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COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF TELECOMMUNICATIONS AND ENERGY
EFSB 00-1
DTE 00-55, 00-56

PUBLIC HEARING held at the Volpe National
Transportation Building, 55 Broadway Street,
Cambridge, Massachusetts, on Thursday, August 3,
2000, commencing at 7:10 p.m., concerning:

CAMBRIDGE ELECTRIC LIGHT COMPANY
TRANSMISSION LINE

SITTING: Sheila R. McIntyre, Hearing Officer
Jolette A. Westbrook, general counsel
Diedre S. Matthews, director
Miles Keogh, analyst

Reporter: David A. Arsenault, RPR
Farmer Arsenault Brock LLC, Boston, Mass.
(617) 728-4404

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<p style="text-align: right;">2</p> <p>1 APPEARANCES: 2 NSTAR Services Co., General Counsel 3 Mary E. Grover, Esq. 4 80 Boylston Street, P170 5 Boston, Massachusetts 02199 6 617-424-2733 7 8 Anderson & Kreiger, LLP 9 Douglas H. Wilkins, Esq. 10 The Bulfinch Building 11 47 Thorndike Street 12 Cambridge, Massachusetts 02141 13 617-252-6575 14 for City of Cambridge 15 16 17 18 19 20 21 22 23 24</p>	<p style="text-align: right;">4</p> <p>1 matter. To my left is Jolette Westbrook, the 2 general counsel with the Energy Facilities Siting 3 Division. To her left is Miles Keogh, an analyst 4 with the Siting Board. And to his left is Deidre 5 Matthews, the director of the Energy Facilities 6 Siting Division. My opening remarks are designed 7 to provide a brief description of the Siting Board 8 and its review process, explain how individuals can 9 get involved in that process, and establish some 10 guidelines for tonight's public hearing. Following 11 my remarks Cambridge Electric Light will make a 12 brief presentation about its project, after which 13 there will be an opportunity for questions and 14 comments for those who have signed the speaker 15 sign-up sheet. 16 The Siting Board is an administrative 17 agency of the Commonwealth of Massachusetts within 18 but not under the supervision or control of the 19 Department of Telecommunications and Energy, 20 formerly the Department of Public Utilities. The 21 Siting Board has nine members. The chairman is the 22 chairman of the Department of Telecommunications 23 and Energy. The Siting Board's membership also 24 includes two additional commissioners of the</p>
<p style="text-align: right;">3</p> <p>1 PROCEEDINGS - 7:10 p.m. 2 ----- 3 MS. McINTYRE: This is a public 4 hearing held by the Massachusetts Energy Facilities 5 Siting Board in Docket Numbers EFSB 00-1, DTE 00-55 6 and DTE 00-56, petitions filed with the Siting 7 Board and the Department of Telecommunications and 8 Energy on June 22, 2000. These cases have been 9 consolidated and will be heard by the Energy 10 Facilities Siting Board. 11 In its petitions Cambridge Electric 12 Light Company has proposed to construct and operate 13 one new 115-kilovolt underground electric 14 transmission line between Kendall Square Station in 15 Cambridge and Cambridge Electric Light's Putnam 16 bulk substation in Cambridge. In addition, 17 Cambridge Electric Light Company is seeking a 18 determination that the proposed facilities are 19 necessary and will serve the public convenience and 20 be consistent with the public interest and is 21 seeking exemptions from the zoning bylaws of 22 Cambridge. 23 My name is Sheila McIntyre. I have 24 been designated as the hearing officer in this</p>	<p style="text-align: right;">5</p> <p>1 Department, the director of Economic Development, 2 the secretary of Environmental Affairs, the 3 commissioner of the Division of Energy Resources, 4 and three public members appointed by the governor. 5 One of the principal functions of the 6 Siting Board is to review proposals for the 7 construction of electric transmission lines such as 8 the one proposed by Cambridge Electric Light 9 Company. The Siting Board's approval is required 10 before construction permits may be issued by other 11 state and local authorities. Copies of a three- 12 page informational handout which answers questions 13 about the Siting Board review process are available 14 at the front of the room. 15 As a preliminary matter I would like 16 to emphasize that tonight's hearing constitutes the 17 beginning of the Siting Board's review of the 18 petitions filed by Cambridge Electric Light. 19 Earlier today the Siting Division's staff reviewed 20 the route of the proposed transmission line. Over 21 the course of the next few months the Siting Board 22 will require Cambridge Light Company to provide the 23 Board with detailed information regarding the 24 proposed project, information more detailed than is</p>

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<p style="text-align: right;">6</p> <p>1 contained in Cambridge Electric Light's petition or 2 which will be presented by the proponent tonight. 3 Please note that the petition 4 Cambridge Electric Light Company filed to start 5 this procedure is available for your inspection at 6 the Cambridge City Clerk's office and the Cambridge 7 Public Library located at 449 Broadway. 8 After the completion of its initial 9 information-gathering process, referred to as 10 discovery, the Siting Division will conduct 11 evidentiary hearings in Boston. During these 12 hearings the Siting Board and any other parties to 13 the case will have the opportunity to examine 14 Cambridge Electric Light Company's witnesses under 15 oath and to ask the company to provide additional 16 information to the Board and to the parties to the 17 proceeding. The Board will make its decision to 18 approve or deny a project only after the discovery 19 process and the evidentiary hearings have 20 concluded. 21 This public hearing is a very 22 important source of information for the Siting 23 Board regarding issues of concern to the host and 24 surrounding communities with respect to this</p>	<p style="text-align: right;">8</p> <p>1 variations thereto. Counsel for Cambridge Electric 2 Light Company has provided me with sworn 3 confirmation of notice of tonight's hearing which 4 they provided to local property owners. 5 As I mentioned earlier, this public 6 hearing will be followed by a comprehensive 7 adjudicatory proceeding, including evidentiary 8 hearings to be held in Boston. During the 9 evidentiary hearings Cambridge Electric Light 10 Company will be required to prove that its 11 transmission line will provide a necessary energy 12 supply for the Commonwealth with a minimum impact 13 on the environment at the lowest possible cost. 14 Cambridge Electric Light will also have to show 15 that its proposed transmission line is necessary 16 for the convenience and welfare of the public. 17 The only parties who are entitled to 18 be fully involved in the evidentiary hearings 19 regarding the proposed project are the Board, 20 Cambridge Electric Light Company and any person who 21 meets the statutory requirement of being 22 substantially and specifically affected by the 23 proceeding and is formally granted status as an 24 intervenor by the hearing officer. An intervenor</p>
<p style="text-align: right;">7</p> <p>1 proposed project. The Siting Board public 2 hearings, including tonight's hearing, have three 3 main purposes: to provide members of the public, 4 particularly those who live in the area where a 5 proposed project would be located, with information 6 regarding the project and its potential impacts; to 7 provide information regarding the process the 8 Siting Board will follow in its review of the 9 proposed project; and to afford an opportunity for 10 public comment on the proposal. 11 In order to ensure those most likely 12 to be impacted by the proposed project have the 13 opportunity to comment, the Siting Board sent 14 copies of the public hearing notice to various 15 state and local officials. The Siting Board also 16 required the project applicant to provide extensive 17 notice of the hearing. In this case, for example, 18 Cambridge Electric Light Company was required to 19 publish notice of the hearing for three consecutive 20 weeks in the Boston Globe and the Boston Herald. 21 Further, Cambridge Electric Light Company was 22 required to mail notice of the hearing to all 23 property owners within 300 feet of the preferred 24 and alternate transmission routes, including</p>	<p style="text-align: right;">9</p> <p>1 has the right among other things to request 2 information from other parties, to offer evidence, 3 to present witnesses, to cross-examine witnesses, 4 to submit a brief at the conclusion of the 5 proceeding and to appeal the Board's decision to 6 the Supreme Judicial Court. An interested person's 7 role is more limited than that of an intervenor. 8 For example, he or she may not put witnesses on the 9 stand or cross-examine other parties' witnesses, 10 but may file a brief at the end of the hearings. 11 An interested person does not have the right to 12 appeal the Siting Board's decision. 13 Any person who wishes to become 14 involved in the evidentiary hearings as either an 15 intervenor or an interested person must file a 16 petition in accordance with the Siting Board 17 regulations in which a request for status as an 18 intervenor or interested person is made. Copies of 19 the Siting Board regulations for intervention and 20 participation are available this evening at the 21 front of the room. Please note the very strict 22 deadline for filing a petition to become an 23 intervenor or interested person. All petitions 24 must be filed no later than 5:00 p.m. on Thursday,</p>

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<p style="text-align: right;">10</p> <p>1 August 17th of the year 2000. Petitions filed 2 after the deadline has passed are generally denied. 3 I also want to note that a petition 4 to intervene must meet very precise requirements 5 set out in the Siting Board's regulations. While 6 not required, we would strongly advise that persons 7 wishing to file petitions to intervene or 8 participate consult with an attorney. 9 If you decide to petition to become 10 an intervenor or an interested person, in addition 11 to filing your petition with the Siting Board you 12 must also send a copy of your petition to Cambridge 13 Electric Light Company's attorney, Mary Grover, at 14 800 Boylston Street, Boston, Massachusetts, 02199. 15 Tonight I will first call on 16 Cambridge Electric Light Company to describe 17 briefly the proposed project. After Cambridge 18 Electric Light Company's presentation, I will 19 provide an opportunity for questions and comments 20 from those present. I will first call on any state 21 or local official who may be present, followed by 22 the members of the public in the order in which 23 they signed the speakers' list. If you have not 24 signed the speakers' list and wish to comment or</p>	<p style="text-align: right;">12</p> <p>1 Officer. My name is Mary E. Grover, attorney for 2 Cambridge Electric Light Company, 800 Boylston 3 Street, Boston, Massachusetts, 02199. 4 We thank you for this opportunity to 5 speak to the community at this public hearing. We 6 will make our comments brief. I do want to make a 7 couple of short introductions and tell you that 8 Norm Cowden, a representative from Southern 9 Company, Southern Energy Kendall, specifically is 10 here to describe for the audience briefly the 11 project that this transmission line is being 12 constructed for. It is to support the Southern 13 Energy Kendall repowering project. 14 At this time I would like to briefly 15 introduce some of the Cambridge Electric Light 16 folks who are here to answer any questions that 17 might come up, particularly after the hearing and 18 during the hearing if that is helpful. 19 Bill Zamparelli is our community 20 relations and economic development representative 21 here in Cambridge. Beverly Shultz is a senior 22 environmental engineer with the company. Y. Oktay 23 is the lead engineer and project manager for this 24 project. Charlie Salamone is our manager of system</p>
<p style="text-align: right;">11</p> <p>1 ask a question, please add your name to the list at 2 this time. 3 Tonight's public hearing is being 4 recorded by a court reporter. The transcript will 5 become a part of the file in this case. A copy of 6 this transcript will be available with the filing 7 Cambridge Electric Light Company has deposited for 8 the public's inspection at the Cambridge City 9 Clerk's office and the Cambridge Library. Before 10 you speak I would ask you to state your name and 11 address and spell your last name. This will make 12 the record clearer and make the job of our court 13 reporter a little easier. 14 Also, please remember that because 15 the court reporter can only transcribe the words of 16 one person at a time, only one person should speak 17 at a time. The Siting Division's staff will stay 18 here as long as it takes to hear your comments. 19 You are also welcome to provide written comments to 20 the Division. 21 At this time I would ask the company 22 for their appearance and for your presentation. 23 Thank you for your attention. 24 MS. GROVER: Thank you, Madam Hearing</p>	<p style="text-align: right;">13</p> <p>1 planning. Greg Sullivan is our director of asset 2 strategy in the transmission area. Bob Connors is 3 our lead engineer dealing with the right-of-way and 4 easement issues. 5 We also have consultants from Earth 6 Tech here with us. Earth Tech is an environmental 7 consulting firm that helped us in preparing the 8 filing. Joe Freeman is the manager. With him are 9 Bill Gibbons, Mark Slade and Abby Thomas. 10 At this time I would like to 11 introduce Norm Cowden and ask him to describe the 12 generation project. Shortly after that Greg 13 Sullivan will give an overhead slide presentation 14 of our analysis for the transmission line project. 15 MR. COWDEN: Thank you. My name is 16 Norm Cowden. I'm the project director for the 17 Kendall Square equipment upgrade project. This 18 transmission line that is the subject of the 19 hearing tonight is being triggered by our facility 20 development and the upgrade that we are doing in 21 our facility. Southern Company purchased the 22 Kendall Square station at the end of 1998 with the 23 intent of upgrading the plant. This equipment 24 upgrade project will do three things: It will</p>

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<p style="text-align: right;">14</p> <p>1 improve the efficiency through combined socket 2 technology. It will increase the steam capacity 3 and increase the electrical capacity. 4 The project offers several community 5 benefits, including the reduction of the sulfur 6 dioxides and nitrous oxides that are air 7 pollutants, and every other air pollutant that 8 comes from the facility will be, as far as the 9 concentration on the ground that people breathe, 10 will actually be reduced. 11 The facility will improve the habitat 12 of the Charles River. Part of our project includes 13 a new facility out in the river to increase the 14 aeration in the bottom of the river, which is 15 currently a problem. The facility will also bring 16 a canalside walkway, which will be a pathway from 17 the Charles River area back in to the new 18 developments that are coming back adjacent to our 19 property along the canal. Again, this transmission 20 line is being built to facilitate our project, and 21 our project is the subject of another Siting Board 22 process that is currently ongoing. 23 Thank you very much. 24 MR. SULLIVAN: My name is Greg</p>	<p style="text-align: right;">16</p> <p>1 the Putnam Ave. station of Cambridge Electric. 2 Why is the project needed? As Norm 3 touched upon, the Kendall Station is part of 4 Southern Energy's upgrade. Its electrical output 5 capability will increase from 64 megawatts to 237 6 megawatts. This far exceeds the capability of the 7 distribution system to carry that power away from 8 the plant. Further, the plant requires access to 9 the transmission grid of New England in order to 10 access that market through the transmission system 11 and through that market make that market more 12 viable and produce more choices for consumers. 13 Kendall was one end of the line. The 14 issue was to determine what the other end of the 15 line would be. The factors that we considered in 16 looking at substations and transmission facilities 17 in the area were, that we looked for were: minimal 18 station upgrades, minimizing the environmental 19 impact with the need to expand the station 20 facility. What would be the most compatible with 21 the grid and have positive impact on reliability. 22 What technical issues of feasibility would be 23 involved and the least expensive. By all measures 24 the Putnam Station was the hands-down winner in</p>
<p style="text-align: right;">15</p> <p>1 Sullivan. I'm the director of transmission asset 2 strategy with Cambridge Electric. I would like to 3 take these moments to give you a brief overview. 4 We are here to speak about the transmission line 5 that's being proposed. First I thought I would 6 give you a brief outline of several aspects that I 7 will address this evening. I will touch on the 8 issue of the project itself, its need, how the 9 destination points were determined that are 10 associated with the line, the criteria used in 11 considering the development of transmission route 12 alternatives, what those alternatives were, how 13 those routes were then further assessed. Finally 14 I'll conclude with some comments regarding the 15 impacts of construction. 16 What is the proposal? The proposal 17 is for a 2.5-mile-long underground electric 18 transmission line within Cambridge. It will be 19 composed of solid dielectric cable, single-phase 20 cables. They do not contain oil. They will be 21 included in a 3-by-3-foot concrete duct bank with 22 required service to meet customer need by November 23 2001. This line will connect the Kendall 24 generating station to the transmission system at</p>	<p style="text-align: right;">17</p> <p>1 that choice. 2 That then led to the issue of 3 identifying how we would interconnect between 4 Kendall Station and Putnam Station. So at the 5 broadest level we looked to identify a range of 6 geography that would bring the greatest probability 7 of success. That geography is bounded on the south 8 by the Charles River and the north and west by 9 Binney, Bristol Streets on towards Broadway. One 10 major consideration was avoiding crossing the Broad 11 Canal due to congestion and the fact that the 12 opposite side of the canal is the entrance to the 13 MBTA tunnel, which would render that route 14 impassable. We would prefer that routes have a 15 minimum amount of bending, recognizing that with 16 each bend would come the requirement for greater 17 stresses in pulling the cable and additional 18 manholes. 19 We then sought to develop threshold 20 criteria that would help us identify some specific 21 routes for further evaluation. The criteria 22 involved looking at utilizing existing corridors, 23 limiting use of private property, minimizing 24 residential areas being involved where possible,</p>

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<p style="text-align: right;">18</p> <p>1 minimizing passage through major intersections and 2 associated congestion, avoiding proximity to 3 heat-producing entities such as steam, et cetera, 4 which would cause a derating of an electrical 5 cable, and minimizing overall heavily congested 6 underground environments.</p> <p>7 In developing those approaches we 8 sought input from the community and abutters. We 9 fielded a design team of several engineers with 10 Cambridge experience and with Edison experience and 11 planning people. Between them they met over a 12 dozen times with different elements, different 13 people within the city, within consumer groups or 14 neighborhood groups, and with major abutters such 15 as MIT.</p> <p>16 Ultimately we developed a screening 17 criteria with which to evaluate routes that were 18 grouped based on technical feasibility, 19 environmental and community impact and cost.</p> <p>20 We identified six different possible 21 transmission routes between the Putnam and Kendall 22 Station. It's difficult to see here. We do have 23 handouts at the back of the room for those who 24 didn't have a chance to get it. They are in color</p>	<p style="text-align: right;">20</p> <p>1 is a wider street. It's heavily residential. It's 2 a two-way street so a little bit wider.</p> <p>3 The third route, shown in orange, 4 requires coming down Putnam Street several blocks 5 to Sidney Street. At that point the street is 6 largely commercial. This is a street that again is 7 wider than Inman, parking on one side, a two-way 8 street. The path proceeds in a northeasterly 9 direction up Sidney Street, crossing Massachusetts 10 Avenue, and jogging onto State Street for a brief 11 distance and then from there onto Windsor Street. 12 That area is all commercial. When it gets further 13 up Windsor Street towards Broadway there is public 14 housing and some commercial in that area as well 15 and the route beyond is the same as that of the 16 others.</p> <p>17 The fourth route comes a little 18 further down Putnam Street to Albany Street. 19 Albany Street is more heavily commercial or as 20 heavily as Sidney. This is a two-way street as 21 well. More truck traffic types of deliveries are 22 characteristic of that area. Albany Street runs up 23 to Massachusetts Avenue. The route then crosses 24 Massachusetts Avenue. In the portion up from</p>
<p style="text-align: right;">19</p> <p>1 so it may be easier to detect than this. Briefly 2 running down the routes, this dot along Charles 3 River represents Putnam Station. The routes 4 basically run in a series of parallel approaches 5 from the northwest towards the southeast. In the 6 northwest the more westerly, or magenta route in 7 this case, the Inman, Pleasant Street route is 8 characterized by a heavy residential, one-way 9 street, parking on both sides, quite narrow, 10 leading up to Massachusetts Avenue where there is 11 more significant underground congestion and 12 commercial properties. Then running down Broadway 13 requires a crossing underneath the railroad tracks 14 as it comes down to the facility of Galilei Way and 15 swings up to Binney Street, and then ultimately 16 down the direction of Second Street to the Kendall 17 generator station.</p> <p>18 The second route is pictured here in 19 green. It parallels the first. It is Magazine 20 Street as it leaves Putnam Station and heads up 21 into and through Central Square, joining onto 22 Prospect Street, from Prospect to Broadway, and 23 basically follows the route that I defined with 24 respect to the Inman route. The Magazine portion</p>	<p style="text-align: right;">21</p> <p>1 Massachusetts Avenue up through Portland to 2 Broadway this is the most congested route of any of 3 the routes that we investigated. That then joins 4 at Broadway and has to cross the railroad tracks as 5 the other routes do at that point.</p> <p>6 The next route comes a little further 7 down Putnam Street then beyond Albany, actually 8 parallels -- it is on Albany for a brief distance 9 and then cuts underneath the railroad tracks on 10 private property. It is not involved in the 11 railroad tracks and the street like the other 12 routes are. It proceeds on Vassar Street up 13 through Mass. Avenue, and then on the other side of 14 Mass. Avenue continues on Vassar Street up to Main 15 Street. The section between Mass. Avenue and Main 16 Street or Vassar Street is quite heavily congested. 17 We recognize that is a concern of the City of 18 Cambridge. We are confident that a route is 19 available there and we will continue our 20 discussions with the city.</p> <p>21 The last route comes yet further down 22 and follows a similar crossing of the railroad 23 tracks as the route that is the Vassar Street route 24 takes, but then proceeds to Memorial Drive and</p>

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<p style="text-align: right;">22</p> <p>1 heads easterly on Memorial Drive until reaching the 2 vicinity of Broadway and then crosses up Broadway 3 to and across up to ultimately join Galilei Way 4 with the other routes. 5 This last route is more characterized 6 by trees and open spaces. It's MDC property that 7 has a high volume of traffic, even compared to the 8 other routes. It has been a concern from the 9 standpoint that Cambridge Electric Light attempted 10 to utilize Memorial Boulevard in another section 11 between Alewife and Putnam back in the mid-1980s 12 and found it extremely difficult to license a 13 transmission route in that path given the concerns 14 for the trees, and relative to a heat source and 15 transmission lines, and concerns about traffic. 16 Ultimately that line to Putnam was unsuccessful in 17 its attempt to be licensed on Memorial Drive and 18 had to go through another part of the city. The 19 Memorial Drive route here considered is the most 20 expensive of the alternatives. The Vassar Street 21 route is the least expensive of the alternatives. 22 At the completion of our screening 23 process we ultimately concluded the two most highly 24 ranked of the routes were the Vassar Street route</p>	<p style="text-align: right;">24</p> <p>1 Traffic volume, noise, visual resources, electric 2 and magnetic fields and costs are all considered. 3 I'd like to say a few words about 4 construction processes. The intent is to install a 5 duct bank which would require a trench that would 6 be approximately 6 feet deep and 3.5 feet wide 7 during construction. The 3-by-3 foot duct bank 8 would be installed in the trench and the trench 9 would be filled back up to grade. The trench when 10 it was opened would be steel plated to permit 11 vehicular access and use of the road. No open 12 trench will be remaining when we are not physically 13 working in it. The working hours and conditions 14 will be negotiated with the City of Cambridge, and 15 we can't comment in detail about those at this 16 time. That will be part of the normal process of 17 licensing and getting permits for the construction 18 project. 19 The process will be to saw-cut the 20 pavement and remove the pavement and then to 21 excavate, install the ducts, place concrete, 22 backfill and repave. Overall that process would 23 take approximately four days for every 100-foot 24 section when you break it out piecewise. In actual</p>
<p style="text-align: right;">23</p> <p>1 and Sidney and Windsor Street route. The other 2 routes, Memorial Drive, as I expressed earlier, we 3 had concerns with the environmental, tree issues, 4 traffic, cost, and licensing affecting the timing 5 of the project. With a short-track project as this 6 is to meet customer need, we believe this route 7 will be very, very difficult if not impossible to 8 license in the time available. 9 The Albany Street route was the most 10 underground congestion of any of the routes and, 11 therefore, did not measure or rate as highly as 12 others. Inman Street was the narrowest and the 13 most residential of the routes and scored poorly 14 from a technical perspective or an environmental 15 perspective. Similarly the Prospect/Magazine route 16 suffered from being in a heavy residential area and 17 then further going through extremely congested 18 Central Square, which would make it very 19 problematic as a route. 20 Further detailed analysis of the two 21 most favored routes is included in the report, 22 dealing with land use and environmental impacts, 23 cultural resources, historical sites on both 24 routes, though Vassar has fewer such sites.</p>	<p style="text-align: right;">25</p> <p>1 fact, the saw-cutting would continue down the 2 street and get ahead of the excavation so the 3 project would proceed in stages. But for 4 residential or any abutter, they are likely to see 5 the trench or work going on in the trench for up to 6 a four-day period. Once the construction of the 7 duct has been completed, then the next activity 8 that an abutter would see would be the physical 9 installation of the cable where cable wheels and 10 trucks would be used to pull the cable within 11 manholes and splicing would be done within the 12 manholes. 13 That concludes my comments. 14 MS. McINTYRE: At this time I would 15 ask if there are any state or local public 16 officials present who wish to comment? Yes, sir. 17 Just so everyone can hear you. Why 18 don't you take my mike and step forward. 19 MR. TULIMIERI: Joseph Tulimieri, 20 executive director, Cambridge Redevelopment 21 Authority, Four Cambridge Center, Cambridge, Mass. 22 I have several questions. Perhaps I 23 should just state what the questions are and sit 24 down and listen. Given the availability of</p>

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<p style="text-align: right;">26</p> <p>1 railroad right-of-way for most of the length of the 2 preferred route, has the use of that right-of-way 3 been explored to site the trench along either side 4 of the railroad right-of-way? 5 Secondly, as the responsible public 6 agency for the Kendall Square urban renewal project 7 area, basically the area bound by Binney Street, 8 the western connector, Main Street and Third 9 Street, I'm concerned about the fact that the 10 preferred route or just about any one of the routes 11 involves, will appear to be a partial 12 reconstruction after you bury the trench along 13 Binney and Galileo Way and down to Main Street. 14 Will consideration be given not to simply 15 saw-cutting, but since that roadway was 16 reconstructed less than three years ago, to do 17 grinding and a full curb-to-curb top course? 18 I had asked myself a question about 19 how deep this was going to be. Let me ask a 20 question about from the point of the preferred 21 route where Fulkerson Street begins and you go down 22 the western connector to Main Street there is land 23 owned by the Redevelopment Authority, for example, 24 that is not the roadway but just off the roadway.</p>	<p style="text-align: right;">28</p> <p>1 MR. TULIMIERI: The follow-up 2 question is why. You are out of the street and not 3 bothering anyone. 4 MR. SULLIVAN: One issue I have to 5 bring up, because we have explored the issue of 6 being parallel roadbeds within the right-of-way 7 with railroads in the past in other parts of the 8 city, is that there is a major issue with regard to 9 the continuity of the foundation underneath the 10 rails. We have made requests of the railroad in 11 the past to utilize railway in other locations. 12 That has been very problematic in terms of assuring 13 structural integrity underneath the railroad bed, 14 even if beside in the berm to the railroad. That 15 is an issue. It is something that has steered us 16 generally away from using parallel paths adjacent 17 to railroads. 18 Crossing a railroad, what we do there 19 is not a cut of the railroad but a jack and bore 20 under the railroad to assure maximum continuity to 21 the ground upon which the railbed sits. It would 22 be very much more expensive were we to use a jack- 23 and-bore technique running parallel to the railroad 24 for any significant distance.</p>
<p style="text-align: right;">27</p> <p>1 Would consideration be given to utilize a portion 2 of that rather than being in the street? Why don't 3 I stop there. I'm primarily concerned about the 4 routes as landowner and as agency responsible for 5 the administration of the Kendall Square project. 6 MS. McINTYRE: I direct those 7 questions to the company. 8 MR. OKTAY: I'm the lead engineer in 9 this project. With respect to railroad right- 10 of-way I'm going to ask our lead engineer, Bob 11 Connors, to respond to that. We have done work 12 with the railroad in the past. We have utilized 13 the railroad right-of-way from one side to another 14 side, from Vassar Street to Putnam Street in the 15 past. There are other utilities that utilized 16 that. In this case from Vassar to Putnam Street 17 there's 40 feet of MDC right-of-way going over the 18 railroad. And also the railroad has got right- 19 of-way -- the public has the right-of-way to go 20 from one side of the street to Vassar Street. With 21 respect to have we applied to the railroad with 22 respect to the right-of-way? I think the answer is 23 no. We haven't done it. Did I answer that 24 question?</p>	<p style="text-align: right;">29</p> <p>1 MS. McINTYRE: Finish your questions 2 with reference to this. 3 MR. TULIMIERI: I'm particularly 4 interested in the strip of railroad right-of-way 5 that effectively runs from Binney Street all the 6 way down to Vassar, along Vassar, and terminates 7 where you're proposing to terminate. There are 8 steam lines along there that seem to be perfectly 9 happy being there. There are fiberoptic cables 10 that run parallel. Frankly, I don't see -- at the 11 very least I would like to suggest that the 12 feasibility of getting a line into the railroad 13 right-of-way and off the public streets should be 14 explored. I think one could look at it. 15 Is it difficult working with the 16 railroad? Believe me, I know it is difficult 17 working with the railroad. But I still think that 18 it would seem to me to be a lot easier to do that 19 in terms of the cost factors involved than trying 20 to reconstruct major portions of recently built 21 roadway. 22 MR. SULLIVAN: Your comment reminded 23 me of one of the major issues which I alluded to 24 earlier. The steam line is a tremendous source of</p>

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<p style="text-align: right;">30</p> <p>1 heat, which is one of the major criteria we are 2 seeking to avoid putting next to an electrical 3 facility. That heat derates the electrical 4 facility and would require more electrical 5 facilities to carry an equivalent amount of power. 6 It was another consideration in not going that way. 7 That's all I can say at this point.</p> <p>8 MR. OKTAY: I would like to go to the 9 second question with respect to streets being paved 10 at a certain location. The transmission line will 11 have a 3 feet wide cut, and it will be finished 12 after that nice and smooth. We appreciate that the 13 road has been paved recently. At this time we'll 14 look into the shape of the road, the condition of 15 the road. We will not make any commitment at this 16 time.</p> <p>17 As far as the land owned by others, 18 the third question, we are open to any suggestions 19 which we may utilize, but we have to do it in such 20 a way within the guidelines established by the 21 Siting Board. For example, we have to minimize the 22 cost. We have to have the least impact. We should 23 use the private property as least as possible. We 24 would like to use the public roads as much as</p>	<p style="text-align: right;">32</p> <p>1 have a question as to what that path is and what 2 investigation the company did. We ourselves have a 3 great deal of concerns. Vassar Street is already a 4 congested street in terms of utilities. That 5 includes gravity lines that can't be moved if it 6 defeats the gravity nature of those lines. There's 7 a DEP order. I was wondering what extent the 8 applicant has taken that into account in terms of 9 separating manholes, going from three to six or 10 seven. Putnam Avenue, I would be interested in 11 knowing how they evaluated the existing utility 12 lines in Putnam Avenue.</p> <p>13 By way of example, we had an 14 experience with Level 3 Communications, which is 15 putting in a telecommunications line not exactly in 16 the same spot, but it took two years, because of 17 the need for coordination and existence of 18 conflicts, to find a suitable route. Since we do 19 support the project and since we do support the 20 connection we would be very distressed to find out 21 that sometime down the road it turned out that 22 Vassar Street was too costly and an infeasible 23 approach.</p> <p>24 I would also like to know what the</p>
<p style="text-align: right;">31</p> <p>1 possible. There are other conditions, criteria 2 which go into the equation to determine the exact 3 location.</p> <p>4 MS. McINTYRE: Douglas Wilkins. 5 MR. WILKINS: My name is Douglas 6 Wilkins. I'm with the law firm of Anderson & 7 Kreiger at 47 Thorndike Street in Cambridge. We 8 represent the City of Cambridge in this matter as 9 we did in Docket Number 99-4. As the Board knows, 10 the city is a supporter of Southern Energy 11 Kendall's update, and we filed that position in 12 99-4. That obviously means there needs to be a way 13 to connect to the grid. So we support the optimal 14 way of doing that. Our goal here is to provide the 15 best route, to provide a timely connection, and to 16 minimize the disruption to the city and its 17 residents.</p> <p>18 We have reviewed the application and 19 have a number of questions. I think most of these 20 questions are too detailed and specific to go into 21 tonight. I would like to give a sense of the kinds 22 of questions we've got. First of all, I noted in 23 the petition that the applicant says that they 24 found a viable path in Vassar Street. We certainly</p>	<p style="text-align: right;">33</p> <p>1 company's plans are for additional coordination 2 with the city. It's our sense that additional 3 coordination would help. I know that there are 4 plans to meet with us as soon as next week. I 5 would hold out the example of Southern Kendall in 6 terms of their cooperation with the city as a 7 model. I hope that this applicant will follow 8 that. We suspect that if there is more cooperation 9 it is entirely possible that this particular route 10 might seem less attractive to the applicant. I 11 want to stress at this point that we do not oppose 12 the preferred route. We believe there are a lot of 13 unanswered questions.</p> <p>14 It is true that there have been 15 meetings with the City of Cambridge. As long ago 16 as last March the city suggested looking at the 17 Memorial Drive alternative, the Sidney Street 18 alternative and the railroad right-of-way mentioned 19 earlier tonight. I think additional discussion of 20 the Memorial Drive and the railroad right-of-way 21 would be useful. I know we got some additional 22 discussion of Memorial Drive this evening in terms 23 of the experience from the 1980s. I would be 24 interested from the company to know what efforts</p>

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1 have been made recently to determine whether that
 2 approach would work. I know you can't put too much
 3 emphasis on numbers, but in terms of raw scoring
 4 the Memorial Drive did come in second and yet it is
 5 not the alternative route.
 6 We do plan to intervene in this
 7 matter both to monitor the process and so we can
 8 contribute information relating to cost and
 9 feasibility that may convince the applicant to do a
 10 different route or may convince us that this is the
 11 best route or may convince the Board of the
 12 difficulties if that is necessary.
 13 MS. McINTYRE: Thank you. Do you
 14 want the company to address any of those issues
 15 here tonight?
 16 MR. WILKINS: I don't think that's
 17 necessary as long as we address them at some point.
 18 As I indicated earlier, I think it's going to
 19 require a lot of detailed discussion, and I would
 20 like a commitment to meet with us the same way that
 21 Southern Energy Kendall did.
 22 MS. GROVER: Just to state to
 23 Attorney Wilkins, we do look forward to working
 24 with the city and addressing some of the concerns

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1 you raised here as well as others that may arise.
 2 We do have a good partner in Southern to help us
 3 with that. They worked well in that. Instead of
 4 addressing the specific comments, I wanted to give
 5 those assurances.
 6 MS. McINTYRE: Thank you.
 7 Peter Cooper?
 8 MR. COOPER: I am Peter Cooper. I
 9 represent Massachusetts Institute of Technology
 10 where I'm the assistant director of facilities for
 11 utilities. The preferred route for this line goes
 12 right through the MIT campus running in Vassar
 13 Street about one mile, and one variation needs to
 14 cross our property. We have at least three issues
 15 that we have identified so far that are a serious
 16 concern. One is the magnetic fields emanating from
 17 these cables which could seriously disrupt
 18 research, sensitive research in a number of
 19 laboratories along the route. These utilize
 20 magnetic resonance imaging, electron microscopes,
 21 and similar sensitive equipment to magnetic fields.
 22 The sensitivity levels are in fact much lower than
 23 the levels that are important for physiological
 24 effects.

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1 A second issue is that, as the city
 2 has mentioned, Vassar Street is already very
 3 congested with underground lines, municipal lines,
 4 private utilities and also MIT utilities, and more
 5 are planned by the city that we are aware of as
 6 well as MIT. We would hope to have NSTAR be
 7 looking at this to confirm for themselves that it
 8 is in fact feasible.
 9 A third issue is related to
 10 construction timing. If the design and
 11 construction can be integrated and the construction
 12 well sequenced, the impact could be acceptable, but
 13 if not, the investment made by MIT and the city in
 14 underground facilities and the surface enhancements
 15 that we are planning to do along Vassar Street
 16 could be severely disrupted. And of course those
 17 living on the street and working and traveling on
 18 the street would experience an extended period of
 19 disruption to their work and lives.
 20 In closing, MIT is not necessarily
 21 opposed to the line or a particular route. But for
 22 the reasons I've mentioned and others, we do plan
 23 to petition for intervenor status because the
 24 stakes are very high for MIT. Thank you.

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1 MS. McINTYRE: James Frazer.
 2 MR. FRAZER: My name is James Frazer.
 3 I live on 591 Putnam Street. Perhaps I'm here to
 4 speak for the west end of the route. I guess I
 5 would comment that I'm troubled by the failure to
 6 consider alternate routes that avoid a residential
 7 area despite the fact the proposal states that
 8 that's considered a desirable characteristic. I
 9 would suggest that Massachusetts Avenue would not
 10 be as difficult to license as the petitioner
 11 thinks, and I would suggest that you take a look at
 12 the intersection of Massachusetts Avenue and
 13 Memorial Drive where you'll find a very substantial
 14 cut-and-fill installation of 92 fiberoptic paths
 15 about the size of what the company is proposing to
 16 do. Obviously these folks have had no difficulty
 17 with trees or obtaining a license.
 18 I realize that magnetic fields in
 19 residential areas are a questionable issue. But I
 20 am troubled to see that the petitioner's
 21 calculations assume a ground cover depth of 10
 22 feet, whereas we are being told that the ground
 23 cover depth was either 2 1/2 feet, which is what I
 24 heard tonight, or 3 feet. That would lead to a

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39	<p>1 properties in this area and still produce a route 2 that's going to make it to Putnam Station. We are 3 sensitive to that and are aware of that. 4 With respect to Massachusetts Avenue, 5 the cuts which I have seen have been perpendicular 6 cuts to the path of the route. It is extremely -- 7 MR. FRAZER: Memorial Drive, parallel 8 to the river on the -- 9 MR. SULLIVAN: I thought you were 10 running longitudinally along Mass. Avenue. 11 MR. FRAZER: I was speaking going 12 west from Massachusetts Avenue along Memorial 13 Drive. If you go there -- 14 MS. McINTYRE: Mr. Frazer, instead of 15 a dialogue, if you need to speak, please come 16 forward again. 17 MR. SULLIVAN: If I understood the 18 gentleman's proposal, it was to enter Memorial 19 Drive at Massachusetts Avenue and run west on 20 Memorial Drive, which is the variant of the 21 Memorial Drive proposal that we did evaluate. I 22 would state that we have the same concerns with 23 that as we have with Memorial Drive in general. A 24 shortcut would be one thing, but we would be</p>	41	<p>1 indeed installing something very similar to what 2 you're proposing to install elsewhere. So it isn't 3 impossible to get a license. 4 MS. McINTYRE: Thank you. Is there 5 anyone else who would like to speak tonight? 6 Mr. Tulimieri. 7 MR. TULIMIERI: I don't want to be a 8 pest, but when the company examines the stray 9 magnetic fields, I would request that conversations 10 be held with the folks in the building that we are 11 in, that going along the route the conversations be 12 held with Amgen, with Biogen, and the Whitehead 13 Institute as well as going south of Main Street any 14 of the buildings that are very close to the route 15 that are currently housing a variety of kinds of 16 labs for MIT. The ones that I would be concerned 17 about is the Biogen facilities on both sides of 18 Binney Street and the buildings that are currently 19 under construction as well as the Whitehead 20 Institute building. 21 MS. McINTYRE: Thank you. Is there 22 anyone else who would like to speak tonight? 23 Hearing no response, I would like to 24 take this tonight to encourage anyone interested in</p>

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1 further involvement in this case to investigate the
2 possibility of intervening or participating as an
3 interested person. Remember that any petition to
4 do so must be filed no later than 5:00 p.m. on
5 August 17th. Also, any written comments may be
6 filed at the same time, no later than 5:00 p.m. on
7 August 17th.

8 As a further reminder, copies of the
9 regulations governing intervention and
10 participation and informational handouts regarding
11 the Siting Board process are available at the front
12 of the room. My telephone number and other Siting
13 Division staff is listed on these handouts. If
14 you have any questions regarding the process,
15 including questions regarding intervention or
16 participation, we will be here for a few minutes
17 after the close of the hearing. Thank you for your
18 attention this evening. Good night.

19 (8:02)

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1 Commonwealth of Massachusetts)
2)
3 County of Suffolk)
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6 CERTIFICATE
7

8
9 I, David A. Arsenault,
10 Registered Professional Reporter and Notary Public
11 for the Commonwealth of Massachusetts, do hereby
12 certify that the foregoing record is a true and
13 accurate transcript of my stenographic notes taken
14 on Thursday, August 3, 2000 in the above-captioned
15 matter.

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23
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David A. Arsenault
My commission expires May 12, 2006



800 Boylston Street
Boston, Massachusetts 02199

The NSTAR Companies
Boston Edison
ComElectric
ComGas
Cambridge Electric

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CITY OF CAMBRIDGE

Mary E. Grover, Esq.
Direct Dial: (617) 424-3804
Facsimile: (617) 424-2733
e-mail: mary_grover@nstaronline.com

August 16, 2000

D. Margaret Drury, City Clerk
City of Cambridge
City Hall
795 Massachusetts Avenue
Cambridge, MA 02139

Re: Cambridge Electric Light Company, EFSB 00-1, D.T.E. 00-55, and D.T.E. 00-56

Dear Ms. Drury:

Pursuant to the request of the Hearing Officer for the Massachusetts Energy Facilities Siting Board ("Siting Board"), Cambridge Electric Light Company is required to present your office with a copy of the enclosed transcript of the Public Hearing held on August 3, 2000 in the above-referenced proceeding. This transcript should be posted in City Hall for inspection by the general public.

Thank you for your assistance and please feel free to call me at (617) 424-3804 should you have any questions.

Very truly yours,

Mary E. Grover
Senior Counsel

Enclosure

cc: Sheila R. McIntyre, Siting Board

Consnet Communication#6

S 276

A communicaiton was received from
Mary E. Grover, Senior Counsel,
Nstar Services Company, transmitting
a copy of the transcript of the
public hearing held on August 3, 2000
relative to the Cambridge Electric
Light Company

In City Council September 11, 2000

PLACED ON FILE