Section only): Any structure other than (A) a facility as defined in Section 16-50i of the Connecticut General Statutes or (B) structures of a relatively slender nature compared to the buildings to which they are associated, including but not limited to chimneys, flagpoles, antennas, utility poles and steeples.

*Clear-cutting*: The harvest of timber in a fashion which removes from any four-hundred (400) square foot or larger area all or substantially all trees measuring two (2) inches or more in diameter at a height of four (4) feet.

*Development*: The construction, reconstruction, alteration, or expansion of a building.

*Passive recreation*: Non-motorized use of the land such as hiking, picnicking or birdwatching.

*Ridgeline conservation area*: An area extending 250 feet horizontally from a ridgeline to a parallel line on either side of such ridge as shown on the Zoning Map. Said map shall be

used as a guide, for general information and illustrative purposes only. The actual presence and location of the Ridgeline Setback Area, as defined in Public Act 95-239, shall be determined by an applicant's qualified technical professionals in connection with a proposed development.

*Ridgeline setback area:* The area bounded by (A) a line that parallels the ridgeline at a distance of one hundred fifty feet on the more wooded side of the ridge, and (B) the contour line where a ridge of less than fifty percent is maintained for fifty (50) feet or more on the rockier side of the slope, mapped pursuant to Sec. 8-2 of the General Statutes, as amended by Sec. 2 of this act.

*Selective timbering:* The harvesting of trees at least six (6) inches in caliper for purposes other than development.

*Traprock ridgeline:* The lines(s) on West Suffield Mountain and Manitook Mountain created by all points at the top of a fifty (50) percent slope, which is maintained for a distance of fifty (50) horizontal feet perpendicular to the slope and which consists of surficial basalt geology, identified on the map prepared by Stone, et al., U.S. Geological Survey, entitled "Surficial Materials Map of Connecticut".

## C. PERMITTED USES

1. As of right
  - a. Emergency work necessary to protect life and property;
  - b. Any non-conforming uses that were in existence and that were approved on or before the effective date of regulations adopted under this Section and;
  - c. Selective timbering, grazing of domesticated animals and passive recreation.
2. Uses permitted in the underlying zone, including clear-cutting, may be allowed by the Commission as a special permit after public hearing and subject to ridgeline protection standards.
3. The following may be permitted, subject to ridgeline protection review by the Commission of project site plans prior to the issuance of a building permit:
  - a. Any construction or significant alteration of any dwelling or other structure if any such action affects the exterior appearance. A significant alteration is defined as any alteration which adds to the height of a structure or which substantially alters the visual profile of the property or structures thereon;
  - b. The Commission may waive any and all requirements of the ridgeline protection review for dwelling additions and/or accessory buildings of 400 square feet or less and less than ten (10) feet in height.



#### D. RIDGELINE PROTECTION STANDARDS

No roof, antenna, satellite dish, tower or other feature that may be above the roof level shall be visible above the ridgeline when viewed from a public way. Buildings and landscaping are to be designed and located on the site to blend with the natural terrain and vegetation and to preserve the scenic character of the site, conforming to the following standards:

##### 1. Building Characteristics

- a. Exposed foundation walls shall not extend more than two (2) feet above the proposed finished grade.
- b. Buildings, alterations, additions, or structures should be located downgrade of the ridgeline (where possible).
- c. Building materials shall blend with the natural landscape.

##### 2. Landscaping

- a. Removal of native vegetation, especially large timber, shall be minimized and the replacement of vegetation and landscaping shall be compatible with the vegetation of the subject area.
- b. Trees may only be removed for location and construction of streets, driveways, septic areas or structures. With approval from the Commission, selective clearing for views may be permitted where the view is obstructed by dense vegetation.
- c. Retaining walls, of natural materials only, may be used to create usable yard space. Retaining walls on the exposed side and downhill portions of a lot which are in view or visible from a public way shall be screened with appropriate landscaping material.
- d. Landscaping and plantings shall be utilized to screen main buildings in open or prominent areas from significant views, both when installed and when mature.

##### 3. Grading.

Any grading or earth moving operation is to be planned and executed in such a manner that final contours appear to be consistent with the existing terrain, both on and adjacent to the site.

##### 4. Prevention of erosion and sedimentation.

No area of 100 square feet or more on any parcel shall have existing vegetation clear-stripped or be filled six (6) inches or more so as to destroy existing vegetation unless in conjunction with agricultural activity or unless necessarily incidental to construction on the premises under a currently valid building permit. No stripped areas which are

allowed shall remain through the winter without a temporary cover of winter rye or similar plant material to provide soil control.

5. Utilities

The Commission shall determine whether utilities will be constructed and routed underground and will take into consideration those situations where natural features prevent the underground siting or where safety considerations necessitate above ground construction and routing. Above ground utilities shall be constructed and routed to minimize detrimental effects on the visual setting.

6. Site Planning.

In the building of more than one structure, variable setbacks, multiple orientations and other site planning techniques shall be incorporated in order to avoid the appearance of a solid line of development.

7. Accessory Structures.

Construction of a tower, satellite dish, windmill, antenna, or other installation shall not obstruct the view of, or from a public way, or from an abutter's dwelling, or be visible from off the ridge.

**E. APPLICATION**

Application to the Commission is required where a property or a portion of a property lies within the Ridgeline Conservation Area.

Application shall be submitted in accordance with appropriate procedures under Section 6.13 of the Suffield Zoning Regulations according to the type of review necessary. To facilitate siting and design of buildings sensitively related to the natural setting, aerial markers shall be placed at points corresponding to the highest point of a proposed building or structure. Applications for ridgeline protection review of proposed development must be accompanied by the following:

1. A site plan or plot plan, as the case may be, in accordance with Section 6.11 of the Suffield Zoning Regulations.
2. Photographs of the development site with aerial marker(s) in place, taken from points along the street rights-of-way which provide a view of the site together with a map indicating the distance between these points and the site.
3. An architectural drawing of all existing and proposed buildings and structures on the site showing how they fit into the ridgeline protection area.
4. A computer generated three-dimensional view may be substituted for item "3" above.

NEWTON- + U + 8



Connecticut  
Light & Power  
The Northeast Utilities System



Greater Springfield  
Reliability Project

August 18, 2008

VIA ELECTRONIC MAIL & US POSTAL SERVICE

Robin M. Newton  
Administrative Secretary  
Suffield Conservation Commission  
230C Mountain Road  
Suffield, CT 06078

Dear Ms. Newton:

Thank you for the opportunity to discuss Connecticut Light & Power's (CL&P) Greater Springfield Reliability Project (GSRP) with you and members of the Suffield Conservation Commission at your July 22, 2008, meeting. As you know, this new project will upgrade the high-voltage transmission system in your area and will also provide enhanced access to cleaner, competitively priced energy sources.

During this meeting, Commissioners raised several questions regarding the protection of wetlands while the transmission project is under construction and after work has been completed. CL&P embraces a strong environmental ethic, which drives best construction and vegetation management practices in these rights-of-way.

Our vegetation management group uses herbicides that are environmentally safe and have no effect on surrounding areas. (Please see the Northeast Utilities System Herbicide Fact Sheet enclosed with this letter.) In many cases, the products we use are also approved for vegetation management projects around public water supplies.

Oversight and permitting of wetland protection is provided by the Army Corps of Engineers and/or the Connecticut Siting Council. During construction, the Siting Council conducts weekly environmental inspections of all work sites to ensure they conform to the terms and conditions of their Decision and Order. Inspection reports are posted weekly on the Siting Council Web site.

The permits and conditions granted by the Army Corps of Engineers and the Siting Council are enforced for the life of the transmission facility, a period of about 40 years.

Additionally, some Suffield residents have raised environmental concerns about the use of herbicides. At CL&P, we believe it is our duty to maintain a protected and healthy ecosystem. This includes adhering to all state and federal regulations pertaining to the safe and targeted use of selectively applied herbicides administered in low volume and under low pressure, and only to certain plant species. Please know that all abutting property owners are notified in advance of any application.

We do not treat in wet, wetland areas but may apply state-approved materials in dry wetlands. These materials are used no closer than 50 feet to wells and 10 feet to standing water. In addition, CL&P notifies all town Inland Wetland Commissions annually about work planned for the year. Suffield was notified in March 2008 of work that was recently completed on a transmission right-of-way near East Main Street.

I hope this information addresses the interests of the Commission and professional staff. Please don't hesitate to contact me if you have any questions or concerns.

Sincerely,



Jeffrey M. Towle  
Project Manager

cc: First Selectman Scott R. Lingenfelter

LIV LINGENFELTER - 1077



Connecticut  
Light & Power  
The Northeast Utilities System



Greater Springfield  
Reliability Project

July 11, 2008

First Selectman Scott R. Lingenfelter  
Town Hall  
83 Mountain Road  
Suffield, CT 06078

**Re: Application of The Connecticut Light and Power Company ("CL&P" or the "Company")  
to the Connecticut Siting Council ("Council") Concerning the Connecticut Portion of the  
Greater Springfield Reliability Project ("Project")**

Dear First Selectman Lingenfelter,

On behalf of myself and our Project Manager, Mr. Jeffrey Towle, thank you for allowing us to help you communicate the Greater Springfield Reliability Project to your town using the open house format. We hope you were satisfied with the information and approach we put together.

At the open houses, we provided a form for attendees to leave us their written comments, or to subsequently send comments by mail. As part of the siting process, you have an opportunity to send written comments on CL&P's Municipal Consultation Filing on behalf of your town. To assist you in that effort, we are hereby forwarding to you copies of the comment forms we have received to date from residents of your town. If we receive more such comment forms in the coming weeks, I will forward copies of those to you as well.

We look forward to receiving your comments and recommendations before the filing in September of a CL&P application to the Connecticut Siting Council, and of course, CL&P will share your response with the Council once it has submitted its application. Whether or not your town chooses to directly participate in the subsequent Council process on CL&P's application, your comments and recommendations will be "on the record" and will no doubt be addressed in questioning and testimony during the Council's public hearings.

Very truly yours,

Robert E. Carberry, Project Manager  
NEEWS Siting and Permitting



# YOUR COMMENTS, PLEASE

THANK YOU FOR ATTENDING. Please use this sheet to provide your comments. You can deposit it at one of the Comment stations or fill it out and mail it after you get home. We will convey your comments to your municipal official and state siting authority.

In what town do you reside? Suffield

Your Comments:

- I think there should only be 1 row of towers - take down the 115 v line - place new line

① underground

② far side of easement to be far east

③ leave buffer of trees

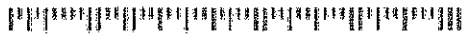
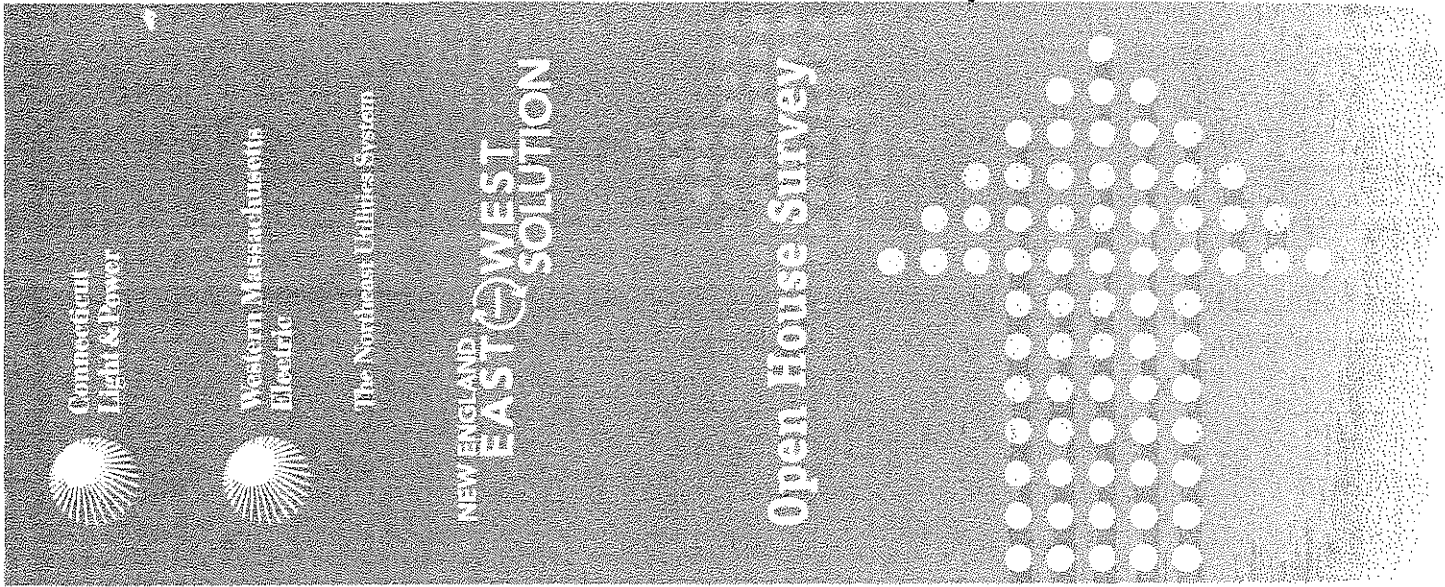
If you have a concern specific to your property, please provide us with your name and address.

Name: Bobbie C. Keeney

Address: 1120 Newgate RD W. Suffield

Thank You.

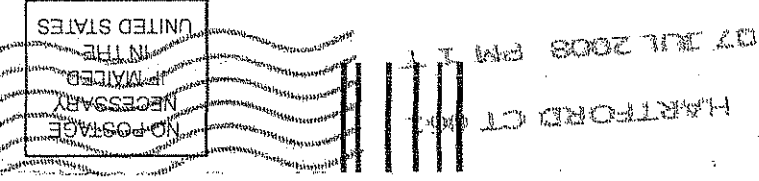
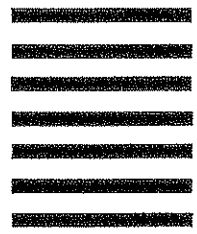




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What did you find helpful about the open house?

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How might we improve the open house?

A presentation would  
 have been more  
 informational -

# YOUR COMMENTS, PLEASE

THANK YOU FOR ATTENDING. Please use this sheet to provide your comments. You can deposit it at one of the Comment stations or fill it out and mail it after you get home. We will convey your comments to your municipal official and state siting authority.

In what town do you reside? W. Suffield

Your Comments: Richard Legere  
1204 Newgate

RLEGERE @ COX.NET

other side of ROW from Kings  
prefers UG alternative

If you have a concern specific to your property, please provide us with your name and address.

Name: \_\_\_\_\_

Address: \_\_\_\_\_

Thank You.







# YOUR COMMENTS, PLEASE

**THANK YOU FOR ATTENDING:** Please use this sheet to provide your comments. You can deposit it at one of the Comment stations or fill it out and mail it after you get home. We will convey your comments to our municipal official and state siting authority.

What town do you reside? \_\_\_\_\_

Our Comments:

\_\_\_\_\_

I have three trees in poor health that need to be taken down. One of the trees has a Posted and Beware of Dog sign on it

Please Call me about this

Home 860 668 2800  
Cell 413 348 3474

If you have a concern specific to your property, please provide us with your name and address.

Name: Shawn Sorrow

Address: 2609 Mountain Rd

Thank You.



# YOUR COMMENTS, PLEASE

THANK YOU FOR ATTENDING. Please use this sheet to provide your comments. You can deposit it at one of the Comment stations or fill it out and mail it after you get home. We will convey your comments to your municipal official and state siting authority.

In what town do you reside? Suffield

Your Comments:

Wants a call back to further discuss his home than affected

- UG act in Conn
- act off to east of property

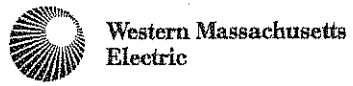
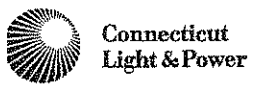
If you have a concern specific to your property, please provide us with your name and address.

Name: Timothy Harris  
Address: 1208 Newgate Road

harrist@fpsct.org  
673-8276

Thank You.

Director of School Facilities  
Farmington





# YOUR COMMENTS, PLEASE

THANK YOU FOR ATTENDING. Please use this sheet to provide your comments. You can deposit it at one of the Comment stations or fill it out and mail it after you get home. We will convey your comments to your municipal official and state siting authority.

In what town do you reside? Suffield

Your Comments: Please do complete the power line project.

If you have a concern specific to your property, please provide us with your name and address.

Name: \_\_\_\_\_

Address: \_\_\_\_\_

Thank You.



Gauthier 1 of 2

David Gauthier  
3219 Phelps Road  
West Suffield, CT 06093  
July, 11, 2008

Northeast Utilities  
c/o NEEWS  
PO Box 270  
Hartford, CT 06141-0270

Subject: Greater Springfield Reliability Project (GSRP)  
Proposed High Voltage Power Line in Suffield, Connecticut

To Whom it May Concern,

After seeing Northeast Utilities proposed location for adding a 345-kVolt high power distribution line through Suffield, I have some concerns. The concerns are related to the negative effects of electro magnetic fields (EMF), appearance, property value, and erosion.

The safest location to place high power electrical distribution lines with EMF is as far away from people as possible. Therefore, the safest location to place the new lines are on the far east side of their easement through Suffield, as this would have the least impact to people.

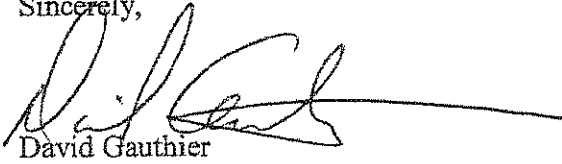
To limit the negative visual effects, the lines should again be placed on the far east side of easement, as the lines and towers would be less visible.

The property along Phelps road in Suffield consists of red clay that sheds water. Surface water and erosion is a constant problem, and property owners have sustained slumps (earth movement) along the west side of the easement. Some property owners have installed drains at considerable personal expense to drain water away from slopes on the west side of the easement. Northeast Utilities should install permanent drainage to prevent further property damage (earth movement), flooded basements, and septic system damage. In addition, all disturbed areas should be replanted with native vegetation. Locating the new lines and towers on the far east side of the easement would provide an additional vegetation barrier and help prevent further property damage.

Property values will decrease due to EMF proximity, and the negative appearance. The original property owners were compensated with the original easement, and property values adjusted. However, a drastic change in the visual appearance and increased proximity to EMF will have an additional negative effect on property values.

In conclusion, the above facts suggest the new high voltage power distribution lines and towers should be placed on the far east side of the current easement to reduce EMF proximity to humans, reduce the negative visual impacts, reduce the negative impact on property value, and reduce the possibility of future erosion damage.

Sincerely,



David Gauthier

Cc:

CT Siting Council  
Ten Franklin Square  
New Britain, CT 06051

Scott Lingenfelter  
83 Mountain Road  
Suffield, CT 06078

Trippodo  
1 of 2

**From:** Maturo, Patrice  
**Sent:** Thursday, July 17, 2008 4:40 PM  
**To:** 'ctfd9@cox.net'  
**Subject:** Response to Mr. Trippodo-Suffield Open House

Good afternoon, Mr. Trippodo,

My name is Patty Maturo and I work in the Community Relations Department for CL&P's NEEWS Project. We received your follow-up questions from the Suffield Open House and thank you for your interest in the Project.

Below are the questions you presented with answers provided by our project managers.

**What is the center-to-center distance spacing between existing and new structures?**

Based upon preliminary design, the center-to-center structure spacing is approximately 75 feet.

**What is the distance from the outer-most structure centerline to right of way line?**

The centerline of the proposed H-frame structure, near the existing tower, would be approximately 180' from the edge of the eastern right of way.

**What is the distance from the outer-most line to edge of right of way?**

According to our preliminary design, under a no-wind weather condition, the outside phase or line of the proposed H-frame structure would be approximately 153' to the edge of the eastern right of way.

**What is the distance from the outer-most structure centerline to outer edge of structure arm?**

The H-frame structure at this location has a 26' distance from the centerline to the outside phase or line.

**What are the anticipated tree/vegetation clearing limits?**

Clearing anticipated for construction:

Clearing will occur along the alignment centerline, approximately 75' each side of the centerline will be cleared for a total width of 150 feet.

This is the standard clearing width; however, it may be less depending on the area. In addition to the clearing on either side of the centerline, clearing will be required for access roads, approximately 20' in width. Other vegetation will be removed only if it impedes the movement of equipment or material down the right of way, or if there is a safety concern.

Vegetation re-growth expected:

The maintenance clearing will allow natural re-vegetation across the entire width of the right of way (with the exception of maintained access roads and structure maintenance pads). Normal maintenance clearing in the area usually result in vegetation heights which do not exceed 8'.

In addition, I've attached an index map of your property and the right-of-way highlighting wetlands, zoning, proposed and existing structures, etc. Also included is a cross-section sketch noting the existing vs. proposed structures.

I hope this information addresses your concerns. Please feel free to contact me directly if you have any additional questions or concerns with the project.

Regards,

Patty Maturo

**Patty Maturo**

Community Relations

Burns & McDonnell

35 Thorpe Avenue Suite 201

Wallingford, CT. 06492

office: 203-949-2320

cell: 860-218-7523

[pmaturo@burnsmcd.com](mailto:pmaturo@burnsmcd.com)



Connecticut  
Light & Power  
The Northeast Utilities System



Greater Springfield  
Reliability Project

July 29, 2008

First Selectman Scott R. Lingenfelter  
Suffield Town Hall  
83 Mountain Road  
Suffield, CT 06078

**Re: Application of The Connecticut Light and Power Company ("CL&P" or the "Company")  
to the Connecticut Siting Council ("Council") Concerning the Connecticut Portion of the  
Greater Springfield Reliability Project ("Project")**

Dear First Selectman Lingenfelter:

As I indicated in my July 11, 2008 letter to you, please find enclosed an additional comment letter we received from a Suffield resident subsequent to CL&P's open house event.

Very truly yours,

Robert E. Carberry, Project Manager  
NEEWS Siting and Permitting



Lingenfelter 2083

David Gauthier  
3219 Phelps Road  
West Suffield, CT 06093  
July, 11, 2008

Northeast Utilities  
c/o NEEWS  
PO Box 270  
Hartford, CT 06141-0270

Subject: Greater Springfield Reliability Project (GSRP)  
Proposed High Voltage Power Line in Suffield, Connecticut

To Whom it May Concern,

After seeing Northeast Utilities proposed location for adding a 345-kVolt high power distribution line through Suffield, I have some concerns. The concerns are related to the negative effects of electro magnetic fields (EMF), appearance, property value, and erosion.

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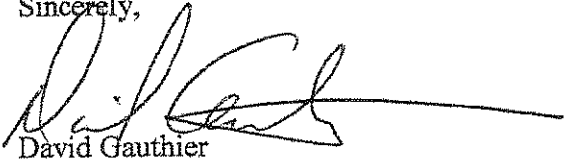
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Sincerely,



David Gauthier

Cc:

CT Siting Council  
Ten Franklin Square  
New Britain, CT 06051

Scott Lingenfelter  
83 Mountain Road  
Suffield, CT 06078

## Citizens Against Overhad Power Line Construction

August 16, 2008

Mr. Robert Carberry, Manager Transnsion Siting  
Connecticut Light & Power  
107 Selden Street  
Berlin, CT 06037

Laurie Fiore, Account Executive  
Connecticut Light & Power  
48 Tolland Stage Road  
Tolland, CT 06084

Mr. Paul Williams, Senior Electrical Engineer  
Burns & McDonnell  
9400 Ward Parkway  
Kansas City, MO 64114

Re: Meeting of August 14, 2008 on the proposed "Greater Springfield Reliability Project".

Dear Bob, Laurie and Paul:

I am pleased that we had a frank initial discussion of some of the issues of the GSRP overhead power line. I would like to recap the key points of our meeting and provide additional comments. Let me start with what are the most important issues and concerns and work my way down the list.

It is a good practice to think things over for a day or two especially after an important meeting and absorb, quantify and qualify what transpired. I took time to visit with a number of our members to discuss our individual impressions of the meetings. Here is the consensus of opinion:

- Underground is the only option.
- With regard to one individual's comments regarding the option of moving the GSRP's power line away from the existing 115 kV ROW to the base of the

## Citizens Against Overhead Power Line Construction

Metacomet ridge and considering 345 kV overhead lines, is not an opinion shared by the rest of the group. It was strongly rejected.

- There is agreement that underground construction along either Newgate or Mountain road appears to be the best choice.

Let me ask about something that I may have misunderstood. Am I correct in assuming that should one of the underground options be approved by the CT Siting Committee, that the 345 kV transmission lines will run underground from your proposed Turkey Hills transfer station to a transfer station near the Massachusetts border? Said differently, I want to confirm that the underground option will be 100% underground.

If it is not 100% underground, we need to communicate at an early stage that it would not be acceptable to only address Newgate Road's and Phelps's residents concerns because in the big picture while we would be delighted to have the lines underground at our homes, it still would financially devastate residents on North Stone, Colson and the other streets situated North of Mountain Road. And it certainly would not fix Suffield's loss of property tax revenue. It would not alleviate the community's concerns about overhead line's EMF's. It would not be a solution the entire community could embrace.

- And as mentioned in our discussion, we also want to be frank that unless we agree upon and implement an underground solution that is palatable to residents in East Granby and West Suffield, should we lose property value, should our quality of life be compromised by concerns about EMF's and our health and our children's health be impaired, we will have no other option than to file class action suits.
- From decades of insurance claim negotiations, I think CL&P follows the same textbook investigatory procedures and protocols that we do, such as conducting meetings with people individually. We would use the meetings to not only discuss the issues but to develop a feel for, and a profile of, who we were dealing with.

So I hope that you were able to come away with insights about our group and our community such as:

## Citizens Against Overhead Power Line Construction

1. There is a great pride in, and intense love for our community.
2. There is a cohesive desire to retain the beauty of our landscape and protect the health of our residents and the value of our property.
3. We have an educated understanding of the vital importance of maintaining and growing a small town's tax base.
4. Our members have professional backgrounds in public health, electrical engineering, law, agriculture, corporate regulatory compliance, biology, construction, executive level management and corporate risk management to name a few disciplines. We are a group of well educated individuals willing to enter into a dialogue and work towards a win-win solution

But absent a win-win, we are prepared to go the distance to protect our families, preserve our community and our quality of life. I am certain if the situation were reversed, you would be where we are, feel and do the same.

All of us love our homes and our communities. So let's continue to work in a positive and constructive way towards achieving a mutually acceptable and beneficial long term underground power line solution for Suffield and East Granby.

Sincerely,

Richard Legere

Legere- 4 of 6

**From:** Williams, Paul  
**Sent:** Monday, August 18, 2008 10:54 AM  
**To:** rlegere; 'Robert Carberry'; 'Laurie Fiore'  
**Cc:** Kranich, Elise  
**Subject:** RE: Suffield/East Granby meetings

Mr. Legere,

Thank you for putting together a follow-up letter to our meeting last week. I have reviewed it and understand your concerns.

Elise will be trying to coordinate an additional meeting with Mr. Tom Harris. If there is any additional information or additional concerns to communicate on the project please feel free to contact myself or Elise Kranich at (203) 949-2313.

Thank you for your time.

Paul M. Williams, P.E.  
Senior Electrical Engineer  
Transmission & Distribution Services  
Burns & McDonnell  
9400 Ward Parkway  
Kansas City, Missouri 64114

Tel: 816 823-7054  
Cell: 913 626-0301  
Fax: 816 833-3690  
[pwilliams@burnsmcd.com](mailto:pwilliams@burnsmcd.com)  
[www.burnsmcd.com](http://www.burnsmcd.com)



Connecticut  
Light & Power  
The Northeast Utilities System



Greater Springfield  
Reliability Project

August 20, 2008

VIA ELECTRONIC MAIL AND US POSTAL SERVICE

Mr. Richard Legere  
1204 Newgate Road  
West Suffield, CT 06093

Re: Your e-mailed Letter Dated August 16, 2008

Dear Richard:

Thank you for your letter following our meeting on August 14, 2008, which as you wrote, included "frank initial discussion". I plan to include your letter with other comments and correspondence from town officials and residents that The Connecticut Light and Power Company ("CL&P") will turn over to the Connecticut Siting Council once it files its application for the Greater Springfield Reliability Project. I would also like to encourage you to participate in the Connecticut Siting Council's public hearing process to represent your views once our application is filed. You should contact the Council's Executive Director, Derek Phelps, to find out more about this process and your opportunities to participate.

In your letter you raised one question to which I respond. You asked: "Am I correct in assuming that should one of the underground options be approved by the CT Siting Committee, that the 345-kV transmission lines will run underground from your proposed Turkey Hills transfer station to a transfer station near the Massachusetts border?" The answer is no; your assumption is not correct. The June 16, 2008 municipal consultation filing materials show that CL&P is considering route options for a potential underground line section between a 345-kV line transition station just south of Turkey Hills Road in East Granby, at a location CL&P calls Granby Junction, and a 345-kV line transition station just north of Phelps Road in Suffield. In this scenario, new overhead 345-kV line sections would extend south from the Granby Junction facility and north from the Phelps Road facility. We are also considering an underground line option routed over portions of the existing CL&P right-of-way in Suffield and East Granby which may or may not extend as far south as Granby Junction.

At our meeting you also asked for a citation to the Connecticut law which governs the jurisdiction of the Connecticut Department of Public Utility Control. I checked and was informed that this agency's jurisdictional direction is primarily within Connecticut General Statutes section 16-19.

Leyere - 6 04 6



Connecticut  
Light & Power  
The Northeast Utilities System



Greater Springfield  
Reliability Project

Finally, thank you also for providing us with copies of the "Citizens Against Overhead Power Line Construction" pamphlet. We certainly have some differences on the bullet points and other matters in the pamphlet which the Council's fact-finding process will ultimately resolve. For example, your "unreasonable economic impact" quote from page ES-17 of CL&P's Municipal Consultation Filing refers to a customer impact, and not an impact on CL&P. Also, let me note that while you have probably quoted the June 20 Hartford Courant story accurately, their third paragraph in your pamphlet is incorrect. Technical concerns limited the underground cable installation from Milford to Middletown to 0 miles, not 20 miles.

I look forward to future opportunities for discussion and to the expression of your views in the Council's process.

Sincerely,

Robert E. Carberry, Project Manager  
NEEWS Siting and Permitting





**Connecticut  
Light & Power**

The Northeast Utilities System

The Connecticut Light and Power Company  
P.O. Box 270  
Hartford, CT 06141-0270  
(860) 947-2000

August 19, 2008

VIA ELECTRONIC MAIL AND US POSTAL SERVICE

Town of Suffield  
Scott Lingenfelter  
First Selectman  
83 Mountain Road  
Suffield, CT 06078

Dear Mr. Lingenfelter,

As we have discussed with you in the past, Connecticut Light & Power (CL&P) is proposing a plan to upgrade the high-voltage transmission system in your area through the construction of the Greater Springfield Reliability Project (GSRP). This new project is designed to improve the reliability of the transmission system, reduce bulk power system constraints, and provide businesses and residents with enhanced access to cleaner, competitively priced energy sources. GSRP is part of a group of transmission projects called New England East-West Solutions (NEEWS).

As you are aware, informing municipalities and local residents about CL&P's proposal is the first step in the siting review process for the transmission project. To facilitate resident participation in this review, we have conducted a series of local "open houses" to provide information and receive meaningful feedback from municipal officials, residents and businesses. Three open houses were held in CT for residents of Suffield, East Granby and Enfield on June 24, June 25 and June 26, respectively. More than 75 residents participated in those open houses.

We have also held meetings with residents who, subsequent to the open house, requested a one-on-one meeting with a project representative to discuss details of the project. At this time, we would like to take the opportunity to briefly update you on some key points that have surfaced from a small group of Suffield residents.

### Overhead versus Underground Line

CL&P is expected by state statutes to provide a solution that meets the need for reliable electric service balanced with minimal environmental impacts at a reasonable cost to consumers. We believe the proposed GSRP overhead solution fully meets these expectations. At the same time, we also appreciate resident questions about the ability for the new transmission line to be put underground.

While CL&P's preferred option is to utilize existing rights-of-way (ROW) for overhead line construction, undergrounding is considered when this is not an available option or when the Connecticut Siting Council requires that an underground alternative be provided for its consideration. We have evaluated four (4) underground line-route variations for the Newgate Road area in Suffield and East Granby and will include these evaluations in the Connecticut Siting Council application. The four (4) underground line-route variations include two (2) within existing roadway corridors and two (2) within the existing transmission ROW corridors.

When considering requests to place new transmission lines underground, the Siting Council will consider the impact of the incremental costs and environmental impacts on consumers and the reliability of the system having an added underground component. Typical construction costs for an underground transmission line are 5 - 10 times greater than those of a traditional overhead line and include very large and costly transition stations in the locations where the overhead line goes underground and then surfaces to reconnect with the overhead system. In addition, where lines can be constructed overhead but are directed to be put underground instead, the associated, incremental costs will be charged locally to the consumers who receive the benefits of the underground line. For example, in the case of our Bethel-to-Norwalk project, the increased cost differential between that of the overhead and the underground alternatives was charged only to Connecticut consumers. In contrast, since the overhead projects generally are proposed as the most cost effective, reliable and least environmentally impactful solution to solve the regional need, the reasonable cost for overhead line projects of regional benefit, like NEEWS, have historically been paid for by regional, i.e., New England, consumers.

### Electric and Magnetic Fields (EMF)

A few residents have raised questions about possible health effects from exposure to EMF near power lines. Please be assured that we understand people's concern and we take it seriously. This has been an issue for research and for new transmission line construction for the past 20 years. CL&P's policy for new overhead transmission line construction is to apply practical engineering solutions for reducing magnetic field levels at and beyond the edges of ROW that are adjacent to homes, schools, licensed day care facilities, licensed youth camps and playgrounds. This policy is consistent with a recommendation by the World Health Organization and with the policy expectations of the Connecticut Siting Council.

### Property Valuation

Another issue that has been broached by a few Suffield residents is the effect of electric transmission lines on the value of nearby residential properties, including those over which transmission line easements, and therefore the right to build the proposed transmission line, have existed for many years. We are aware that the existence of an easement diminishes the utility of a property and therefore diminishes its value. That is why utilities are required to compensate landowners when they acquire easements. However, concerns that the exercise of easement rights to construct a transmission line (or in this case, a second transmission line) will devastate the value of nearby properties are, we believe, unfounded. To help it evaluate such concerns, CL&P commissioned a report by James Chalmers, Ph.D., which we believe to be authoritative, and of which I enclose a copy.

### Herbicides

There have been some environmental questions raised about the use of herbicides. At CL&P, we believe it is our duty to maintain protected and healthy ecosystem, this includes adhering to all state and federal regulations pertaining to the safe and targeted use of selectively applied herbicides administered in low volume and under low pressure, and only to certain plant species. Please know that all occupants of dwellings adjacent to the ROW are notified in advance of any application. When used, these materials are applied no closer than 50 feet to wells and 10 feet to standing water. In addition, CL&P notifies all town Inland Wetland Commissions annually about work planned for the year. Suffield was notified in March, 2008, of work that was recently completed on a transmission ROW that crosses the northeast corner of Suffield.

Last, there are other benefits the transmission project will bring to the Suffield community that many residents may not realize. CL&P, being the third largest taxpayer in Suffield, will continue to increase its investment in the town with the completion of GSRP, easing the tax burden on all residential property owners. The town of Suffield will benefit from increased annual tax revenue as a result of the completed project and new transmission facilities.

Our commitment to Suffield extends beyond the business of energy. CL&P invests in the communities it serves, including grants from the shareholder-funded Northeast Utilities Foundation. CL&P and Northeast Utilities employees also donate and raise millions of dollars for charities, big and small and volunteer their time to a diverse set of local organizations.

I hope you find this information useful. Please know that we are committed to continue working closely with you and your town's residents, businesses and others affected by this transmission upgrade so that Suffield residents understand the need for this project and recognize the long-term reliability and economic benefits it will provide.

Additional project information can be obtained at CL&P's website [www.neewspjprojects.com](http://www.neewspjprojects.com). As you undoubtedly appreciate, there are many other resources available regarding the points addressed in this letter. If helpful, we can share a list of some of those with you and review that information with you.

Lingenfelter 4 of 4

We look forward to addressing the Board of Selectmen at the next Board Meeting on September 3. Please don't hesitate to contact me if you have any questions or concerns.

Sincerely,



Jeffrey M. Towle  
Project Manager - Greater Springfield Reliability Project

JMT/lpc  
Attachment (James A. Chalmers, Ph.D., Report)

cc: Board of Selectmen, Town of Suffield:  
Timothy Reynolds - treynolds@vcr-cpa.com  
John Smith - jgs@wlvs.com  
Brian Fitzgerald - brf1210@hotmail.com  
Victoria Spellman - victoria@victoriaspellman.com

LAVIANA 1 OF 6

KAS

**ROBERT O. LAVIANA  
ATTORNEY AT LAW**

1461 N Grand Street  
West Suffield CT 06093-2509  
Telephone: 860/983-4155  
Facsimile: 860/668-9798  
E-Mail: RobertLaviana@Yahoo.com  
Juris No.: 309762

August 25, 2008

Frank Poirot, Corporate Information Officer  
Jeffrey M. Towle, Project Manager  
Northeast Utilities Services Company  
107 Selden St.  
Berlin, CT 06037

Re: Greater Springfield Reliability Project  
Request for Modification to Northeast Utilities Service Company ("NUSCO") Preferred Option

Dear Messrs. Poirot and Towle:

This letter serves as an initial request for modification to the above project proposal. I am the property owner impacted by 5 separate tower structures (total 8 towers). Attached is a position paper including recommended alternatives. The NUSCO proposal is to expand rights of way, increase vegetation removal, and to increase the number of structures, including a dual tower path and at one junction quadrupling the number of towers from one to four (Structure 3242). Also attached is NUSCO's Plansheet 10 for reference.

A copy of this request is being concurrently submitted to the Town of Suffield in conjunction with the Town's consolidated comments/recommendations to NUSCO. I will further monitor, participate and file for intervenor status with the Connecticut Siting Council's proceedings. Finally, if a reasonable resolution can not be retained, litigation will be instituted. I have the authorization of abutting property owners which concur in this document's recommendations. These abutters also have concurred to participate in any proceedings before all forums in the future.

Finally, I have full access and authorization to provide underground excavation with a licensed and insured contractor utilizing a 60,000 pound excavator to excavate the approximately half mile section in issue at no cost to NUSCO. This would assist in providing the preferred option, an underground conduit. This is a serious proposal, especially in light as one of the arguments for NUSCO is that there is a prohibitive cost differential in rejecting the underground alternative.

If you have any questions, please contact me.

Sincerely,

  
Robert Laviana

Encls. as stated

Cc: Scott R. Lingenfelter, First Selectman, Town of Suffield  
Board of Selectmen, Town of Suffield

LAVIANA-2076

Greater Springfield Reliability Project  
 Northeast Utilities Services Company  
 107 Seiden St.  
 Berlin, CT 06037

**Primary objection**

NU Preferred option for structures 3240, 3241, 3242.

**Facts**

I am the current fee owner of two parcels situated on the 18 mile leg between the North Bloomfield/Agawam substations which have existing 115 kV towers. I am affected by eight transmission towers, for a total of approximately 1900 linear feet, therefore, I am at risk of sustaining a major impact created by the present project's preferred proposal.

**Parcel I**

**Fee Title:** Robert O. Laviana  
**Legal reference:** 1461 North Grand ST, West Suffield, CT 06093-2509  
**Mailing Address:** 1461 North Grand ST, West Suffield, CT 06093-2509  
**Area:** 72 acres  
**ROW Reference:** Volume \_\_\_ Page \_\_\_ Dated \_\_\_\_, \_\_\_ referenced in Map Vol. \_\_\_ at Page \_\_\_  
**NEEWS Plan Reference:** Connecticut Volume 5, Mapsheet 10 of 10 (Pdf pages 98 and 99); Massachusetts Volume 5 (Pdf page 107)  
**Present ROW Length:** 1300 feet  
**Present Structures:** (4) lattice steel 80-95 foot towers supporting double 115 kV circuits  
**NU Preferred Proposal:**  
 Install (4) new steel monopole of 345 kV with a typical height of 130 feet, merge 3 towers' transmission lines (Structure 3242) to one tower (Structure 3243).  
 The existing lattice steel structures will be removed.  
 New structure placement is close to existing structure locations.

**Parcel II**

**Fee Title:** Robert O. Laviana  
**Legal reference:** Lot 41, Ratley Road, West Suffield, CT 06093-2509  
**Mailing Address:** 1461 North Grand Street, West Suffield, CT 06093-2509  
**Area:** 5.4 acres  
**ROW Reference:** Volume \_\_\_ Pages 532, 533 Dated May 23, 1924 referenced in Map Vol. \_\_\_ at Page \_\_\_  
**NEEWS Plan Reference:** Connecticut Volume 5, Mapsheet 10 of 10 (Pdf pages 98 and 99); Massachusetts Volume 5 (Pdf page 107, portion only).  
**Present ROW Length:** 30 feet  
**Present Structures:** No towers, no overhead transmission lines, small 5% ROW encumbrance. No visible transmission lines nor towers situated on abutting parcel because of vegetation block.  
**NU Preferred Proposal:**  
 Expand ROW, install one new structure to accommodate a dual H tower where no structure exists and no overhead lines exist.

## Comments, Preference Priority, Reasoning

### I. Underground extension

Benefits property owner and NUSCO because of lessened risks of circuit failure. These would include short circuiting prevented though protection in a burial vault which would be caused by storm lightening or vegetation interference.

Vegetation removal: no objection. The area in issue is an agricultural area, and vegetation removal benefits agricultural useage.

The expansion of overhead lines is eggregious. In this day and age of technological advancement, there is absolutely no substantial reason not to accommodate the directly impacted residents. A four tower structure for one junction point is extreme (Structure 3242). Besides the health impact, environmental impacts, a substantial negative impact of overhead transmission lines is the psychological and economic depreciation which is created by the 'in your face' nature of the infrastructure which would be visible perpetually, 24x7x365. This aesthetic depreciation translates directly into economic depreciation.

One of the arguments of NUSCO against an underground option is cost. The soils in this area are prime farmland, USGS classified as Agawam loam, which is a very sand/loamy soil. There are no rock outcroppings present for this area in issue and extending both northerly and southerly. I have the full access and authorization to provide underground exacavation with a licensed and insured contractor utilizing a 60,000 pound excavator to excavate the approximately half mile section in issue at no cost to NUSCO. This would assist in providing the preferred option, an underground conduit. This is a serious proposal, especially in light as one of the arguments for NUSCO is that there is a prohibitive cost differential in rejecting the underground alternative.

There is unimpeded access to all areas of an underground structure. There would be no additional cost or environmental impacts as a consequence of the requirement for full access.

### I. Single monopole

As a second preferred alternative, the installation of single monopole 345 kV towers for 3240, 3241, and 3242 (and preferably 3239). This also would entail no moving of existing tower positioning, no expansion of right away against Parcel II, and no dual H tower structures (nor quadruple towers at Structure 3242). Adopt single monopole in the present structure positions only.

These structures need to remain monopole and in the present location. No dual structures which includes no construction of a new structure on Parcel II and a concomitant no expansion of the ROW on Parcel II.

### II. NU preferred option

This option would incur a need for compensation for depreciated value with respect to a vacant parcel (Parcel II) that will lose 95% of its economic value, or approximately \$300,000. This parcel is a 5.4 acre parcel on one of the Town's preeminent rural residential roads. This is because the proposed right of way expansion on Parcel II will destroy the encumbered frontage from 5% to 55% and construct a tower directly in the frontage of the lot where none exists currently. In fact, presently, even though there is a 5% encumbered ROW on the property, no structure exists on Parcel II and no wires exist overhead of Parcel II. Because of existing vegetation, the existing abutting overhead wires are not visible, nor are any towers visible. Additionally, regarding the remaining unencumbered frontage, because there have been no engineering studies with respect to code compliance for a building permit, specifically, maximum slope of driveway/road entrance and any wetland impact/setback and dwelling setback configuration issues, the full value of Parcel II may become a casualty and depreciated, in which case, an even greater economic loss would result.

## Conclusion

One of the key missions of NUSCO with regard this project in routing the proposed 345-kV power lines is that "[T]he routes should cause the least amount of disturbance to people and the environment, which includes minimizing the number of homes in the corridor." Management Report, page \_\_\_\_.

The project's impact can be remediated by underground construction (Priority I supra). Alternatively, as a second least restrictive impact, the continuation of the present transmission path, and incorporate single monopole towers instead of the dual H (and quadruple) towers per the NUSCO preferred option (Priority II supra).

As a secondary matter, even though I am a major property owner impacted by this project, I have never received any notice, either written or oral, regarding the various projects and their impact on my parcels. This same sentiment is echoed by various abutting property owners. CL&P spokesperson Frank Poirot has been quoted as stating the company is talking with property owners directly to address any concerns they may have, such as environmental protection and issues in property value. As I am a major property owner impacted by this project, no outreach has occurred, either via an initial notice at the start of the public information, subsequent to the start, or following my disclosure of the lack of notice at a regional informational hearing that I attended (June 18, 2008). I discovered the scheduling of that forum unilaterally.

Finally, regarding future growth. The northern Connecticut area is arguably very developed (growth limited by zoning regulations, infrastructure lack of capacity (water, sewage), and agricultural and land conservation). Cumulative load and development growth has not been convincingly documented by NUSCO. Additionally, the grid's capacity by fuel type (page 14) as an example shows a decline in biomass cogeneration, which is an incipient and developing energy source, which should show growth. NU however, has presented negative growth in its projections. Alternative energy is real and should be reflected in NUSCO's projections.





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Greater Springfield  
Reliability Project

September 18, 2008

Robert O. Laviana, Esq.  
1461 N. Grand Street  
West Suffield, CT 06093-2509

Re: **Proposal of the Connecticut Light & Power Company (CL&P) for the Construction of the Greater Springfield Reliability Project**

Dear Mr. Laviana:

Thank you for your letter dated August 25, 2008. I appreciate the time and effort you took to communicate your concerns to us. I also understand that you had a detailed discussion with Scott Newland, Project Manager for Burns & McDonnell (one of CL&P's consultants), at the Suffield Board of Selectmen meeting on September 3, 2008. Hopefully, this meeting and your one-on-one conversation with Scott addressed your concerns; however, I would like to respond to some of the points and questions you raise in your letter.

#### **Underground Construction**

I appreciate the thought that you have given to the strategy of burying the new line within the right-of-way over your property and your offer of excavation services. The trade-off of reliability and expense in undergrounding lines is quite complicated. Underground transmission uses a different technology than overhead transmission. You may be interested in the enclosed *Tutorial - Underground Electric Power Transmission Cable Systems*, which explains these differences. With respect to your suggestion of burying cables in the right-of-way, even assuming that the land within the right-of-way is loamy with little ledge (which would have to be confirmed by geotechnical investigations), our environmental investigations have determined that there are quite a few wetlands on the right-of-way. There are significant environmental issues with respect to burying cables through wetlands that overhead lines do not confront. We have analyzed construction of a 345-kV underground transmission line in the right-of-way and will include two of these variations in our application to the Connecticut Siting Council (CSC). In the event that the CSC orders that the new line be constructed underground in the existing right-of-way and that CL&P is able to obtain the necessary additional environmental permits for that construction, all of the work would have to be done by companies with specialized expertise, under contract to CL&P. The basis for this requirement should be clear from the enclosed *Tutorial*.

#### **Overhead Construction**

Your close attention to the specifics of the proposed overhead construction is also appreciated. As you discussed with Scott Newland, the proposed overhead transmission line north of the Phelps Road crossing to the Connecticut/Massachusetts state line will be proposed to consist of H-Frame structures for the new 345-kV transmission line (see enclosed mapsheet). The existing 115-kV lattice structures would remain with no modifications. This is a different configuration from that identified in the June 16, 2008 Municipal Consultation Filing. At that time, CL&P was considering taller steel monopoles with vertically arranged conductors to compress the cross section of the facilities on the right-of-way as they approached the state line, where the right-of-way was then believed to narrow. However, CL&P has since determined that it has a sufficient



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(cont.)

right-of-way on the Massachusetts side of the border to avoid the necessity of using steel monopoles as the line approaches the border in Connecticut.

Since you are among the few landowners in West Suffield from whom additional right-of-way will be required, you will be contacted by a right-of-way agent to discuss the purchase of additional rights over your land. In light of your concern to the devaluing effects of properties in close proximity to a high voltage transmission line, I am also enclosing a copy of a short reference guide on this subject, "Assessing the Impacts of High-Voltage Transmission Lines on Property Values," by James A. Chalmers, dated April 2008.

**Notice**

You write that you have never received any notice of the project or its impact on your parcels. I believe that you refer here to a personal notice addressed specifically to you. It is quite true that, given the many property owners potentially affected by a transmission proposal, individual notice is not provided during the pre-filing municipal consultation process. Rather, our "Open Houses" are widely advertised in local newspapers and our plans are detailed in Municipal Consultation Filings, one of which seems to have found its way to you, as you reference in your letter. Moreover, our intention to file an application (which has not yet occurred) is made known through newspaper publications (both legal notices and news articles) and by notices in every customer's electric bills. And as you already know, we presented our plans at a public meeting of the Suffield Board of Selectmen on September 3, 2008.

You mention in your letter that you hold certain authorizations from other landowners along the right-of-way. If you are representing any other owners as an attorney, please let us know so that we will be sure to deal with them through you, rather than directly.

Thank you again for your comments on the project that I will pass on to the Connecticut Siting Council as part of its report on the pre-filing municipal consultation process. I appreciate the time you took to meet with us and hope that this is the start of a productive dialogue between you and CL&P's representatives.

Please feel free to contact me or Scott Newland directly or to call our project hotline at 1-866-99NEEWS (996-3397). For further information, visit our project Web site at [www.NEEWSprojects.com](http://www.NEEWSprojects.com).

Sincerely,

Jeffrey Towle  
Project Manager - Greater Springfield Reliability Project

Enclosures

cc: First Selectman Scott Lingenfelter – Town of Suffield  
Suffield Board of Selectman

---

**From:** Kranich, Elise  
**Sent:** Tuesday, September 09, 2008 12:04 PM  
**To:** 'KLDiPietro@cox.net'  
**Subject:** NEEWS Inquiry

Dear Ms. DiPietro,

My name is Elise Kranich and I work in the Community Relations department for the New England East-West Solution (NEEWS) Projects. On behalf of the Project team, I would like to thank you for your interest in the Greater Springfield Reliability Project, one of the four NEEWS transmission projects.

In your inquiry, you asked what CL&P was planning to build in the Suffield area. As described in our recently submitted Municipal Consultation Filing (MCF), a copy of which is available at the Suffield Town Library, CL&P is proposing to build a 35-kilovolt (kV) transmission line adjacent to the existing 115-kV transmission lines on its existing right-of-way traversing Suffield from south to north. The proposed 35-kV line will be located approximately 75 feet to the east of the existing 115-kV line. The right-of-way corridor is typically 305 feet wide in your area where no expansion of the right-of-way is proposed at this time. The structure heights for the new line in Suffield are expected to range between 75 feet and 125 feet tall. For sake of reference, the existing line's structures are approximately 70 feet to 90 feet tall and may be viewed in the attached cross-sections. As our design is preliminary, please be aware that these structures and figures are subject to change as a result of the Connecticut Siting Council Process.

Please see the attached aerial photograph of your property in relation to the proposed and existing lines. Your home is approximately one mile from the proposed project route. This photograph illustrates where both the existing and proposed lines and structures are in the area of North Stone Street.

I hope this information is helpful in addressing your questions. If you have additional questions or concerns, please feel free to contact me directly. I will be sending a NEEWS Information package to your home which contains information about the project including the siting process and how residents may participate.

Sincerely,

Elise Kranich  
Community Relations  
Burns & McDonnell (Representative for Northeast Utilities)  
203.949.2313

September 5, 2008

Northeast Utilities  
Service Company  
P.O. Box 270  
Hartford, CT 06141-0270

Attn: Mr. Jeffrey M. Towle, Project Manager – Transmission

Re: Greater Springfield Reliability Project

Dear Mr. Towle:

We are residents of Suffield Connecticut located at 3035 Phelps Road (#1155 on your site plans). Although I have been to several of the local open houses offered by Northeast Utilities, I did not fully understand the effects this project would have on our home and the surrounding environment. However, after the meeting held at Suffield's Senior Center on September 3<sup>rd</sup>, it became quite clear the magnitude and devastation it will have not only on our property – but on the other homeowners on Phelps and Newgate roads.

When the question was asked about home devaluation because of the new towers, we were told by CL&P the amount would be between 5 & 10% maximum. We asked if we would be compensated for the decrease in value – and the answer was NO!

Also discussed was the negative effect the clearing would have on the homes below the construction since runoff has already created havoc. With the massive additional clearing heavy rains will surely created major problems for the homeowners – with little if any concern from CL&P.

Basically, we were told that the project will have minimal effect on us residents and CL&P is doing what the state requirements mandate.

In summary we are all going to be affected environmentally and where it hurts most – major devaluation on our homes. For many of us the value of our home represents a large part of our net worth. In telling us that none will be compensated for any value loss – CL&P is in essence saying – WE DON'T CARE!!!

I've enclosed some pictures of our home in which we have invested much over the last 10 years. The present power line runs parallel to our ¼ mile long driveway and is nicely buffered by our woods.

Exhibit 3 – shows the buffered woodlands on the right side of the driveway. Exhibit 1 is near the end of the drive showing the clearing for the present power line which has been partially landscaped with lawn and small stone wall.

Exhibit 2 – is our western view showing the present power line.

I want you to picture most of the buffered trees removed if the new tower/power line is constructed with the new line elevated anywhere from 30 to 70 feet higher than the present line – since it is uphill. Not only will we be looking directly at the ugly towers and lines – we will have lost most of our trees and a great deal of our investment.

In speaking with our realtor – our re-sale value will drop at least 30-40%!!!!

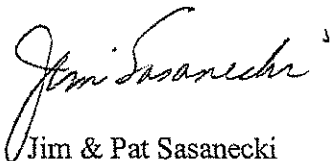
If any of you were in our situation – how would you feel if your home and major investment was in jeopardy – and that CL&P could care less?

In order to bring some semblance of balance, I strongly recommend the 345KV line be placed UNDERGROUND. I know that vaults must be installed every 1500 feet – but it has been done on the 39 mile run from Norwalk to Milford – it certainly can be done in the 6.5 mile trek from Bloomfield to the Mass. line.

Regarding the “transition” stations at the beginning and the end of the run – I’m sure that CL&P can position them in areas with minimal impact on the town and people of Suffield.

As an engineer, I know this is a major project and must be budgeted accordingly. However, CL&P and the sighting council must consider the residential factor – since we will be ultimately paying for this anyway. Please let us keep our home values and continue to maintain the beauty of Suffield.

Sincerely,



Jim & Pat Sasanecki  
3035 Phelps Rd.  
W. Suffield, CT 06093

860-668-8735

Sasanecki-30+4



Connecticut  
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Greater Springfield  
Reliability Project

Jim and Pat Sasanecki  
3035 Phelps Road  
West Suffield, CT 06093

**Re: Proposal of the Connecticut Light & Power Company for the Construction of the Greater Springfield Reliability Project**

Dear Mr. and Mrs. Sasanecki,

Thank you for your letter dated September 5, 2008. I hope you received my voice mail on September 15 acknowledging receipt and follow-up of your letter. While this project is critical to electric reliability in the region, we realize that it is a concern to residents along the right-of-way. Please know that CL&P is committed to working closely with you and other property owners affected by this upgrade.

In your letter, you expressed concern regarding the Project's impact on the value of your home. We are aware that the existence of an easement diminishes the value of a property which is why utilities are required to compensate landowners when they acquire easements. However, the concerns that the exercise of easement rights to construct a transmission line (or in this case, a second transmission line) will reduce the value of nearby properties are, we believe, unfounded. To help evaluate such concerns, CL&P commissioned a report by noted expert James Chalmers, Ph.D. A copy of this report is enclosed for your information.

You also expressed a concern about potential runoff from the clearing of vegetation from the right-of-way. As part of the Project's permits from state and federal agencies, CL&P must construct in a manner that protects the surrounding environment. The Connecticut Siting Council (CSC) along with the US Army Corps of Engineers (USACOE) and the Connecticut Department of Environmental Protection (CTDEP) assign experts to monitor and ensure the Project is following environmental protocols and complying with state and federal regulations.

In your letter, you strongly recommend that the new line be placed underground. While CL&P's preferred option is to utilize existing rights-of-way (ROW) for overhead line construction, an underground alternative will be provided in our application to the CSC. We have evaluated underground line-route variations for the Newgate Road area in both Suffield and East Granby and will include these evaluations in the CSC applications. When considering requests to place new transmission lines underground, the CSC will consider the impact of the incremental costs and environmental impacts on consumers and the reliability of the system having an added underground component. Typical construction costs for an underground transmission line are five to ten times greater than those of a traditional overhead line. Also, there are significant environmental issues with burying cables that do not exist with the construction of overhead lines. That's why overhead lines are generally proposed as the most cost effective, reliable and least environmentally impactful solution for solving the region's energy needs.

As I mentioned in my September 15 voice message, I encourage you to become involved in the siting process and to let your public officials know of your issues and concerns. As part of the siting process,

2/24/11 4 of 4



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**NEEWS**  
Greater Springfield  
Reliability Project

we have requested that the Town of Suffield receive input from its residents and send collective written comments or concerns to CL&P regarding the proposed project.

I would like to again thank you for taking the time to provide your feedback. Please feel free to contact me directly or to call our project hotline at 1-866-99NEEWS (996-3397). For further information, visit our project Web site at [www.NEEWSprojects.com](http://www.NEEWSprojects.com).

Sincerely,

Jeffrey Towle  
Project Manager - Greater Springfield Reliability Project

Enclosure – Chalmers Report

cc: Suffield First Selectman Scott Lingenfelter  
Suffield Board of Selectman



# TOWN OF SUFFIELD

83 MOUNTAIN ROAD • SUFFIELD, CONNECCUT 06078 • (860) 668-3838

Selectmen's Office

September 17, 2008

Mr. Jeffrey M. Towle  
GSRP Project Manager  
NUSCO - NUE2  
P.O. Box 270  
Hartford, CT 06141-0270

**Re: Application of The Connecticut Light and Power Company ("CL&P") to the Connecticut Siting Council ("Council") Concerning the Connection Portion of the Greater Springfield Reliability Project ("Project")**

Dear Mr. Towle:

The Suffield Board of Selectmen and I have spent considerable time over the past several months listening to presentations, having discussion and conducting research as the proposed 345-kilovolt electric transmission line between Bloomfield, CT and Ludlow, Massachusetts. This proposed line will run through approximately 4.5 miles of Suffield. The preference would be that the Project not pass through Suffield at all. But, if it must pass through Suffield, the Board of Selectman unanimously (Selectmen Victoria Spellman was not present) voted to encourage the placement of these lines underground. The Board further encouraged that these lines run underground through the entire length where they are in Suffield, avoiding the need for a transition station located in Suffield. When burying the new lines, it is strongly recommended that the existing lines be buried underground at the same time.

### Concerns

The Town of Suffield has several concerns with respect to the proposed Project. These concerns include the health effects that the lines will have on the citizens in the residential area where the lines are proposed to run, the diminution of property values in that area, the anticipated damage to private property and residences as a result of the water and erosion from the cleared area and the irreparable damage that will be caused to the Historic Scenic Trail (the Metacomet Trail) which abuts and overlooks the region in question.



### Health Effects

The Health and Safety of the residents of Suffield is of utmost importance. There is a great deal of concern as to what effects the electromagnetic fields ("EMFs") created by the new overhead lines will have on the residents who live around and underneath these lines. We have been told by CL&P and their experts that there are no adverse health effects as a result of these lines and the EMFs. However, a "number of epidemiological studies suggest small increases in risk of childhood leukemia with exposure to low frequency magnetic fields."<sup>1</sup> When it comes to the health of our residents, even a small increase in risk is too much of a risk. This risk can be reduced greatly by burying the lines underground, reducing the EMFs.

It has been and will continue to be argued that there is no conclusive evidence to show that there is any increase in health problems such as cancer through exposure to EMFs. While there may be no conclusive evidence to demonstrate this, we will not permit Suffield to become a testing area for future studies of the effects that EMFs have on one's health. The World Health Organization has acknowledged that the "results [of the studies] to date contain many inconsistencies."<sup>2</sup> Absent conclusive evidence, why risk the health of Suffield's residents and their children?

### Property Values

The placement of additional towers and lines will adversely impact the property values of the homes located along the right-of-way that CL&P intends to use for the Project. CL&P has provided information stating that there is no decrease in property value as a result of the additional lines and towers. CL&P has claimed that the diminution in value already occurred when the first towers were put up several years ago and that the Project will not have any effect on the property values.

Studies have shown that those who own property where the power lines are visible have a more difficult time selling their property. "On average, homes adjacent to or with a view of the lines could anticipate an increase of 0 to 60 days on the market."<sup>3</sup> "Homes located near high-voltage power lines are usually much harder to sell and sometimes lose part of their value."<sup>4</sup> While CL&P will continue to argue that the existing lines have already generated whatever impact the lines may have on the real estate value, we strongly disagree. In areas, the present lines are hard to see and are often blocked by tree cover

<sup>1</sup> See World Health Organization Report, "What are electromagnetic fields?" at <http://who.int/peh-emf/about/WhatIsEMF/en/print.html>, at page 5 of 17.

<sup>2</sup> See World Health Organization Report, "What are electromagnetic fields?" at <http://who.int/peh-emf/about/WhatIsEMF/en/print.html>, at page 5 or 17.

<sup>3</sup> Jennifer M. Pitts and Thomas O. Jackson, "Power Lines and Property Values Revisited," *The Appraisal Journal* (Fall 2007): 323-325, at 324.

<sup>4</sup> Leslie Brown, "A Question of Power, Part III, Realtors: High Voltage Lines Lower Property Values," *Roanoke Times*, 1998. (see <http://www.vapropertryrights.org/articles/98lineslowervalues.html>).

and vegetation. The construction that will occur as part of the Project will result in the clear-cutting of much of the vegetation near the present towers as well as in the vicinity of the new towers. Furthermore, the new towers will be substantially taller and therefore much more visible to the surrounding properties. This increased visibility will no doubt detrimentally affect the property values of the land owners.

The Town of Suffield will also financially suffer as a result of the Project. As property values diminish because of the project, the Town's grand list also decreases. This reduction in the grand list will result in the need to increase taxes on all the property owners in Suffield to make up for the monies that are lost from the diminution in value. The use of underground lines will prevent the need for the unsightly towers and will ultimately protect the property values of the landowners. The only way to avoid this reduction in property value is to bury the new lines underground. Simultaneous to the construction necessary to bury the new lines, CL&P should also bury the existing wires underground.

**Property Damage**

The Town of Suffield is also concerned that damage will occur to the properties in the vicinity of the Project. As a result of the removal of the vegetation and natural erosion controls that will occur as part of the project, it is anticipated that there will be severe damage to adjacent properties caused by the water runoff which will undoubtedly occur. CL&P has stated that they will use erosion control mechanisms, such as allowing natural vegetation to occur and will employ silt fences during construction. Past experience in Suffield and especially in the part of town in question shows that erosion control such as this is not effective because of the topography of the land. Therefore, the only way to avoid excessive clear-cutting would be to place underground lines at or near the area that is already cleared for the existing overhead lines.

**Residential Area**

Overhead lines should be discouraged in residential areas whenever possible. The fact that there are presently 115kV lines in the project area is not reason to construct additional poles with 345kV lines near the existing residences. Approximately forty-five homes will be directly impacted by the 4.5 mile stretch of lines through Suffield. These forty-five homes are not the only parcels affected though. Several potential building lots, as well as the Suffield Sportsman Association, also stand to lose significant usable space if the Project is implemented as proposed. The use of underground lines will preserve the integrity of this residential portion of Suffield.

**National Scenic Trail**

There is also tremendous concern that the federally recognized Metacomet-Monadnock-

Mattabesett (MMM) Trail System, much of which has been recently designated as the New England National Scenic Trail will be adversely affected. The Metacomet portion of the trail runs through Suffield and abuts and overlooks the land where CL&P intends to construct their power towers and high voltage power lines.

The MMM Trail travels through some of the best examples of the classic New England landscape with stunning scenery and natural resources. We live in a time when Americans are becoming increasingly sedentary and disconnected from nature. This trail, with its breathtaking views, provides a valuable outlet for Americans to participate in physical activities outdoors.

The placement of additional overhead wires alongside the MMM Trail will be detrimental to this important piece of our natural environment. We need to encourage the preservation of our natural resources, including the MMM Trail. The use of underground lines is the only way to continue our preservation of this Trail and our natural environment.

#### Recommendation

In order to address the above-mentioned concerns, the Town of Suffield recommends that the proposed Project not run through Suffield at all. If it is necessary to run the project through Suffield, then the Town strongly encourages the use of underground lines along the entire length of the Project through Suffield.

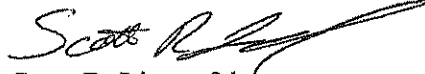
CL&P has stated that the cost of the underground lines will be borne "locally to the consumers who receive the benefits of the underground line." It has further been stressed by CL&P that transition stations "where the overhead line goes underground and then surfaces to reconnect with the overhead system" will be extremely costly. We strongly object to these costs being charged locally. The "costly transition stations" can be minimized by running more of the project underground than called for by any of the currently proposed alternative routes. For example, the entire length of the project, from the Southern end, in Bloomfield, CT, to the Northern end, in Ludlow, MA, could be underground. This would necessitate only two transition stations, instead of the multiple ones called for in the proposal.

Furthermore, the beneficiaries of this project are not the residents of Suffield, or even just the residents of Connecticut. This project is allegedly for the benefit of the greater Springfield [Massachusetts] region. Any additional costs should be spread out over a greater number of customers, rather than just those in Suffield or even those in Connecticut, especially since these residents are not the principal beneficiaries of the Project.

**Conclusion**

The Town of Suffield strongly recommends that, if it is necessary to run the high voltage transmission lines through Suffield, an underground route be proposed and required.

Respectfully submitted,



Scott R. Lingenfelter  
First Selectman

cc: Senator Joe Lieberman  
Senator Chris Dodd  
Representative Joe Courtney  
Senator John Kissel  
Representative Ruth Fahrbach  
Mayor Sydney T. Schulman  
First Selectman James M. Hayden  
Attorney Edward G. McAnaney

ROSSOW-1071

**From:** Kranich, Elise  
**Sent:** Friday, October 03, 2008 1:50 PM  
**To:** 'bob@ecmsearch.com'  
**Subject:** Greater Springfield Reliability Project Inquiry

Hello Mr. Rossow,  
Thank you again for your interest in the Greater Springfield Reliability Project, one of the four New England East-West Solution (NEEWS) projects.

As requested, I attached the aerial maps of the proposed route through Suffield from the Municipal Consultation Filing. As our design is preliminary, please be aware that these structures and figures are subject to change as a result of the Connecticut Siting Council Process.

Please feel free to contact me directly with any additional questions.

Sincerely,  
Elise

Elise C. Kranich  
Community Relations Representative for Northeast Utilities  
203.949.2313 (office)

NEW ENGLAND  
EAST-WEST  
SOLUTION

**From:** Kranich, Elise  
**Sent:** Monday, October 27, 2008 9:55 AM  
**To:** 'SSSorrow@cma-citizen.com'  
**Subject:** GSRP Inquiry

Dear Shawn,

Thank you for your questions regarding the Greater Springfield Reliability Project (GSRP), one of the four New England East-West Solution (NEEWS) transmission projects designed to improve the reliability of the transmission system in southern New England.

The GSRP Team is pleased to answer your questions and for ease of reference, I have provided our response in Q&A format.

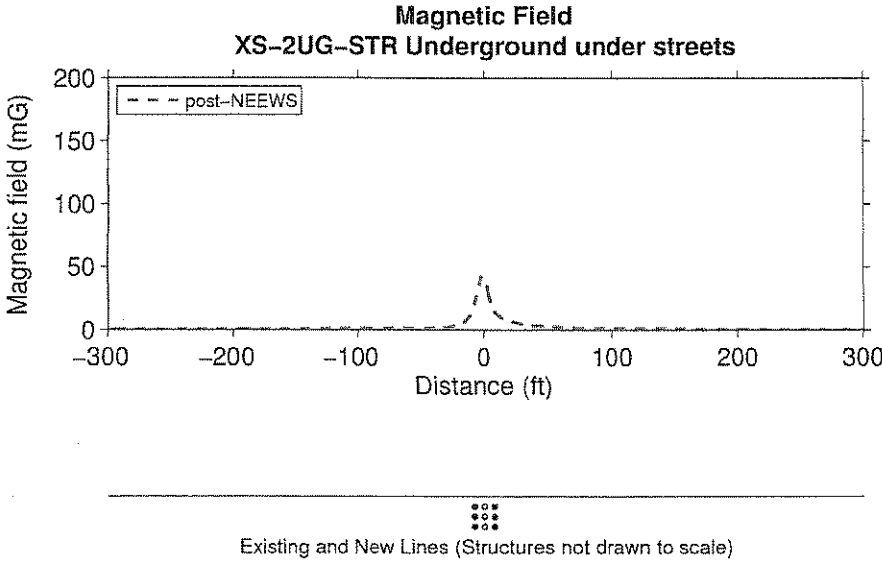
**1) What is the difference in Electric and Magnetic Field (EMF) levels at road surface for Underground (UG) vs. Overhead (OH)?**

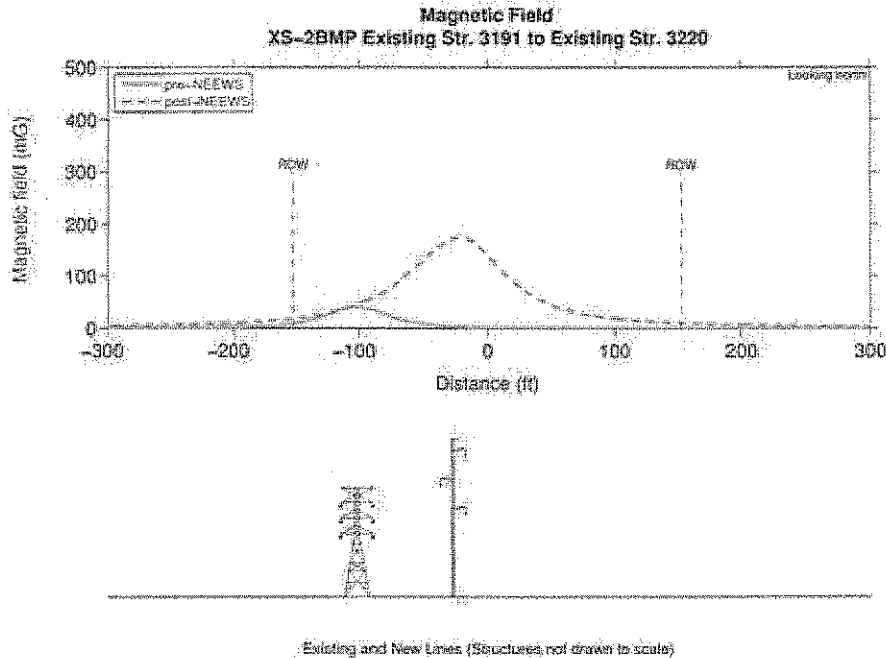
Electric fields of up to several kV/m occur on rights-of-way beneath overhead 345-kV lines. Currently, there are no above-ground electric field levels associated with underground transmission cables, however, public concerns and scientific interest regarding EMF is primarily directed at magnetic fields. Per a World Health Organization Fact Sheet published in June, 2007, "...there are no substantive health issues related to extremely low frequency (ELF) electric fields at levels generally encountered by members of the public."

Magnetic fields are caused by current flows in electric conductors. Current flows over power lines vary with changing power demands by customers throughout each day, each week and seasonally, and so magnetic fields near such lines vary as well. Beneath each span of a line, the magnetic fields at any one location also depend upon the height of the conductors above ground (more height equals lower ground-level field), another detail that is varying because of terrain and the sag of line conductors within each span of line. Finally, these magnetic field levels decrease to background levels over short distances moving away from the conductors. As a result of these matters, no single-number representation of a magnetic field can be made for a transmission line, or even for one spot along a line. Representative projections of magnetic field levels can only be made using some assumed current flows and an assumed conductor height above ground.

Transmission lines, both overhead or underground, employ multiple conductors and therefore have multiple sources of magnetic fields which interact with one another. Since underground cables place the multiple conductors closer together as compared to the conductors of an overhead line, field cancellation caused by this source interaction is stronger for underground cables. The field cancelling interaction can also be enhanced for underground cables if the number of cables is doubled and the cables are properly arranged. In the case of a 345-kV underground line, it is usually necessary to double the number of cables for capacity reasons, so advantage can then be taken of this field cancelling interaction. While people can be closer to these underground cables than to the conductors of an overhead line, the field cancelling interaction overcomes this distance disadvantage, and so the MF levels above and nearby to 345-kV underground cables will be lower than the levels below and nearby to an overhead 345-kV line, all else equal.

Section O in Volume 1 of CL&P's Application to the Connecticut Siting Council for the Greater Springfield Reliability Project can be found at the following web site link. (<http://www.transmission-nu.com/residential/projects/springfield/PublicInvolvement.asp>). Results of calculations, and the assumptions behind them, for both overhead and underground 345-kV line designs considered for this project can be found in Section O. Two graphs from Section O are copied below for one common assumed current flow in the year 2017, to give you a basic comparison between the magnetic fields of the underground 345-kV cables and the magnetic fields of one possible overhead line design. Note on the graphs that at increasing distances from these lines, the magnetic fields drop to very low levels, and they do so over shorter distances for underground cables. Since the underground line may be in a road, commuters and pedestrians would be the primary groups exposed to its magnetic fields. For overhead lines on cross-country rights-of-way, the primary groups exposed would be users of the right-of-way or its immediate adjacent land.





## 2) Where exactly are the UG routes being proposed in Suffield?

There are four underground variations included in the Connecticut Siting Council application; these routes are illustrated in the attached maps. Two of the underground variations would be located within the existing overhead corridor between Turkey Hills Road and Phelps Road. The first in-road underground variation would be located along Turkey Hills Road, Newgate Road, and Phelps Road and the second in-road underground variation would be located along Turkey Hills Road, Main Street and Mountain Road. As our design is preliminary, please be aware that these structures and figures are subject to change as a result of the Connecticut Siting Council Process.

## 3) What would the timeline be for road construction during UG?

The underground 345-kV facilities would require the installation of a duct bank within public right-of-way. Three splice vaults (one per set of 3 cables) would need to be installed approximately every 1600 feet along the alignment. The splice vaults would be approximately 8 feet wide by 30 feet long by 8 feet tall (inner dimensions).

A minimum of one lane would be closed in the construction area during excavation, cable installation and cable splicing. Driveway access may be temporarily blocked for residents along the route as the crews excavate in front of their property. Unless appropriate land is available directly adjacent to the roadway, the vaults would have to be installed within the roadway. Installing vaults within the roadway could result in full road closures for several days at each selected location. Due to the number of vaults per location and the location of existing utilities, the underground transmission vaults would be constructed partially in the road and partially within private property in an acquired easement.



While a schedule has not been finalized, CL&P is planning to begin construction in early 2010. An underground variation's construction is expected to take about 24 months. On average, we expect the contractor to progress at about 50 feet of trench per day per crew. This rate of production is dependent on installation conditions and the excavation through rock or in areas with existing utility congestion would slow progress.

I hope my responses have addressed your questions and concerns. We welcome your feedback and encourage you to take an active part in the siting process. If you wish to submit requests and/or information to the siting council, I would be happy to help assist you.

If you have additional questions or concerns, please feel free to contact me directly.

Sincerely,

Elise Kranich  
203.949.2313

NEW ENGLAND  
EAST  WEST  
SOLUTION

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**From:** Kranich, Elise  
**Sent:** Tuesday, January 13, 2009 11:11 A  
**To:** 'Cherokee1361@aol.com'  
**Subject:** Greater Springfield Reliability Prect Response

**Hi Ms. Beneski,**  
**On behalf of Mr. Mark Kimball, the Real state Manager for the Greater Springfield Reliability Project:**

Dear Ms. Beneski,

Thank you again for your interest in the Gater Springfield Reliability Project ("Project), one of the New England East-West Solution transmission projects. My name is Mark Kimball and I am the Real Estate Project Manager for the New England East-West Solution projects.

During your discussion on January 7, 2009 with Elise Kranich, a community relations representative, you requested information about the Southern alternative route design and how it may impact the Mapleton Farms property. The Southern route is the Project's alternative route required to be submitted to the Connecticut Siting Council (CSC). The proposed Northern route, also located through East Granby and Suffield, is the Project's preferred route. Several factors including environmental and economic impacts are considered in determining the preferred route versus the alternative routes. The project team believes the proposed Northern route is a better alternative. At this time, we do not have a finalized design in place for the Southern route's structure locations. Based on the Project's design methodology, structures would typically be located adjacent to the existing H-frame structures and be placed in a parallel alignment south of the existing structures. There is currently a 300-ft wide right-of-way located on the property, and at this time no expansion of the right-of-way is expected.

Of particular concern to CL&P are two greenhouses near Mapleton Avenue that appear to be within the existing CL&P transmission line right-of-way. These structures would be in conflict with the new line under the Southern route alternative and would likely need to be relocated. In addition, there would be temporary construction impacts, including the installation of temporary level staging areas (crane pads) which are up to 100 ft by 100 ft to support construction equipment and activity. Existing access roads in the area would be utilized to access the structure sites for the construction of the new transmission lines.

For your reference, attached is a cross section from the CSC application for this area. Please be aware our design is preliminary and the line designs are subject to change as a result of the Connecticut Siting Council process and finalized engineering. Since the proposed Northern route is our preferred route, no ground survey has been completed for the Southern route alternative. Therefore, the information provided to CL&P is based upon aerial photographs, municipal databases and industry standard conceptual design methodologies.

You also expressed concern about the property's easement rights and restrictions. This property was originally owned by CL&P until it was sold in 1988. When sold, transmission easement rights were reserved, including but not limited to the right to operate and maintain the existing transmission facilities, add additional structures, lines and facilities, trim trees, access the property, and other rights for purposes of constructing, operating and maintaining existing and future facilities. I enclose a copy of the deed in which these easement rights were reserved.

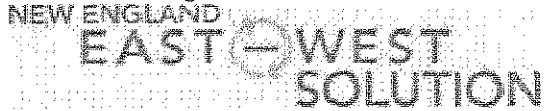
Please be aware that under the existing easement rights, as created in the 1988 deed (which are typical for easements of this type), landowners are prohibited from siting buildings or structures (such as the currently existing greenhouses) in the transmission line right-of-way. Any such encroachments must be reviewed by CL&P and evaluated for whether they would be allowed to remain (whether or not the Southern route of the new lines constructed) and, if so, under what terms and conditions. Thus far, we have been unable to complete such a review as to these greenhouses.

Finally, a member of our Project Team will notify you once the Connecticut Siting Council announces the public hearing dates, at which your participation would be welcome.

I will be happy to review these documents with you over the phone or in person. If you wish to discuss these items further, please contact Elise Kranich directly so she may coordinate. Her number is 203.949.2313.

Sincerely,

Mark Kimball  
Real Estate Project Manager  
Connecticut Light and Power  
NEW ENGLAND



To: rlegere  
Subject: RE: Please see attached letter

Richard,

Should I expect to see further correspondence?

take care,

Jeff

"rlegere"  
<rlegere@cox.net>

To  
Jeffrey M. Towle/NUS@NU  
12/16/2008 04:29 PM cc

Subject  
RE: Please see attached letter

Jeff: If you don't mind, I think that after the holidays would be best.

My wife's whole family is out from Seattle. I am not finding the time I'd like and should have to devote to the letter.

Best wishes to you and your family for a happy and safe Holiday season.

Richard

-----Original Message-----

From: towlejm@nu.com [mailto:towlejm@nu.com]

Sent: Tuesday, December 16, 2008 7:26 AM

To: rlegere

LEYERE - 2013

Subject: RE: Please see attached letter

Richard,

Should I expect to see your letter before the Holidays? Please note that I will not be in the office from Dec 24 through Jan 2nd.

take care,

Jeff

Jeffrey M. Towle  
Transmission Business - Projects  
Northeast Utilities  
107 Selden Street  
Berlin, CT 06037  
P(860) 665-3962  
C(860) 250-3315  
F(860) 665-6550

Legere - 3 of 3

----- Forwarded by Jeffrey M. Towle/NUS on 02/03/2009 09:21 AM -----

"rlegere"

<rlegere@cox.net>

To

Jeffrey M. Towle/NUS@NU

01/27/2009 04:45

cc

PM

Subject

RE: Please see attached letter

Jeff:

Yes. I am finding that this is much more time consuming and involved than I originally thought. Especially when the goal is to present clear, well thought out constructive and compelling ideas.

I am trying to metaphorically kill a number of birds with one stone in that, a lot of my questions and responses to you will be used, in part, in my "party" application to the CSC and in a number of other documents such as correspondence to Selectmen and other government officials as another example and update our web site with the things we have learned.

I am getting relatively close to having everything done. I do plan on sending you what we (those of us here who have discussed the proposal) think is a good and viable alternative idea should the tower not be able to be constructed underground.

I'd say maybe two more weeks if that is OK. Please let me know. Thanks.

Richard Legere  
Citizens Against Overhead Power Line Construction  
Phone: 860-668-0848  
Email: [rlegere@cox.net](mailto:rlegere@cox.net)  
Web: [www.nopowertowers.info](http://www.nopowertowers.info)

-----Original Message-----

From: [towlejm@nu.com](mailto:towlejm@nu.com) [<mailto:towlejm@nu.com>]

Sent: Tuesday, January 27, 2009 8:23 AM

Sorrow 1 of 1

**From:** Kranich, Elise  
**Sent:** Wednesday, March 25, 2009 9:00 AM  
**To:** 'Shawn Sorrow'  
**Subject:** RE: Update

Hi Shawn,

Thank you for your inquiry regarding the Greater Springfield Reliability Project, one of the four New England East-West Solution (NEEWS) transmission projects designed to improve southern New England's reliability. It's nice to hear from you again.

In October of 2008, the Greater Springfield Reliability Project filed an application with the Connecticut Siting Council (CSC). This document includes the Project's proposed route designs and is available to the public in Suffield's Town Hall and Suffield's library. Please be aware our design is preliminary and the line designs are subject to change as a result of the CSC's siting process.

Regarding the CSC process, please visit and check in to their website for more information on the Greater Springfield Reliability Project's submission status. <http://www.ct.gov/csc/site/default.asp> . I would be happy to personally notify you once the CSC announces its public hearing dates for Suffield.

Please contact me with any specific questions you may have.

Thank you,

Elise Kranich  
Community Relations Representative for Northeast Utilities  
203.949.2313

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**From:** Shawn Sorrow [mailto:SSSorrow@CMA-Citizen.com]  
**Sent:** Tuesday, March 24, 2009 4:48 PM  
**To:** Kranich, Elise  
**Subject:** Update

Elise

I was wondering if you had an update in the transmission line project.

Thanks Shawn Sorrow

MILICK - 1047  
4/24/09

Elise Kranich

My name is Bruce Millick and I live at 1170 Newgate Rd. West Suffield.

I have recently seen some information that you sent to Noel'osson of Newgate Rd and to be frank it is very frightening! The graph #3 shown on page 2 of this correspondence indicates that there can be an estimated 200 mg emission under the pct NEEWS line. Considering that most informed individuals consider 3 to 5 mg the maximum prudent exposure for individuals, fifty times that is frightening! This doesn't even represent what the emf might be under sagging lines between towers which will be the case over my property. I know the CL&P position is that they will meet the emf requirements at the edge of the ROW but that is of small consequence to me since I operate machinery to maintain the property in the ROW as well as the rest of my property to the east. In addition, my young grandchildren play on the entire property including the ROW. Picture #1 shows that I mow the grass in the ROW. If it isn't safe to be in the ROW then CL&P is negating the use of my property as well as cutting me off from the rest of the property because I have to transit the ROW to get to the easterly portion of my land. I know that the terms of the easement give you a broad latitude of what you can do but I don't believe that it gives you the right to construct equipment that is injurious to my family's near or long term health. I also don't believe that said equipment should prevent me from maintaining my property or using it for recreational purposes.

I am asking that CL&P guarantee that there won't be any health risk to individuals who occupy the ROW at any time for any duration. If you can't do that then I request that you provide a plot/chart that shows the degree (percentage) of health risk vs. time spent (hrs. per day) directly under the new lines during worst case emission. I have been and will continue to be friendly and cooperative with CL&P personnel and their contractors who need access to my property. I ask in return that as a good corporate citizen CL&P provide the information that I am requesting.

Sincerely,

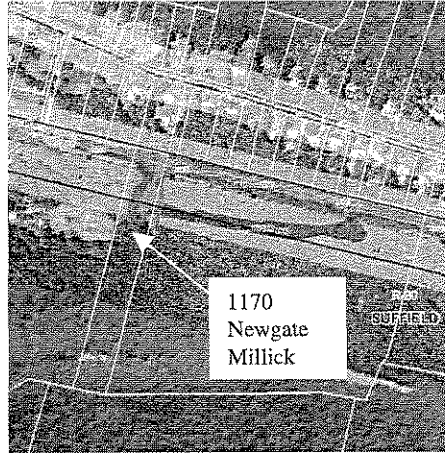
Bruce Millick

860-668-5951

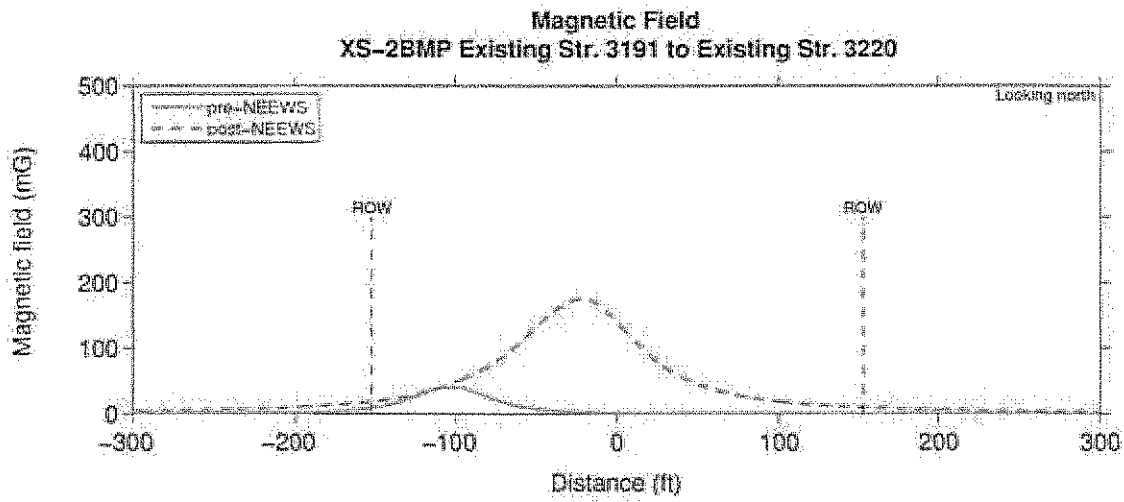




#1



#2



#3 Graph provided by CL&P Contractor

Bruce Millick  
1170 Newgate Rd  
West Suffield, CT 06093

May 14, 2009

NEEWS Siting and Permitting

Attn: Mr. Robert Carberry  
Project Manager

Mr. Carberry,

Thank you for your response to my questions that were forwarded to you by Elise Kranich. I appreciate your clearing up the fact that the CL&P graph #3 depicts that the magnetic fields are typical of the low-sag point in a line span. I have reviewed the information in the NIEHA/DOE Q&A document (hereafter referred to as "the document") as well as the other information in your response. I had a copy of the document, which was a handout at a Suffield information meeting, and it is one of the contributing factors of my concerns. I have listed some excerpts from the document on page two of this correspondence. I have highlighted some of the specific information that is troubling.

I would still like specific responses to my original requests which are:

I am asking that CL&P guarantee that there won't be any health risk to individuals who occupy the ROW at any time for any duration. If you can't do that then I request that you provide a plot/chart that shows the degree (percentage) of health risk vs. time spent (hrs. per day) directly under the new lines during worst case emissions.

If CL&P/NEEWS is unable, based on all information available to you, to say unequivocally that there won't be any risk then please state that fact. Please avoid using words such as minimal, short-term, small, extended, nearly, etc. because they are not quantitative and provide little value in answering my concerns.

In addition, I have another question based on information from the document. Will there be any personal risk from operating a small/medium farm tractor with a bucket loader attachment and 6 ft. brush hog in the right of way (reference "some states further limit electric field strength at road crossings.....")?

Unfortunately, initial studies of the health effects of EMF did not provide straightforward answers. The study of the possible health effects of EMF has been particularly complex and results have been reviewed by expert scientific panels in the United States and other countries. This booklet summarizes the results of these reviews. Although questions remain about the possibility of health effects related to EMF, recent reviews have substantially reduced the level of concern.

For both childhood and adult leukemias, interpretation of the epidemiological findings has been difficult due to the absence of supporting laboratory evidence or a scientific explanation linking EMF exposures with leukemia.

Therefore, we must use caution in applying the results of cellular or animal studies directly to humans or concluding that a lack of an effect in laboratory studies proves that an agent is safe.

No one knows which aspect of EMF exposure, if any, affects human health. Because of this uncertainty, in addition to the field strength, we must ask how long an exposure lasts, how it varies, and at what time of day or night it occurs.

For many studies, researchers describe EMF exposures by estimating the average field strength. Some scientists believe that average exposure may not be the best measurement of EMF exposure and that other parameters, such as peak exposure or time of exposure, may be important.

Despite more than two decades of research to determine whether elevated EMF exposure, principally to magnetic fields, is related to an increased risk of childhood leukemia, there is still no definitive answer.

### **What can be done to limit EMF exposure?**

Personal exposure to EMF depends on three things: the strength of the magnetic field sources in your environment, your distance from those sources, and the time you spend in the field.

*Some states further limit electric field strength at road crossings to ensure that electric current induced into large metal objects such as trucks and buses does not represent an electric shock hazard.*

### **Q What can we conclude about EMF at this time?**

EMF exposures are complex and come from multiple sources in the home and workplace in addition to power lines. Although scientists are still debating whether EMF is a hazard to health, the NIEHS recommends continued education on ways of reducing exposures.

Thank you,



Bruce Millick

May 22, 2009

Mr. Bruce Millick  
1170 Newgate Road  
West Suffield, CT 06093

Dear Mr. Millick,

I received your letter dated May 14, 2009, in which you made additional inquiries about the Greater Springfield Reliability Project.

Specifically, you asked whether there will be "any personal risk from operating a small/medium farm tractor with a bucket loader and a 6 ft. brush hog in the right of way." And as the basis for this concern, you refer to the EMFRAPID Question and Answer Brochure that I previously referred you to. The full statement to which you refer, which appears at page 46, reads as follows:

Some states further limit electric field strength at road crossings to ensure that electric current induced into large metal objects such as trucks and buses does not represent an electric shock hazard.

The described shock risk is a function of the electric field associated with the lines and the size and orientation of the vehicle beneath the lines. You will note that the lowest electric field in the limits cited by the brochure is 7 kV/m. (See the table following the cited statement at page 46). That level is higher than that produced at ground level now by the existing 115-kV line and higher than that which will be produced by the new 345-kV line. At the same time, I am assuming that the small tractor and bucket loader and brush hog you describe are smaller than a bus or a large truck contemplated by these limits.

Although there is no law or regulation governing electric field levels on a right-of-way, they are limited by the National Electrical Safety Code (NESC), which has a requirement similar to those of the five states listed in the Table. CL&P complies with the NESC standards.

Accordingly, operation of your small/medium farm tractor with a bucket loader and a 6-foot brush hog on the right-of-way should not present a risk of a harmful shock from a current induced by the electric field associated with the new line. If your use of this equipment on the right-of-way could cause any part of the equipment to reach heights above ground of more than

15 feet above ground, please get back to us so that our Engineering group can provide you with federal OSHA regulations regarding required separations from the line conductors.

The remainder of your letter does not raise any new matter, and I hope my earlier responses addressed your questions and concerns.

Please be aware that the Connecticut Siting Council (CSC) will be holding public information hearings, where we encourage residents to participate. The locations and dates for the public information hearings regarding Connecticut Light & Power's (CL&P) application for the Greater Springfield Reliability Project and the Manchester to Meekville Junction Project are as follows:

Tuesday, June 9, 2009

Beginning at 6:30 p.m.

The East Granby Community Center, 20 Center Street, East Granby  
(proposed transmission line route)

Thursday, June 11, 2009

Beginning at 6:30 p.m.

Suffield High School Auditorium, 1060 Sheldon Street, Suffield  
(Southern Route Alternative)

Tuesday, June 16, 2009

Beginning at 6:30 p.m.

The Lincoln Center Hearing Room, 494 Main Street, Manchester  
(Manchester Substation to Meekville Junction)

Very truly yours,

Robert E. Carberry

MILICK - 1077

- 2. If you can't do number 1 above, then it shows the degree (percentage) of health under the new lines during worst case en
- 3. If NU/CL&P/NEEWS is unable to say u or provide the information requested in r fact. Please avoid using words such as n nearly, etc. because they are not quantita my concerns.

rded to me by Ms. Elise Kranich.

In addition, some of the emails that I have rece NU, CL&P, or NEEWS is intended to the information cannot be distributed. Since I r statement and not an attempt to hide any inform interested in this matter, I would like your perm in the ROW question. correspondence with these people.

Thanks again for your time,

Bruce Millick

our letter does not raise any new matter, questions and concerns." You are ver as I explained, the material that you y concerns (please refer to page two of my questions. If it is NU's opinion that EHS document "..... Although ard to health, the NIEHS recommends es." are correct, then an answer to my asy.

ieve that the NU organization with their quick answers to my specific

re won't be any health risk to ime for any duration.

quest that you provide a plot/chart that isk vs. time spent (hrs. per day) directly ssions.

equivocally that there won't be any risk, mber 2 above, then please state that nimal, short-term, small, extended, ive and provide little value in answering

ied from NU contain legalese saying that sure that this is just a routine corporate ion from people who are impacted or sion on behalf of NU to share our

LEGERE - 1 UT 5  
6/2/09

Dear Mr. Legere,

In our recent phone discussion, you requested information regarding the magnetic fields of CL&P's proposed delta line configuration at the distance to your home at 1204 Newgate Road. I have gathered this information from project engineers, as follows:

As part of CL&P's Connecticut Siting Council (CSC) Application, magnetic fields were modeled along this right-of-way (ROW) segment as follows:

- Magnetic fields in 2012 ("pre-NEEWS"), without the new line, for three example system load levels
- Magnetic fields in 2017 ("post-NEEWS"), with the new line and all other NEEWS projects completed, for three example system load levels

Magnetic field levels from transmission lines vary with the minute-to-minute power flows on the lines, and we selected three example load levels for calculating magnetic fields. The three example load levels represent a forecast annual peak load hour ("APL"), a forecast average on the peak-load day ("PDAL"), and a forecast average annual load. Many assumptions are associated with determining each of these future load levels, including future power demands in Connecticut, the future system configuration, and a generation dispatch within Connecticut which corresponds with relatively high uses of the Connecticut import capability and the east-west transfer capability that would exist in 2012 and in 2017. CL&P's general approach on these assumptions was to lean towards high-side estimates of the magnetic field levels for each of the three loading conditions.


With respect to the magnetic field calculation curves in the Application for XS-2, the nearest point of your home is approximately 350 feet east from the right-of-way centerline. At this distance, the actual height of the line conductors above ground has very little effect on the calculation result. For XS-2 with the delta line design, the 2017 post-NEEWS Average Annual Load (AAL) calculation result would be about 2.7 mG at this location. The result with either of the other two loading conditions would be within 0.2 mG of this value.

I hope that this response addresses your question. As our design is preliminary, please be aware that the line designs (and corresponding field levels) are subject to change as a result of the Connecticut Siting Council process.

Sincerely,

Elise

Elise C. Kranich  
Community Relations Representative for Northeast Utilities  
Direct: 203-949-2313

NEW ENGLAND  
EAST  WEST  
SOLUTION

**From:** Richard Legere [mailto:rlegere@cox.net]  
**Sent:** Wednesday, June 17, 2009 11:02 AM  
**To:** Kranich, Elise  
**Subject:** RE: Greater Springfield Reliability Project Inquiry

Hi Elise: One trouble with email that I have always found is that as opposed to a personal conversation, email can sound abrupt and impolite, even rude at times. So please do not take any comment or question here as such, it is not meant to be that way. You have always been very pleasant and helpful and we should be the same to you.

Were there supposed to be attachments? I have seen other studies where there where EMF dispersion curves were plotted showing the difference between underground vs. overhead and where the 115 kV and 345 kV curve intersected. I would like to have those done.

Frankly, the material below did not answer any of my questions. Maybe it is my fault for not being very specific because I thought I would get a more detailed study similar to what was done for Noel Posson.

So here are my concerns and what I would like to understand:

- (1) First, would someone explain what XS-2 is? I think CL&P assumes too much knowledge on the part of local residents. There is this great saying out west that I heard a lot when I used to live in cowboy country, "This is not our first rodeo," meaning we are not green and we know what is going on. For us here in Suffield and East Granby, *this is our first rodeo*. We may need a more basic education that engineers are used to giving.
- (2) With all due respect to the average EMFs at my house, that is meaningless to me and the other residents. I will likewise explain this point in detail. This is an important point that is being missed or ignored by CL&P in my opinion.

I could maybe take some comfort that the EMF's could be 2.7 mG at my house, if I intended to stay locked in my house and not ever venture out of it. But that is not why someone buys a 30 acre property. We spend time outdoors, walking, cross country skiing in the winter, walking our dogs up to Newgate Road and beyond, my orchard is much closer to the power lines, and I do work in those fields like mowing and tree cutting, you get my point – there is a lot of outdoor activity – and that holds true for all of the residents in our area, especially families with kids. It is a wonderful place for children to grow up

So my concerns and questions are these: What is the dispersion of EMFs from directly under the power line eastbound and westbound to my house?

Because our property is heavily wooded did anyone take into account what the change in EMF is from a "leaves up" season to seasons when leaves are off the trees? I understand that foliage provides a good degree of shielding, is that correct or incorrect?

I would like something that tells me what the EMFs are directly under the 345 kV line because we have to drive under it and walk under a number of times each day. The



statement "At this distance, the actual height of the line conductors above ground has very little effect on the calculation result " while technically accurate, totally ignores the point I am making above, because it does not assume or account for the fact that we will be closer to, and spend time directly under, the power lines every day.

Ideally, I would like some kind of chart that shows cancer risk vs. time exposed at 115 kV and 345 kV levels. Does CL&P have epidemiological data such as this? Given all of the data present by CL&P in CSC docket 272, I imagine there must be something?

The reason for my concern is this, my wife has a strong family history of cancer. This year will be our 25<sup>th</sup> anniversary, I would like to have as many more anniversaries as I can with Diane. While I do not have the same family history, I would not like to get "cooked" by EMF's and increase my cancer risk every time I go out and enjoy an outdoor activity like I have done for the past 13 years that we have lived here. We may have to ultimately decide to leave this place we have come love so much because of the power lines in order to feel secure about my wife's health.

- (3) On the actual loads calculated, what assumptions is CL&P using? By this I mean what percentage increase are they factoring in for growth in electric demand over the next 1,2,3 years, 5 years 10 years and so on.

Have they anticipated the growth of plug in electric hybrids and fully electric vehicles? What I am really asking for is how much more can the EMF's increase? What is the theoretical maximum EMF that could come off of the new line? That is very useful to know when you try to assess you own personal risk.

Here is a good way to maybe explain why things like the AAL is not a meaningful number: I like to ride motorcycles. If my average speed for a six hour trip is 45 mph that sounds really good and very responsible and no one would have a problem with it.

But if I then told you that I got to that average speed by travelling 30 mph for most of the trip with a couple of bursts to 170 mph, I am probably going to kill myself (or be thrown in jail). (Disclaimer: example only, I don't do this.) An average without quantifying the low and high boundary numbers is very misleading and of no value.

The EMF average may be 2.7 mG at my house but if I am getting a lot of 200 mG or more exposure on a daily basis, you get my point ....

I'll look forward to a more detailed response.

Thanks, Richard Legere

JOYUW-10TS

**From:** Kranich, Elise  
**Sent:** Wednesday, June 10, 2009 8:21 AM  
**To:** 'Shawn Sorrow'  
**Subject:** RE: Pro overhead

Thank you, Shawn.

I have forwarded your petition to the proper folks.

Sincerely,  
Elise

---

**From:** Shawn Sorrow [mailto:SSSorrow@CMA-Citizen.com]  
**Sent:** Tuesday, June 09, 2009 3:35 PM  
**To:** Kranich, Elise  
**Cc:** Shawn Sorrow  
**Subject:** Pro overhead

Elise

I have attached two pages of petition for overhead power lines. Please see that the right people get these and they are given to the CT siting council.

Thanks Shawn





BOLDY  
1 OF 1

**Maturo, Patrice**

---

**From:** Maturo, Patrice  
**Sent:** Friday, June 12, 2009 6:03 PM  
**To:** 'rboldy@cox.net'  
**Subject:** Greater Springfield Reliability Project Inquiry

Good Afternoon Mr. Boldy,

My name is Patty Maturo and I am a Community Relations Representative for the Greater Springfield Reliability Project. Thank you for attending the Public Comment hearing on June 11 at Suffield High School. In response to your request for an address to send a written statement to the Connecticut Siting Council, please use the address provided below:

Connecticut Siting Council  
Attn: Chairman Daniel F. Caruso  
Ten Franklin Square  
New Britain, CT. 06051

In your letter, you can reference the Project with the following docket number:

**DOCKET 370A** - The Connecticut Light & Power Company application for Certificates of Environmental Compatibility and Public Need for the Connecticut Valley Electric Transmission Reliability Projects which consist of (1) The Connecticut portion of the Greater Springfield Reliability Project that traverses the municipalities of Bloomfield, East Granby, and Suffield, or potentially including an alternate portion that traverses the municipalities of Suffield and Enfield, terminating at the North Bloomfield Substation; and (2) the Manchester Substation to Meekville Junction Circuit Separation Project in Manchester, Connecticut.

Please feel free to contact me directly if you have any additional questions or concerns.

Regards,

Patty

**Patty Maturo**  
**Community Relations**

Burns & McDonnell  
35 Thorpe Avenue, Suite 201  
Wallingford, CT 06492  
Direct: 203-949-2320  
Mobile: 860-218-7523  
Fax: 203-741-1054  
[www.burnsmcd.com](http://www.burnsmcd.com)

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TIMOTHY A. DALEY  
ATTORNEY AT LAW  
157 MOUNTAIN ROAD  
P.O. BOX 431  
SUFFIELD, CONNECTICUT 06078  
TEL. (860) 668-2315  
FAX (860) 668-4673

June 30, 2009

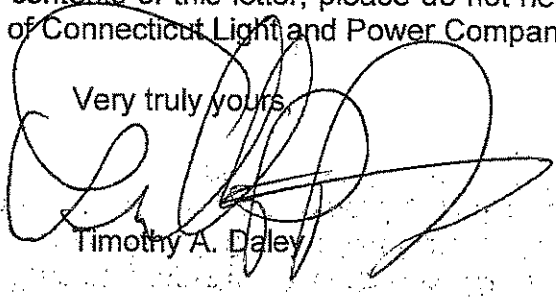
**VIA CERTIFIED MAIL & REGULAR MAIL**

Jeffrey Towle, Project Manager  
Greater Springfield Reliability Project  
Connecticut Light and Power Company  
P.O. Box 270  
Hartford, CT 06141-0270

Dear Mr. Towle:

Please be advised that this office represents Harry E. Wood who is the owner of 3165 Phelps Road, West Suffield, Connecticut. As you know, Connecticut Light and Power Company has an easement through Mr. Wood's property. A portion of Mr. Wood's driveway goes through the easement area. Even though Connecticut Light and Power Company has access to the easement area without using the remaining portion of Mr. Wood's driveway, Connecticut Light and Power Company chose to bring its heavy equipment up Mr. Wood's driveway, which portion of the driveway is not in the easement area, causing substantial damage to Mr. Wood's driveway. Since Connecticut Light and Power intends to do more work on its power lines in the very near future, I am formally demanding that your company does not drive up Mr. Wood's driveway to get access to your easement area. Any attempt to use said driveway and any damage caused to said driveway will result in a lawsuit being filed against your company.

If you have any questions concerning the contents of this letter, please do not hesitate to call. I hope and expect the cooperation of Connecticut Light and Power Company.

Very truly yours,  
  
Timothy A. Daley

tb  
pc: Harry E. Wood

## Written Documentation:

- NEEWS Info Kit
- Chalmers Report

<b>NEED FOR NEWS</b>	FAQ	RIGHTS-OF-WAY	MAP	OUR ENVIRONMENT	ELECTRICITY TERMS

# NEED FOR NEWS



**Ensuring Electric Reliability and Providing a Gateway to Clean Energy in New England**

Northeast Utilities’ (NU) electric companies in Connecticut (Connecticut Light & Power – CL&P) and western Massachusetts (Western Massachusetts Electric – WMECO) are working with National Grid, an international energy delivery company, to propose improvements to their transmission systems so that customers have continued access to the power they rely on for their homes and businesses. We have seen significant growth in peak electric demand in New England, stretching the capabilities of the bulk power grid. We continue to actively work toward solutions that enhance the region’s infrastructure and provide benefits to customers.

**ISO New England, NU and National Grid are Working Together to Address Regional Electric Transmission Concerns**

An analysis performed by the operator of New England’s bulk power system, ISO New England (ISO-NE), of the high-voltage transmission network in southern New England showed that the system needs to be upgraded to improve reliability and performance. ISO-NE led planners from NU and National Grid in developing transmission solutions to solve reliability issues. The extensive study covered the evaluation of thousands of possible solutions. The best-performing, least-cost options that met regional and national electric reliability standards were selected.

**Meeting Regional and National Reliability Standards with NEEWS**

The studies conducted by ISO-NE, NU and National Grid led to the identification of four related high-voltage transmission projects that work together to address electric reliability concerns in New England.

In addition to meeting reliability needs, the New England East-West Solution (NEEWS) projects are expected to provide enhanced access to renewable energy sources and provide economic benefits to customers by reducing federally mandated congestion costs and payments made to generators.



(continued)



<b>NEED FOR NEWS</b>	FAQ	RIGHTS-OF-WAY	MAP	OUR ENVIRONMENT	ELECTRICITY TERMS

# NEED FOR NEWS CONTINUED

**Four NEEWS Transmission Projects:**

- GREATER SPRINGFIELD RELIABILITY**
- INTERSTATE RELIABILITY**
- CENTRAL CONNECTICUT RELIABILITY**
- RHODE ISLAND RELIABILITY**

**Benefits:**

**Reliability:** A more robust transmission system in New England is needed to improve reliability so the power is there when customers need it. The transmission system’s ability to import power has remained constant despite increasing use; this places a burden on existing power lines, some of which are over 50 years old. The proposed transmission system upgrades will ease these bottlenecks created when customers demand more electricity than the system can carry, leading to transmission line congestion.

**Environmental improvements:** The upgrades also will provide a more flexible transmission system that reduces reliance on older, less-efficient power plants, thereby improving environmental quality and providing enhanced access to clean energy in New England.

**Economic benefits:** Reinforcing the transmission network enables competitively priced electricity to move more efficiently across and within the region. The needed upgrades will work in concert with high-voltage transmission projects that currently are under construction in New England. In addition, transmission projects provide jobs and tax advantages to the towns where construction takes place; and we, as a company, pay millions in property taxes annually – all of which benefit customers and the community.

**Timetable:**

Planning for the regional reliability projects is under way and includes:

- > Completing technical feasibility studies;
- > Continuing dialogues with federal, state and municipal officials;
- > Finalizing siting plans and preparing siting application materials; and
- > Filing major state siting applications beginning in 2008, with construction lasting through 2013.



NEED FOR NEWS	<b>FAQ</b>	RIGHTS-OF-WAY	MAP	OUR ENVIRONMENT	ELECTRICITY TERMS
					

# FAQ

NEW ENGLAND EAST WEST SOLUTION

## Frequently Asked Questions on the New England East-West Solution Projects

**Q.** What are the New England East-West Solution Projects?

**A.** The New England East-West Solution (NEEWS) projects are significant upgrades to several sections of the southern New England transmission network to meet regional and national reliability standards. The upgrades include new 345-kilovolt (kV) transmission lines in Connecticut, Massachusetts and Rhode Island, along with related 115-kV line and substation upgrades.

**Q.** Why are these projects needed?

**A.** An analysis by the operator of New England’s bulk power system, ISO New England (ISO-NE), of the high-voltage transmission network in southern New England showed that the system needs to be upgraded to improve reliability and performance.


**Q.** What areas in New England need to be upgraded?

**A.** Based on ISO-NE’s assessment, the 345-kV transmission network needs to be upgraded in multiple ways:

- > Loop around the Springfield, Massachusetts, area’s 115-kV transmission network – a major interstate transmission hub which can experience voltage problems and overloads.
- > Improve the ability to move power from east to west across the New England power grid and within Connecticut.
- > Increase the transmission connections among Connecticut, Massachusetts and Rhode Island.
- > Reduce Rhode Island’s dependency on single transmission lines or autotransformers to serve consumers’ electricity needs.



(continued)

NEED FOR NEWS	<b>FAQ</b>	RIGHTS-OF-WAY	MAP	OUR ENVIRONMENT	ELECTRICITY TERMS
					

# FAQ CONTINUED

**Q.** How will these transmission upgrades help the region?

**A.** A more robust transmission system in southern New England is needed to ensure reliability so the power's there when customers need it. In addition, the needed upgrades will work in concert with high-voltage transmission projects that currently are under construction in New England to strengthen the electric grid.

**Q.** What are the four NEEWS transmission projects planned to solve the basic grid bottlenecks?

- A.** The projects are:
- > Greater Springfield Reliability
  - > Interstate Reliability
  - > Central Connecticut Reliability
  - > Rhode Island Reliability

**Q.** How will these projects lower the cost of electricity for customers?

**A.** Reinforcing the transmission network in an integrated manner enables competitively priced electricity located elsewhere to move more efficiently across and within the state and the region. Having access to competitively priced power relieves some of the congestion charges and payments to generators that are imposed on customers through their electric bills.

**Q.** How will the projects affect the environment?

**A.** The projects will provide a more flexible transmission system that reduces reliance on older, less-efficient power plants, thereby improving environmental quality and providing enhanced access to clean energy in New England.

**Q.** What is the timetable for these projects?

- A.** Planning for the regional reliability projects continues, and ongoing work includes:
- > Completing technical feasibility studies;
  - > Continuing dialogues with federal, state and municipal officials; and
  - > Finalizing siting plans and preparing siting application materials.

Major state siting applications are expected to be filed beginning in 2008, with construction lasting through 2013.

NEED FOR NEWS	FAQ	<b>RIGHTS-OF-WAY</b>	MAP	OUR ENVIRONMENT	ELECTRICITY TERMS
					

# RIGHTS-OF-WAY



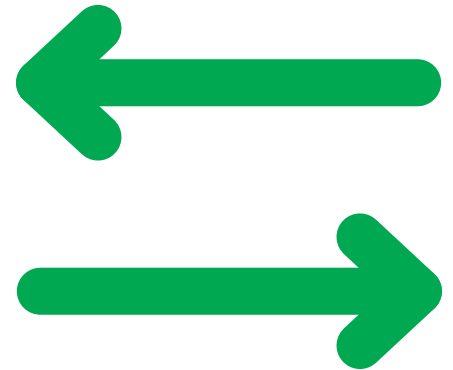
## Understanding Rights-of-Way and Easements

To provide electrical service to its customers, Northeast Utilities’ electric companies, Connecticut Light & Power and Western Massachusetts Electric (referred to collectively as the “company”), own and maintain transmission lines throughout Connecticut and western Massachusetts. These transmission lines are primarily located on land that is owned by third parties (homeowners and businesses) over which the company has acquired a property interest that is referred to as a “right-of-way” or “easement.”

Most of the company’s transmission lines are located on rights-of-way that were acquired decades ago. At the time these easements were acquired, the company compensated the owner of the land crossed by the right-of-way and acquired permanent easement rights, which remain intact even upon a sale of the land. Therefore, anyone who purchases land that is crossed by a company right-of-way acquires that land subject to the company’s permanent easement rights. Potential land owners have advance notice of the company’s owned rights-of-way because easement documents are filed on the appropriate land records for each town, and can be identified as part of a routine title search.

### What are the company’s rights within the right-of-way?

The easement documents recorded on the land records outline certain of the company’s rights within the right-of-way, which usually include, among other things, the ability to trim or remove any trees. In addition to those rights specified in the easement document, the company has all rights necessary to implement those rights. For example, a typical company easement states that the company has the right to construct transmission facilities. Since the construction of those facilities requires the use of equipment, the company can operate construction equipment within its right-of-way, even though this activity is not specifically referenced in the easement document.



### What are the rights of the property owner within the right-of-way?

As a general rule, the owner of a property crossed by a right-of-way can still use the property for his/her own personal use as long as such usage does not interfere with the company’s use of its easement.

A property owner may plant grass in the right-of-way if he/she so chooses. However, a property owner cannot construct or place anything within the right-of-way that might interfere with the company’s facilities or with the company’s right and ability to pass freely over the right-of-way in the course of maintaining its existing lines or constructing new lines. For instance, a property owner could not construct a wall or fence that blocks passage along the right-of-way.

(continued)



# RIGHTS-OF-WAY CONTINUED

## What about the company's contractors?

As agents of the company, contractors may exercise all of the company's rights under the grant of easement.

## During the construction of new transmission lines, who is responsible for ensuring that the right-of-way is maintained in a safe manner?

Any safety issues related to the construction of the new lines within the right-of-way are the responsibility of the company and its contractors. This is a responsibility that we take very seriously. As a general matter, however, property owners remain responsible for conditions that they have created or maintained within the right-of-way.

## What should I do if someone is injured within the right-of-way on my property and makes a claim for damages?

You should contact your homeowner's insurance company. The typical homeowner's policy includes coverage for such claims, and your insurance company would typically retain an attorney to represent you.

You should also call the company to report the claim. It is important to make sure these calls are made at the time of the claim. You can report your claim by calling 1.800.286.2000 (860.947.2000 in the Hartford area; 413.781.4300 in the Springfield area). A company customer service representative will record the relevant information over the phone to begin the claims process.

## What happens if a homeowner's property is damaged during construction?

The company and its representatives do their best to prevent property damage. However, the company has a process in place to address damage claims, if damage occurs. As part of this process, the company will work with property owners to make a determination about whether or not the property was damaged by the company's construction activities.

If so, the company will then determine whether the property that was damaged was within the right-of-way or outside the right-of-way. If the property or facility damaged by the company's construction activities was located outside of its right-of-way or was within the right-of-way with the company's permission, the company will make appropriate reparations.

As a general matter, however, unless the company granted a homeowner permission to install facilities (such as a septic system) within its right-of-way, the company is not liable for any damage to such facilities during construction. If a homeowner has installed any facilities within a company right-of-way and did not obtain prior permission to do so, the homeowner should notify the company of, and request its permission for, those facilities prior to the commencement of the company construction activities by calling the project hotline at 1.866.99NEEWS (1.866.996.3397).



NEED FOR NEWS

FAQ

RIGHTS-OF-WAY

MAP

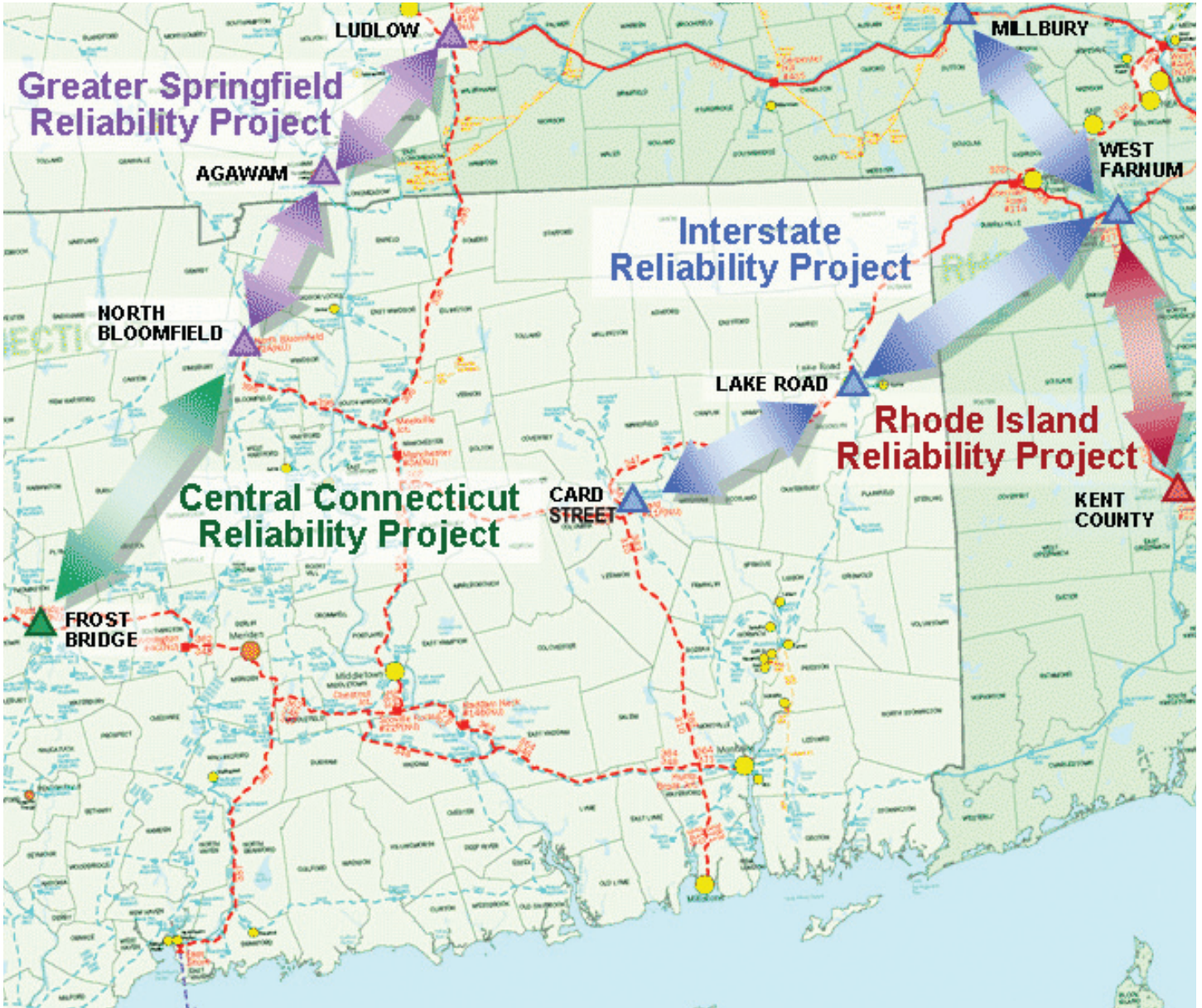
OUR ENVIRONMENT

ELECTRICITY TERMS



# MAP

NEW ENGLAND EAST WEST SOLUTION



The Northeast Utilities System

NEED FOR NEEDS	FAQ	RIGHTS-OF-WAY	MAP	<b>OUR ENVIRONMENT</b>	ELECTRICITY TERMS
					

# OUR ENVIRONMENT

NEW ENGLAND EAST  WEST SOLUTION

Upgrading transmission lines can connect customers to more modern, state-of-the-art generation plants, while reducing the need to run older, less-efficient power plants in the region.



Northeast Utilities’ (NU) companies in Connecticut (Connecticut Light & Power – CL&P) and western Massachusetts (Western Massachusetts Electric – WMECO) take great pride in protecting our environment. We believe it is our duty to maintain a safe and healthy ecosystem; in fact, this is one of our core values. Building a safe, reliable transmission system which has a minimal impact on the environment is a key goal for the projects we propose. This includes using the best land and vegetation management practices available along our rights-of-way.

New England is challenged to meet the growing need for electricity for our customers. Increasing the grid’s capacity to transmit power is one way to meet the growing need and enable renewable generation.


### Cleaner Environment

New power lines can reduce air emissions of nitrogen oxide (NOx) and carbon dioxide (CO<sub>2</sub>) by expanding customer access to new power plants that:

- > use clean natural gas as the modern fuel of choice; and
- > apply the best emission-control technology available today to reduce stack emissions.

The growing need for electricity in New England, combined with the limited capability of existing transmission networks, has forced older, less-efficient power plants to run beyond the seasonal peak demand periods they were designed for. New power lines will reduce the need to run less-efficient power plants.

(continued)

NEED FOR NEWS	FAQ	RIGHTS-OF-WAY	MAP	<b>OUR ENVIRONMENT</b>	ELECTRICITY TERMS
					

# OUR ENVIRONMENT CONTINUED

### Environmental Initiatives Taken in Rights-of-Way

CL&P and WMECO manage more than 2,000 miles of transmission rights-of-way in Connecticut and western Massachusetts. The companies embrace a strong environmental ethic, which drives best construction and vegetation management practices in these rights-of-way.

In addition, CL&P and WMECO have begun narrowing the list of targeted plant species for treatment or removal to ensure the safety and reliability of transmission lines. Our vegetation management group uses herbicides that are environmentally safe products and have no effects on surrounding areas. In many cases, the products we use are also approved for vegetation management projects around public water supplies.

Our management strategies have been recognized by the Massachusetts Audubon Society and the Environmental Protection Agency, which in 2003 named Northeast Utilities as the first energy utility to receive its Champion Award under the Pesticide Environmental Stewardship Program.

### Transmission Corridors for Wildlife

Our transmission rights-of-way corridors are much more than pathways for power lines; they are also home to a variety of wildlife. Studies show wildlife thrives in these corridors as a result of our award-winning maintenance program. Our environmental maintenance program preserves and establishes open corridors of low-growing native plant species that provide an ideal habitat for wildlife found in southern New England.

In addition, we work with wildlife habitat experts to determine how best to support certain species. Selectively applied herbicides are administered in low volume and under low pressure, and only to certain plant species. Studies performed in our rights-of-way have concluded these management techniques have a positive impact on the development of wildlife and their habitats.







# ELECTRICITY TERMS

## Common Electricity Terms

*A glossary of terms to help you better understand the technical aspects of transmission.*

**Alternating Current (AC):** An electric current which reverses its direction of flow periodically. Utilities supply this type of current to homes and businesses.

**Ampere (Amp):** A unit measure for the flow (current) of electricity. A typical home service capability is 100 amps; 200 amps is required for homes with electric heat.

**Capacitor:** A device installed in substations and on poles which helps to improve the efficiency of transmission and distribution lines to carry electric power by reducing energy losses.

**Circuit:** A continuous system of three conductors providing a path for electricity between substations.

**Circuit Breaker:** Located in substations, this switch automatically disconnects power to the circuit in the event of a fault condition.

**Conductor:** A wire, cable, bus bar, rod or tube which serves as a path for electricity flow. The most common conductor is the overhead wire.

**Congestion:** When demand for electricity is greater than the ability to deliver it, or when available power is unable to be moved to where it is needed.

**CONVEX:** The Connecticut Valley Electric Exchange, located in Newington, Connecticut, which plans and coordinates the dispatch of bulk electric power in Connecticut and western Massachusetts.

**Demand:** The total amount of electricity required at any given time by a utility's customers.

**Direct Current (DC):** Electricity that flows continuously in one direction. A battery produces DC power.

**Distribution Line:** Any line operating at less than 69,000 volts.

**Ducts:** Pipe or tubular runway for underground power cables.

**Electric Fields:** Produced by voltage, electric fields are stronger when voltages are higher. Electric fields are formed when an electric device is plugged into an outlet, even when the electric device is turned off. The electric field is measured in volts per meter (V/m), or kilovolts per meter (kV/m), where 1,000 V = 1 kV. (See "EMF.")

**EMF:** Electric and magnetic fields associated with electricity. They are invisible lines of force that surround any electrical device. Sources of EMF include appliances, nearby distribution and transmission systems, flowing electric currents and electrical wiring. The intensity of both electric and magnetic fields diminishes with increasing distance from the source. (See "Electric Fields" and "Magnetic Fields.")

**ERO:** Electric Reliability Organization. The Energy Policy Act of 2005 authorized the creation of an electric reliability organization (ERO) that spans North America, with Federal Energy Regulatory Commission (FERC) oversight in the United States.

**Fault:** A failure or interruption in an electrical circuit.

**Feeder:** A distribution line carrying power from a substation.

**FERC:** Federal Energy Regulatory Commission. An independent, federal government agency that regulates the transmission and wholesale market of electricity in interstate commerce; licenses and inspects private, municipal and state hydroelectric projects and oversees environmental matters related to electricity and hydroelectric projects; also oversees matters regarding the natural gas and oil industries.

**Generation (Electricity):** The process of producing electric energy by transforming other forms of energy.

**Insulation:** The protective material covering an underground electric wire. Rubber or polyethylene are commonly used.

**Insulator:** The porcelain or polymer support used to insulate the conductors from the pole or tower.

**ISO-NE (ISO New England):** Independent System Operator of New England. Established as a not-for-profit, private corporation on July 1, 1997, following its approval by FERC. It is responsible for managing New England's power markets and transmission systems and administering the region's open access transmission tariff.

**Kilovolt (kV):** 1,000 volts.

**Kilowatt (kW):** 1,000 watts.

**Kilowatt-Hour (kWh):** A basic unit of electricity equal to one kilowatt or 1,000 watts of power used for one hour.

**Line Crew:** Teams of highly trained workers who service and repair lines and equipment.

**LMP:** Locational Marginal Pricing. A method of identifying where congestion occurs on the bulk power system and assigning the cost of the congestion to the location(s). As of March 1, 2003, New England is divided into eight LMP zones.

**Load:** Amount of power delivered as required to any point or points in the system. Load is created by the power demands of customers' equipment.

**Magnetic Fields:** Produced when electric current flows through the wire or electric devices, that is, when the electric device is turned on. They are commonly measured in units called gauss (G), or in milligauss (mG), where 1 G = 1,000 mG. (See "EMF.")

(continued)



# ELECTRICITY TERMS CONTINUED

**NEPOOL:** Formed in 1971, the New England Power Pool is a voluntary association of entities that are engaged in the electric power business in New England. NEPOOL members, referred to as Participants, include investor-owned utility systems, municipal and consumer-owned systems, joint marketing agencies, power marketers, load aggregators, generation owners and end users. None of NEPOOL's members has an ownership interest in the association.

**NERC:** North American Electric Reliability Corporation. Established in 1968, NERC regulates bulk power electric system reliability and security. Among its many responsibilities are the establishment of operating policies and planning standards to ensure electric system reliability and serving as the electric industry's primary point of contact with the federal government on issues relating to national security and terrorism. NERC was selected by FERC to be the nation's ERO.

**NPCC:** Northeast Power Coordinating Council. Its mission is to promote the reliable and efficient operation of the interconnected bulk power systems in northeastern North America through the establishment of criteria, coordination of system planning, design and operations, and assessment of compliance with such criteria.

**Network:** A system of interconnected transmission and distribution lines. Makes it possible to restore power quickly to customers by switching them to another circuit.

**Open Circuit:** A condition produced when a circuit is turned off – either manually from operator commands or automatically due to a fault.

**Overload:** A flow of electricity through conductors or devices exceeding their capacity.

**Peak Demand:** The maximum amount of electricity required to supply customers.

**RMR:** Reliability Must Run. Contracts signed with ISO New England and approved by federal regulators that pay generators to make sure their plants are available to operate, even if only for a few peak demand periods. RMR contracts are used where cost-efficient generation cannot be delivered because of transmission congestion, and local generation is not cost-effective to operate.

**Short Circuit:** When either two points in an electric circuit become connected or one point in an electric circuit becomes grounded accidentally such as when a tree limb or animal comes in contact with a conductor. This will cause heavy currents to flow in the line (overload) and result in melting of line fuses and operation of protective devices such as circuit breakers and reclosers.

**SMD:** Standard Market Design. A framework designed to promote greater economic efficiency and competition, while sending pricing signals to encourage infrastructure investment.

**Solid Core:** Cables are filled with a plastic material and do not require an insulating fluid which could leak. Solid core cables are commonly in use at 115-kV but are a relatively new technology at 345-kV.

**Splicing Vault:** An underground concrete enclosure. Vaults connect underground ducts and are typically placed about 1,800 feet apart. Cables are pulled into and out of ducts at vaults, and vaults provide a secure underground environment to join, or splice, cables together.

**Substation:** A fenced-in yard containing switches, transformers and other equipment and structures. Adjustments of voltage, monitoring of circuits and other service functions take place in this installation.

**Switching Station:** A fenced-in yard containing switches, line-terminal structures, and other equipment, enclosures and structures. Switching of circuits and other service functions take place in this installation.

**Tap:** A connection between conductors or between a conductor and certain equipment such as transformers.

**Tap Changer:** A device to adjust the voltage-changing capability of a transformer or a voltage regulator.

**Three-Phase Circuit:** A group of three conductors in which each conductor is carrying electricity that is 120 degrees out of phase with the electricity on the other two conductors.

**Transmission Line:** Any line operating at 69,000 or more volts.

**Transformer:** A device used to transform voltage levels to facilitate the transfer of power from the generating plant to the customer. A step-up transformer increases the voltage; a step-down transformer decreases it.

**Under Street:** Electrical facilities installed below the surface of the street.

**Voltage:** A measure of the push or force which transmits electricity.

**Watt:** A measure of the work electricity can do.



# PUBLIC PARTICIPATION

## The Siting Process and Opportunities for You to Participate

### Preparing for the Application for Siting Approval

- > As the project is being designed, members of the project team meet with officials in the towns and cities along the possible routes and with other interested parties.
- > The project team provides those towns and cities that may be affected by the project with copies of a report explaining what will be proposed to the state siting authority. The towns and cities have the opportunity to give their comments to the project team.
- > With the support of the town/city officials, the project team may conduct an open house to acquaint the town/city residents with the project proposal and discuss their questions and concerns.
- > A notice of the application is published prior to the filing in a newspaper having general circulation in the towns and cities potentially affected by the project.
- > The project team provides copies of its siting application to the officials in those towns and cities that may be affected by the project, as well as to other state officials.

### After a Request for Siting Approval Has Been Filed

- > The state siting authority's staff examines the application for completeness and sets a procedural schedule.
- > The state siting authority gathers additional record information by means of interrogatory questions and consultations with other state agencies.
- > The state siting authority conducts public comment hearings in communities along the project route, and evidentiary hearings later at a location nearer to their office.
- > Individuals and groups (including towns and cities) are given the opportunity to participate in public comment hearings and, in accordance with the state siting authority rules, can participate in the subsequent evidentiary hearings during which sworn testimony is received and recorded.
- > The state siting authority renders its decision, based upon its factual record of the proceedings, and imposes conditions on any approval decision.



### If Siting Approval Is Granted

- > The project team completes the finished design, taking into account conditions imposed by the state siting authority.
- > The project team completes all necessary permits and construction plan approvals, from the appropriate local, state and federal agencies, many of which have their own opportunities for public participation.





Greater Springfield  
Reliability Project

NEW ENGLAND  
EAST  WEST  
SOLUTION

The Greater Springfield Reliability Project is one of four major transmission projects that are part of the New England East-West Solution (NEEWS). Together, the four NEEWS projects will strengthen the reliability of the power grid in New England – improving its efficiency and reducing crippling and costly bottlenecks.

#### Overview

The Greater Springfield Reliability Project provides direct reliability benefits to Greater Springfield and Connecticut electricity customers by creating a “beltway” for power to move around the Springfield area. It will also create another path for delivering power into Massachusetts and Connecticut from other New England states.

The organization responsible for making sure there is a reliable flow of power available in Massachusetts, Connecticut and the rest of New England, ISO-New England (ISO-NE), has identified certain system problems in the Greater Springfield area that must be addressed in order for the New England transmission network to meet regional and national reliability standards over the long term.

(continued)



The Northeast Utilities System

# GREATER SPRINGFIELD RELIABILITY PROJECT

## Project Need and Benefits

A strong transmission grid is vital to the region's safety, security and economic prosperity. The proposed Greater Springfield Reliability Project is a 345-kilovolt (kV) transmission line to improve reliability in the Springfield area, strengthen the interstate transfer of electricity, and enhance the performance of the high-voltage transmission network that serves the region. There will also be 115-kV line rebuilds and additional substations and switching stations.

In this way, it will:

- > Ensure reliability – so the power's there when you need it.
- > Help reduce energy costs, strengthening the area's economy.

The Greater Springfield Reliability Project works with three other projects, including the Interstate Reliability Project, Central Connecticut Reliability Project and National Grid's Rhode Island Reliability Project, to improve the movement of electricity within New England. This enhanced movement of electricity benefits the reliability of the entire region by allowing larger amounts of power to be moved longer distances.



## The Regional Electric System

### Costs

The final costs for this project have not yet been determined because it is still in the preliminary design stage. Once the siting process is complete, we will have the final design and costs.

Regulatory agencies ensure that electric utilities act in the public interest to keep rates as low as possible for all customers. All of our projects are carefully scrutinized by regulatory agencies to make sure that we are making prudent investments to maintain reliability with little environmental impact and at the lowest reasonable cost.

New England states have agreed to share the costs of projects that provide regional benefit. There may be instances where project costs over and above feasible least-cost solutions are paid for on a state or local level.

## Options Analysis

The options for accomplishing the project goals were evaluated against the criteria of:

- > System flexibility and expandability
- > Customer and community interests
- > Natural environment interests
- > Completion in time to serve need
- > Cost impact on customers

## Timetable

Planning for the regional reliability projects is under way now. Ongoing work includes completing studies and deciding on the proposed routing of new facilities. During 2008, planning will continue, and the siting process will begin. Construction is planned to begin in late 2010.

## Learn More About It

For more information, visit us at [www.NEWSprojects.com](http://www.NEWSprojects.com) or call us at 1.866.99NEWS (1.866.996.3397).



The Interstate Reliability Project is one of four major transmission projects that are part of the New England East-West Solution (NEEWS). Together, the four NEEWS projects will strengthen the reliability of the power grid in New England – improving its efficiency and reducing crippling and costly bottlenecks.

### Overview

The Interstate Reliability Project is a proposed 345-kilovolt (kV) transmission line that will strengthen the interstate transfer of electricity across Connecticut, Rhode Island and Massachusetts. The project also includes upgrades to substations and improvements to the area's 115-kV electric system.

It is being undertaken in a joint effort by Connecticut Light & Power (CL&P) and National Grid to address the region's needs that were identified in ISO New England's (ISO-NE) Regional System Plan.

ISO-NE is responsible for planning and operating the New England electric power grid and administering the region's wholesale market for electricity. CL&P and National Grid are companies that own and operate many of the region's transmission lines.

(continued)



**Connecticut  
Light & Power**

The Northeast Utilities System

# INTERSTATE RELIABILITY PROJECT

## Project Need and Benefits

A strong transmission grid is vital to the region's safety, security and economic prosperity. The Interstate Reliability Project will improve the reliability of the New England electric system. Reliability means that the grid is able to deliver electricity where it is needed on the hottest and coldest days of the year – even if one or more power plants or pieces of the transmission system are not operating.

In this way, it will:

- > Ensure reliability – so the power's there when you need it.
- > Help reduce energy costs, protecting the region's economic vitality.

The Interstate Reliability Project works with the three other projects, including the Greater Springfield Reliability Project, the Central Connecticut Reliability Project and National Grid's Rhode Island Reliability Project, to improve the movement of electricity within New England. This enhanced movement of electricity benefits the reliability of the entire region by allowing larger amounts of power to be moved longer distances.



## The Regional Electric System

### Costs

The final costs for this project have not yet been determined because it is still in the preliminary design stage. Once the siting process is complete, we will have the final design and costs.

Regulatory agencies ensure that electric utilities act in the public interest to keep rates as low as possible for all customers. All transmission projects are carefully scrutinized by regulatory agencies to make sure that utility companies make prudent investments to maintain reliability with as little environmental impact as possible and at the lowest reasonable cost.

New England states have agreed to share the costs of projects that provide regional benefit. There may be instances where project costs over and above feasible least-cost solutions are paid for on a state or local level.

### Options Analysis

Options for accomplishing the interstate transfer goal of the Interstate Reliability Project were evaluated against the criteria of:

- > Network characteristics
- > Customer and community interests
- > Natural environment interests
- > Completion in time to serve need
- > Lifetime costs and solution longevity

### Timetable

Planning for the regional reliability projects is under way now. Ongoing work includes completing studies and deciding on the proposed routing of new facilities. During 2008, planning will continue, and the siting process will begin. Construction is planned to begin in 2011.

### Learn More About It

For more information, visit us at [www.NEWSprojects.com](http://www.NEWSprojects.com) or call us at 1.866.99NEEWS (1.866.996.3397).



Central Connecticut  
Reliability Project

NEW ENGLAND  
EAST  WEST  
SOLUTION

The Central Connecticut Reliability Project is one of four major transmission projects that are part of the New England East-West Solution (NEEWS). Together, the four NEEWS projects will strengthen the reliability of the power grid in New England – improving its efficiency and reducing crippling and costly bottlenecks.

### Overview

The Central Connecticut Reliability Project will increase the capability to move power within Connecticut. Residents and businesses in the central and western parts of the state will have more reliable access to competitively priced power.

The organization responsible for making sure there is a reliable flow of power available in Connecticut and New England, ISO New England (ISO-NE), has identified certain system improvements in central Connecticut that must be made in order for the New England transmission network to meet regional and national reliability standards over the long term.

ISO-NE has also identified system problems in neighboring states and by means of a comprehensive planning process has identified four projects that work together to strengthen the power grid.

(continued)



**Connecticut  
Light & Power**

The Northeast Utilities System



# CENTRAL CONNECTICUT RELIABILITY PROJECT

## Project Need and Benefits

A strong transmission grid is vital to the region's safety, security and economic prosperity. Presently, most of Connecticut's power is generated in the eastern part of the state, while demand for power is higher in the central and western parts of the state. The Central Connecticut Reliability Project will provide much-needed capacity for moving power to where it is needed.

In this way, it will:

- > Ensure reliability – so the power's there when you need it.
- > Help reduce energy costs, protecting the region's economic vitality.

The Central Connecticut Reliability Project works with three other projects, including the Greater Springfield Reliability Project, the Interstate Reliability Project and National Grid's Rhode Island Reliability Project, to improve the movement of electricity within New England. This enhanced movement of electricity benefits the reliability of the entire region by allowing larger amounts of power to be moved longer distances.



## The Regional Electric System

### Costs

The final costs for this project have not yet been determined because it is still in the preliminary design stage. Once the siting process is complete, we will have the final design and costs.

Regulatory agencies ensure that electric utilities act in the public interest to keep rates as low as possible for all customers. All of our projects are carefully scrutinized by regulatory agencies to make sure that we are making prudent investments to maintain reliability with little environmental impact and at the lowest reasonable cost.

New England states have agreed to share the costs of projects that provide regional benefit. There may be instances where project costs over and above feasible least-cost solutions are paid for on a state or local level.

## Options Analysis

The options for accomplishing the project goals were evaluated against the criteria of:

- > System flexibility and expandability
- > Customer and community interests
- > Natural environment interests
- > Completion in time to serve need
- > Cost impact on customers

## Timetable

Planning for the regional reliability projects is under way now. Ongoing work includes completing studies and deciding on the proposed routing of new facilities. During 2008/2009, planning will continue, and the siting process will begin. Construction is planned to begin in 2011.

## Learn More About It

For more information, visit us at [www.NEWSprojects.com](http://www.NEWSprojects.com) or call us at 1.866.99NEWS (1.866.996.3397).

**ASSESSING THE IMPACTS OF HIGH-VOLTAGE  
TRANSMISSION LINES (HVTL) ON PROPERTY VALUES**

**James A. Chalmers, PhD**

**April, 2008**

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## ASSESSING THE IMPACTS OF HIGH-VOLTAGE TRANSMISSION LINES (HVTL) ON PROPERTY VALUES

Determining whether, and to what extent, high voltage transmission lines (HVTL) have an impact on the value of adjacent or nearby residential property by reason of proximity alone is a challenging appraisal assignment. While the literature on the subject is extensive, it is of uneven quality, ranging from anecdotal reports to large, rigorously conducted statistical studies. This paper explains the most common approaches to identifying and estimating that impact, and summarizes the results of the most objective and reliable studies in the published literature.

### 1.1. METHODOLOGY

The only reliable evidence of the effect of HVTLs on the value of adjacent or nearby residential property must rely on actual arms-length sales of property that lie in close proximity to an existing line. These sales are then compared to other selected transactions involving properties located outside of the potential area of influence. The three most common approaches for performing this comparison are discussed below:

1. Paired Sales Analysis. The first approach attempts to match the characteristics of a subject property within a claimed area of impact (the "Subject Area") to a single sale of a similar and competitive property outside the area of impact (the "Control Area"). For example, if the subject property, which lies immediately adjacent to a HVTL, sold for \$149,000 and another property with the same value-determining characteristics as the subject property, except for the power line proximity, sold for \$150,000, then the conclusion could be drawn that property value effects of the transmission line are insignificant.

There are several major shortcomings with the Paired Sales approach. The first stems from the availability of sales, and the ability to identify one single sale that can be considered a perfect match to the subject property. For example, not all 3-bedroom 2-bath ranch-style homes are exactly the same. While the subject and comparable properties can share a common style and layout, other factors like age, condition, construction quality, neighborhood, etc. can vary having a measurable impact on value. Similar to the first, the second problem relates to the subjective nature of the analysis. Both the selection of the property and the value adjustments are subjective. It is not uncommon for two appraisers to differ in their opinions as to what constitutes a pair of virtually identical properties, and if not identical, the level of appropriate adjustments. Overall, the Paired Sales approach is highly susceptible to abuse given the reliance on one single sale instead of multiple sales that is standard in most residential appraisals.

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<sup>1</sup> See Appendix A for biographical information.

2. Appraisal Based on Control Properties. The second approach recognizes that a perfect match is unlikely and relies on standard residential appraisal sales comparison methodology. Three or four sales of control properties are selected that are as similar to the subject as possible. They are then adjusted to account for differences (other than HVTL proximity) with the subject. This recognizes that there are inevitably going to be differences among the properties and then compensates by making explicit dollar adjustments based on the appraiser's experience in the market in question. For example, if the subject sold for \$149,000 and the value implied by several adjusted comparable sales was \$160,000, there would appear to be some negative influence of the high-voltage line on the value of the subject.
  
3. Statistical Analysis of Large Numbers of Subject and Control Area Properties  
The third approach is to use statistical tools to separate out the effects of the high-voltage line from all the other determinants of value. This is only possible with a relatively large number of sales of subject and control properties. If the sales, property and neighborhood data exist to carry out this approach, it is ideally suited to identifying the independent effect of the transmission line holding the other value-determining factors constant. The tool most commonly used to carry out this analysis is called multiple regression. A multiple regression analysis typically incorporates the following:
  1. Define the area(s) of alleged impact (the "Subject Area"). This can be defined as tiers that are proximate to the alleged area of impact (i.e.- <500 feet, 500 to 1,000 feet, etc.);
  2. Assess format, availability and quality of property and sales data;
  3. Define an area(s) of non impact (the "Control Area");
  4. Define the time frame of the analysis. The time frame generally includes a few years prior to a public announcement, or some other source of public awareness of the proposed right of way or line improvement.
  5. Gather sales data files on all available sales transactions within the Subject and Control Areas. Information captured typically includes market conditions, property and transaction characteristics;
  6. Develop database template for importing data;
  7. Import data and perform logic and quality control checks and apply appropriate filters to data set;
  8. Geo-code sales to pinpoint location and measure proximity;
  9. Run statistical analysis on the data. The strongest models are those that have high levels of explanatory power ( $R^2$ ), identify statistically significant effects of value determining variables (F-Ratio and t-Values) and give reliable results (Standard Error of the Estimate).

The use of large sets of sales data in multiple regression analysis produces results that are more nearly representative of the patterns of buyers and sellers in the aggregate (i.e. the market) rather than a single buyer and seller as reflected in the Paired Sales approach. In addition, it is the least subjective of the three potential approaches and is the only approach to give explicit measures of reliability which helps the user determine what weight to give the results.

## 1.2 SUMMARY OF STATISTICAL STUDIES ON THE EFFECT OF HIGH-VOLTAGE TRANSMISSION LINES ON PROPERTY VALUE

The following section highlights the key findings that emerge from multiple regression studies in the published literature.

Over the past 20 years, the literature increasingly recognizes multiple regression analysis as the most reliable technique to investigate whether high-voltage transmission lines impact property values and, if so, to quantify the effect. As explained above, multiple regression has the significant advantage of not relying on the subjective judgment of the appraiser. Rather, it represents an objective reflection of the data together with measures of reliability that attach to the results. As a result, there have been a large number of studies undertaken since about 1980 using large databases and statistical tools to investigate the effect of transmission lines on property value. Sixteen of these studies form the core of the professional literature and are widely quoted and cross-referenced one to the other.<sup>2</sup> The results of these studies can be generally summarized as follows:

- Over time, there is a consistent pattern with about half of the studies finding negative property value effects and half finding none.
- When effects have been found, they tend to be small; almost always less than 10% and usually in the range of 3-6%.
- Where effects are found, they decay rapidly as distance to the lines increases and usually disappear at about 200-300 feet.
- Two of the studies investigated the behavior of the effect over time and found that, if there were effects, they tended to dissipate over time as well.
- There doesn't appear to have been any change in the reaction of markets to high-voltage transmission line proximity after the 1992 Swedish health effects studies.<sup>3</sup>

These general conclusions have characterized the appraisal and economic literature throughout the last 20 years and there don't appear to be any new or different trends showing in the data. It is during this period that most of the medical studies on EMF exposure were published, including the oft-referenced Swedish studies that were published in 1992. One of the questions in people's minds, therefore, is the apparent inconsistency between these statistical results and the intensity of opposition that new transmission line corridors generate. How can it be if people are so intensely adverse to the lines that we don't see more of a market effect? This inconsistency is seen clearly when residents along existing high-voltage transmission lines are interviewed. Several studies of this type have been done and are reported on in the next section.

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<sup>2</sup> These 16 studies are summarized in Appendix B.

<sup>3</sup> The two referenced 1992 Swedish studies have been widely reported including the following two articles: 1) [Ahlborn and Feychting] - Kolare, Susan, "Power Lines Increase Cancer Risk for Children," *Foirskning & Praktik* (Solna, Sweden: National Institute of Occupational Health), July 1992, p. 387-388, and; 2) [Floderus] Gronkvist, Lars, "Cancers Related to Strong Electromagnetic Fields," *Foirskning & Praktik* (Solna, Sweden: National Institute of Occupational Health), July 1992, pp. 383-385.

## 1.2. SURVEYS OF RESIDENTS LIVING NEAR HIGH-VOLTAGE TRANSMISSION LINES

Several surveys have been carried out of homeowners living adjacent to, or near, high-voltage transmission lines. While surveys alone are not a recognized valuation tool, when discussed in conjunction with multiple regression analysis they can provide further insight into the findings.

The basic thrust of survey questioning is whether home purchasers were aware of the transmission lines prior to their purchase and, if so, whether their purchase decision or the price they paid was affected by the lines<sup>4</sup>. Like the statistical analyses of sales reported above, the results of these survey studies are quite consistent with one another. Their findings can be summarized as follows:

- A high proportion of the residents were aware of the lines at the time of purchase.
- Between one-half and three-fourths of the respondents have negative feelings about the lines.
- The negative feelings center on health effects, aesthetics and property value effects.
- Of those who have negative feelings about the lines, the vast majority (67-80%) report that their purchase decision and the price they offered to pay was not affected by the lines.

In summary, the relatively small effects on property value attributed to HVTL proximity in the literature does not mean that the direction of the effect of transmission lines on property values is not negative. Our general interpretation is that, even though transmission line issues have been a prominent concern in most of the communities studied, and even though the direction of effect on real estate value is clearly negative, their presence is apparently not given sufficient weight by buyers and sellers of real estate to have had any consistent, material effect on market value.

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<sup>4</sup> Five studies are prominent in the literature and are summarized in Appendix C.

***POSITION***

Principal, Chalmers & Associates, LLC

***EDUCATION***

Ph.D. - Economics, University of Michigan - 1969

B.A. - Economics, University of Wyoming - 1963

***EXPERIENCE***

**I. ECONOMICS**

Broad range of experience in quantitative economic analysis and problem solving applied to regional and urban growth issues, public planning, economic modeling, fiscal analysis, industry economics and socioeconomic impact assessment.

**II. REAL ESTATE**

Experienced in applying economic and financial analysis together with relevant market data to real estate development, investment counseling, asset management, and real property valuation. Projects include large, urban, mixed-use projects, single use projects of all types, and large master-planned community studies.

**III. ENVIRONMENTAL DAMAGES QUANTIFICATION / REAL PROPERTY VALUATION**

Have applied real estate and economics background to litigation oriented engagements focused on environmental damages in the context of valuation of contaminated property, valuation of property affected by hazard or risk, natural resource damages and value of real property in the context of eminent domain.

***PROFESSIONAL AND BUSINESS HISTORY***

Chalmers & Associates, LLC, Principal, 7/02 to present.

PricewaterhouseCoopers LLP, Principal, Financial Advisory Services. 7/98 to 6/02.

Coopers & Lybrand L.L.P. Principal, Financial Advisory Services. 1990 to 6/98.

Mountain West: 1974 to 1989. President and Economic Consultant.

Arizona State University: 1972 to 1979. Faculty of Economics, College of Business.

Rockefeller Foundation: 1970 to 1972. Special field staff at Thamassat University, Bangkok, Thailand.

Amherst College: 1966 to 1970. Faculty of Economics.

**CERTIFICATIONS**

Arizona: General Real Estate Appraiser #30487

**PUBLICATIONS*****Books Published***

One Hundred Centuries of Solitude - Redirecting America's High-Level Nuclear Waste Policy (with James Flynn, Doug Easterling, Roger Kasperson, Howard Kunreuther, C.K. Mertz, Alvin Mushkatel, K. David Pijawka and Paul Slovic) Westview Press (1995).

Economic Principles: Macroeconomic Theory and Policy (with Fred R. Leonard) MacMillan (1971).

***Selected Articles Published***

"Recent Developments in Natural Resource Damage Claims: Smoke or Fire?" (with Suzanne M. Stuckwisch), Environmental Compliance & Litigation Strategy, Vol. 15, No. 10, March 2000.

"Creating Value--and Profits--from Contaminated Real Estate" (with William V. Trefethen), Workouts & Asset Management, Vol. 5, No. 1, October 1996.

"Risk Factors in the Appraisal of Contaminated Property" (with Thomas O. Jackson), The Appraisal Journal, Vol. 64, No. 1, January 1996; 44-58.

"The Emerging Market in Contaminated Real Property," California Environmental Compliance Monitor, Vol. 5, No. 24, 320-322, October 16, 1995.

"Quantifying Contamination's Effects on Residential Property Values" (with Sue Ann Adams), Environmental Compliance & Litigation Strategy, September 1995; 4-6.

"Valuation Issues - Assessing Value of Environmentally Impaired Properties" (with Jeffre Beatty and Robert Ecker), as a chapter in Environmental Aspects of Real Estate Transactions, published by the ABA Section of Natural Resources, Energy and Environmental Law, 1995.

"Supporting Appropriate Adjustments in Large Scale Condemnation Actions" (with Daniel Sorrells), The Appraisal Journal, October 1994.

"Property Value Diminution: Residential and Commercial Cases Demand Different Approaches" (with Jeffre B. Beatty), Environmental Compliance & Litigation Strategy, February 1994; 4-7.

"Issues in the Valuation of Contaminated Property" (with Scott A. Roehr), The Appraisal Journal, Vol.61, No.1, January 1993; 28-41.

"Perceived Risk, Stigma, and Potential Economic Impacts of a High-Level Nuclear Waste Repository in Nevada" (with Paul Slovic et al), Risk Analysis, Vol. II, No. 4, 1991; 683-696.

"A Methodology for Valuing Contaminated Property" (with Steve Pritulsky, Scott Roehr, and Dan Sorrells), Land Rights News, November 1991.

"Contributions of Real Estate Economics to Right-of-Way Acquisition and Valuation" (with S. Pritulsky and D. Sorrells), Right-of-Way, June 1991; 8-13.



“Impacts of Nuclear Generating Plants on Local Areas” (with D. Pijawka), Economic Geography, Vol. 59, No. 1, January 1983; 66-80.

“Evaluation of Underutilized Resources in Water Resource Development” (with J.R. Threadgill), Water Resources Research, 1981.

“Integrating Planning and Assessment through Public Involvement” (with James L. Creighton and Kristi Branch), Environmental Impact Assessment Review, Vol. 1, No. 4; 349-353, April 1981.

“An Empirical Model of Spatial Interaction in Sparsely Populated Regions” (with E.J. Anderson, T. Beckhelm, and W. Hannigan), International Regional Science Review, Vol. 3, No. 1, Fall 1978.

“Some Thoughts on the Rural to Urban Migration Turnaround” (with M.J. Greenwood), International Regional Science Review, Vol. 2, No. 2, Spring 1978.

“The Role of Spatial Relationships in Assessing Social and Economic Impacts of Large-Scale Construction Projects,” National Resources Journal, Vol. 17; 209-222, April 1977.

“Shift and Share and the Theory of Industrial Location” (with T. Beckhelm), Regional Studies, Vol. 10; 15-23, 1976.

04/15/08

**APPENDIX B: TRANSMISSION LINE STATISTICAL STUDIES REVIEWED**

CALLANAN 1995 ..... 1  
COLWELL 1990 ..... 2  
COLWELL 1979 ..... 3  
COWGER 1996 ..... 4  
DES ROSIERS 2002 ..... 5  
HAIDER 1999 ..... 6  
HAMILTON 1993 ..... 7  
HAMILTON 1995 ..... 8  
IGNELZI 1991 ..... 9  
KINNARD 1997: NEVADA STUDY ..... 10  
KINNARD 1997: MISSOURI STUDY ..... 11  
KINNARD 1989 ..... 12  
KINNARD 1988 ..... 13  
KINNARD 1984 ..... 14  
MITCHELL 1996 ..... 15  
WOLVERTON 2003 ..... 16

APPENDIX B

STATISTICAL ANALYSIS OF SALES – CALLANAN 1995	
Author	Callanan, Judith and R.V. Hargreaves
Title	“The Effect of Transmission Lines on Property Values: A Statistical Analysis”
Source	<i>New Zealand Valuers Journal</i> , June 1995
Study Area	Suburb of Newlands in the city of Wellington, New Zealand
Transmission Lines	Two sets of high-voltage transmission lines transecting a suburb: i) Takapau line was erected in 1924 and upgraded in 1983 (runs through east side of town), and ii) Hayward line erected in 1931 and upgraded in 1981 (runs along south east corner of town). Both lines are a prominent part of the suburb. There is no ROW in New Zealand. Pylons are located on private property and the lines run over private properties.
Sales Data	330 sales of properties within 300 meters of the transmission lines over a 10-year period from 1/1/83 to 1/31/93. <sup>1</sup>
Distance Zones	Distance, both to the lines and to the pylons, is a continuous variable.
Hypotheses Tested	Any effect on property values due to proximity to transmission lines or pylons?
Functional Form	Linear model <sup>2</sup>
Independent Variables	Floor area, lot size, time, condition, neighborhood, panoramic view, age and proximity variables
Results	<ul style="list-style-type: none"> <li>➤ R<sup>2</sup> of 74%</li> <li>➤ No effect of proximity to lines; for properties directly under the lines, an effect of less than one percent</li> <li>➤ Consistent negative effect for proximity to pylons; for Hayward line, decrease in property values of 2.7% at 100m, 5.4% at 50m and 13.6 % at 20m</li> <li>➤ Less of an effect of pylon proximity on the Takapu line</li> </ul>

<sup>1</sup> Ultimately, only 5 years worth of data was used in the study.

<sup>2</sup> The dependent variable is represented in terms of inflation-adjusted sales price.

**APPENDIX B**

<b>STATISTICAL ANALYSIS OF SALES – COLWELL 1990</b>	
Author	Colwell, Peter F.
Title	“Power Lines and Land Value”
Source	<i>Journal of Real Estate Research</i> , Spring 1990
Study Area	Decatur, Illinois
Transmission Lines	Double-circuit 138 kV lines with lattice steel towers; ROW consists of a 50’ easement
Sales Data	200 sales over a period from 1/1/68 to 10/31/78; all properties are within 400 feet of the centerline
Distance Zones	Continuous distance to transmission line variable
Hypotheses Tested	<ul style="list-style-type: none"> <li>➤ Any effect on value due to proximity to line?</li> <li>➤ Any effect on value due to easement (holding distance constant)?</li> <li>➤ Any effect on value due to proximity to towers?</li> <li>➤ Any change in effects over time?</li> </ul>
Functional Form	Log-Log Model <sup>3</sup>
Independent Variables	Distance to line, distance to tower, easement on property, time, neighborhood, lot size, building size, number of bathrooms, basement, garage size and deck variables
Results	<ul style="list-style-type: none"> <li>➤ R<sup>2</sup> of 77%</li> <li>➤ Negative proximity effect of approximately 6% at 50 feet from center line; declining rapidly to about 2% at 200 feet</li> <li>➤ Over a 10-year period, negative proximity effect dissipated<sup>4</sup></li> <li>➤ No evidence of effect due to proximity to tower</li> <li>➤ There is evidence of a negative effect associated with the easement as well as a distance effect. That is, a property 50 feet from the line with the easement would be more affected than a property at the same distance without an easement.</li> </ul>

<sup>3</sup> Both dependent and continuous independent variables are in natural logarithms. The Log-Log transformation models the tendency of the dependent variable to change by Beta percent when a continuous independent variable (holding all other independent variables equal) changes by one percent.

<sup>4</sup> The lines were constructed well before 1/1/68, so this is simply a decay in the market effect over time (perhaps due to vegetative growth or familiarity) not a before/after comparison.

**APPENDIX B**

<b>STATISTICAL ANALYSIS OF SALES – COLWELL 1979</b>	
Author	Colwell, Peter F. and Kenneth W. Foley
Title	“Electric Transmission Lines and the Selling Price of Residential Property”
Source	<i>The Appraisal Journal</i> , October 1979
Study Area	Decatur, Illinois
Transmission Lines	Double-circuit 138 kV lines with lattice steel towers; ROW consists of a 50' easement
Sales Data	200 transfers over a period from 1/1/68 to 10/31/78; all properties are within 400 feet of the center line
Distance Zones	Continuous distance to transmission line variable
Hypotheses Tested	<ul style="list-style-type: none"> <li>➤ Any effect on value due to proximity to line?</li> <li>➤ Any effect on value due to tower on property?</li> </ul>
Functional Form	Log-Log Model
Independent Variables	Distance to line, tower on property, time, neighborhood, lot size, building size, number of bathrooms, basement, garage size and deck variables
Results	<ul style="list-style-type: none"> <li>➤ R<sup>2</sup> of 75%</li> <li>➤ Negative proximity effect; about 9% at 50 feet from the center line declining rapidly to about 3% at 200 feet</li> <li>➤ No evidence of tower effect</li> </ul>

**APPENDIX B**

<b>STATISTICAL ANALYSIS OF SALES – COWGER 1996</b>	
Author	Cowger, J.R., Steven C. Bottemiller and James M. Cahill
Title	“Transmission Line Impact on Residential Property Values: A Study of Three Pacific Northwest Metropolitan Communities”
Source	<i>Right of Way</i> , September/October 1996
Study Area	Portland, Oregon; Vancouver and Seattle, Washington
Transmission Lines	16 Bonneville Power Authority high voltage transmission lines varying between 115 kV and 500 kV. One line with concrete poles, one line with H-frame wood structures, and 14 lines with lattice steel towers. Either the structures or the conductors were clearly visible from the subject properties.
Sales Data	281 residential sales abutting the BPA lines over a period from 1990 to 1991 and a matched sale for each subject sale.
Distance Zones	Sales were categorized as either subject (abutting the transmission lines) or control (unaffected by proximity to transmission lines)
Hypothesis Tested	Any effect of transmission lines on value as evidenced by matched pairs of subject and control sales?
Functional Form	Statistical analysis of a large number of matched pairs
Independent Variables	Control matches for the subject properties were selected based on time, market, sale terms, lot size, residence size, condition, age, number of bedrooms, number of bathrooms, number of rooms, garage size, landscaping, other improvements and zoning variables
Results	<ul style="list-style-type: none"> <li>➤ Portland: mean of subject sales was 1.46% greater than control sales</li> <li>➤ Vancouver: mean of subject sales was 1.05% less than control sales</li> <li>➤ Seattle: mean of subject sales was 1.00% less than control sales</li> <li>➤ None of the subject means were significantly different from the control means at the 95% level</li> <li>➤ Differences between individual pairs of subject and control showed no relationship to distance of the subject from the transmission line</li> </ul>

**APPENDIX B**

<b>STATISTICAL ANALYSIS OF SALES – DES ROSIERS 2002</b>	
Author	Des Rosiers, Francois
Title	“Power Lines, Visual Encumbrance and House Values: A Micro-Spatial Approach to Impact Measurement”
Source	Accepted by <i>Journal of Real Estate Research</i> , January 2002
Study Area	Brossard, located in the Greater Montreal area, Canada
Transmission Lines	315kV transmission line running through center of three distinct neighborhoods. Corridor is two miles long and 200 feet wide with “Improved Visual Appearance” conical steel pylons reaching, in most cases, between 155 and 175 feet in height.
Sales Data	507 sales of single-family homes over a period from 2/91 to 11/96
Distance Zones	Sales were categorized by distance from the easement, distance from the line, distance from the pylons, view of the pylon (limited, moderate or pronounced and rear, side or front) and view of the line.
Hypotheses Tested	<ul style="list-style-type: none"> <li>➤ Does proximity to the line or easement affect value?</li> <li>➤ Does proximity to a pylon affect value?</li> <li>➤ Does view of the line or pylons affect value?</li> <li>➤ Is there any apparent effect on value of publication of the Swedish leukemia studies?</li> </ul>
Functional Form	Log-linear and linear Regression Models
Independent Variables	Age, lot size, living area, basement area, siding, landscaping, cabinets, floors, air conditioning, kitchen features, pool, garage, door, house style, neighborhood, property tax rate, service area, view and distance variables
Results	<ul style="list-style-type: none"> <li>➤ Direct view of a pylon can have a significant negative effect on value. The effect averages 10% with greater effects where the setback to the tower is narrow and greater with higher value homes</li> <li>➤ Similarly, a direct view of the conductors will reduce value by 5-10%</li> <li>➤ Rear or side views on the other hand tend to increase value due to greater view corridors. Net effects are negative and max at 5-12% of value at 165-325 feet and tend to disappear beyond 500 feet.</li> <li>➤ No effect of the Swedish studies was observed</li> </ul>

**APPENDIX B**

<b>STATISTICAL ANALYSIS OF SALES – HAIDER 1999</b>	
Author	Haider, Murtaza
Title	“Influence of Power Lines on Freehold Property Value in the Greater Toronto Area”
Source	University of Toronto, Series in Spatial Econometrics, Jan. 2000
Study Area	Greater Toronto Metro Area
Transmission Lines	All HVTL’s in the Toronto Area were used
Sales Data	A total of 27,400 sales in calendar 1995
Distance Zones	Zones around all HVTL in the Toronto metro area were established at 100m intervals out to 500m, and at larger intervals out to 3000m.
Hypotheses Tested	<ul style="list-style-type: none"> <li>➤ Considerable emphasis on comparing ordinary least squares specification with spatial auto-regressive specification.</li> <li>➤ Basic question was effect of proximity to HVTL’s on home values.</li> </ul>
Functional Form	Semi log model with spatial auto-regressive specification
Independent Variables	Number of rooms, bedrooms, bathrooms, parking capacity, distance from CBD, average income in CT, spatial autoregressive variable, fireplace, air-conditioning, detached, multiple story
Results	<ul style="list-style-type: none"> <li>➤ OLS results showed 4-6% decrease in value, with no effects beyond 500m</li> <li>➤ The spatial autoregressive model seems to produce better results in general. The only reported result for a distance zone is a 3.1% decrease in value in the 0-100m zone relative to property more than 3000m from a line.</li> </ul>



**APPENDIX B**

<b>STATISTICAL ANALYSIS OF SALES – HAMILTON 1993</b>	
Author	Hamilton, S.W. and Cameron Carruthers
Title	“The Effects of Transmission Lines on Property Values in Residential Areas”
Source	Research Paper, April, 1993
Study Area	Five residential neighborhoods in Vancouver, British Columbia
Transmission Lines	Coverdale – Two 500kV and one 230kV lines on lattice steel structures in a 140m ROW: <ul style="list-style-type: none"> <li>➤ Newton (East/West) – Same lines as Coverdale</li> <li>➤ Newton (North/South) – Two transmission lines</li> <li>➤ Walnut Grove – 60kV line on wood poles</li> <li>➤ North Vancouver – Two 230kV lines on lattice steel structures</li> </ul>
Sales Data	15,663 transfers of single-family detached units over the period 1/1/85 to 12/31/91. Of these, 2,698 sales are within 270m of the transmissions lines, 171 are within the ROW, and 289 are adjacent, but not in the ROW.
Distance Zones	Sales were categorized 0-120, 121-170, 171-220, 221-270 and greater than 270 meters. <sup>5</sup>
Hypotheses Tested	<ul style="list-style-type: none"> <li>➤ Any effect on value by distance?</li> <li>➤ Any effect on value by distance zone?</li> <li>➤ Any effect on value by visibility?</li> <li>➤ Any diminishing effects on value over time?</li> </ul>
Functional Form	Log-Log Model
Independent Variables	Continuous distance variable, distance zones, property in or adjacent to ROW, line or structure visible, number of structures visible, age, living area, lot area, number of rooms, baths, bedrooms, fireplaces, pool, garage, sidewalks, corner lot, time and neighborhood variables
Results	<ul style="list-style-type: none"> <li>➤ R<sup>2</sup> of 84%</li> <li>➤ Negative proximity effect of 3-4% in zone 1, and 1-2% in zone 2 compared to Zone 5</li> <li>➤ In general no statistical effect in Zones 3 and 4</li> <li>➤ No effect of adjacency, beyond the distance effect</li> <li>➤ Properties within the ROW showed less of a negative effect than zone 1</li> </ul>

<sup>5</sup> The Zones are observed in 50-meter bands. The first Zone includes the 50-meter band and the 70-meter average distance from the center of the right of way to its boundary.

**APPENDIX B**

<b>STATISTICAL ANALYSIS OF SALES – HAMILTON 1995</b>	
Author	Hamilton, S.W. and Gregory M. Schwann
Title	“Do High Voltage Electric Transmission Lines Affect Property Value?”
Source	<i>Land Economics</i> , November 1995
Study Area	Four neighborhoods in Vancouver, BC
Transmission Lines	Two neighborhoods have a 140m ROW with two 500 kV lines and a 230 kV line, all on steel towers. One neighborhood has two lines, each on steel towers and one neighborhood has a 60 kV line on wood poles.
Sales Data	All sales of single-family detached residences over the period 1985-1991 in the four neighborhoods. This resulted in a total of 12,907 sales of which 426 were adjacent to the ROW and 2364 were not adjacent but within 200m of the ROW.
Distance Zones	Distance was measured as a continuous variable from the property to the centerline of the ROW
Hypotheses Tested	<ul style="list-style-type: none"> <li>➤ Any effect of tower visibility on property value?</li> <li>➤ Any effect of distance to transmission lines on value?</li> <li>➤ Any combined effect of tower visibility and proximity?</li> </ul>
Functional Form	Extensive discussion of appropriate functional form; ultimately used a Box-Cox model
Independent Variabls	Distance, abutting ROW, within ROW, towers visible, lines visible, garage, pool, curb, corner lot, age, # of fireplaces, basement rooms, bedrooms, full baths
Results	<ul style="list-style-type: none"> <li>➤ Adjacent properties suffer a 5.7% decrease due to tower visibility and 5.8% from proximity or 6.3% in combination</li> <li>➤ Properties non-adjacent but within 200 m of the lines suffer no visibility effect from the towers but a small decrease due to proximity. The combined visibility and proximity effects are about 1%</li> </ul>

**APPENDIX B**

<b>STATISTICAL ANALYSIS OF SALES – IGNELZI 1991</b>	
Author	Ignelzi, Patrice C. and Thomas Priestley
Title	“A Statistical Analysis of Transmission Line Impacts on Residential Property Values in Six Neighborhoods”
Source	Southern California Edison – Environmental Affairs, 1991
Study Area	Eight neighborhoods in Vallejo and other communities, Solano County, California
Transmission Lines	Study focused on the before and after effects of upgrading a 115 kV line to a combined 115/230 kV line. The 115 kV line was on 60’ lattice steel towers while the new line was on 165’ steel poles. The ROW varied in width but was generally 100’ but the extent of landscaping, fencing and use varied considerably from area to area.
Sales Data	There were six new neighborhoods plus two original neighborhoods yielding a total of 1,816 sales from 1976 through December 1989. The sales data were inflation adjusted.
Distance Zones	Five distance zones: 0-300’, 301-600’, 601-900’, 901-1500’, and over 1500’
Hypothesis Tested	<ul style="list-style-type: none"> <li>➤ Are there effects on value of proximity to the line?</li> <li>➤ Is there an effect on value due to number of towers visible?</li> <li>➤ Is there an effect, independent of proximity if the ROW crosses a property?</li> <li>➤ Is there and effect on value associated with upgrade of the line?</li> </ul>
Functional Form	Linear
Independent Variables	Lot size, living area, street type, steepness of street, panoramic view, proxy for house quality
Results	<ul style="list-style-type: none"> <li>➤ R<sup>2</sup> of 84%</li> <li>➤ Upgrading effect is negative affecting value by 4-9% at 300’ from centerline</li> <li>➤ Evidence that the upgrading effect diminishes over time and is gone in 4-5 years</li> <li>➤ Sign and significance of distance to line vary by neighborhood. ROW’s developed for recreational use may have positive effects</li> <li>➤ Easement on property has negative effect</li> <li>➤ No significant effect on value of line or tower visibility</li> </ul>

**APPENDIX B**

<b>STATISTICAL ANALYSIS OF SALES – KINNARD 1997: NEVADA STUDY</b>	
Author	Kinnard, William N., Mary Beth Geckler and Jake V. DeLottie
Title	“Post-1992 Evidence of EMF Impacts on Nearby Residential Property Values”
Source	Real Estate Counseling Group of Connecticut, April 1997
Study Area	Sun City, Nevada
Transmission Lines	138 kV line with 3 double circuits on 90’ concrete poles. Line is in the middle of an arterial street about 35’ north of Sun City boundary. Lines and poles are visible throughout Sun City. The line was completed in August 1991.
Sales Data	4,269 transfers of single-family residences from 199 to 1996
Distance Zones	Sales were categorized by distance zones: 0-200’, 201-400’, 401-800’, 801-1320’, 1321-2640’ and greater than 2641’.
Hypotheses Tested	<ul style="list-style-type: none"> <li>➤ Any effect on value before /after construction 8/91?</li> <li>➤ Any effect on value before/after Swedish health effects study 1/1/93?</li> <li>➤ Any effect on value by distance zone?</li> </ul>
Functional Form	Log-Log Model
Independent Variables	Age, living area, lot size, garage size, number of baths, distance zone, fairway lot, greenbelt lot, cul-de-sac Lot, firelace, community entrance lot and time variables
Results	<ul style="list-style-type: none"> <li>➤ High R<sup>2</sup></li> <li>➤ One Model shows a 1% effect on value of homes 0-200’ relative to homes greater than 2,641’</li> <li>➤ No apparent effect due to construction or due to Swedish studies</li> <li>➤ Trends for distance zones show no negative effects of proximity</li> </ul>

APPENDIX I

STATISTICAL ANALYSIS OF SALES – KINARD 1997: MISSOURI STUDY	
Author	Kinnard, William N., May Beth Geckler and Jake W. DeLottie
Title	“Post-1992 Evidence of MF Impacts on Nearby Residential Property Values”
Source	Real Estate Counseling Coup of Connecticut, April 1997
Study Area	Portions of St. Louis and t. Charles Counties, Missouri
Transmission Lines	Four study areas were centered on substations. A fifth study area surrounded a 138 kV line on 90’ steel poles. These facilities were only visible to portions of the study areas and all were built before 1/1/90.
Sales Data	1,377 residential sales over the period 1990 to 1996
Distance Zones	Sales were categorized by distance zones: 0-200’, 201-400’, 401-800’, 801-1,320’ and ,321 or greater
Hypotheses Tested	<ul style="list-style-type: none"> <li>➤ Any effect on value of visibility of lines or substations?</li> <li>➤ Any effect on value before/after Swedish health effects study 1/1/93?</li> <li>➤ Any effect on value by distance zone?</li> </ul>
Functional Form	Appears to be a Log-Log Model
Independent Variables	Age, living area, lot size, garage, number of baths, distance zone, warm air, number of stories, basement, visibility of structures, time variables, distance variables and frame type.
Results	<ul style="list-style-type: none"> <li>➤ High R<sup>2</sup></li> <li>➤ No effects of visibility proximity or Swedish studies.</li> </ul>

**APPENDIX B**

<b>STATISTICAL ANALYSIS OF SALES – KINNARD 1989</b>	
Author	Kinnard, William N., Phillip S. Mitchell and James R. Webb
Title	“The Impact of High Voltage Overhead Transmission Lines on the Value of Real Property”
Source	Research Report, April 1989 (seems to be the same basic research as Study 3)
Study Area	Orange County, New York: Hamptonburgh and Wawayanda
Transmission Lines	Marcy South 345kV overhead transmission lines running between East Fishkill and Marcy extending 200 miles
Sales Data	371 transfers of vacant land over the period 1/1/83 to 12/31/87.
Distance Zones	Sales were categorized 0-300', 301-1600', 1601-2000' and 2001 to 4,000'
Hypothesis Tested	Does proximity to the transmission line have any measurable impact on inflation adjusted value per square foot of vacant land subsequent to October 1, 1985 when final approval for construction was obtained?
Functional Form	Linear
Independent Variables	Lot size, school district/town, land use, distance zone and time variables
Results	<ul style="list-style-type: none"> <li>➤ No evidence that proximity had any impact on price-per-acre</li> <li>➤ Post-announcement values appear to be higher than pre-announcement values, holding distance to the line constant</li> </ul>

**APPENDIX B**

<b>STATISTICAL ANALYSIS OF SALES – KINNARD 1988</b>	
Author	Kinnard William N., MarBeth Geckler, Kinnard and Phillip S. Mitchell
Title	“Effects of Proximity to High-Voltage Electric Transmission Lines on Sales Prices and Market Values of Vacant Land and Single-Family Residential Property: January 1978-June 1988”
Source	Real Estate Counseling Group of Connecticut, 1988
Study Area	Penobscot County, Maine
Transmission Lines	345 kV line, 10 years after construction.
Sales Data	305 residential property sales and 247 vacant property sales.
Distance Zones	
Hypothesis Tested	Is there an effect of proximity to the line on property value?
Functional Form	
Independent Variables	
Results	<ul style="list-style-type: none"> <li>➤ R<sup>2</sup> of 57%</li> <li>➤ No distance zones with significant negative sig</li> <li>➤ No evidence of significant negative effects of the line on value</li> </ul>

**APPENDIX B**

<b>STATISTICAL ANALYSIS OF SALES – KINNARD 1984</b>	
Author	Kinnard, William N., Mary Beth Geckler, Kinnard and Phillip S. Mitchell
Title	“An Analysis of the Impact of High Voltage Electric Transmission Lines on Residential Property Values in Orange County, New York”
Source	Real Estate Counseling Group of Connecticut, 1984
Study Area	Orange County, New York: Hamptonburgh and Wawayanda
Transmission Lines	345 kV line
Sales Data	329 inflation adjusted sales of single-family homes over the period 1972-1984
Distance Zones	
Hypothesis Tested	
Functional Form	
Independent Variables	
Results	<ul style="list-style-type: none"> <li>➤ R<sup>2</sup> of 49%</li> <li>➤ No statistically significant proximity effects</li> </ul>



## APPENDIX B

STATISTICAL ANALYSIS OF SALES – MITCHELL 1996	
Author	Mitchell Phillip S. and William N. Kinnard
Title	“Statistical Analysis of High-Voltage Overhead Transmission Line Construction on the Value of Vacant Land”
Source	<i>Valuation</i> , June 1996.
Study Area	Hamptonburgh and Wawayanda, Orange county, New York
Transmission Lines	345 kV Marcy South electric transmission line runs from Marcy, New York to East Fishkill, New York traversing 200 miles and through 37 townships. Route announced in September, 1985
Sales Data	376 transfers of vacant land over the period 1/1/83 to 12/31/87.
Distance Zones	Sales were categorized by distance zones: 0-300', 301-2000' and 2001 or greater.
Hypotheses Tested	<ul style="list-style-type: none"> <li>➤ Any effect on value per acre by distance zone?</li> <li>➤ Any effect on appreciation rates before/after line construction?</li> </ul>
Functional Form	Linear model <sup>6</sup>
Independent Variables	School district, land use, lot size, distance zone and time
Results	<ul style="list-style-type: none"> <li>➤ R<sup>2</sup> of 70%</li> <li>➤ No effects of proximity</li> <li>➤ Appreciation rates were higher after line construction than before</li> </ul>

<sup>6</sup> The dependent variable is represented in terms of inflation-adjusted sales price per acre.

**APPENDIX B**

<b>STATISTICAL ANALYSIS OF SALES – WOLVERTON 2003</b>	
Author	Wolvenn, Marvin L., and Steven C. Bottemiller
Title	“Further Analysis of Transmission Line Impact on residential Property Values”
Source	<i>The Appraisal Journal</i> , July, 2003
Study Area	Portland Oregon and Vancouver and Seattle, Washington
Transmission Lines	16 high voltage transmission lines varying between 115 kV and 00 kV. One line with concrete poles, one line with H-frame wood structures and 14 lines with lattice steel towers.
Sales Data	712 sales occurring over the period 1989-1992 of which 300 sales abutted a transmission line.
Distance Zones	Sales were characterized as either subject (abutting the transmission line) or control (not abutting a transmission line right-of-way)
Hypotheses Tested	<ul style="list-style-type: none"> <li>➤ Is there a negative effect on value for homes abutting a transmission line right-of-way?</li> <li>➤ Are there adverse appreciation effects for abutting relative to non-abutting properties?</li> </ul>
Functional Form	Both semi-log and linear regression models
Independent Variables	Date of sale, site and site improvement variables, location variable, building improvement variables, and abutting transmission line variable
Results	<ul style="list-style-type: none"> <li>➤ No evident price sensitivity to abutting a high voltage transmission line right-of-way</li> <li>➤ No evidence of differential appreciation over time for properties abutting transmission lines compared to non-abutting properties</li> </ul>

APPENDIX C: HOMEOWNER SURVEY STUDIES REVIEWED

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PRIESTLY 1990 ..... 2  
KUNG 1992..... 3  
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## APPENDIX C

HOMEOWNER SURVEY STUDY – KINNARD 1967	
Author	Kinnard, William N.
Title	“Tower Lines and Residential Property Values”
Source	<i>The Appraisal Journal</i> , April 1967
Study Area	17 subdivisions in 9 towns around Hartford in central Connecticut
Transmission Line	Multiple lines including both lattice steel and wooden H-frame towers
Data	377 property owners responded, all being within 200’ of the transmission line ROW ( $R^2$ of 46%)
Results	<ul style="list-style-type: none"><li>➤ 79.9% of respondents aware of transmission lines at time of purchase</li><li>➤ 76.3% report no effect of lines on purchase decision or on price</li></ul>

APPENDIX C

HOMEOWNER SURVEY STUDY – PRIESTLY 1990	
Author	Priestly, Thomas and Gary Evans
Title	“Perceptions of a Transmission Line in a Residential Neighborhood: Results of a Case Study in Vallejo, California”
Source	Southern California Edison Environmental Affairs Division, December 1990
Study Area	City of Vallejo, Solano County, California
Transmission Line	115 kV line on 60’ lattice steel towers upgraded to 115 kV/230 kV on 160’ steel poles in a 100’ wide ROW
Data	270 households within 900’ of line including homes built both before and after line was upgraded; survey was administered in 1987 (R <sup>2</sup> of 60%)
Results	<ul style="list-style-type: none"> <li>➤ Most respondents see TL’s as a negative element</li> <li>➤ Those living in the area when the TL was built are more likely to see it as negative</li> <li>➤ Factors predicting opposition include distance, line-view and higher occupational status</li> <li>➤ Many respondents overestimate how much of the line they could see</li> <li>➤ Health and safety issues are of greatest concern followed by property value concerns and aesthetic concerns</li> <li>➤ The more the respondents use the ROW, the less their concerns</li> </ul>

## APPENDIX C

<b>HOMEOWNER SURVEY STUDY – KUNG 1992</b>	
Author	Kung, Hsiang-te and Charles F. Seagle
Title	“Impact of Power Transmission Lines on Property Values: A Case Study”
Source	<i>The Appraisal Journal</i> , July 1992
Study Area	Memphis and Shelby Counties, Tennessee
Transmission Line	Various high voltage transmission lines in the two-county area
Data	47 responses ( $R^2$ of 59%)
Results	<ul style="list-style-type: none"> <li>➤ 53% of respondents considered TL’s an eyesore, remaining 47% did not</li> <li>➤ None of the survey respondents considered it a health hazard</li> <li>➤ Of the 53% who considered the lines an eyesore, 72% said the price they were willing to pay was unaffected</li> </ul>

## APPENDIX C

<b>HOMEOWNER SURVEY STUDY – BOND 1996</b>	
Author	Bond, S.G.
Title	“The Impact of Transmission Lines on Property Values”
Source	ARES Twelfth American Real Estate Society Conference, South Lake Tahoe, March 1996
Study Area	Newlands, a suburb of Wellington, New Zealand
Transmission Line	Study area is crossed by two 110 kV lines on 26m steel pylons located on private property; two distance zones: i) 0-50m (close), and ii) 51-300m. Most of the development occurred subsequent to the construction of the lines.
Data	Approximately 460 respondents ( $R^2$ of 58%)
Results	<ul style="list-style-type: none"> <li>➤ 25.5% of respondents have very negative feelings about HVTL's, 37.6% have somewhat negative feelings and 32.8% have no strong feelings one way or the other</li> <li>➤ Concerns are aesthetics, noise, and health and safety</li> <li>➤ The HVTL's created reservations about buying with 29.5% of the respondents while 70.6% of those responding indicated no influence or increased interest in buying</li> <li>➤ Impact on price was suggested by 19.9% while 80.1% maintained that there was no effect on purchase price</li> </ul>

## APPENDIX C

<b>HOMEOWNER SURVEY STUDY – MITTENESS 1998</b>	
Author	Mittiness, Cheryl and Steve Mooney
Title	“Power Line Perceptions: Their Impact on Value and Market Time”
Source	College of Business, St. Cloud State University, 1998
Study Area	Brooklyn Park and Maple Grove, Minnesota
Transmission Line	Various
Data	67 respondents living adjacent to right-of-way or crossed by transmission lines (R <sup>2</sup> of 35.6%)
Results	<ul style="list-style-type: none"> <li>➤ 49% considered the TL’s in making their purchase decision, 51% did not</li> <li>➤ Of those who considered it, 36% lowered their offering price, while for 64% offering price was unaffected</li> <li>➤ Of those who indicated an adjustment in their offering price, the mean adjustment was 4%</li> </ul>