



City of Cambridge

O-34

IN CITY COUNCIL

July 29, 2002

VICE MAYOR DAVIS

ORDERED: That the City Manager be and hereby is requested to secure a report from NSTAR on the exact and projected amount expended on maintenance for the last three years.

In City Council July 29, 2002.

Adopted by the affirmative vote of nine members.

Attest:- D. Margaret Drury, City Clerk.

A true copy;

ATTEST:-

A handwritten signature in black ink, reading "D. Margaret Drury". The signature is written in a cursive style with a large, stylized "D" and "M".

D. Margaret Drury
City Clerk

assets and the maintenance plan. He handles nineteen communities and two service centers, Somerville and Waltham.

William Zamparelli is the Community Relations Representative.

Nelson P. Medeiros, Program Manager, works in the commercial and industrial sectors. He manages the new construction program and the energy efficiency program for the gas program.

Richard A. Moran, Program Manager, whose focus is on energy efficiency in the residential sector for all cities and towns.

Vice Mayor Davis stated that she called the meeting to discuss four topics:

- ❖ Outage and service of electric systems;
- ❖ Municipal lighting program and outages;
- ❖ Energy efficiency program options; and
- ❖ Renewable energy and green power.

Vice Mayor Davis asked what role does NSTAR play as the power provider. Mr. Zamparelli responded that under the 1998 deregulation NSTAR is a distributor and transmission company. NSTAR provides transmission of power to a grid.

The meeting now focused on power, maintenance and outages.

Councillor Murphy stated that it is frustrating for the general public to adapt. Formerly there was one entity responsible for service in Cambridge. The perception is that maintenance has not received the attention it should.

A discussion ensued about energy shortage. Mr. Fernandes stated that there is no shortage of available power for Cambridge. Mr. Jessa stated that there is a surplus capacity.

In responding to concerns about maintenance, Mr. Fernandes informed the committee that NSTAR has agreed to work on a number of circuits. There is a system switch on poles in Cambridge and these need to be changed. There are 270-280 switches that need to be changed. Faulty equipment caused the outages in Central and Harvard Squares last year, he said. He informed the committee that outages and reoccurrence were due to the installation of new switchgears.

Vice Mayor Davis informed the representatives from that Cambridge is used to consistent power. The general public is not aware that there is planned maintenance. Mr. Fernandes stated that the public does get notified when there is planned maintenance. Vice Mayor Davis suggested that this information could be put on the Web. Mr. Zamparelli stated that placing this information on the Web could be a

security issue. Mail or flyers transmit this information. Mr. Jessa distributed an action plan (ATTACHMENT A).

Councillor Murphy asked how long does it take to replace a switch. Mr. Masci stated that it depends if the pole needs to be replaced, but it could take a day or two. He further stated that safety is number one concern with service and reliability as number two. Circuits need to be de-energized for protection of employees.

Mr. Jessa stated that there are 140-145 circuits in Cambridge. Mr. Fernandes stated that this is the reason why he has requested special service due to the number of circuits. Mr. Masci informed the committee that he wants a good working relationship with Cambridge and he will ensure that NSTAR will do better in the future. Mr. Fernandes stated that there has been an improvement in the last few months. Vice Mayor Davis stated that she wants consistent power and communication.

Mr. Fernandes outlined that an improvement in circuits in Cambridgeport was due to an upgrade. Harvard and Central Squares will have an upgrade and transformers. Kendall Square, he said, needs an upgrade because of development in this area. Mr. Jessa stated that a new substation at a cost of \$32 million is being reviewed. Mr. Masci stated that the Cambridge distribution system is old. NSTAR is working aggressively; outages should be expected. NSTAR has spent \$1.5 million on infrastructure upgrade.

Councillor Murphy asked if there was a reduction in the money spent on maintenance. Mr. Masci responded that NSTAR's maintenance was brought back up. One employee does walk-downs, (an inspection of poles on streets). Infrared inspections are being done on 24 circuits. Mr. Jessa stated that high voltage testing was done on 8 circuits. There may be an offset because money is spent on capital.

Councillor Murphy asked how much will be spent on service maintenance. Mr. Masci stated that maintenance comes out of the Mass. Avenue complex. Vice Mayor Davis stated that she would like the maintenance figures for three years. She wanted two years of actual figures and one year of projected maintenance costs. Mr. Masci stated that the \$1.5 million spent was on maintenance and capital. A figure for the total amount spent for capital for Cambridge can be given. Vice Mayor Davis stated she wanted the figure broken apart. Councillor Murphy stated that he was concerned with the quality of service and the money invested.

Councillor Maher informed the NSTAR representatives that a fence was broken and there was trash on the property at the Western Avenue, Memorial Drive, Putnam Avenue site. Mr. Zamparelli stated that he would check into this situation. Vice Mayor Davis wanted to know who owned the substation property on Putnam Avenue and Pleasant Street. Mr. Zamparelli responded NSTAR owns the property. Mr. Fernandes stated that the property on Blackstone Street is deteriorating. NSTAR, he said, did a good job with the park in Kendall Square.

Vice Mayor Davis made the following motion:

ORDERED: That the City Manager be and hereby is requested to secure a report from NSTAR on the exact and projected amount expended on maintenance for the last three years.

On a voice vote the motion -

Carried.

Vice Mayor Davis now turned to the subject of municipal lighting. She stated that there are 300 municipal lights out in the city and residents are frustrated because the lights are not replaced. Mr. Fernandes stated that in the past 4 months an employee has been assigned to replace the lights and his figure for the lights that are out is 700. He has provided NSTAR with a list, but this list has not been worked on. These lights need to be replaced and then patrol can be done. Mr. Zamparelli stated that Mr. Masci is responsible for the lighting. Mr. Masci informed the committee that Robert Clark would handle the street light report for the NSTAR territory. One Lamp Ranger, out of three positions, has been assigned to Cambridge.

Councillor Murphy asked how many lights are there in Cambridge. Mr. Fernandes responded 5300 light are NSTAR's and 800 are Cambridge lights.

Councillor Murphy asked how long do lights last. Mr. Masci responded mercury lights last 3 years; sodium lights 4-5 years. Mr. Masci stated that 254 lights were repaired in one month. Mr. Maloney asked if NSTAR had no interest in this part of the business. Mr. Masci stated that it is an advantage to cities to buy their infrastructure and to do the maintenance. Mr. Maloney asked if NSTAR sets up maintenance for hire. Mr. Masci responded in the negative. NSTAR wants to improve its system, he said.

Councillor Maher asked if when the Lamp Ranger checks outages is there any priority area. Mr. Fernandes stated that he would like to rotate patrol for the 13 neighborhoods in the city. Councillor Maher asked if lights are out in crime areas could these areas be given priority for light replacement. Mr. Masci replied certainly. Mr. Fernandes provides NSTAR with a list, he said. Mr. Fernandes informed the committee that the mercury vapor lights go dim when they need to be replaced. Sodium lights go on and off. A patrol may not report the need for replacement of these lights.

Vice Mayor Davis asked if the City Council would get a report on the cost if the city purchases the lights. Mr. Maloney stated cost estimates would be secured. This is a financial advantage, except for the maintenance. Mr. Masci stated that the city will own the utility from the manhole out and it is purchased "as is". Mr. Maloney stated that the city needs to know that NSTAR is interested in the service development aspect. There is an interest to restore confidence and to keep Cambridge as a customer. This is good information that Cambridge needs to know.

Vice Mayor Davis asked what is happening with energy efficiency. Mr. Medeiros

informed the committee that the most efficient bulb is high-pressure sodium (HPS). Mr. Fernandes stated that in 1990 Cambridge went from mercury lights to sodium; 95% of the lights are sodium. Mr. Masci informed the committee that bulbs and ballast are hazardous waste. Cambridge recycles stated Mr. Fernandes.

Mr. Nelson stated that he manages the new construction program. The information on this program is on the Web site. The Web address is www.NSTARonline.com. Incentives are used to encourage high efficiency products. There are three programs:

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|-------------------------------|----------------------|
| ❖ New construction | ATTACHMENT B |
| ❖ Retrofit program | ATTACHMENT C |
| ❖ Retrofit for small business | ATTACHMENT D. |

Councillor Murphy asked if there is any sector of the economy in Cambridge to reach out to. Mr. Medeiros suggested including energy efficient replacement equipment in the "Request for Proposals" (RFP). Councillor Murphy asked if a presentation has been made to the Chamber of Commerce. Mr. Medeiros responded in the affirmative. Vice Mayor Davis stated that Cambridge would like to development a partnership with NSTAR. Mr. Medeiros stated that he would provide information on the programs and training.

The committee heard from Mr. Moran, the Residential Energy Efficiency Program Manager for NSTAR. He outlined the Residential Conservation Service Program (RCP) **ATTACHMENT E**. A customer must enroll in the program. A home assessment is done. Incentives are given up to \$1,000 or 50% of cost. Services can include weatherization. Target customers for this program are electric heat customers. Ms. Preston asked if renters could use this program. Mr. Moran responded in the affirmative. The landlord approval may be required. Councillor Maher asked who does the work. Mr. Moran responded that subcontractors do the work under NSTAR guidelines. The number to call for this program is 866-527-7283.

Vice Mayor Davis asked about the halogen turn in program. Mr. Moran stated that effective July 2002 all electric companies have a partnership with Aubuchon Hardware stores to turn in halogen torchiere lamps at a cost of \$4.99 and receive a high efficiency torchiere lamp. Vice Mayor Davis asked about having this program in Cambridge. Mr. Moran responded that he would take this request back to his manager. He will follow up and get back to Cambridge with an answer on this program.

A discussion ensued about a rebate for energy star label products. The new construction program offers incentives for energy star appliances and lighting. Mr. Fernandes asked if there is a renovation program. Mr. Moran believed there is such a program for adding on to a home. Mr. Moran stated that there is a low-income program for energy efficient service provided at no cost to the occupant.

Vice Mayor Davis stated that she would postpone the renewable energy program discussion for another time.

Vice Mayor Davis stated that better communication is needed. These meetings, she said, are a way to develop awareness at this level. There is a will to create a municipal utility partnership. Mr. Fernandes asked if NSTAR would look into whether there was computer software that would enable all computers run by the city department to be shut down to save energy. Mr. Moran stated computers go into low power mode. There would be more wear and tear on the computer by turning the computer on and off.

Vice Mayor Davis thanked all attendees. She stated that the issues of partnership with NSTAR and the renewable energy will be discussions to be continued at the next meeting.

The meeting adjourned at two o'clock and ten minutes p. m.

For the Committee,



Vice Mayor Henrietta Davis,
Chair



Proposed NSTAR Action Plan

Presented to the City of Cambridge

June 21, 2002

2002 System Improvement Plan

- Walk-downs on 10 of 39, overhead residential 4kV circuits
 - Visual inspection by overhead construction experts to identify:
 - Construction degradation, upgrade opportunities.
 - Proper fusing for main-line protection.
 - Lightning/Grounding protection

Urgent concerns addressed immediately. Additional issues scheduled for the remainder of the year. Streets impacted:

Putnam Ave, Pleasant St, Magazine St., Mass Ave, Churchill Ave, Muller Ave, Richard Ave, Goldstar Rd, Seven Pines Ave, Portland St, Main St, Austin St, Prospect St, Windsor St, Washington St, Columbia St., Western Ave, Mass Ave, Howard Ave, Temple St, Green St., Walden St, Mass Ave, Arlington St., Walnut Ave, Beech St., Roseland St., Western Ave, Green St, Landsdowne St., Soden St, Franklin St. Pacific St, Brookline St, Lopez St, Eric St., Pearl St, William St., Fresh Pond Pkwy, Bay State Rd., Lakeview Ave, Lexington Ave., Healey St, Parker St, Concord Ave, Buckingham St., Putnam Ave, Magazine St, Riverside Rd., Gordon Pl., Florence St, Granite St.

2002 System Improvement Plan

- Infra-red inspection on circuit taps for additional maintenance on key circuits.
 - Identify hot-spots via infra-red camera and make emergency repairs on immediate concerns.
Additional repairs to be completed within 1 month.
Program survey to begin July 8, 2002. All work to be completed by 12/31/02.

2002 System Improvement Plan

- Infra-red inspection on 24 of 39 overhead residential 4kV circuits.

- Identify hot-spots via infra-red camera on circuit backbones and make emergency repairs on immediate concerns.

Additional repairs to be completed within 1 month.

Program survey to begin July 8, 2002. All work to be completed by 12/31/02. Streets impacted:

Mass Ave, Harvey St, Clay St, Dudley St., Reed St., Hampshire St, Webster Ave, Windsor St., Plymouth St, Lincoln St, Columbia St., Walden St, Mass Ave, Cedar St, Dudley St., Healey St, Parker St, Buckingham St., Brattle St, Sparks St, Craigie St. Putnam Ave, Kinnaird St, Bay St., Trowbridge St, Harvard St., Concord Ave, Huron Ave, Garden St., Fayerweather St, Appleton St., Memorial Dr, DeWolfe St, Mt Auburn St, Sparks St., Williams St., Prospect St, Broadway, Lee St, Tremont St., Columbia St, Market St., Waverly St., Putnam St., Brookline St., Allston St., Pearl St., Spring St., Otis St., Fulkerson St., Cambridge St.,Portland St., Lambert St., Gore St., Sherman St, Walden St., Mellen St., Oxford St., Hammond St.,Forest St., Frost St., First St., Otis St., Third St., Gore St., Otis St., Fifth St., Gore St.

2002 System Improvement Plan

- Underground cable test on 8-13.8kV lines
 - High voltage testing of key circuits serving large customers on the following streets:

Pleasant St, Kinnaird St, Western Ave, Green St., Sidney St, Franklin St, Landsdowne St, Lafayette St, Albany St., Prospect St, Broadway, Inman St, Harvard St, Quincy St, Kirkland St., Oxford St, Bow St, Mass Ave. Main St, Wadsworth St, Memorial Dr., Ames St, Amherst St, Broadway. Putnam Ave, River St, Mass Ave., Wheeler St, Concord Ave, Moulton St. Alewife Brook Pkwy, Concord Ave., Walden St, Mass Ave, Sherman St, Rindge Ave., Amory St, Broadway, Ellery St., Mass Ave, Mt Auburn St, Putnam Ave, Brattle St, Apian Way, Garden St., Hampshire St, Norfolk St, Broadway, Portland St, Cambridge St.

2002 Capital Improvement

- Install 2 new 13.8kV circuits 13-24 and 13-63.

Streets impacted:

Allston St, Brookline St, Pacific St., Albany St, Osborn St., Allston St, Brookline St., Pacific St., Albany St, Osborn St, Pleasant St., Putnam St., Sidney St., Erie St., Albany St., Walden St, Mass Ave, Mellen St., Harvey St.

- Reconductor 1-13.8kV circuit 41-02. Streets impacted:

Waverly St, Putnam St, Brookline St., Allston St, Pearl St, Spring St.

2002 System Improvement Plan

- Replacement of Network transformers with new transformers
 - Harvard Square
 - Central Square



New Construction Program

High-efficiency measures for new construction or existing facilities

NSTAR wants to help you save energy and money. That's why we offer the New Construction Program tailored to your unique needs as a business customer.

Through this program, NSTAR can offer you cost reduction strategies whether you're building a new facility or renovating an existing one. Contact us at **781-441-8592** and we will work with you to develop a customized package of energy efficiency options to meet your business needs.

Program Benefits

- **Financial incentives** to help defray new energy efficient equipment and systems – up to 75% of incremental costs.
- **Design incentives** to allow architects and engineers the time to evaluate energy efficient options.
- **Technical assistance** to achieve higher levels of efficiency in designs.
- **Commissioning** to ensure that equipment is properly installed and building operators are properly trained.

Types of Efficiency Measures Covered

Electrical Measures

- High-efficiency fluorescent fixtures
- Occupancy sensors and photo cell controls
- Daylight dimming systems

Mechanical Measures

- Air- and water-cooled chillers and packaged HVAC equipment
- Premium-efficiency motors
- Variable-speed drives

Building Shell Measures

- High-performance glazing
- Improved thermal control and natural ventilation

Flexibility in approaches

- The **prescriptive approach** which provides you a menu of efficiency measures that you can select to be installed in your new or renovated facility.
- The **custom approach** which works well for more involved engineering applications that require site-specific analysis.
- Our **comprehensive design approach** is for new buildings where the integrated design for all the energy systems is warranted.

Designing energy-efficiency into new buildings can reduce energy use by 25-40%

For more information, please contact NSTAR's Energy Efficiency Services at 781-441-8592 or visit us at www.nstaronline.com



Energy Efficiency Services

Retrofit Program

Energy efficiency measures for existing facilities

NSTAR wants to help you save energy and money. That's why we offer the Retrofit Program tailored to your unique needs as a business customer.

Through this program, NSTAR can help you incorporate energy-efficient lighting fixtures, controls, high-efficiency mechanical equipment and other energy saving strategies within your current facility. Contact us at **781-441-8592** and we will work with you to develop a customized package of energy efficiency options to meet your business needs.

Program Benefits

- **Financial incentives** that typically cover up to 50% of the total project cost.
- **Design incentives** to allow engineers the time to evaluate energy efficient options.
- **Technical assistance** to develop a plan for efficiency through engineering solutions.
- **Commissioning** to ensure that equipment is properly installed and building operators are properly trained.

Types of Efficiency Measures Covered

A variety of energy efficiency measures are available through NSTAR's Retrofit Program. In many cases, replacing existing equipment with high-efficiency equipment will result in savings of 25% or more. Items covered include:

Electrical Measures

- High-efficiency fluorescent fixtures.
- Miscellaneous lighting and controls upgrades.

Mechanical Measures

- High-efficiency HVAC equipment.
- Premium-efficiency motors.
- Variable-speed drives (These can cut energy use by as much as 50%).
- Refrigeration improvements.

High Efficiency fluorescent fixtures in an office setting typically reduces energy use by 25-40%

High-efficiency refrigeration can dramatically reduce energy costs with food service operations

For more information, please contact NSTAR's Energy Efficiency Services at 781-441-8592 or visit us at www.nstaronline.com



Energy Efficiency Services

Small Business Retrofit Program

Energy audit and efficiency measures for small businesses

NSTAR wants to help you save energy and money. That's why we offer the Small Business Retrofit Program tailored to your unique needs as a small business customer.

Through this program, NSTAR can help you incorporate energy-efficient lighting fixtures, electronic controls, high-efficiency mechanical equipment and other energy saving strategies within your current facility. Contact our contractor, **Rise Engineering** at **800-422-5365** and they will arrange for a free energy audit and recommendations for energy-efficiency improvements to meet your business needs.

Program Benefits

- **Energy audit** provided free of charge to identify energy-saving opportunities.
- **Financial contributions** paid directly to the contractor from NSTAR that covers up to 80% of the total project cost.
- **Payback** typically one year or less.

Types of Efficiency Measures Covered

A variety of energy efficiency measures are available through NSTAR's Small Business Retrofit Program. In many cases, replacing existing equipment with high-efficiency equipment will result in savings of 25% or more. Items covered include:

- High-efficiency fluorescent fixtures.
- Miscellaneous lighting and controls upgrades.
- High-efficiency HVAC.
- Refrigeration improvements.
- Premium-efficiency motors.
- Water heater wraps

High-efficiency refrigeration can dramatically reduce energy costs with food service operations

Most projects done through NSTAR's Small Business Retrofit Program pay for themselves in less than one year.

For more information, please contact NSTAR's Energy Efficiency Services at 781-441-8592 or visit us at www.nstaronline.com



ATTACHMENT E.

NSTAR ENERGY EFFICIENCY PROGRAMS

NSTAR Electric offers a full range of energy efficiency services, designed to save energy, help the environment and keep your family comfortable all year long.

Residential Conservation Service Program

Energy-efficiency specialists will answer your energy-saving questions and determine your eligibility for a Home Energy Assessment. The assessment includes an analysis of your home's energy use, advice for saving energy and rebate offers on recommended energy improvements. Call 1-866-527-SAVE (7283) for more information.

Residential High-Use Program

Do you use 8,000 kWh or more of electricity per year? (The billing history information on your bill can help you answer that question). You could be eligible for this program, which involves a complete home energy assessment and may qualify you for a 75 percent discount on attic, wall and duct insulation, air sealing, heat pump tune-up, and a 50 percent rebate on a new energy-efficient ENERGY STAR rated refrigerator. For more information, call 1-800-473-1105 (Greater Boston and Metro West area) or 1-888-769-3780 (New Bedford and Plymouth area).

ENERGY STAR Labeled Lighting and Appliances

NSTAR Electric promotes ENERGY STAR-labeled appliances, light bulbs, light fixtures, torchiere floor lamps and ceiling fans. For information on rebates, special offers and retailers in your area, call 1-800-491-1077 (lighting) or 1-877-866-2540 (appliances), or visit www.betterwaytosave.com.

ENERGY STAR Homes: New Construction Program

Building a new home? Be sure to include comfort and savings into your plans with the ENERGY STAR Homes Program. ENERGY STAR-certified homes are typically 30% more efficient than standard construction. Building an ENERGY STAR home entitles you to receive rebates on major appliances and light fixtures. For more information, visit www.energystarhomes.com or call 1-800-628-8413.

Lower-Income Energy Efficiency Assistance and Services

Lower-income customers may be eligible for the installation of a variety of energy efficiency measures. Contact your local Community Action/Heating Assistance program for more information about programs and eligibility.

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HEALTH AND ENVIRONMENT

*Vice Mayor Henrietta Davis, Chair
Councillor Anthony D. Galluccio
Councillor Brian Murphy*

City of Cambridge**PUBLIC SAFETY****COMMITTEE MEMBERS**

*Vice Mayor Henrietta Davis, Chair
Councillor David P. Maher
Councillor Timothy J. Toomey*

In City Council July 29, 2002

The Health and Environment and the Public Safety Committees held a joint public meeting on Friday, June 21, 2002 at noon in the Sullivan Chamber

The purpose of the meeting was to conduct a joint meeting to discuss a municipal light company, maintenance, local conservation programs and the use of renewable energy.

Present at the meeting were: Vice Mayor Henrietta Davis, Chair of the Committee, Councillor Brian Murphy, Councillor David Maher, James Maloney, Assistant City Manager for Fiscal Affairs, George Fernandes, City Electrician, Catherine Preston, Environmental and Transportation Planning, Community Development Department, Abby Dewolfe, Environmental Intern, Community Development Department, Garrett Simonson, Assistant to the Mayor and Vice Mayor, Julia Bowdoin, Assistant to the City Manager and Donna P. Lopez, Deputy City Clerk.

Also present at the meeting were the following representatives from: William Zamparelli, Community Relations, Robert Masci, Somerville Operations Manager, Richard A. Moran, Residential Program Manager Energy Efficiency Services, Amin R. Jessa, Lead Engineer System Engineering and Nelson P. Medeiros, Program Manager of New Construction Energy Efficiency Services

Vice Mayor Davis opened the meeting and stated the purpose. She requested all attendees to introduce themselves and requested the representatives to outline their function.

Robert Masci informed the committee that he is the Somerville Operations Manager and is responsible for the City of Cambridge. He is responsible for lights, power and maintenance and has been responsible for this area since February 15, 2002. His district includes nine cities and town including Cambridge, Arlington, East Boston, Charlestown, Chelsea, Somerville, Winchester, Stoneham and Woburn. He informed the committee that he is the person to call if there is a problem in Cambridge. He gave the committee his telephone number (617) 369-5431. The general public should call 1-800-592-2000.

Amin R. Jessa stated that he is the Lead Engineer for the City of Cambridge and other communities. Vice Mayor Davis asked him what is job. Mr. Jessa responded that he works on all capital improvement plans, new construction, new investments and new

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Committee Report #8

Committee Report from Vice Mayor Henrietta Davis, Chair of the Health and Environment and the Public Safety Committees, for a meeting held on June 21, 2002 to discuss a municipal light company, maintenance, local conservation programs and the use of renewable energy.

In City Council July 29, 2002

**REPORT ACCEPTED.
PLACED ON FILE.
ORDER ADOPTED.
SEE ORDER #34.**