



STATE OF CONNECTICUT

DEPARTMENT OF PUBLIC UTILITY CONTROL
TEN FRANKLIN SQUARE
NEW BRITAIN, CT 06051

**DOCKET NO. 99-09-30 DPUC REVIEW OF THE CONNECTICUT LIGHT AND
POWER COMPANY'S CONSERVATION AND LOAD
MANAGEMENT PROGRAMS FOR 2000**

May 10, 2000

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DECISION

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DECISION

I. INTRODUCTION

A. SUMMARY

In the instant Decision, the Department has reviewed the Conservation and Load Management Plan of The Connecticut Light and Power Company pursuant to §33 of Public Act 98-28, An Act Concerning Electric Industry Restructuring, which is codified in §16-245m of the General Statutes of Connecticut. The purpose of this statute is to advocate the efficient use of energy, reduce air pollution, improve public health, and promote economic development in Connecticut.

In this Decision, the Department approves the total year 2000 budget amount of \$67,314,000 requested by the Company. In its analysis, the Department commends the Company and the Energy Conservation Management Board for reaching consensus on a vast array of issues but indicates that even more can be accomplished. The Decision modifies the Plan in numerous areas to achieve a greater level of efficacy and customer awareness and involvement in conservation.

Some of the issues addressed in the Decision include joint offerings with The United Illuminating Company. However, the programs, as proposed, are not identical. The Department directs the Company to work more closely with The United Illuminating Company so that both companies offer identical programs thereby enabling Connecticut to venture toward the goal of regionally and then nationally coordinated efforts.

Regarding residential programs, the Decision addresses the SmartLiving Center, SmartLiving Catalog and the Retail Lighting Program. These innovations have been well received by residential customers and appear to be ideal tools with which to reach residential customers and raise their awareness of energy efficiency and conservation while making energy efficient appliances and fixtures available to them. The Department instructs the Company to take these marketing efforts even farther by using them to market other utility programs such as Appliance Rebate and Retail Lighting Incentives. The Decision also discusses the education program, indicating that the Company should work with The United Illuminating Company on a joint effort.

The Company proposed a commercial and industrial conservation budget with most of it allocated to existing programs, which are targeted at market transformation and special needs markets. The Department reviews the list of Company-offered programs and notes that even though the programs have a higher benefit-cost ratio when reviewed under one test as opposed to another, the Department expects the Company to continue to run both forms of evaluation for a complete and well-rounded review.

The Company has allocated approximately 7% of the total budget to research, development and display. The Company indicated that it allocated less of the total budget for RD&D in 2000 because it believes that it will take some time to get the policy framework in place and execute these projects. The Company may need to engage in

funding multi-year research commitments. The Department once again urges the Company to coordinate efforts with UI.

The Department approves the Company's general advertising campaign with certain additions or improvements and believes it will promote customer awareness. Some additions include a toll free hotline number, a specific website address and more prominent advertising of the fact that the customers fund the conservation program. The Department believes that this information may motivate customers to take advantage of the programs offered.

CL&P proposed an apportionment of up to 8% pre-tax of the total 2000 C&LM program expenditures to the management performance incentive, depending on performance measured against pre-specified criteria. The Company indicates that Public Act 98-28 in no way changed its entitlement to receive a management incentive fee under Conn. Gen. Stat. §16a-49. In the Decision the Department concurs with the Company that it has a right to earn an incentive based upon its prudently incurred C&LM expenditures. The Company is advised that the Department does not view the management incentive as a means to make the Company whole for lost revenues. The Department believes that the Company is entitled to receive an appropriate management performance incentive to develop and implement cost-effective C&LM programs that will achieve the overall goals of the Plan. However, the Company should be required to achieve superior performance to receive the maximum allowed incentive. The Department directs the Company to propose different methodologies for the computation of the management incentive program in its next filing.

B. REQUIREMENTS OF CONN. GEN. STAT. §16-245M

Section 33 of Public Act 98-28, An Act Concerning Electric Industry Restructuring (Act), codified as Conn. Gen. Stat. §16-245m, requires the Department on and after January 1, 2000, to assess or cause to be assessed a charge of three mills per kilowatt hour (kWh) of electricity sold to each end use customer of an electric distribution company to be used to implement C&LM programs. The electric distribution company shall establish an Energy Conservation and Load Management Fund, which shall be held separate from other funds and accounts of the electric distribution company, to hold the funds collected from the three mill charge.

The Act also requires the Department to approve a plan to implement cost-effective energy conservation programs and market transformation initiatives. The Plan must be developed by the electric distribution company with assistance from the Energy Conservation Management Board (ECMB), which is composed of representatives of an environmental group, the Office of Consumer Counsel (OCC), the Office of the Attorney General (AG), the Department of Environmental Protection, CL&P, The United Illuminating Company (UI), a statewide manufacturing association, a chamber of commerce, a statewide business association, a statewide retail organization, and residential customers.

C. CONDUCT OF THE PROCEEDING

Pursuant to a Notice of Hearing dated November 16, 1999, a public hearing in this matter was held at the Department's offices, Ten Franklin Square, New Britain, CT 06051, on December 2, and 16, 1999. Pursuant to a Notice of Close of Hearing dated January 28, 2000, the hearing was closed.

D. PARTIES AND INTERVENORS

The Department recognized the following as parties to this proceeding: The Connecticut Light and Power Company, P.O. Box 270, Hartford, Connecticut 06141-0270; Office of Consumer Counsel, Ten Franklin Square, New Britain, Connecticut 06051; and the Prosecutorial Unit of the Department, Ten Franklin Square, New Britain, Connecticut 06051. The Office of the Attorney General, 55 Elm Street, Hartford, Connecticut 06106 and the Energy Conservation Management Board were designated as intervenors.

II. DEPARTMENT ANALYSIS

A. PROPOSED 2000 C&LM BUDGET AND OVERALL GOALS

On October 15, 1999, The Connecticut Light and Power Company (CL&P or Company) filed with the Department of Public Utility Control (Department) its 2000 Conservation and Load Management (C&LM) Budget and Programs (Plan), which had ECMB consensus on the issues of program content and budgets. Exhibit MWT-3.

CL&P proposed a budget of \$67,314,000 for 2000. This compares to a budget of \$28,752,000 for 1999. The budgeted amount for 2000 is based on the three-mill charge applied to estimated kWh sales as approved in the Decision dated October 1, 1999, in Docket No. 99-03-36, DPUC Determination of The Connecticut Light and Power Company's Standard Offer. Response to Interrogatory EL-25. CL&P did not include the gross earnings tax (GET) associated with the revenues in its C&LM budget, which it stated it will recover through the distribution charge component of standard offer rates. Cahoon PFT, p. 3.

According to the Company, the overall goals of the Plan are to advance the efficient use of energy, reduce air pollution, improve public health and promote economic development in Connecticut. Exhibit MWT-2, p. 2. CL&P identifies five specific objectives to achieve these goals:

- Lower energy costs and increase aggregate productivity through cost-effective demand side management (DSM) initiatives;
- Create an energy efficiency "ethic" through communication of the economic and environmental value of efficient energy use;
- Increase energy efficiency to position Connecticut businesses and organizations for success in the global economy;

- Provide a high quality program that meets customer needs and addresses market barriers to energy efficiency, especially for special needs groups; and
- Allocate DSM resources in an equitable manner across all customer sectors.

Exhibit MWT-2, p. 2.

The following shows the source of C&LM funding and proposed budget expenditures by customer segment.

Proposed Year 2000 C&LM Revenues and Budget By Customer Sector

Sector	Revenue	Percentage of Total	Budget**	Percentage of Total	Percentage Differential
Residential non low-income	\$21,730	32.3%	\$12,428	24.4%	-7.9%
Residential low-income*	\$5,432	8.1%	\$5,130	10.1%	2.0%
Small/Medium non-government C&I	\$18,042	26.8%	\$11,610	22.8%	-4.0%
Large non-government C&I	\$18,042	26.8%	\$15,976	31.4%	4.6%
Municipal Government	\$2,170	3.2%	\$3,204	6.3%	3.1%
Other Government	\$1,899	2.8%	\$2,550	5.0%	2.2%
	\$67,315	100.0%	\$50,898	100.0%	

* Assumes 20% of total residential class as low-income.

** Program budgets do not include Load Management or RD&D.

Source: Exhibit MWT-4.

As the table demonstrates, by sector, funding and spending are somewhat disproportionate, resulting in some cross-subsidization among ratepayers. This is most evident among residential customers. Despite the lack of funding/spending parity, the Board has reasonably balanced equity with cost effectiveness in its proposed budget. However, the Board must limit cross-subsidization and should continue to address this issue in future filings to ensure that customers that pay for the programs receive a relatively proportionate share of the benefits.

The Department finds the Company's calculation of the total budget amount for the year 2000 to be accurate and therefore approves it. Further, the Department believes that the goals will provide benefits to all Connecticut residents and businesses and therefore are appropriate. The Department appreciates the efforts of the Board in reaching consensus on most issues. Except as discussed below, the Department believes that CL&P's stated objectives will assist the Company in meeting its overall goals.

B. YEAR 2000 C&LM PROGRAMS

1. Joint Programs

CL&P's Plan contemplates a coordinated effort among the utilities in the region as well as participation in national initiatives. In addition, CL&P states that it will coordinate several components of its Plan with UI, resulting in nine programs that are virtually identical. These include the SmartLiving catalog, the Energy Star Homes

Program and Research Development and Demonstration. Exhibit MWT-2, p. 15 and Appendix B.

Although CL&P's Plan includes joint program offerings, the Company believes that it is important to retain individual programs because "customers may respond more positively to distribution companies because of existing relationships, especially in the commercial and industrial areas." Response to Interrogatory EL-57; Tr. 12/2/99, pp. 116-121. In addition, CL&P states that it can be time consuming to achieve consensus when developing programs among multiple participants. Tr. 12/2/99, p. 118.

CL&P states that the successful development of market transformation initiatives will depend on coordination among utilities, government agencies, product manufacturers and industry associations. Concerted action is necessary because there is a threshold volume of demand required before manufacturers will invest in production plants and distributors stock new equipment. If utilities coordinate their activities, promote the same standards of efficiency, and provide similar incentives to customers, demand can be stimulated in sufficient volume to influence the supplies to initiate or increase production. When this occurs, products become readily available and prices are reduced to competitive levels that reflecting economies of scale. Exhibit MWT-2, p. 13.

Although the Plan includes some joint offerings, many of these programs are not identical. For example, as proposed, CL&P's Energy Star Homes Program includes incentives for the installation of heat pump water heating units (Hot Shot) and ground source heat pump loops, while UI's Energy Star Homes Program does not. The Department believes that offering programs with identical titles, but with dissimilar components and/or incentive structures, could lead to confusion, frustration or dissatisfaction among participants. In addition, dissimilar programs create the need for additional review by the Board and the Department.

In 1998, the Department required UI to participate in a joint conservation program with CL&P, the SmartLiving Catalog, citing the benefits of a combined effort. See Decision dated April 8, 1998, in Docket No. 97-10-01, DPUC Review of The United Illuminating Company's 1998 Conservation and Load Management Program and Budget, pp. 6-10. In 1999, the Department approved the continuation of UI's participation in the SmartLiving catalog program. See Decision dated June 30, 1999, in Docket No. 98-10-05, DPUC Review of The United Illuminating Company's 1999 Conservation and Load Management Programs, p. 4. Also in 1999, the Department reviewed the success of this joint offering. See Decision dated June 30, 1999, in Docket No. 98-11-02, DPUC Review of The Connecticut Light and Power Company's 1999 Conservation and Load Management Programs, p. 10. That Decision states:

The Department is encouraged by the results of this joint endeavor. Because CL&P administers the program, the promotional efforts noted above will extend to catalogs distributed to UI customers. Therefore, as a result of increased awareness of the catalog the Department anticipates increased participation by UI customers. Joint programs provide administrative cost savings and provide a consistent, virtually statewide, approach to promoting conservation. Based on the results of the lighting catalog offering the Department believes that other joint offerings should be pursued. Decision, p. 9.

The ECMB adopted a number of resolutions regarding the Plan. Among them is support for joint programs. The ECMB states:

The ECMB believes that CL&P and UI should have as many programs in common as possible. For many reasons, such as administrative efficiencies and ease of implementation for trade allies and energy services companies, common statewide programs are the logical choice. . . . The Companies have agreed to several common programs. . . . The ECMB supports these common programs, and urges the Department to consider ways to increase the interaction between the two companies, such as adopting common cost recovery, cost effectiveness, filing schedules, etc. Exhibit MWT-3.

Over the past few years the approach to implementing conservation has shifted from stand-alone, utility-by-utility initiatives, to coordinated regional and national ones. As a result of this trend the Department believes it is appropriate to increase the number of joint programs at this time. However, all in-state programs should be identical. In addition to the customer-related benefits noted above, identical programs would simplify review by the Board and the Department and would ease implementation by customers, contractors and energy service companies (ESCOs). In addition, the Department believes that a joint conservation filing is an appropriate goal for programs that will be implemented in 2002. Requiring joint programs is consistent with the recommendations of the ECMB. In addition, ESCOs would not likely develop separate programs to accommodate CL&P or UI. Therefore, joint programs would facilitate the RFP process discussed in Section II.I., Future C&LM Programs.

In developing joint programs the Department expects CL&P to build on the success of its and UI's programs. As discussed below, the Department is modifying some of CL&P's residential programs for year 2000, to establish identical programs between CL&P and UI.

Based on the foregoing, the Department will require that CL&P develop identical residential and small commercial and industrial programs in conjunction with UI for 2001. To facilitate the review of the joint programs, the Department will conduct one proceeding to review CL&P's and UI's C&LM proposals for 2001. In addition, the Department establishes a goal of having CL&P and UI submit a joint conservation filing for the year 2002 programs.

2. Residential

a. SmartLiving Center

CL&P's SmartLiving Center, located in Newington, opened in September 1999. In its first two and one half months of operation the SmartLiving Center had approximately 3,000 visitors of whom 200 were involved with new residential construction. The SmartLiving Center demonstrates many of the energy efficiency lighting fixtures and compact fluorescent lamps (CFL) offered through the SmartLiving Catalog. In addition, the center features a display of the Hot Shot and a variety of insulating techniques for residential construction. Visitors are provided information about the Energy Star program and label. CL&P states that customer response to the center has been positive. Tr. 12/2/99, pp. 198-200.

The Company is currently planning a second SmartLiving Center later this year and is considering sites in southern Connecticut, possibly in a location that would be convenient to customers of UI. This center would serve as an educational resource center to customers along the Connecticut shoreline as well as support for Energy Star programming for that area. CL&P states that although UI has indicated a potential interest in the center, UI has not committed its involvement for this project. Response to Interrogatory EL-80; Tr 12/16/99, pp. 308-311.

Based on the number of visitors, it appears that the SmartLiving Center will be successful, providing CL&P an opportunity to interact directly with customers. Visitors to the SmartLiving Center are likely to be predisposed to energy conservation and face-to-face contact is a powerful tool for promoting residential conservation programs.

The SmartLiving Center is designed to work in conjunction with and to leverage the name of the SmartLiving Catalog. See Decision in Docket No. 98-11-02, pp. 13 and 14. Since UI participates in CL&P's SmartLiving Catalog, the center is well suited for a joint program offering. Therefore, CL&P should continue to work toward having UI participate in the second center as well as all future SmartLiving endeavors. In its next C&LM filing, CL&P should report on its efforts to have UI involved in the second SmartLiving Center.

b. SmartLiving Catalog

The SmartLiving Catalog, which is direct mailed, offers energy efficient products at substantial discounts off the manufacturers suggested retail prices. The SmartLiving Catalog is an integral component of the Company's efforts to transform the market for residential lighting and other energy efficiency products. CL&P states that significant market barriers remain in the residential lighting market and that the catalog is designed to overcome these barriers while appealing to the large segment of the residential market that shops either through catalogs or on the Internet. Exhibit MWT-2, p. 18.

New technologies are also introduced and featured in the SmartLiving Catalog, such as Energy Star appliances, high efficiency heating, ventilation and air conditioning (HVAC) systems, heat pump water heaters and energy efficient table lamps. The target

market for this program is all residential customers, regardless of fuel type used for heating; builders; building officials and other trade allies. Id.

CL&P states that the catalog has been well received by residential customers, achieving a 50% name recognition, and will continue to be updated and mailed directly to all residential customers twice annually. CL&P will continue the catalog as a tool to effect market transformation for many products and services and to provide a bridge to its SmartLiving Center. The Plan includes a budget of \$2,384,000 for the catalog and target savings of 8,583 MWhs assuming 33,750 orders shipped. Id.

The Department has reviewed the SmartLiving Catalog in past C&LM proceedings and has generally found it to be of high quality and a mainstay among CL&P's residential programs. ¹

The Company continues to work with manufacturers to encourage the production of lighting products. As a result of these efforts, an energy efficient table lamp is now being manufactured.² In November of 1999 CL&P promoted this item through its catalog and Sunday newspapers. As of December 2, 1999, the Company had sold 4,000 of these lamps, experiencing unanticipated demand for the product. As a result of this offering, the manufacturer is designing a smaller version and the Company anticipates similar sales. Tr. 12/2/99, p. 202; Tr. 12/16/99, p. 259.

The Company has expanded the "kids page" to a section of the catalog. As noted in the Decision in Docket No. 98-11-02, educating children to the benefits of energy conservation is laudable and enhances the quality of this program. Decision, p. 9. The Department believes that the Company should continue to expand this section of the catalog and use it in conjunction with, and to promote, the educational program discussed in Section II.B.2.g., K-12 Educational Programs.

In past Decisions, the Department has noted the lack of participation by the residential new construction market in the catalog program.³ See Decisions in Docket No. 95-10-14, pp. 5-8; Docket No. 97-10-23, p. 5-8; Docket No. 89-11-02, pp. 6-9. While the Company maintains that it has pursued this market, catalog sales do not reflect participation by this market segment. For example, the current projection for year 2000 residential building permits in Connecticut is approximately 10,000, which is consistent with the number of permits issued in the past few years. Yet sales of fixtures continues to lag building permits. Decision in Docket No. 98-11-02, p. 12; Response to Interrogatory EL-60; Exhibit MWT-2, p. 23. As a result, residential new construction remains an untapped source of participation to transforming the residential lighting market.

¹ See the Decision in Docket No. 98-11-02, pp. 6-9; Decision dated March 25, 1998, in Docket No. 97-10-23, DPUC Review of The Connecticut Light and Power Company's 1998 and 1999 Conservation and Load Management Program, Budgets and Conservation Adjustment Mechanism, pp. 5-8; and Decision dated April 9, 1996, in Docket No. 95-10-14, DPUC Review of The Conservation and Load Management Programs and Budgets of The Connecticut Light and Power Company for 1996-1997, pp. 5-8.

² Prior to the introduction of this item energy efficient lighting products did not include table lamps.

³ In mid-1996 the SmartLiving program was expanded to allow builders to purchase through the catalog. Between 1996 and 1999 the catalog was essentially the only residential lighting program available.

As noted above, the Plan establishes a target for 2000 of 33,750 orders. The following table illustrates the historical number of catalog orders.

SmartLiving Catalog	
Year	No. of Orders
1994	13,089
1995	24,317
1996	17,237
1997	18,155
1998	31,430
1999	30,804
2000*	33,750

* Forecasted target.

Source: Tr. 12/16/99, p. 231; Late Filed Exhibit No. 9 RV-01.

The average number of orders for 1998 and 1999 was approximately 31,000. The table demonstrates that the Company's target number of orders for 2000 is approximately 2,750, or 8% above the recent two-year average. CL&P will achieve some additional penetration of residential lighting through non-catalog sales, such as through its Energy Star Homes and retail point-of-purchase lighting programs. However, based on targets established in those programs, and the projected number of building permits, there remains a large segment of the new construction market to be pursued, providing CL&P with opportunities to encourage the installation of efficient lighting technologies. See discussion in Sections II.B.2.c., Retail Lighting Program, and II.B.2.d., Energy Star Homes. Based on the increased awareness of the SmartLiving program, the recent success in the sale of the new table lamp, the opportunities available in the residential new construction market, and general awareness in conservation that will result from the increased budget and promotion of an energy efficiency ethic, the target for this program is understated.

Based on the foregoing, the Department adjusts the target for the SmartLiving catalog, increasing the average number of orders from 1998 and 1999 levels by 25%, or 7,750 orders ($31,000 \times .25$). This results in a total target for 2000 of 38,750 ($31,000 + 7,750$) orders and 9,843 MWhs ($38,750 \times 254$ kWh/order).

CL&P estimates that increasing the target number of orders by 50%, or 16,500, would require an increase to the budget of \$697,000; \$20,000 for administrative costs, \$50,000 for marketing and \$627,000 for incentive payments, or \$38 per order ($\$627,000/16,500$). Late Filed Exhibit No. 13.

Increasing the target requires an increase to the budget for incentive payments and administrative costs. The Company's estimates for incentive payments and administrative costs are reasonable. Therefore, the budget for this program will increase by \$294,500 ($\$38 \times 7,750$) for incentives and \$10,000, ($\frac{1}{2}$ of the \$20,000 estimate) for administrative costs. The Department believes that the Company can

meet the increased target within the marketing budget it has established for this program. Therefore no increase to this cost is allowed.

As discussed in Section II.E., General Advertising, the Department will require the Company to increase customer awareness regarding the funding for conservation programs. This will apply to the SmartLiving Catalog. The Company will be required to modify the outside of the front and back covers of all future editions, beginning with the next publication, to include the following:

This catalog is provided by The Connecticut Light and Power Company as part of the Company's residential energy conservation programs. The catalog features Energy Star™ lighting fixtures and energy efficient bulbs. These items can be purchased through the catalog at prices that have been discounted well below the full retail price. This program is funded by CL&P customers through the Conservation Charge on monthly bills.

In addition, this message must include the conservation hotline number and tagline for CL&P's website as discussed in Section II.E, General Advertising. Because this program is offered jointly with UI this message will reach UI customers and must be modified for catalogs distributed to UI's customers. CL&P will be required to submit sample copy of this material for Department review.

CL&P has implemented a retail lighting offer that will allow customers to purchase Energy Star lighting fixtures directly at retail outlets. See Section II.B.2.c., Retail Lighting Program. The catalog is geared to a specific market, redecorating and mail order shoppers. Catalog sales should be unaffected by the retail program, but should they decline, it may be appropriate to reallocate incentive dollars from the catalog to the retail lighting program. This issue will be examined in CL&P's next conservation filing.

Because the catalog is provided to over one million residential customers twice annually, the Department believes that it should be used to promote other utility programs. See Section II.B.2.f., Appliance Rebate Program.

As discussed in Section II.B.2.c., Retail Lighting Program, CL&P's efforts to transform the lighting market will transition from the catalog program to a retail point-of-purchase program. As a result it will be appropriate to consider modifying the catalog as the transition to store-based lighting programs occurs. The Company will be required to address this issue in its next C&LM filing.

c. Retail Lighting Program

CL&P's Retail Lighting Program is designed to supplement the SmartLiving Catalog by encouraging the development, introduction, sale and use of energy efficient, high quality residential lighting products through national distribution channels. The program is designed to overcome the barriers to customers purchasing these products and to transform the residential lighting market to one with sustained availability of and demand for quality energy-efficient lighting products. Exhibit MWT-2, p. 35-38; Appendix B.

CL&P will provide point-of-purchase rebates for Energy Star fixtures and qualifying CFLs. CL&P personnel and/or contractors will enlist lighting retailers and suppliers to participate in promoting Energy Star products. CL&P will provide retailers with point-of-purchase marketing materials and other display collateral. In-store promotions will be conducted to assist retailers in promoting the program and to educate consumers on the positive benefits of these energy efficiency technologies. Id.

The overall goal of the program is to create and sustain change in the residential lighting market, increase availability, consumer acceptance and use of energy efficient hard-wired and screw-based lighting products. Specific program elements are designed to address identified market barriers. CL&P will participate in a consumer marketing campaign in conjunction with the marketing efforts for the Northeast Energy Efficiency Partnership (NEEP) Regional Energy Star Lighting Initiative. In addition, supplemental marketing will be done through home shows, open houses, newspapers, television and cooperative advertising with retailers. CL&P has established target savings of 3,567 MWhs, based on the sale of 30,750 fixtures in 2000. Savings associated with the sale of CFLs were not quantified. The total budget for this program is \$1,052,000. The retail point-of-purchase lighting program is one of nine programs that CL&P and UI will pursue jointly. Id.; Response to Interrogatory EL-32; Appendix B.

In the April 9, 1996 Decision in Docket No. 95-10-14, the Department directed CL&P to develop a point-of-purchase lighting program, citing the advantages that such a program would have in transforming the market for energy efficient fixtures. Decision, p. 7. Pursuant to that directive, CL&P developed a program that was scheduled to begin in 1998, and budgeted \$195,000 for it. Id. However, the program was not implemented. Decision in Docket No. 97-10-23, p. 8. In Docket No. 98-11-02 the Company indicated that it would begin its retail program in 1999. Response to Interrogatory EL-1; Tr. 3/22/99, p. 40; Late Filed Exhibit No. 1; Decision p. 10.

The Company launched its Retail Lighting Program in the fourth quarter of 1999 with the use of "instant days" at select retail outlets. Instant days are promotional events at which a customer can purchase an energy efficient fixture or CFL and receive a coupon for an instant price reduction at the cash register. CL&P then reimburses the retailer for all discounts. After an initial round of instant days CL&P will implement a point-of-purchase mail-in rebate coupon offer, but will offer additional instant days for retailers that do not wish to participate in the coupon offer. Tr. 12/2/99, pp. 202-205.

Beginning in the late 1980's, and throughout the 1990's, CL&P's conservation initiatives have included programs designed to transform the residential lighting market, but without much success. Until the mid-1990's efficient lighting products were essentially limited to fluorescent bulbs whose physical and operating characteristics proved unsatisfactory. Lighting technologies have advanced dramatically over time, producing wide selection of CFLs and fixtures that consumers like.

CL&P now offers customers the opportunity to purchase discounted efficient lighting fixtures directly at retail outlets. As stated in multiple past Decisions, a store-based program provides the best opportunity for CL&P to make significant strides toward achieving the stated goal of transforming this market. See Decisions in Docket

No. 95-10-14, pp. 5-8; Docket No. 97-10-23, pp. 5-8; Docket No. 98-11-02, pp. 6-9. However, customers must be satisfied with the program, as well as the product, if participation in this and additional conservation programs is to be achieved. In that regard, the Department views the Retail Lighting Program as being critical to the overall success of CL&P's conservation initiative as well as providing a springboard to other programs and to achieving an energy efficiency ethic among residential customers.

The following are some elements of this program that the Department believes are critical to achieving customer satisfaction:

- ❑ Customers must be aware of the program;
- ❑ Retail support personnel must fully understand the program;
- ❑ Rebate coupons provided in retail outlets must be available at all times and be easy to find;
- ❑ If coupon displays are empty, customers should be directed to store personnel to obtain coupons;
- ❑ Rebate coupons provided in retail outlets must not create confusion regarding the program;
- ❑ The rebates should be for a fixed dollar value and should not require a customer to calculate the rebate;
- ❑ Rebate coupons should be provided in customer bills;
- ❑ Rebate coupons should be distributed at the SmartLiving Centers and through the SmartLiving Catalog;
- ❑ Rebate coupons and other displays must be designed to attract attention;
- ❑ CL&P customer service representatives must be aware of the program and should encourage customer participation;
- ❑ CL&P should consider instant rebates for CFLs;
- ❑ Instant Day promotions should be ongoing to maintain interest in and increase awareness of the program;
- ❑ The discounted price of fixtures purchased at retail outlets should approach or equal the price offered through the SmartLiving Catalog;
- ❑ Customers should be solicited to suggest ways to improve the program; and
- ❑ CL&P must follow-up with program participants to encourage participation in other programs.

CL&P has established target savings of 3,567 MWhs, based on the sale of 30,750 fixtures in 2000, an average of 116 kWhs per fixture. A typical three-bedroom home requires between 14 and 16 hard-wired fixtures.⁴ The number of fixtures varies based on house style, size and the number of bedrooms. Based on an average of 15 fixtures per structure, and 10,000 residential building permits expected in year 2000, the potential market for lighting fixtures in new construction can be estimated at 150,000 units.⁵ Add to that the market for reconstruction, rehabilitation, replacement due to failure and other change-outs, the Department estimates the potential market for lighting

⁴ This estimate assumes five outdoor fixtures, and the following ceiling fixtures: up to three recessed cans, three bedroom, one kitchen, one dining room, one hallway and two family room.

⁵ The use of 15 fixtures assumes an average for larger, four and five bedroom homes, and smaller, one and two bedroom condominium-style residential construction.

fixtures to exceed 300,000 units in 2000.⁶ Although lighting is a part of the Energy Star Homes Program, approximately 9,000 homes will not participate in that program. See Section II.B.2.d., Energy Star Homes. These homes provide an opportunity for participation in the Retail Lighting Program.

The majority of lighting fixtures are sold at home centers and CL&P has enlisted the major home centers for this program. Tr.12/2/99, p.205. Therefore, if properly implemented, point-of-purchase advertising can be used to reach a large segment of the market for lighting fixtures. In addition, the rebated price of these products should approach the price offered through the SmartLiving catalog, pricing these items equally with equivalent incandescent fixtures, which should increase participation. Combined with the Company's overall effort to promote an energy efficiency ethic, these aspects of the program should result in high levels of participation. Based on the foregoing, the Department finds that the target for this program is understated. Therefore, the Department will increase the target to 60,000 fixtures and 6,960 MWhs. CFLs are not included in this total and must be tracked separately. Light bulbs are purchased much more frequently than fixtures, so the target for CFLs should be 1.5 times that of fixtures, or 90,000.

CL&P estimates that increasing the target by these amounts requires an increase to the budget for this program of \$1,411,000; \$50,000 for administrative costs, \$300,000 for marketing and \$1,061,000 for incentives. Late Filed Exhibit No. 13.

The Department believes that the success of the retail lighting program is critical to customer participation in other C&LM programs as well as in achieving an energy efficiency ethic. Therefore, increasing the target for this program requires an increase to the budget for incentive payments, administrative costs and marketing. The Company's estimate for these costs is reasonable. Therefore the Department increases the budget for this program by \$1,411,000. See discussion in Section II.B.j.

Some home centers accept a product for refund without a receipt. This provides the opportunity to 'game' purchases made during Instant Day promotions should a customer return an item purchased at the discounted price, without the receipt, for a refund of the full retail price. The Company should determine if this is occurring and takes steps to address it.

The Company must work with UI to develop a consistent, statewide Retail Lighting Program.

d. Energy Star Homes

The Energy Star Homes Program is part of a national energy efficiency campaign sponsored by the Environmental Protection Agency and the Department of Energy. It was created to help home builders and buyers design and construct homes that use at least 30 percent less energy than homes built to Model Energy Code (MEC) standards. CL&P uses the Energy Star Homes Program platform and supplements it to encourage and assist home buyers and builders to achieve greater energy efficiency for heating,

⁶ This estimate does not include the potential for installation of CFLs.

cooling, lighting and appliance operations. CL&P provides home energy ratings as a means of certifying compliance with the Energy Star standard and helping consumers, builders, and other key market actors differentiate between energy-efficient homes and conventional, standard-efficiency homes. The educational component of CL&P's former Energy Crafted Homes Program will continue to be available to those wanting to reach even higher levels of efficiency through improved building science and the use of geothermal heat pumps (GHP). The Company will work toward establishing an infrastructure for contractors who install GHPs. Exhibit MWT-2, pp. 23-27.

The Company will target residential new construction projects of all types including single and multifamily dwellings. In addition to prospective new home purchases, key market actors to be targeted include architects; designers; builders; owner-builders; remodelers; and other trade allies such as electricians and building officials. A secondary market includes new homes and major renovation and rehabilitation of existing homes for low and moderate-income customers. Specifically, the Company will target developers of single and multi-family housing for low-income families, including public housing authorities, community development entities, and organizations such as Habitat for Humanity. Id.

The current projection of building permits that will be issued in Connecticut in year 2000 is 8,600 single-family units and 1,300 multi-family units. Currently, custom homes make up a large portion of single-family units. CL&P proposes to cooperate with UI and develop an integrated and coordinated residential new construction program offering these services to anyone building a home in Connecticut. Id.

The overall goal of Energy Star Homes is to increase builder and consumer awareness and understanding of the benefits of energy efficient building practices and to effect permanent market movement to more energy efficient residential construction in Connecticut. A key objective is to facilitate implementation of the recently adopted building energy code and to develop and maintain the link between utility energy efficiency programs and building energy code upgrades. This effort should provide an institutional mechanism to upgrade energy code standards on a regular basis to reflect changes in common practice in the state. Id.

For the low-income market, the goal is to make energy more affordable, thereby bringing down the overall cost of housing for this market segment. Over time, the goal for the low-income new construction market is to change appliance procurement practices; train authorities in life-cycle cost analysis; develop efficiency standards for public housing; encourage mass procurement of energy efficient appliances by government authorities to stimulate the manufacturers, bring costs down and reduce incremental cost to the utility. CL&P will attempt to leverage private and public funding sources in this effort. Id.

The staff at the SmartLiving Center will provide most of the program services including customer and trade ally interaction and technical assistance. As needed, CL&P will contract for services to supplement staff efforts. CL&P is exploring, along with UI, coordinating with other utilities in the northeast region who currently sponsor the Energy Star Homes Program. CL&P and UI hope to accelerate the implementation of the Energy Star Homes Program in Connecticut. Id.

In light of the movement to consistent statewide coverage, and based on the initial success of the similar program operated by other New England utilities, CL&P expects this program will be well accepted by consumers and the building community. CL&P anticipates that program goals and budgets will increase in response to increased consumer demand. The budget for this program in 2000 is \$1,515,000 and the target participation is 450, or 5 percent of the total new construction market homes, built to the Energy Star Homes standard. Incentive payments are projected to total \$689,000, approximately 45% of the budget for this program, or \$1,530 per participant. The remainder of the budget, \$826,500, is for the administrative and marketing costs associated with this program. Id.; Late Filed Exhibit No. 11; Response to Interrogatory EL-65.

The following table demonstrates proposed measures and incentive payments:

Energy Star Homes - Measures and Incentive	
Measure	Incentive Per Participant
Lighting Fixtures*	\$400
Central Air Conditioning	\$100
Refrigerator	\$50
Dishwasher	\$50
Clothes Washer	\$75
Hot Shot**	\$920
GFX Heat Recovery	\$75
GHP Loop	\$5,000

* Average incentive based on 10 free fixtures.

** Customer does not pay the \$150 contribution.

Source: Late Filed Exhibit No. 11.

CL&P's target for this program is based on that established by other New England utilities that began a similar program approximately a year ago. However, those utilities experienced first-year penetration levels approaching 10%. The Company states that the higher than projected participation resulted from one large multi-unit project in the Boston area. The Company believes that that project skewed the figures and its target is reasonable. Tr. 12/16/99, pp. 260-262.

CL&P's Energy Crafted Homes (ECH) program was an integral part of the Company's residential conservation efforts throughout the 1990's. The goal of ECH was to educate customers and transform standard building practices to incorporate energy efficiency features in residential construction. In the Decision in Docket No. 98-11-02 the Department found that ECH had achieved its stated goal and it was discontinued. Decision, pp. 11-13.

While ECH was in place, CL&P educated hundreds, possibly thousands of builders, to the benefits of energy efficient construction techniques while developing a positive relationship with them. In addition, these builders became familiar with utility-sponsored programs. Participation in ECH did not achieve projections in part

because of the strict efficiency standards imposed by the program. Although builders did not participate fully in ECH, many incorporated energy efficiency techniques in residential construction. Decision in Docket No. 98-11-02, pp. 11-13.

Through ECH and CL&P's efforts to upgrade state building codes, the building trade is familiar with energy efficiency construction and the incentives associated with utility sponsored, energy efficient building programs. This provides a tremendous base from which to build participation in the Energy Star Homes Program. In addition, as stated throughout this Decision, under the Plan, CL&P will increase awareness about energy efficiency, stimulating participation in all programs. Further, the Energy Star Homes Program has been in place throughout New England for over a year. As such, local builders have likely been exposed to it through various regional trade associations. This provides an additional jumpstart for the program.

The efficiency standards for an Energy Star Home are less stringent than under ECH, making it easier for builders to qualify a dwelling for the program. In addition, participants can qualify for increased incentive payments, while certifying the structure as being an Energy Star Home. Combined, these features create a very attractive program for the building community. As previously stated, the increased focus on promoting an energy efficiency ethic should increase general awareness of and participation in all programs. As a result, the Department believes it is reasonable to expect a target level of participation in this program that exceeds CL&P's projections. The Department will establish 10% of housing starts that build to Energy Star standards as the minimum target for new residential construction under the Energy Star Homes Program. This target is consistent with the first-year experience of the program elsewhere in New England. In its next C&LM filing, CL&P will be required to submit a summary report of the activity under this program. The report shall include, but should not be limited to, the number of participants, location by town, size and type of dwelling (e.g., condominium, duplex, multi-family) measures and incentives.

CL&P indicates that the revised target will require an increase in the budget for this program of \$909,000. This increase comprises of \$300,000 of administrative costs, \$350,000 of marketing costs and \$259,000 for incentives. Late Filed Exhibit No. 13. The current budget assigns \$826,500, or approximately \$1,840 per participant for administrative and marketing costs ($\$826,500/450$). Based on the Company's estimate, administrative and marketing costs need to increase to nearly \$1,500,000 to achieve the revised target. Id.

Increasing the target requires an increase to the budget for incentive payments for this program and the Company's estimate of \$259,000 is reasonable. See discussion in Section II.B.j. However, the administrative and marketing budget as originally proposed is considerable and is adequate to handle the revised level of participation. Therefore, no additional funding for these costs will be allowed.

CL&P states that it will work with UI to develop a joint media effort, but that the programs will have unique features because UI's service territory is more highly urbanized. Tr. 12/16/99, pp.264-266. As discussed in Section II.B.1., Joint Programs, the Department will require that all residential programs offered by CL&P and UI be identical. For the reasons stated in that analysis, the Energy Star Homes Program

lends itself to a statewide offering for 2000. Therefore, the Energy Star Homes Program must be developed as a consistent, joint offering.

As part of the Energy Star Homes Program CL&P proposes to offer a free Hot Shot water heater to participants that heat domestic water with electricity. Late Filed Exhibit No. 11. The Company assumed that 20% of electrically heated and 5% of non-electrically heated new construction would have a Hot Shot installed under this program. These installations are separate from the targets established under the Hot Shot Program. Tr. 2/16/99, p.270. See discussion in Section II.B.2.e., Hot Shot Heat Pump Water Heaters.

CL&P's proposal to promote the Hot Shot through the Energy Star Homes Program is reasonable; however, customers building new homes who choose to heat their domestic hot water electrically must be required to contribute \$150, the customer contribution under the Hot Shot Program, toward the cost of the unit. See Section II.B.2.e., Hot Shot Heat Pump Water Heaters. Therefore, CL&P's proposal to provide these units at no cost is denied. The Hot Shot Program is not available to UI customers at this time. Therefore, CL&P will be required to work with UI to include the Hot Shot in joint programs that will be developed among itself and UI. Eliminating the free Hot Shot offer returns \$15,000 for each 100 units to the budget for this program ($\$150 \times 100$). These dollars should therefore be reallocated within the Energy Star Homes Program.

In an effort to develop an infrastructure for the installation of geothermal heating and cooling systems, the Company proposes to offer to install a free closed loop for geothermal heat exchange units as part of its Energy Star Homes Program. The Company estimates the average cost of each loop to be \$5,430 and projects that it will install 70 loops under the program. Therefore, the total budget for loops is approximately \$380,000. Late Filed Exhibit No. 11; Tr. 12/16/99, pp. 267-284.

CL&P states that geothermal HVAC units provide significant benefits compared to fossil-fueled technologies. However, the market for these units has not flourished due to the cost associated with the installation of the ground-source heat exchange loop and inexperience on the part of building contractors. Although a loop can be installed with relatively light excavating equipment, many builders use well drilling contractors for these installations, resulting in unnecessary and excessive costs. In addition, unanticipated costs can result unexpected site difficulties such as ledge. Builders tend to estimate the price for these systems very high to avoid these cost risks, so customers tend to choose traditional HVAC options. CL&P hopes to stimulate interest in this technology by eliminating these risks.

CL&P notes that these installations are common, and therefore less costly, in other regions of the country. In an effort to establish an installation infrastructure CL&P has solicited contractors from throughout the United States. A contractor from Texas, who specializes in geothermal installations, has expressed an interest in the Connecticut market and plans to meet with CL&P. Tr. 12/16/99, p.279.

The Company's efforts to prime the infrastructure for the installation of geothermal heating and cooling systems is laudable and should be pursued. At this time the Department views this as a pilot program. Therefore, offering it in the future is

uncertain. As such, the geo-thermal loop is not to be offered jointly until the results of the pilot are studied.

The Department will allow the Company to provide the free loops under a stand-alone offering. However, the cost of this measure is significant. Therefore, CL&P will be limited to 70 installations as proposed. Should interest in this program exceed expectations, the Company must request Department approval to expand it in 2000. In addition, the Company will be required to submit a summary of activity under this program in its next C&LM filing.

As noted in the Decision in Docket No. 98-11-02, geothermal units tend to be installed in larger homes whose construction budgets can accommodate the incremental cost. Decision, p. 12. Diversifying the application of this technology should stimulate demand for the installation of geothermal systems. Therefore, CL&P must solicit participation by contractors building smaller homes, (i.e., 2,000 - 2,500 sq. ft.) and homes located in cities. The Decision in Docket No. 98-11-02 allowed the Company three years to establish an infrastructure for contractors installing ground loops. Decision, p. 13. In its next C&LM filing the Company should provide an update as to whether it can achieve this goal in the time allotted.

e. Hot Shot Heat Pump Water Heaters

A Hot Shot heat pump water heater is designed as an add-on unit for a conventional electric water heater. It reduces water heating costs by removing heat energy from the air surrounding a water heater tank and transferring it to the storage tank. The Hot Shot can be attached to an existing electric water heater or installed when a heater is replaced. The technology has been developed from an Electric Power Research Institute research prototype. CL&P has worked closely with the manufacturer to assure that the technology performs well in the New England climate. Exhibit MWT-2, p.28; Decision in Docket No. 97-10-23, p. 12.

The Hot Shot can reduce the energy used to heat domestic water by up to 50%. Approximately 280,000 CL&P residential customers have electric water heaters. Although this technology can be applied to gas water heaters, it is not yet sufficiently developed to do so. Under this program the customer co-pay will remain at \$150 and the customer will be required to make that payment in full at the time of installation. The goal of the Hot Shot program is to transform the residential water heating market to incorporate heat pump technology into the standard design of electric water heaters. Response to Interrogatory EL-68; Exhibit MWT-2, p. 28.

Significant market barriers include:

- The technology is still considered to be emerging, so there is limited experience on the part of installers;
- Other utilities have not yet joined this effort;
- There is only one manufacturer to date; and
- Customers must pay \$150 toward the cost of the Hot Shot and also spend between \$400 to \$800 if a new water heater is necessary. Id.

The goal for 2000 is to significantly increase participation. CL&P plans to meet its goal by working with a newly-identified manufacturer in developing a highly efficient, more reliable product, increasing the number of qualified installers and expanding the program to other utilities in the region. The Company installed approximately 840 Hot Shots in 1999. The budget for this program is \$2,336,000, with target savings of 7,919 MWhs, assuming 2,933 units are installed. The total installed cost of each unit is approximately \$920; \$770 from CL&P and \$150 from the customer. The target for this program does not include the Hot Shot units installed under the Energy Star Homes Program. Id.; Tr. 2/16/99, p.270; Late Filed Exhibit No. 11.

CL&P has been developing the Hot Shot for the past few years, controlling the speed at which the technology was introduced while it worked to eliminate minor operating problems with the unit. During that time, was also developing an infrastructure of qualified installation contractors. CL&P is now prepared to market this technology aggressively. Decision in Docket No. 98-11-02, pp. 14 and 15; Responses to Interrogatories EL-67 and 68.

The Decision in Docket No. 97-10-23 states:

Based on the Company's projections, the Hot Shot technology offers significant potential for savings. Unlike savings that result from the installation of numerous smaller measures such as CFLs, caulking or water heater blankets, savings from a Hot Shot are easy to demonstrate, easy for customers to understand and payback is very quick. The Department . . . believes that the incentives should be reduced quickly. Decision, p. 13.

The Hot Shot continues to provide a significant reduction to customer bills. For example, CL&P estimates average annual savings of 2,700 kWhs per customer, or approximately \$270.⁷ Based on average savings and a \$150 customer contribution, the payback for the Hot Shot is less than one year. The customer contribution under the Hot Shot Program has remained at \$150 since 1997 and although the Company has plans to increase the contribution it does not propose to do so at this time. See Decisions in Docket No. 97-10-23, p. 13 and Docket No. 98-11-02, p. 15. The Company states that the contribution should not be increased until it has had an opportunity to market the Hot Shot in 2000. Tr. 12/16/99, p.298.

Given the short payback period for these units, the Company should continue to work toward increasing the customer contribution for the Hot Shot. However, reducing the incentive at this time could reduce the number of units installed in 2000. Therefore, the Department will not modify the customer contribution at this time. Although the co-payment is modest when compared to the potential savings, customers may have difficulty making that payment up front. This could contribute to a reduction in the number of participants in this program. The Company should consider using the savings associated with the Hot Shot to fund the co-payment through an amortization

⁷ Savings assume the price of electricity is \$.10/kWh.

on the customer's bill. This issue should be addressed in the Company's next C&LM filing.

The Company indicates that it will expand its offering of this product to other utilities in the region. Although this program is well suited to a joint offering, UI is not participating at this time. Therefore, CL&P should work with UI to establish a joint program offering for its Hot Shot and to report on these efforts in its next C&LM filing. See Section II.B.1., Joint Programs.

Based on the number of Hot Shots installed in 1999, the Department finds the target for this program, when combined with the number of Hot Shots targeted for the Energy Star Homes Program, to be reasonable.

f. Appliance Rebate Program

CL&P's Plan includes appliance rebates for Energy Star clothes washers, refrigerators and dishwashers. CL&P will offer a \$75 rebate for the purchase of an Energy Star clothes washer, regardless of the fuel the customer uses to heat domestic water. Participation in other conservation programs is not required to take advantage of the clothes washer rebate. CL&P will offer a \$50 rebate for refrigerators and dishwashers. However, these rebates will only be available to customers participating in the Energy Star Homes Program. Exhibit MWT-2, pp. 31-34; Late Filed Exhibit No. 11.

CL&P states that "approximately 52,000 clothes washers are sold annually in Connecticut [and that] each year similar numbers of refrigerators (slightly more) and dishwashers (slightly less) are sold in the state." Exhibit MWT-2, p. 31. The Company's target level of rebates for these appliances totals 10,471 and the target percentage of the market varies by appliance. In addition to the rebates noted above, CL&P plans to continue offering an incentive of \$20 per qualifying appliance to the retail outlet. Id.

The following provides a breakdown of the targeted participation for the Appliance Rebate Program:

Target for Appliance Rebate Program

Item	No. of Units	Percentage of Annual Sales*
Refrigerators	2,850	5.48%
Dishwashers	1,861	3.58%
Clothes Washers	5,760	11.08%
	10,471	

* Assumes sales of 52,000 units for each appliance.

Source: Response to Interrogatory EL-71; Exhibit MWT-2
pp. 31-34.

CL&P proposed an appliance rebate program in Docket No. 97-10-23. Response to Interrogatory EL-11; Late Filed Exhibit No. 8; Tr. 1/15/98, pp. 81-86, 250-253. At that time, CL&P considered rebates for customers that were buying a package of three or more qualifying appliances or a combination of appliances and

lighting. The rebates under that program were not restricted to the new construction market. Id.; Decision in Docket No. 97-10-23, pp. 13 and 14.

The Decision in Docket No. 97-10-23 states:

The Department believes that an appliance rebate program is appropriate. However, limiting rebates to packages of two or three appliances may tend to favor purchases made for new construction or cause customers in need of a single appliance to opt for a less efficient model. . . . therefore, the Company must include purchases of a single appliance in its rebate offering. The single appliance rebate can favor appliances that demonstrate better savings than other appliances, such as the front-load washer. Decision, p. 14.

The potential annual market for the appliances noted above is approximately 156,000 units (52,000 x 3). CL&P will achieve a heightened awareness regarding conservation as a result of its efforts to stimulate an energy efficiency ethic, providing an opportunity to increase participation in conservation programs generally. CL&P should seize this opportunity to increase market penetration for all Energy Star appliances. However, CL&P did not propose a rebate program that applies to all appliance purchases and requiring the Company to implement such a program at this time would essentially require it to initiate a new program. As such, the Company would need time to develop the program and its related marketing material and it is likely that the program could not begin until the second half of 2000. Therefore, the Department will not require CL&P to expand the appliance rebate program at this time. However, the Department will require the Company to implement this type of program should be implemented in 2001. CL&P should include room air conditioners in its proposal.

In October 1999, CL&P and other utilities in the northeast region completed a joint utility Market Assessment Study of the TumbleWash Program and Energy Star Appliances.⁸ The main purpose of the study was to review changes in the marketing, purchasing practices and awareness of Energy Star clothes washers since a baseline study was conducted in April 1998 and to characterize the market for other Energy Star appliances.

The study found that the incremental cost of domestic Energy Star washers decreased from \$486 to \$372 between April 1998 and October 1999, a drop of \$114, or nearly 25%. The study also shows that there has been a significant increase in awareness of this technology by customers and retail sales personnel. In addition, the study indicates that the market share of Energy Star clothes washers has increased from an estimated 7% of total washer sales in the first quarter of 1998 to an estimated 16% in the first quarter of 1999. TumbleWash Study, Table Ex-1, Summary of TumbleWash Marketshare Estimates; Response to Interrogatory EL-72.

CL&P established a target for the clothes washer rebate of 5,760 units or 11% of total washer sales. Energy Star clothes washers account for 16% of total washer sales at present. Combined with the fact that the rebate for clothes washers will increase

⁸ The study is publicly available through NEEP.

from \$25 to \$75, the current market penetration reveals that CL&P's target for clothes washer rebates is understated.⁹ As noted by CL&P, the market for efficient clothes washers is being transformed. Tr. 12/2/99, p. 128. Based on the foregoing, the Department increases the target number of units for the clothes washer rebate to 16% or 8,320 units (52,000 x .16), an increase of 2,560 units. Increasing the target requires an increase to the budget for this program of approximately \$210,000 to account for additional incentive payments of \$192,000 (2,560 x \$75) and approximately \$18,000 of increased administrative costs. Based on the three-fold increase to the rebate and the fact that the target is being established at current market penetration rates, the Department believes that the target can be achieved within the current marketing budget for this program. The Department therefore will increase the budget by \$192,000. See discussion in Section II.B.j.

This program will achieve its goal of market transformation. The Department is hopeful that this program will achieve the goal in the near future, allowing CL&P to reassign resources to other residential conservation initiatives. The Company should report on the need to continue or modify this program in its next C&LM filing.

g. K-12 Educational Programs

CL&P estimates that it will spend approximately \$55,000 in 2000 on energy conservation activities geared toward children and young adults. In addition to material included in its SmartLiving Catalog, that it recently hosted a workshop for teachers at its SmartLiving Center and has met with the Science Center of Connecticut to discuss the possibility of having workshops on energy efficiency for children at the SmartLiving Center in early 2000. In addition, the Company responds to requests for speakers on energy conservation for all grades and has provided schools throughout Connecticut with energy conservation material through its Educational Services program. Although CL&P has placed the emphasis of the conservation advertising budget toward the adult population, those that make the financial decisions regarding conservation expenditures, it is open to considering additional elements in its educational outreach activity. Responses to Interrogatories EL-9 and 58; Tr. 12/2/99, pp.130-135; Tr. 12/16/99, p.241.

CL&P states that it reviewed the educational program that has been proposed by UI in Docket No. 99-10-18, DPUC Review of The United Illuminating Company's Conservation and Load Management Plan for 2000. CL&P indicates that it would cost approximately \$1.3 million to implement UI's program, which focuses on energy conservation opportunities in school buildings. The Company believes that the need for energy conservation in school buildings is being met through current programs. Tr. 12/16/99, pp. 240-245.

A primary goal of CL&P's Plan is to create an energy efficiency ethic in Connecticut. Response to Interrogatory EL-26. There is no better way to accomplish

⁹ Approximately 300,000 of CL&P's 1,000,000 residential customers heat their domestic water with electricity. Although the rebate will decline from \$100 to \$75 for these customers, they represent only 33% of the total residential class. Therefore, approximately 700,000 customers, or 66% of CL&P's residential class, will experience an increase in the potential clothes washer rebate.

this goal than to target Connecticut's youth. This will provide a lifetime of benefits. Therefore, it is imperative that CL&P involve elementary and high school students in its conservation efforts. However, the budget for energy conservation activities geared toward this segment of the population represents an insignificant percent of the total and reflects no increase to historical spending levels or changes to past program activities.

The Department believes that this aspect of CL&P's conservation effort should be developed jointly with UI, creating a consistent statewide educational program. However, as noted by CL&P, it may be inappropriate to require CL&P to participate in UI's proposed educational program since that program may overlap with past or current CL&P initiatives. Therefore, the Department will not require CL&P to participate in UI's program at this time. However, the Department will require CL&P to work with UI to establish a joint educational program for 2001. This should include an evaluation of UI's program.

The joint program should engage students in grades K-12 and should vary by grade level. Students will respond to a program if it is hands-on and fun. Therefore, it is inappropriate to establish a program that simply provides children with information about conservation. Conservation kits, contests, games or other activities should be an integral part of this effort. Further, the program should emphasize recognition and an understanding of the Energy Star label and consideration should be given to coordinating the program with nationally recognized events such as Earth Day. To promote this effort, CL&P should increase its presence at teacher conferences and engage the science and math faculty at the schools.

h. Assisted Living Facilities

In the Decision dated September 9, 1998, in Docket No. 97-11-14, Application of CareMatrix Corp. for Declaratory ruling Regarding Metering Requirements for Assisted Living Facilities (CareMatrix Decision), the Department allowed CL&P to master meter assisted living facilities (Facilities), subject to certain conditions.¹⁰ Among them was that the operator of the facility must implement cost-effective conservation and load management measures as determined appropriate by the Company. CareMatrix Decision, p. 8.

The Company states that the directive requiring Facilities to participate in C&LM programs as a condition of being master metered became effective on February 5, 1999, when the Department approved the Company's modified Rules and Regulations. See Decision dated February 5, 1999, in Docket No. 98-01-02, DPUC Review of The Connecticut Light and Power Company's Rates and Charges – Phase II. In December 1998, the Company established a certification process for these Facilities. That process is handled by the Company's New Service technicians or Customer Support account executives who are required to inform the Company's Conservation group of all applications by Facilities. Late Filed Exhibit No. 10.

¹⁰ The CareMatrix Decision applied to UI and CL&P.

Facilities are multiple-unit residential type dwellings that provide an excellent opportunity to implement long-term conservation strategies on a large scale while limiting the administrative costs to do so. CareMatrix Decision, p. 7. In addition, because these Facilities consist of residential units contained in a commercial setting, they provide an opportunity to implement residential and commercial conservation measures. Late Filed Exhibit No. 10.

In the CareMatrix Decision, the Department recognized the benefits that master metering could provide to an operator of these Facilities. These include reducing construction costs by eliminating the expense associated with individually metering each residential unit and allowing the facility to be served under a commercial rate, resulting in lower operating costs. Absent CL&P's approval for the installation of a master meter, these benefits would be lost. Therefore, the CareMatrix Decision was intended to assist CL&P in its effort to implement conservation initiatives by linking the approval process for a master meter to CL&P's conservation programs.

The formal process to address master metering and C&LM in these Facilities has been in place for less than a year. As a result, there has been limited participation in conservation programs by these customers. Response to Interrogatory EL-55; Tr. 12/16/99, pp. 248-253. Therefore, the Facilities provide an untapped source for implementing residential and commercial conservation measures. The Department considered the potential for participation by this segment of the residential market in setting target levels of participation for year 2000, notably for lighting measures. See Section II.B.2.b., SmartLiving Catalog. In its next C&LM filing, the Company will be required to provide an update to the Department regarding its success in penetrating this market.

i. Low-Income Programs

Although the Plan does not offer any new programs for low-income customers, it does offer them improved servicing. The Plan will target the conservation needs of qualifying low-income customers through three existing programs: the Weatherization Residential Assistance Partnership (WRAP), the Residential Energy Conservation Loan Program, and Energy Star Homes Program. WRAP offers a myriad of energy conservation measures to address energy inefficiencies in low-income households, such as lighting and heating, water heating and refrigeration equipment, and insulation. Every WRAP participant also receives energy use education, budget management and counseling when needed, as well as the "Helpline" newsletter. Exhibit MWT-2, pp. 77-83.

CL&P indicated that it intends to implement changes to increase customer awareness of and access to WRAP and of low-income services. First, CL&P will use the new Energy Care initiative as an expansion of its intake service to provide low-income customers with expanded information and servicing. Energy Care will engage low-income customers in a referral system directing them to any number of available programs, including WRAP and Energy Conservation and Budgeting workshops. The Energy Care delivery process will interface between CL&P and other organizations, such as Infoline, Community Action Agencies and human service agencies, to maximize the delivery of services to the target population. Exhibit MWT-2, pp. 68-76. Second,

CL&P states that it will simplify WRAP eligibility criteria and all customers who meet income requirements will be eligible for some services under the program. CL&P combined its budgeting for WRAP with Energy Cares for the amount of \$5.13 million. Exhibit MWT-2, pp. 23 and 67-85.

The State-mandated Residential Energy Conservation Loan program targets owners of single and multifamily buildings, with an average annual income below 150% of the median Connecticut income, to provide loans with interest rates of between 0 to 9 percent for installation of energy efficiency measures. The state Department of Economic and Community Development and the Connecticut Housing Investment Fund (CHIF) are the program's primary marketers with CHIF actually administering the program. CL&P states that it markets the program to all new homes, home/trade shows and at the SmartLiving Center. CL&P plans to expand awareness of the program's availability through communications and outreach. The program budget for 2000 is \$300,000. Exhibit MWT-2, pp. 84-85.

The Energy Star Homes Program, discussed above, will also target low-income customers as part of the overall program. CL&P did not indicate the amount of the budget that is targeted for low-income. However, the overall program budget is \$1.515 million, an increase of \$591,000 from 1999. Exhibit MWT-2, pp. 23-27. The Company will be required to submit the low-income portion of the program's budget.

The enhancement of delivery services provided by the Energy Care initiative, including the two changes noted above, should enable CL&P to provide improved servicing to its low-income customers for WRAP, as well as other low-income services. Although the Company simplified its WRAP eligibility criteria, it did not describe the changes that were made. To successfully implement the Energy Care initiative, the Department believes that CL&P should take the Delivery Process a step further, requiring that, in any communications with low-income customers, its customer service representatives (CSRs) consistently make customers aware of the conservation programs available to them. The Department will direct the Company to revise its training for CSRs and its customer service policies and procedures to include this.

The Company indicated that it receives reports through the WRAP tracking system and submits quarterly reports to the ECMB on the status of all of its conservation programs. Tr. 12/2/99, pp. 97-100. The Department will require CL&P to submit copies of these reports to the Department, itemizing the budget and year-to-date budgetary expenditure for each C&LM program.

j. Summary of Changes to Residential Programs

The following table summarizes the potential change to the budget resulting from the Department's adjustments for residential program targets.

Increases necessary to meet revised residential C&LM targets				
	Administrative	Marketing	Incentive	Total
Catalog	\$10,000	\$0	\$294,500	\$304,500
Retail Lighting	\$50,000	\$300,000	\$1,061,000	\$1,411,000
TumbleWash	\$18,000	\$0	\$192,000	\$210,000
Appliance Rebate	\$0	\$0	\$0	\$0
Energy Star Home	\$0	\$0	\$259,000	<u>\$259,000</u>
				\$2,184,500

Budgets represent the initial financial guidelines for these programs and actual costs will vary based on participation as well as other factors. Given that 2000 is a ramp-up year, the Department believes that the estimate of additional costs necessary to address revised targets will not result in an overrun of the total budget. Therefore, reallocation among the programs during 2000, notably for programs that underspend, should address the increases approved in this Decision and concerns expressed by the Company regarding this issue. Written Exceptions, Attachment 1. Therefore, the Department will not require the Company to reallocate funds at this time. However, programs should not be throttled back should the Company approach its budgeted spending limit.

3. Commercial and Industrial

a. General

The Company proposes a commercial and industrial (C&I) conservation budget of \$35,590,000 with two-thirds of it allocated to five existing programs. The existing programs are targeted at market transformation and special needs markets for C&I customers, including state buildings and municipal buildings. Townsley PFT, p. 4.

One-third or \$11,879,000 of the C&I conservation budget is for four new programs in 2000. One will serve small business customers having high use and another will serve municipalities. A new pilot program for competitive and economic development is aimed at obtaining free market bids from customers and energy service companies to provide C&I DSM. A load management program is discussed separately below. The Company will increase its emphasis on providing technical assistance, information and outreach for new C&I C&LM programs. Id.

All C&I programs are proposed as being cost effective using the Electric System Test and the Societal Test. Response to Interrogatory EL-37. A summary of the 2000 Conservation Programs is shown in Appendix A.

b. Existing Programs

i. C&I New Construction and Major Renovation Program

The 2000 program for new construction and major renovation offers technical and financial assistance from design through construction. It is a continuation of the 1999 program. Implementation is by the customer. It promotes a better building at the

same cost with DSM benefits that include energy efficiency, lower operating costs, added value, greater comfort, and increased productivity. Exhibit MWT-2, p. 43.

There are two tracks, the Prescriptive Area program and the Comprehensive Area program. The Prescriptive Area program is for small buildings, usually less than 50,000 sq. feet, or small projects with limited conservation opportunities and targets the customer. Prescriptive measures and rebates are streamlined, standardized, simple to understand, and do not require studies to determine efficiency. Tr. 12/2/99, pp. 69-70.

The Comprehensive Area program is generally available for large buildings in early design stages with numerous conservation opportunities, focusing on more complex energy-efficiency options. Comprehensive measures require studies and may use performance-based incentives. Tr. 12/2/99, p 69. The Comprehensive Area program targets decision makers, primarily professionals, involved in the design phase of projects when it is timely to select efficient options. Its \$7,920,000 budget is split about five to one between commercial and industrial use. Lighting accounts for 50% of the program savings. Response to Interrogatory EL-37.

ii. C&I Custom Services

The Custom Services Program offers all existing C&I customers the means to identify specific electric energy-efficiency opportunities, as well as financial assistance for the installation of cost-effective measures. The major goal is to effect energy efficiency by having the Company assist in the initial equipment purchase decisions. CL&P will provide an energy usage evaluation and recommendations to identify cost-effective measures tailored to customers' specific needs while focusing on the prescriptive component of the custom program. Implementation will be by the customer. Exhibit MWT-2, pp. 39-41.

Technical energy audits are provided to customers who are not certain which measures they want to install as well as focused studies for customers who have a specific project in mind. PRIME audits are available to industrial customers in the standard identification code classification range of 3100 to 3300. PRIME provides a productivity audit to achieve greater manufacturing efficiencies through more efficient, streamlined processes and waste minimization. Exhibit MWT-2, p. 39.

CL&P offers the Tailored HVAC component of Custom Services to customers that are considering either replacement or installation of new large-scale heating, ventilation, and/or air conditioning equipment. The primary targets of the service are projects with packaged HVAC equipment totaling generally over 30 tons, or any size chilled-water system. Smaller packaged equipment projects are typically addressed using either Express HVAC Services or the Prescriptive Area of Custom or New Construction and Major Renovation Services (NC&MR). HVAC systems in large new construction and major renovation projects are addressed in the Comprehensive Area of NC&MR with approaches similar to Tailored HVAC. HVAC account for 39% of the program annual savings. Response to Interrogatory EL-37.

The program budget of \$7,511,000 is split about five to two between commercial and industrial use. Exhibit MWT-2, p. 41.

iii. C&I Express Services

The Express Services Program is available to all C&I customers. It provides rebates for lighting where total demand does not exceed 350 kW, new or replacement three-phase motors from one to 200 horsepower and new or replacement rooftop, split systems, terminal A/C units and heat pumps with up to 30 tons of cooling capacity. Lighting accounts for 84% of the annual savings. Response to Interrogatory EL-37.

The major goal of the program is to effect energy efficiency by being involved in the initial equipment purchase decisions to identify and support the implementation of selected cost-effective measures. This program will be marketed to trade allies and customers in a mass marketing approach where trade allies are encouraged to sell energy efficient measures to customers. Tr. 12/2/99, p. 72. The Program's \$2,032,000 budget is split about 70% to 30% between commercial and industrial use. Exhibit MWT-2, p. 52.

iv. C&I Operation & Maintenance Services

The Operation & Maintenance Services Program provides audits and incentives for energy saving operation and maintenance (O&M) practices. Examples of some O&M services include repairs of compressed air system leaks, addition or correction of control components for efficient operation, and the cleaning of HVAC condenser/evaporator coils. Services are provided through training seminars, mailings, and direct contact by Account Executives. Two-thirds of the program savings are related to process improvements. Response to Interrogatory EL-37.

The budget for O&M Services is \$3,665,000, which is split about 40% to 60% between commercial and industrial use. Exhibit MWT-2, p. 66.

v. State Office Buildings

The State Office Buildings Program targets state buildings as identified by the Connecticut Department of Public Works. Since its inception in 1990, much of the cost-effective potential for energy efficiency measures has been realized. Therefore, CL&P is revising its efforts to devote more resources to O&M procedures and other strategies to maximize the benefits achieved from the various measures. Exhibit MWT-2, p. 86.

In the past CL&P provided up to 50% of the funding for efficient projects and the State paid the balance. Program bond funding by the State ended December 31, 1999. It is uncertain at the time of this filing whether the State will authorize additional funding. If the State does not, CL&P will continue the program at 100 percent funding, where it is cost-effective to do so. If it is not cost-effective at 100 percent funding, the Company will allow the State to contribute a portion of the total installed cost, up to 50 percent. The program has a \$2,550,000 budget targeted towards where 85% of the savings will be derived from lighting. Id.

c. New Programs

i. C&I Express Medium/Small

All C&I customers with an average demand of 100 kW or less will be eligible for the Express Medium/Small Program. Emphasis will be on commercial customers with average demand loads greater than 10 kW and industrial customers with average demand less than 50 kW. Within these demand ranges, the Company will focus on businesses that consume high amounts of electricity. Exhibit MWT-2, p. 45.

Each of the energy efficiency services offered will be designed to overcome the barriers involved in the small business market. In many cases the customers do not own the buildings in which they operate, the cost of energy is a relatively small part of doing business, and they lack the time and technical expertise to make good decisions related to energy efficiency improvements. These barriers reduce customer motivation to invest in activities to reduce energy costs. Id.

The Company will provide direct or turn key services through contractors to minimize the amount of effort required for the customers to improve efficiency operations. Turnkey services will include energy audits and installation of measures. Incentives will be offered to encourage the installation of electrical energy improvements. The Company will provide zero cost financing for the customer's share of the project with collection on the monthly utility bill. Exhibit MWT-2, pp. 45 and 50.

CL&P plans to pay 100 percent of the costs associated with implementing selected energy-efficiency measures within cost-effectiveness constraints. If a project is not cost-effective at 100 percent funding, the Company will allow the project to go forward if the customer contributes a share of the costs. The customer's share, however, will be no more than 50 percent. Exhibit MWT-2, p. 45. The program has a \$1,525,000 budget targeted towards 651 customers where 82% of the savings will be derived from lighting. Exhibit MWT-2, p. 50; Response to Interrogatory EL-37.

Ten percent of the projects will be evaluated by the Company to assess accuracy. Qualified staff of the Company will visit the customer's site to inspect the work. If acceptable, the Company will approve the job and disburse the financial incentive. Exhibit MWT-2, p. 50.

ii. Economic & Competitive Market Development

The Economic & Competitive Market Development Program is a pilot program that allows customers and ESCOs to propose specific projects to the Company for potential partial funding. ESCOs may be able to recommend projects to customers and then obtain partial payment for them from CL&P, even if they do not fall within a particular conservation program. It is expected that bidders will have the skills to identify energy efficiency opportunities, calculate savings, design system modifications, manage construction and installation of energy efficiency measures, and measure energy savings. Exhibit MWT-2, pp. 95 and 96.

The pilot program will offer incentives for measurable energy savings achieved by the installation of energy efficiency measures as specified in a project agreement. The estimated savings will be verified using approved protocols. The estimated savings will be measured from a baseline of the more efficient of what the customer would install without utility intervention or the minimum efficiency required by code. Exhibit MWT-2, p. 96.

Measures that are not eligible include any power producing project such as co-generation, switching from electric energy to another fuel (fuel switching), new construction projects, and any repair or maintenance project. Exhibit MWT-2, p. 97.

The program will not have published incentives. Each proposal will need to identify the required incentive amount. The Company or a third-party contractor will evaluate all bids to this solicitation based upon a comparison of energy savings and other price and non-price variables. Non-price variables include such factors as whether the project includes items other than lighting (HVAC and process) and whether the environmental impacts reduce on-site emissions or waste stream impacts. All projects must be qualified on the basis of established cost-effectiveness criteria. Exhibit MWT-2, p. 97.

The proposals will be scored for selection. Higher scores will be assigned for the percentage of incentives being low compared to the cost of the project, a high benefit/cost ratio, system designs beyond equipment replacement, higher percent savings from non-lighting measures, identified environmental benefits not related to energy savings and an early completion date. Exhibit MWT-2, p. 102.

The average annual customer savings are expected to be 15% of its total use. This is based on the minimum project required savings of 150 MWhs annually and achieving 27,640 MWhs of savings from 28 customers. Exhibit MWT-2, pp. 96 and 104.

iii. Municipal Buildings

The Company has previously aimed its municipal energy efficiency programs primarily towards seven economically distressed cities. The Municipal Buildings Program will be open to all economically distressed municipalities in CL&P's service territory offering turnkey technical and financial assistance. Initially, projects will be qualified and awarded on a first come, first served basis to economically distressed cities. On or about July 1, 2000, if it appears that funds will not be depleted by year's end, the remaining funds will be made available to the Urban Act Towns, as designated by the Connecticut Department of Economic and Community Development per Conn. Gen. Stat. § 4-66c. Exhibit MWT-2, pp. 87 and 89.

CL&P expects to pay 100 percent of the costs associated with implementing selected, relevant energy-efficiency measures within cost-effectiveness constraints. If a project is not cost-effective at 100 percent funding, the Company will allow the project to go forward if the municipality contributes a share of the costs. The municipality's share, however, will be no more than 50 percent. Exhibit MWT-2, p. 88. Projects will be qualified and awarded on a first come-first served basis. Exhibit MWT-2, p. 89. A cap or limit on funds to be received by any one municipality will be set at 30 percent of the

aggregate amount of funds for each track (program). Participation in this program will not preclude a municipality from applying for incremental financing incentives offered through other Company energy efficiency programs. Exhibit MWT-2, p. 90.

The program has a \$3,204,000 budget with 68% of the estimated savings resulting from lighting measures. Response to Interrogatory EL-37.

d. Analysis of C&I Programs

Of the total C&LM budget of \$67.314 million, \$53.9 million is assigned to programs that provide savings and is allocated 34%/66% between Residential and C&I customers, although the Residential class funds 40% of the C&LM budget. This slight subsidy of the C&I budget is beneficially offset by higher savings from the C&I programs. C&I programs account for 77% of the total energy savings and are 45% less expensive based on a C&I cost rate of 1.63 cents/kWh compared to a Residential cost rate of 2.95 cents/kWh. The cost rate is the program budget divided by the projected lifetime kWhs saved.

The three existing programs, C&I New Construction and Major Renovation Program, C&I Custom Services, and C&I Express Services are similar to the 1999 programs. Response to Interrogatory EL-54. The 1999 programs are similar to 1998 programs. The table below compares the budgets and savings of the three 2000 programs to the 1998 programs approved in the Decision in Docket No. 97-10-23, which was the last docket where the development of C&I program savings were reviewed in detail. The comparison shows that the budgets have increased 16% from \$15.1 million to \$17.5 million, but the projected lifetime savings have decreased 25% from 1,388 GWH to 1,038 GWH and the overall cost rate has increased 55%. The Company explained that the decrease in savings is due to changes in efficiency base lines and the qualification of additional measures that are less cost effective than measures approved in the past. Tr. 3/28/00, p. 516.

Program	Change in Cost Rates						
	Utility Costs		Lifetime Savings		Utility Cost Rate		Change in Cost Rate
	(\$1000)	(\$1000)	(MWH)	(MWH)	¢/LT-kWh	¢/LT-kWh	
	<u>1998</u>	<u>2000</u>	<u>1998</u>	<u>2000</u>	<u>1998</u>	<u>2000</u>	<u>2000/1998</u>
C&I New Construction and Major Renovation	\$ 7,500	\$ 7,920	742,687	412,230	1.01	1.92	90%
C&I Custom Services	\$ 6,800	\$ 7,511	551,157	426,365	1.23	1.76	43%
<u>C&I Express Services</u>	<u>\$ 780</u>	<u>\$ 2,032</u>	<u>93,555</u>	<u>199,101</u>	<u>0.83</u>	<u>1.02</u>	<u>22%</u>
Total	\$15,080	\$17,463	1,387,399	1,037,697	1.09	1.68	55%
Increase 1998 to 2000		\$ 2,383		(349,702)		0.60	
Increase 1998 to 2000		16%		-25%		55%	55%

Projections in the 2000 plan were developed using 1998 actual results, which was the most recent full calendar year of actual data available. The historical numbers were adjusted to reflect the full impact of screening rule changes ordered in Docket No. 97-10-23, DPUC Review of The Connecticut Light and Power Company's 1998 and

1999 Conservation and Load Management Program, Budgets and Conservation Adjustment Mechanism, on March 25, 1998, and the base line changes. Tr. 3/28/00, p. 518. That Decision ordered the Company to change from a Total Resource Test, similar to the Societal Test described above, to a Utility Test to screen individual C&LM measures. By eliminating the participant costs from the analysis, more measures qualify; however, they are less cost effective when the program is evaluated using the Utility Test.

Late Filed Exhibit No. 13 shows the trend for cost rates going up from the 1998 planned up to the 2000 plan. The cost rate also increased for the O&M Services Program from 0.95 ¢/kWh in 1998 to 1.41 ¢/kWh in 2000 and the State Office Buildings Program from 1.65 ¢/kWh in 1998 to 2.56 ¢/kWh in 2000. There have been efficiency improvements made in both programs during the two year period, but the improvements will be offset by the Company proposing to increase the customers incentive levels from 50% to 100% in both of the 2000 programs without additional savings.

The Company must increase participation to use the money collected from the C&LM charge but at the same time encourage maximum investment by customers. This illustrates the difficulty for the ECMB and the Department to evaluate participant levels, program costs and savings developed by the Company but which are critical in determining the Company's incentive.

The Department will allow the proposed budgets and goals for savings as proposed by the Company for all existing C&I C&LM programs. In the next filing, the Company must include a firm level of funding for Urban Act Towns. In the next filing the Department will perform a detailed review of C&I program savings and participation levels. The Department will review program costs rates, both planned and actual, starting with the 1998 programs and proceeding through the proposed year. The Company should be prepared to submit the data to determine the cost rates and explain why the cost rates changed each year.

The 2000 budget for the five existing C&I programs has been increased over 1999 by \$9.6 million or 69 % to serve more customers. Only two programs had a major change and they involved the Company paying more of the participant costs. CL&P will pay 100% of measure costs in the State Office Buildings Program. In the past, the State provided a 50% co-payment for measures. In the C&I Operation & Maintenance Services program, incentives will be based on 100% of incremental costs compared to 50% in the past.

The largest single source of C&I savings comes from lighting measures and accounts for 37% of the C&I annual savings. The second largest savings source is process improvement, which provide 24% of the annual savings. HVAC savings are the third largest source of savings with 17% originating from cooling measures and 5% coming from heating measures. The remaining savings of 17% come from other measures. The overall sources of savings are well distributed; however, the Company should look to increase process savings for small business customers and express services customers where their process savings are only projected to be 7% and 6% of their total savings, respectively.

The new 2000 programs are designed to serve market segments that have not been sufficiently reached in the past. The new C&I Express Services will focus on business customers with demands under 100 kW. The Municipal program is expanded from seven cities to include all municipalities in CL&P territory. The Company will pay 100% of the cost for cost-effective measures. Both programs will emphasize lighting savings, which is commonly the predominant source of savings in new and lower budget programs. The Company should research how it can increase process savings in these programs for next year.

The new Economic & Competitive Market Development pilot targets large customers and ESCOs to install DSM measures not in current Company conservation programs under a bid basis to receive CL&P funding. This program will obtain 40% of program savings from processes, which represent 56% of the process savings from all C&I programs. Process savings have been underdeveloped in the past. The Company should study how the free market applications can be adapted within current programs to better serve small business customers and increase cost effectiveness.

The Department will order the Company to include a table similar to Appendix A of this Decision in its next CLM filing. The program name will be its marketing name with a note that distinguishes the major feature or requirement of the program. The last column will include a brief description of program changes from the prior year, its primary services, and delivery method. The electronic filing will have all formulas in tact.

Department review of the Cost-Benefit analysis finds that the proposed C&I programs, including RD&D costs but excluding the three Load Management Pilot Programs, will be cost effective under the Electric System Cost-Benefit Test (EST) and the Societal Cost-Benefit Test (Societal Test) having overall Benefit-Cost ratios of 1.36 and 1.77, respectively. The Cost-Benefit ratios for the proposed overall budget of \$67.3 million excluding the Load Management Pilot Programs are 1.18 and 1.50, respectively.

Based on increasing the market segments served, the distribution of savings from various sources, and the cost effectiveness of the new programs for 2000, the Department approves the cost effective C&I proposed conservation programs for 2000, as modified above.

4. Load Management

a. General

Suppliers and some customers could face significant price increases for electricity purchased to meet temporary shortages and during high cost system peak periods such as those experienced in June and July 1999. The Company proposed three load management pilot programs for different market sectors to interrupt load as a lower cost alternative to installing new generation or upgrading its transmission and distribution (T&D) facilities. Load management programs should help customers manage their power supply costs and help the Company improve the operational efficiency and reliability of the T&D system. Customers in the southwestern part of

Connecticut are key candidates for load management programs because of transmission constraints. Exhibit MWT-2, pp. 105 and 106.

The purpose of the pilot programs is to assess the market and determine the feasibility and conditions necessary to implement them fully. Exhibit MWT-2, pp. 113-116.

CL&P's load management program has been priced assuming that reducing the customer's bill by \$2 per kW per month is at least no more costly than other options available to the Company. Load management pricing could be greatly facilitated by a multi-stage settlement process at the New England Independent System Operator (ISO). Exhibit MWT-2, p. 107. The Company's strategy is that it or its agent will serve as the aggregator of load management resources. The managed load will be bid as a resource into the ISO similar to the way in which energy supply is bid. Exhibit MWT-2, pp. 106 and 107.

The ISO is expected to pay a fluctuating capacity price per kW pledged on an hourly basis throughout the year. In addition, if the facility is requested to curtail its kW demand, the ISO will pay a fluctuating energy price per kWh for energy not used. Exhibit MWT-2, p. 108.

The Company expects to use the day-ahead hourly price forecasts as a customer alert mechanism. When the price forecasts are above the customer-designated threshold, known as the strike price, participating customers will be alerted to that price and will indicate in advance their willingness to reduce power consumption during specific hours of the day. This willingness will then be confirmed the day of the demand reduction since prices can change dramatically in the market. Exhibit MWT-2, pp. 108 and 109.

b. C&I Load Management Pilot Cooperative

The C&I Load Management Pilot Cooperative Program will test and demonstrate the viability for individual customers, power marketers, and load aggregators to provide dispatchable load to the ISO. The ISO's Market Rules provide for the acquisition of dispatchable load in the form of load reductions by end users. The Company will establish a customer-side dispatchable load program acceptable to the ISO, assess the customer benefits, develop monitoring, verification and protocols for certifying each facility's kW demand reductions, implement a pilot offering of the program, and develop materials and trade relationships for a full-scale launch in 2001. The pilot program will evolve into a load management program that is fully implemented by power marketers. Exhibit MWT-2, p. 111.

The Company, or its independent market agents, will be responsible for installing a communication system to monitor and manage the load curtailment activities of each participating customer, bidding the available kW load to the ISO, and managing the financial activities of the participating customers and cooperative groups. Exhibit MWT-2, p. 112.

The target market is all CL&P commercial and industrial customers that have the capacity to curtail electric consumption during selected emergency periods. The first tier customers will have a maximum demand over 500 kW and CL&P has over 1,000 such customers. The second tier customers will include chain accounts that can be aggregated through a single agent with a maximum demand over 100 kW. CL&P has 4,500 accounts with demand between 100 kW and 500 kW. Exhibit MWT-2, p. 111.

The budget for this pilot is \$1,000,000 and will be implemented from May through August with 25 large C&I customer participating. It will be evaluated in September and the results will be filed with the Company's next annual C&LM Plan. Exhibit MWT-2, p. 115.

c. C&I Load Management Pilot Assistance Fund

The Company will provide technical workshops and seminars for C&I customers, vendors, and load aggregators to ensure that involved parties understand the program rules and implications for load management activities including metering, pricing, monitoring and control equipment, and specific technologies. It will also fund direct services including technical energy-use audits and a system metering and sub-metering service to identify and isolate loads for curtailment or deferral. Customers will be referred to the C&I Load Management Pilot Cooperative program for participation. Exhibit MWT-2, p. 118.

In addition, the Company will establish a \$1,000,000 revolving loan fund that could be used to purchase load management-related equipment and services. The revolving load fund is intended to be a financial resource for C&I customers who are unable to procure the necessary equipment to dispatch load at their facilities. Through fund access, customers will be able to utilize Company resources as well as external vendors and contractors to perform technical assessments of dispatchable load potential. Exhibit MWT-2, p. 117.

The budget for this pilot program is \$1,250,000. Exhibit MWT-2, p. 119.

d. Residential Load Management Services Pilot

This pilot program is open to residential customers who take energy from a supplier under a time of use (TOU) rate with enough coincident controllable load to justify the installation of control equipment. This could be done on an end use basis (e.g., customers with central air conditioning, electric water heating, electric heating, pool pumps), or on a connected load basis (i.e., apply an appropriate coincidence factor to the customers seasonal or annual energy use to develop an estimate of connected load). The pilot program will last one year. Exhibit MWT-2, p. 120.

The program will employ a communication system that allows participants to interact and manage their energy consumption based on price. A load control module installed at the customer's home can be programmed to shed specific appliance loads in response to multi-tiered price signals provided by CL&P or the customer's energy service provider (ESP). Id.

The Company will need to establish an experimental rate for use in the Residential Load Management Services Pilot Program. The rate will be based on cost-of-service principles, with the marginal cost of supply component related to the forecasted demand cost at the ISO. This rate will reflect the true costs of energy consumption that would be communicated to the participant's home, sensitizing the participant to the fluctuation in prices. After the rate is developed, the Company must submit it to the Department for review and approval.

The bill reductions that result from the TOU rate will provide the incentive to the customer and the modification of the customer's load shape will provide benefits to the Company. Exhibit MWT-2, pp. 120 and 121. A key consideration in the market assessment will be the ESPs' and ESCOs' interest and willingness to provide this type of program to residential customers. Exhibit MWT-2, p. 121.

The budget for this pilot is \$750,000. Exhibit MWT-2, p. 124.

e. Analysis of Load Management Pilot Programs

The Company claimed the three Load Management Pilot Programs will be cost effective but did not provide goals or any support analysis for program savings in this proceeding. During hearings, the Company testified that the load management pilots may save around 5 MW. Tr. 12/2/99, pp. 61 and 62. The Department will allow the Company to proceed with the pilots because there is a need to reduce supply costs during emergency periods and the proposal by the Company to develop a system and infrastructure for customers to manage their loads in a competitive market are reasonable. The Department will order the Company to submit the interruptible load goals for each load management pilot along with the assumptions and analysis used to determine the benefits and costs resulting in the benefit-cost ratios of 2.6 in the Electric System Test and 2.9 in the Societal Test provided in response to Interrogatory EL-37.

The Department is interested in the progress of the load management pilot programs as they affect customers during the development period and to the amount of new curtailable load that is put into place this summer. The Department will order the Company to provide brief status reports on the operation of these pilot programs.

C. PROGRAM EVALUATION – COST EFFECTIVENESS TEST

CL&P conducted two different cost-benefit tests, the EST and the Societal Test, to evaluate the cost effectiveness of CL&M programs. The EST is identical in composition to the Utility Test used by the Company during the 1990s. It includes costs to implement the C&LM programs realized by the electric distribution company and savings from avoided generation and T&D investment. The title has been changed to reflect the fact that the cost of electric generation savings will be the cost of power avoided, which is now a cost of non-utility suppliers. Exhibit MWT-2, p. 136.

The electric generation savings are the wholesale costs associated with unbundled generation services. The savings were quantified by multiplying the projected future electric savings by the projected market price of generation services. The market price forecast employed in the analysis was issued in the July 7, 1999

Decision in Docket No. 99-02-05, Application of The Connecticut Light and Power Company for Calculation of Stranded Costs. Id., p. 137.

Electric T&D savings represent the avoided cost of future transmission and distribution investments expected from electric demand resulting from the programs. The savings were quantified by multiplying the projected future electric demand savings by the projected cost per kW of transmission investment. No distribution investment savings were included in the analysis because of uncertainty that such investments could be avoided by efficiency programs. Id., p. 138.

The Societal Test includes all identifiable economic costs and benefits of the programs. In addition to the utility costs to implement the programs, it includes the cost of the efficiency investments made by participating customers. This test also includes other participant benefits, such as savings in water, gas, or oil resources and the cost of equipment replacement avoided through the installation of equipment with longer useful lives than standard efficiency. The Societal Test also includes a category of benefits associated with environmental and economic impacts that are not accounted for in the avoided cost of electricity and the other resource savings. These include the value of air emissions reductions resulting from decreased electric generation and a net increase in jobs resulting from investment in end-use efficiency instead of electric generation. Id., p. 136.

Electricity savings can generate indirect benefits that extend to society as a whole. Reductions in electric generation reduce air emissions from power plants and improve air quality. A generic adder of 15 percent of the value of just the electric energy savings was imputed for the benefit of reduced emissions in the Societal Test. This adder is based on economic values of emissions reductions developed by the California Board of Energy Efficiency as reported in Appendix A of proposed guidelines on cost-effectiveness filed with the Department of Telecommunications and Energy on April 14, 1999 (Massachusetts Guidelines). Id., p. 138.

Efficiency investments also reduce the total cost of energy services and thereby increase disposable income. This additional income generates increased consumer spending, which exerts an economic multiplier effect that can result in increased employment. A generic adder of seven percent of the value of just the electric energy savings was imputed for job creation in the Societal Test. This estimate is based on an input-output analysis of efficiency investments described in the Massachusetts Guidelines. Id.

Based on a number of studies that have been conducted throughout the country, CL&P added two categories of benefits specific to energy efficiency programs provided to low-income customers. In the first category, in addition to avoided energy costs and general non-energy benefits associated with the environment and the economy, CL&P proposed to include such benefits to the utility and all other ratepayers as:

- reduced costs due to lower arrearages and associated carrying costs;
- fewer terminations and reconnections; and
- lower uncollectibles and collection costs. Id., p. 139.

Additional benefits that accrue to the larger society include:

- improved maintenance and higher property values in housing that has been upgraded;
- lower Medicaid, other health care, and fire department costs when housing is made safer and more comfortable; and
- a reduction in moving costs when people are better able to pay their rent or mortgage because utility bills have become more affordable. Id.

To account for these benefits, CL&P has input a generic adder of 35 percent of the value of electric energy savings. This value is based on information provided in Appendix D of the Massachusetts Guidelines. Id.

The Electric System Test used the Company cost of capital rate of 8.1 percent approved by the Department in Docket No. 98-01-02. The Societal Test used a social discount rate of 5.27 percent that was proposed in the Massachusetts Guidelines. This value was based on the current long-term interest rate on 30 year U.S. Treasury Notes. Id.

The program benefit-cost ratios resulting from each of the two tests are shown in Appendix A. All programs, except the State mandated Energy Conservation Loan Program (ECLP) and the Residential Conservation Services Program (RCS) are cost-effective according to the Societal Test. In addition to ECLP and RCS, the Energy Star Appliances, Residential New Construction, and WRAP programs do not pass the Electric System Test, even though they are cost-effective on the basis of the Societal Test. Failure to pass the EST is attributable to significant expenditures directed toward measures that produce fossil fuel savings that are accounted for in the Societal Test.

The Department is more comfortable with the Electric System Test because of its experience with the Utility Test. The Electric System Test is essentially the same test that was used to evaluate conservation programs in the past but uses a different source to value the conserved electricity. It appears that it is easier to measure and track the data needed, less costly and quicker to obtain the input data to evaluate the programs. The Department requires that electric C&LM measure incentives will be based on the benefits in the Electric System Test and to evaluate the value of savings from non-electric measures.

The Societal Test is subjective in using and quantifying the externality adders for environmental, societal and low-income savings. All C&I programs have a higher Benefit-Cost ratio in the Societal Test than in the Electric System Test except for the Economic & Competitive Market Development Pilot Program (ECMD) due to it having very high participant costs compared to almost no participant costs in the other C&I programs. Participant costs in the ECMD program are 49% of the Total Societal cost compared to 3% for the combination of the other C&I programs excluding the load

management pilots. The Department views the Societal Test as supplemental information to evaluate programs that do not pass the Electric System Test and to evaluate the value of savings for non-electric measures.

Another approach to program evaluation is the use of "mystery shoppers" (Shopper). This approach can supplement or hopefully reduce the need for more expensive and time-consuming evaluations. The Department encourages non-utility Board members, to the extent practical, to act as Shoppers or to participate directly in these programs to review them. For example, visits to retail outlets will reveal how the Retail Lighting Program point-of-purchase material is displayed and whether it is properly maintained. At the same time a Shopper can view the selection and availability of Energy Star products. Further, store personnel can be queried regarding their knowledge of the Retail Lighting Program. These inquiries can also be made over the phone.

A Shopper can be also be used to evaluate the Company's Instant Day promotion to assure that this aspect of the Retail Lighting Program is being properly explained to customers and is being used to encourage future point-of-purchase sales. This less formal approach to program evaluation can also be used to evaluate the SmartLiving Catalog, Hot Shot, Appliance Rebate and general advertising programs. To the extent practical, Shoppers should participate in these programs to evaluate the Company's response to general inquiries and to gain a better understanding of how each program operates. Purchasing through the SmartLiving Catalog may reveal ways to eliminate delays in shipping or addressing the cost and inconvenience associated with returning products that are defective, were sent in error or damaged. See also Decision in Docket No. 95-10-14, p. 6.

D. RESEARCH DEVELOPMENT AND DEMONSTRATION

The Act recognizes the public benefit of providing funds for innovative research, development and demonstration (RD&D) projects related to energy efficiency and the environment. CL&P's proposed RD&D program represents a new initiative for 2000. CL&P sponsored research by Arthur D. Little (ADL), which surveyed the major organizations involved in RD&D related to C&LM to identify trends in RD&D which would reduce air pollution, improve public health, and promote economic development in Connecticut. Response to Interrogatory EL-40; Exhibit MWT-2, Appendix A. This program provides CL&P an opportunity to give cost-effective support to the development of DSM technologies that can provide broad benefits to Connecticut's electric customers, but would not otherwise be undertaken adequately by private market participants because of long or uncertain economic returns. Exhibit MWT-2, p. 125.

CL&P has allocated \$5 million or approximately 7% of the total budget to implement the RD&D program for 2000. Exhibit MWT-2, p. 11. ADL recommends 13 to 15% of the total budget devoted to RD&D. CL&P has allocated a lower amount because it believes it will take some time to get the policy framework in place and execute these projects. CL&P anticipates increasing the RD&D program budget if results are good. Tr. 12/2/99, pp. 23-25. CL&P will work closely with the ECMB in assuring the process is in place to administer projects successfully prior to initiating them. As part of this effort, CL&P may engage in funding of research programs that

may extend to multiyear research commitments. Tr. 12/2/99, pp. 31 and 32. CL&P proposes that projects in 2000 above \$50,000 would be approved by the ECMB specifically. Exhibit MWT-2, p. 10.

The RD&D program is a new initiative and the program rollout is still in its formative stage. CL&P is in the process of constituting its Policy Advisory Group (PAG) to assist the Company in setting priorities for future research projects. Based on ADL recommendations, CL&P plans to dedicate a three-person staff to manage its RD&D program for 2000. CL&P will assign a project manager who would work with the PAG and identify potential opportunities for research. Second, CL&P would assign a project engineer to develop request for proposals for the identified research areas. In addition, the Company proposes an administrator to track the dollars and handle the disbursements of funds and other contracting issues that would arise. Tr. 12/2/99, pp. 39 and 40. Essentially, CL&P's RD&D program for 2000 involves formation and policy evaluation in the first half of the year and implementation of the agreed-upon program initiatives in the second half. Late Filed Exhibit No. 2; Tr. 12/2/99, pp. 30-32.

CL&P's RD&D efforts should foster the development of new technologies and facilitate their introduction into Connecticut markets through field testing, evaluation, information dissemination, and innovative strategies to promote private sector involvement. As new technologies become available, they will be incorporated into CL&P's various DSM programs. Late Filed Exhibit No. 2; Exhibit MWT-2, p. 9.

Members of the ECMB and PRO have spent considerable time examining and discussing these initiatives, and support these programs. PRO Reply Brief, p. 2. PRO views CL&P's RD&D initiative as forward looking, promoting the development and adoption of energy-saving technology, as envisioned by Section 33 of the Act. In addition, PRO urges the Department to authorize CL&P to engage in multiyear RD&D funding commitments. PRO Reply Brief, p. 3.

The study conducted by ADL did not consider distributive energy or renewable energy projects. The Department does not believe that the research program should be restrictive as to the method used to identify projects and the types of projects selected. The conservation program should not duplicate renewable research efforts undertaken by CT Innovations, but it may be useful in complementing them by field testing or funding demonstration projects to bring small scale projects to the market.¹¹

The Department also believes that ideas should not be limited to CL&P. CL&P should consider soliciting bids for RD&D projects. The Company and the ECMB should evaluate the projects on predetermined criteria that would allow a wide range of possible projects.

The Department approves the Company's RD&D program and budget for 2000. The proposed efforts should be effective in facilitating the transition toward

¹¹ Section 44 of Public Act 98-28 requires that each customer beginning January 1, 2000, is to pay .05¢ per kWh to the Renewable Energy Investment Fund which is administered by Connecticut Innovations, Incorporated. The purpose of the fund is to foster the growth, development and commercialization of renewable energy resources.

implementing energy efficient technology and promoting economic development in Connecticut. The Department encourages CL&P to develop specific goals and targets to evaluate performance of its research efforts. Furthermore, The Department requires CL&P to coordinate statewide and regional initiatives with UI. In the next annual filing, the Company must submit reports on the progress and funding of specific technologies and projects, including statewide and regional coordination of programs.

E. GENERAL ADVERTISING

CL&P has developed an extensive general informational or marketing campaign that it plans to implement to promote its 2000 conservation programs. Response to Interrogatory EL-19. According to CL&P, the ECMB reinforced the fact that the Company needs to devote a lot more advertising to its conservation programs. CL&P's research to date indicated that customers need heightened awareness about conservation beyond its potential for saving money. Tr. 12/2/99, p. 107. One of the objectives of a general marketing campaign, in conjunction with other conservation advertising, would be to raise customer awareness of the value of energy efficiency thereby creating an energy efficiency ethic among customers. Response to Interrogatory EL-26; Tr. 12/2/99, p. 131. An energy efficiency ethic, as stated by CL&P, will add value to customers' lives through cost savings, environmental stewardship and improved productivity and competitiveness for the business sector. Response to Interrogatory EL-26. Through a variety of mass marketing tactics such as direct mail, targeted radio, television and print advertising, customer bill messages and special inserts, the CL&P web site, regional transit advertising, and other collateral, CL&P believes it can promote the benefits of energy conservation and further build an energy efficiency ethic among Connecticut residents and businesses. The total budget for the general communication and marketing initiatives is \$1,050,000. Exhibit MWT-2, p. 11.

The Department believes that CL&P's general informational campaign will successfully promote the Company's conservation programs. However, certain improvements, such as a hot-line number, a specific website address and incorporating the concept of customer funding, need to be made to ensure that consumers are adequately informed and are readily directed to the appropriate sources of conservation information.

During the hearing, the Company discussed the Department's suggestion on promoting the concept of customer funding of conservation programs. While CL&P realizes it is important that customers know they are funding the C&LM programs and should utilize them, the Company believes that caution should be used in emphasizing this message. CL&P's first concern is to get consumers to act and then channel them into a C&LM program that meets their needs. If the customer-funding message enhances motivation to act, CL&P would not object to incorporating it in its advertising. CL&P indicated that emphasis on the message that programs are funded by customers, as suggested by the Department, may fail to motivate customers to action. The Company indicated that this message may create the opposite effect of actually diluting the call to action and, therefore, would be cautious about its use. Tr. 12/2/99, p. 110. In CL&P's opinion, the energy efficiency values mentioned above are the motivators that should be emphasized in advertising. Response to Interrogatory EL-26; Tr. 12/2/99, pp. 107-116.

In response to the Department's comments during the hearing on the Company's marketing efforts, CL&P has initiated steps to address the Department's suggestions. CL&P Brief, p. 15. However, CL&P believes that it is ultimately responsible for the marketing of its C&LM programs as directed by Conn. Gen. Stat. §16a-49(a). CL&P Brief, p. 15. Based on the its market research and discussions with members of the ECMB, CL&P has determined that a marketing approach that emphasizes appealing motivators, such as environmental benefits and lifestyle, in addition to monetary savings, will promote long-term market transformation most effectively. CL&P Brief, p. 15.

The unbundling of the conservation charge on customer bills and the increased amount of conservation funding necessitate a direct correlation between customer funding and the availability of conservation programs. Therefore, the Department will require that all Company advertising and communications on conservation contain the tagline that the programs are "funded by CL&P customers through the conservation charge on their bills."

The Company stated it is in the process of developing an integrated marketing communications plan for 2000 that will identify the various types and timing of its media activities. CL&P does not currently have hard copy samples of its general advertising materials, but is in the process of developing its action plan. Tr. 12/2/99, p. 114. As part of the process, its existing materials will be reviewed and updated with new elements as appropriate. Tr. 12/2/99, pp.106, 107 and 114. Conservation brochures have not yet been developed for the residential and C&I sectors, but the Company plans on assessing its current brochures to determine if they need improvement. Tr. 12/2/99, pp. 106 and 107.

In updating existing materials, the Department will require CL&P to produce English and Spanish versions. The cover of each brochure will contain the customer-funding tagline discussed above, and include a description of the purpose of conservation programs, the conservation hotline number and CL&P's website location for conservation programs.

The Company indicated that it has reservations about developing a combined general marketing effort with UI. Some concerns noted by CL&P are customer loyalty and satisfaction with CL&P, different corporate views on conservation and creative issues, cost-inefficiencies, and time delays related to developing consensus on concepts and creative execution. In addition, where CL&P cannot exercise control of the creative process, the finished product may not reflect what the Company would have developed on its own. CL&P cites the regional promotional advertisements for the TumbleWash program as an example. CL&P states that it took several months to achieve regional consensus on the ads and that it has received complaints about the connotation of the TumbleWash ads, when compared to ads CL&P has developed for some of its other conservation programs. CL&P does not want a joint effort to dilute its corporate branding and advertising strategies or diminish its identity or relationship with its customers. The Company did note possible advantages to statewide marketing, such as increased advertising and public relations cost efficiencies, media reach, impact

and exposure. Responses to Interrogatories EL-20, EL-21, EL-28, and EL-29; Tr. 12/2/99, pp. 117-129.

The Department believes that a co-sponsored CL&P and UI general marketing effort will be beneficial to all CL&P and UI electric customers. Connecticut is a relatively small state and the service territories of CL&P and UI are interwoven. As such, advertising done by either utility currently reaches customers of both companies. A joint campaign that targets the statewide population increases the Company's economies of scope and scale. An expanded marketing campaign will create an overall awareness that conservation programs are available to all Connecticut electricity consumers, regardless of service territory. Such a campaign may actually produce cost efficiencies associated with media buys, increasing media impact and exposure.

Achieving consensus on program promotion, content, and incentives may require an increased effort initially, but the long-term benefits of a statewide approach to promoting an energy efficiency ethic are likely to outweigh any additional upfront work and cost. The TumbleWash ads, an illustration of such a statewide effort, may not reflect CL&P's preference, but the program is achieving its goal of market transformation. Tr. 12/2/99, p. 128. In addition, consensus for an in-state program requires agreement between only two utilities, not multiple participants. In developing joint promotional efforts, CL&P should not abandon the past, but build on its and UI's previous efforts.

During the hearing, the possibility of creating a Company hotline number for conservation was discussed. CL&P agrees that a general marketing campaign for CL&M that would direct customers to call a hotline number or do a survey assessment of customer C&LM needs, while providing them with a list of available programs, would be compatible with the type of message it wants to send to customers. Tr. 12/2/99, p. 111. Establishing a conservation hotline, with a topic-related number, so customers can call one number, will also minimize customer call hand-offs that occur when a general service phone number is called. The Company indicated that this hotline would be staffed with personnel trained on all CL&P conservation programs. Responses to Interrogatories EL-19 and EL-30; Tr. 12/2/99, pp. 108 and 109.

The Department believes that a dedicated "conservation hotline" would enhance customer awareness of and access to conservation programs. The Department will require CL&P to establish such a hotline with a telephone number that uses some form of wording related to the conservation theme, such as 1-800-CONSERVE, as suggested by the Company. Staffing for the hotline service center, as indicated by the Company, will be by trained personnel having specific knowledge of C&LM programs.

During the hearing, the status of the Company's website treatment of conservation information was discussed. CL&P stated that a corporate task force was created and is in the process of reviewing its overall website architecture and how its conservation communications can be incorporated. The website does not consistently provide messages informing customers of the availability of the programs, nor does it provide adequate explanations of the programs or customer funding. However, CL&P indicated that it intends to examine how its website can better address these messages. Response to Interrogatory EL-15; Tr. 12/2/99, pp. 103-106.

The Company will be required to create a hot button at the top of its Home Page that provides a direct link to a web page devoted specifically to its conservation programs. The web page shall reference customer funding and the hotline number in its introduction to the programs and direct customers, through a link, to either the residential or C&I programs. Customers should be able to download the conservation brochures directly from the website. All website references to conservation shall include an explanation of the availability of programs, note ratepayer funding and the hotline number, and provide a link to the conservation web page.

F. MANAGEMENT PERFORMANCE INCENTIVE

1. Relevant Connecticut General Statutes

CL&P proposes to apportion up to a maximum 8%, pre-tax, or \$4,986,000, of the total 2000 C&LM program expenditures of \$62,328,000 to the management performance incentive, depending on performance measured against pre-specified criteria. After tax, the incentive is 4.8% of the total 2000 C&LM program expenditures. CL&P has calculated target kWh savings for specific programs upon which the performance incentive kWh goal is based. The Company proposes the following structure for earning the incentive:

<u>Percent of kWh Goal</u>	<u>Percent of Pre-tax Incentive</u>
<59	0
60-69	2
70-79	4
80-89	6
90-99	7
>99	8

Exhibit MWT-2.

Conn. Gen. Stat. §16a-49(a) in part states:

The department shall allow the gas or electric public service company either: (1) To earn a return on prudently incurred multiyear conservation and load management expenditures on programs and measures approved by the department included in the company's rate base and successfully implemented by the company at a rate at least one percentage point but no more than five percentage points higher than such company's rate of return otherwise found to be reasonable; or (2) authorize a return of at least one percentage point but no more than five percentage points on the company's prudently incurred conservation and load management expenditures treated as operating costs on programs and measures approved by the department and successfully implemented by the company. For the purposes of this section "conservation and load management expenditures" shall include all prudent expenditures, approved by the department, by gas or electric public service companies designed to conserve energy or manage gas or energy load.

CL&P believes that the Act did not change its entitlement to receive a management incentive fee under Conn. Gen. Stat. §16a-49. CL&P Brief, p. 18. Even though Conn. Gen. Stat. §16-245m requires that the C&LM revenues be kept separate on the Company's books, C&LM expenditures are still operating expenses of the Company. Accordingly, CL&P believes its incentive proposal is consistent with Conn. Gen. Stat. §16a-49(a)(2). CL&P Brief, p. 20.

CL&P stated that its incentive proposal falls well within the bounds of projected future lost revenues. Exhibit MWT-2, p. 144. However, the Company acknowledges that the purpose of a performance incentive is to encourage effective utility implementation of energy efficiency programs, not to make the Company whole for lost sales. Response to Interrogatory EL-13.

AG asserts that Conn. Gen. Stat. §16a-49 allowed integrated electric utilities to earn an incentive to encourage the Company to implement cost effective conservation measures that it otherwise would have no financial incentive to perform because of lost revenues from reduced generation sales. Since the Company is no longer an integrated electric utility and will operate solely as a distribution company, the economics of providing C&LM have also changed dramatically. Because CL&P no longer sells generation, lost revenue is no longer a reason to allow CL&P to earn an incentive payment relating to its C&LM programs. Therefore, to the extent that Conn. Gen. Stat. §16a-49 is applicable, the incentive need not be as large as allowed in the past. Also AG states that incentives allowed by the Department in the past were significantly smaller than those proposed by the Company in this proceeding and applied during times when lost revenues were relevant and when the Company incurred more risk in the recovery of revenues to fund its C&LM programs. Thus, should the Department approve any incentives for CL&P, they should be smaller than those approved in the past. AG Brief, pp. 4-7; AG Reply Brief, p. 2.

Prior to restructuring, part of CL&P's C&LM programs were included in rate base and amortized over a period of time greater than one year. After restructuring, the

programs will be expensed. Tr. 12/16/99, pp. 354 and 355. Therefore, AG believes that CL&P will no longer bear a risk of collecting the C&LM funds and instead will actually receive the benefit of using the funds collected until they are spent on C&LM programs. Without the lost revenue issue and with lower risks associated with C&LM funding, the Company should need less of an incentive, not more. AG Brief, pp. 5-7. AG further asserts that even the Company believes that the terms of Conn. Gen. Stat. §16a-49 do not have to be strictly met because, while the statute indicates a 1% floor for an incentive, the Company itself has proposed an incentive structure under which CL&P would earn no incentive if its C&LM performance fell below 60% of its goals. *Id.*, p. 5.

Contrary to AG's position, CL&P argues that Conn. Gen. Stat. §16-245m does not render moot the well-established right of the Company to earn an incentive on its prudently incurred C&LM expenditures as set forth in Conn. Gen. Stat. §16a-49(a)(2). CL&P disagrees with AG's assertion that Conn. Gen. Stat. §16a-49 allowed integrated electric utilities to earn an incentive to encourage the Company to implement cost effective conservation measures that it otherwise would have no financial incentive to perform because of lost revenues due to the reduction in generation sales. CL&P states that a reading of the language contained in Conn. Gen. Stat. §16a-49 allows for a return on prudently incurred C&LM expenditures approved by the Department, without reference to lost revenues. CL&P Reply Brief, p. 6.

PRO believes that the Department is not bound by Conn. Gen. Stat. §16a-49(a) in setting a management performance incentive for CL&P. PRO believes that Conn. Gen. Stat. §16a-49(a) was established to compensate the utilities for lost generation revenues, which no longer applies to a distribution company in a restructured electric industry. Further, Conn. Gen. Stat. §16a-49(a) allows electric companies to earn a return on C&LM expenditures over and above a company's allowed rate of return. PRO states that Conn. Gen. Stat. §16a-49(a)(1) is not consistent with CL&P's proposal and Conn. Gen. Stat. §16-245m, since CL&P is not requesting such a return and Conn. Gen. Stat. §16-245m is silent on any return for conservation expenditures. PRO Reply Brief, p. 5.

The Department concurs with CL&P that Conn Gen. Stat. §16a-49(a)(2) gives it the legal right to earn an incentive on its prudently incurred C&LM expenditures. To the extent that CL&P prudently incurs C&LM expenditures for programs and measures approved by the Department and successfully implemented by the Company, the expenditures are treated as operating costs of the Company and, as such, Conn Gen. Stat. §16a-49(a)(2) applies. The Department does not view the management performance incentive as a means to make the Company whole for lost revenues.

2. Appropriateness of a Management Performance Incentive Fee

As a distribution company, CL&P collects the charge of three mills per kWh and is required to provide C&LM services. CL&P believes that since the Company has the responsibility to administer the programs, it should be compensated in a profit making way, just like a general contractor. Tr. 12/2/99, p. 140. In CL&P's opinion, the management incentive fee reflects the difference between simple compliance with a legislative mandate and performance-driven efforts at market transformation and promotion of energy conservation as a factor that is consistent with a competitive

electric marketplace. CL&P Reply Brief, p. 5. A management incentive fee provides the business incentive needed for C&LM employees to feel that they are contributing to the Company's economic success and for non-C&LM employees to recognize the contribution. CL&P Brief, p. 21. Also, the Company believes the incentive justifies committing the resources to the implementation of C&LM programs. Response to Interrogatory EL-5.

CL&P anticipates increasing its work force by 60 positions, 12 to 15 of which will be conversions from contract vendor labor to handle the 2000 C&LM programs. This is an increase of almost 50% from the total of 73 vendor and staff positions currently involved in conservation. The Company believes that the amount of effort it must put in place for 2000 to meet targets and succeed is substantially higher than prior years given the expansion of C&LM activity. The Company defines meeting the goals for next year as exceptional success given the substantial effort it must put forth. Response to Interrogatory EL-89; Tr. 12/2/99, pp. 136-138 and 149.

In the Decision in Docket No. 97-10-23, the Department approved the following incentive structure:

1998 Performance Ratio	Percent of After-tax Incentive
<.75	0
≥.75-<1.10	1
≥1.10-<1.25	2
≥1.25	3

Decision, p. 17.

The Company believes the 8% pre-tax incentive requested is permitted by Statute and is appropriate given the increase in activity for the 2000 budget compared to prior years. Tr. 12/16/99, pp. 334 and 335. Using the data presented in Late Filed Exhibit No. 12, CL&P contends that the Company must increase C&LM spending by \$10 million to earn the minimum incentive for the 60% threshold proposed in this docket compared to Docket No. 97-10-23, when the Company was allowed to earn the minimum incentive at the 75% threshold. CL&P Brief, p. 21. In Docket No. 97-10-23, the C&LM budget had reached a plateau and was decreasing each year, so attainment of the goals was not as much of a challenge. Tr. 12/16/99, p. 348. CL&P believes it will be a stretch to achieve 105 or 110% of the targets in 2000. Tr. 12/2/99, p. 149. However, CL&P is not proposing that the incentive structure presented for 2000 be put in place in subsequent years. *Id.*, pp. 148 and 149.

AG believes that the Department should reject the Company's proposal for performance incentives because it is unreasonably large given CL&P's new role as a distribution company. AG believes that as a regulated distribution company, CL&P should not have to earn an incentive to perform each and every service obligation it bears. The Company's ratepayers should be able to trust that as a regulated entity, CL&P will carry out all of its obligations in an effective and efficient manner without having to pay extra for those services. Further, AG believes that the Department need not increase the size of the incentives to address the Company's concerns regarding its larger budget because incentives are based on percentages of that budget. As the

budget increases, so does the potential value of the incentive. AG Brief, pp. 1 and 3; AG Reply Brief, p. 3.

The ECMB adopted a resolution stating its unanimous support for the Company being allowed to earn a performance incentive for the delivery and administration of quality energy efficiency programs. Exhibit MWT-3, p. 2. Because the Board also approved CL&P's proposed budget, which included a \$4,986,000 performance based fee, CL&P interprets the Board's actions to mean that the Company should be allowed the fair opportunity to earn the maximum budgeted amount for its performance in year 2000. CL&P Brief, p. 19. AG interprets the Board's resolution to mean that the ECMB recognized that there was no consensus on the incentive issue and that the Company should be permitted the opportunity to request Department approval of its proposed incentive. AG Reply Brief, p. 3.

PRO believes that an incentive fee is necessary to provide motivation for management to deliver efficient and high quality programs. PRO Reply Brief, p. 5. According to PRO, the Department should use its judgment, independent of Conn. Gen. Stat. §16a-49(a), in devising an incentive formula that motivates the companies to produce high quality, cost-effective conservation programs. PRO Reply Brief, p. 5.

PRO recommends the following Performance Index and Pre-Tax Incentive:

Performance Index Achieved %	Percent of Pre-tax Incentive
70-74	2
75-79	3
80-89	4
90-99	5
100-109	6
110-119	7
120 and up	8

Id., p. 7.

PRO's recommendation incorporates minimum and maximum thresholds that are lower than those approved in the Decision in Docket No. 97-10-23 to allow for program ramp-up and expansion yet still requiring outstanding performance to achieve the top earnings threshold. Id., p. 6.

The Department believes that the Company should receive an appropriate incentive to put forth its best effort to implement cost effective C&LM programs and fulfill its overall goals. The Department has reviewed the Company's management performance incentive proposal as well as the proposals put forth by other parties. The Department disagrees with the Company that a higher budget warrants earning the maximum incentive just for meeting the program targets. The Department does not agree with the Company that it is entitled to earn a higher incentive because its total C&LM budget has increased from prior years. Out of the total C&LM budget of \$67,314,000, approximately \$45,000,000 or two-thirds of the budget is allocated to existing programs. Townsley PFT, p. 4. However, the Department believes that the Company makes a good argument for a higher incentive because the Company must

put forth greater resources and effort to produce cost-effective programs for 2000. PRO's management performance incentive fee proposal for 2000 appears to give the Company an appropriate amount of incentive to implement cost-effective C&LM programs and recognizes the effort required to ramp up to the higher expenditure level. Therefore, the Department adopts it; however, the Department may adjust it in future years to encourage the Company to achieve higher targets.

Neither CL&P or PRO indicated if their incentive proposals were based on total C&LM kWh savings or the kWh savings for each program. The Department believes it is appropriate for the management performance incentive to be based on the target kWh savings for each program. This allows the Company to earn the maximum incentive for a program that exceeds expectations even if the Company did not achieve the goals for other programs. If toward the end of 2000, the Company believes it will not achieve the goals required to earn the maximum 8% incentive, the Company may reallocate dollars from the incentive budget to programs that the Company anticipates will exceed their budget, thereby keeping the entire activity for the year within budget. All dollars reallocated to programs must be spent cost-effectively.

3. Pre-Tax or After-Tax Incentive

CL&P asserted that the incentive percentages identified in Conn. Gen. Stat. §16a-49 and the incentive amounts approved by the Department in prior Decisions should be interpreted as after tax amounts. Exhibit MWT-2, p. 144; Tr. 12/16/99, pp. 334-337 and 343-347.

AG believes that the Department should reject the Company's interpretation. The statute does not state or indicate that the 1% to 5% incentives allowed are after tax. AG does not believe that when the Legislature stated that the maximum allowed incentive was 5% it actually meant the Company could earn 8, nor did the Department actually mean that the Company could earn more than the incentive amounts expressly stated in its Decisions. AG Brief, p. 8.

The Department has approved after tax incentives in the past. For example, Docket No. 97-10-23, CAM Schedule E, p. 3 provides the calculation for the revenue requirements for the 1998 2% allowed incentive. The calculation shows the 2% incentive multiplied by the gross revenue conversion factor, which means that the 2% is an after tax amount and the Company was allowed revenue requirements for the 2% incentive plus taxes. The Department continues to believe that it is appropriate to allow the Company to receive an incentive on a revenue requirement basis, gross of taxes.

4. Customer Awareness

The Department invited discussion on the topic of tying Company incentives to customer awareness of C&LM programs. CL&P acknowledges that customer awareness of C&LM programs is an important objective of the marketing activities that are integral to the success of the Plan but believes that awareness of programs is necessary but not sufficient to achieve success in program implementation. Response to Interrogatory EL-7. The process of conducting a survey could be costly and would involve setting a baseline, which would have to remain in place for a number of years

without modification. Further, the survey would have to be conducted repeatedly. Tr. 12/2/99, pp. 144 and 145. Therefore, CL&P believes that the ultimate criteria of successful program implementation are customer participation and measurable energy savings. Response to Interrogatory EL-7.

It is important to consider customer awareness of C&LM programs in evaluating the Company's success. If customers are not aware that programs exist, they cannot participate in them and contribute to measurable energy savings. CL&P is directed to explore, with the assistance of the ECMB, the most appropriate method of incorporating customer awareness into the Company's management incentive fee and put forth a proposal in its next C&LM filing.

5. Incentive Fee Methodology for CL&P and UI

CL&P believes that the Department should not require it and UI to adopt the same incentive management fee methodology. CL&P Brief, p. 22. The Company believes that the companies have significantly different goals, strategies, programs, internal management and C&LM history that warrant different approaches to calculating an incentive management fee. CL&P Brief, p. 22.

If the Department does allow an incentive program, AG believes that it should be the same for CL&P and UI. AG Brief, p. 1. AG believes that since CL&P did not specifically state what is different about the companies' goals, management, strategies and failed to show on the record why and how any such differences should require different incentive plans, the Department should enact a single incentive plan. AG Reply Brief, p. 5.

PRO disagrees with CL&P that it and UI be allowed to have different incentive fee methodologies. The Department should implement the same incentive structures for CL&P and UI, particularly since a greater number of programs will be either administered on a statewide or regional basis. Setting the same incentive structures for CL&P and UI would also promote greater consistency and simplicity in the evaluation of their respective programs. PRO Reply Brief, p. 7.

The Department generally believes that CL&P and UI should have a similar incentive fee methodology, but may approve variations for the two companies based on each company's specific set of circumstances and record evidence. As the two companies implement more joint programs, the Department will look to setting the same incentive fee methodology for them.

6. Alternative Incentive Proposals

Energy savings are a logical and common basis for incentives. However, it is very time consuming for the Department to determine the appropriate level of program costs and participation levels particularly when the programs are not consistent between utilities. The utilities are much more aware of what levels they can reach, and since they propose the goals and incentive levels, they can game the system.

The Department believes that it may be appropriate to base the management performance incentive in the future on criteria other than kWh savings, such as customer participation or customer awareness of C&LM. Therefore, the Company is directed to propose alternative methods in its next filing.

G. OTHER ACCOUNTING ISSUES

Each month CL&P will record the revenues from the three-mill per kWh charge and accrue C&LM expenses in the same amount. At the same time, the Company will recognize a liability for the amount it has accrued. The Company will then reduce the liability for actual C&LM expenditures. Because the Company will be recovering C&LM expenditures on a current basis, there will not be a deferral of unamortized C&LM expenditures as in prior years. Response to Interrogatory EL-24. If the Company receives more revenue than it spends for C&LM, the liability reflecting the unspent funds will carry over to the following year. Cahoon PFT, p. 3; Tr. 12/2/99, pp. 14-16; Response to Interrogatory EL-24

CL&P does not anticipate that during the year it will expend more funds than it collects. If the Company did, it would have to estimate how spending the money would affect cash flow and cash requirements. To address any problems, the Company would first try to negotiate incentive payment schedules with customers or look to other C&LM program budgets that might have available funds. If that were not possible, then the Company would go the ECMB and the Department with recommendations for program modifications to keep from overspending the budget. Tr. 12/2/99, pp. 183 and 184.

The Department believes that CL&P's proposal for tracking C&LM revenues and expenditures for 2000 will properly account for all C&LM revenues and will assure that the revenues are spent on C&LM programs. Therefore, the Department accepts CL&P's proposal. The Department concurs with the Company that it should not overspend its C&LM budget and believes that its recommendation for treating program expenditures that are greater than budgeted is appropriate.

In its written exceptions, CL&P indicated that it did not include approximately \$3 million of overheads in the C&LM program budgets. CL&P believes it is proper to charge program budgets with the full cost of implementing the programs. This would limit potential cross-subsidization issues. In addition, the budget proposed by UI also reflects fully loaded C&LM program costs. The Company plans to use fully loaded program costs for future C&LM budgets beginning in 2000. CL&P intends to bring this issue to the ECMB. CL&P Written Exceptions, pp. 9 and 10.

However, as CL&P also stated in its written exceptions, the Company worked extensively with the ECMB and non-ECMB stakeholders to establish the budget proposed in the Plan, and the Company is now working with these parties to establish a budget allocation for the 2001-2002 plan. It seems unlikely that opening 2000 budget discussions again could accomplish as broad a consensus. CL&P Written Exceptions, p. 8. The Company had ample opportunity during discussions with the ECMB when formulating the programs and budgets and during the proceeding before the Department to submit all the evidence it deemed necessary for the Department to approve C&LM programs and budgets. CL&P came before the Department with its

Plan and indicated that the Company and the ECMB had gone through months of review and discussion to develop the Plan. Now is not the time for the Company to attempt to introduce new evidence for the 2000 plan year. Therefore, the Company will not be allowed to revise the program budgets for 2000 to include any additional dollars for overheads. CL&P is directed to review detailed 2001 C&LM program budgets with the ECMB and submit itemized program budgets in its next C&LM filing.

H. DOCKET NO. 98-11-02 ORDER COMPLIANCE

Order No. 7 in the Decision in Docket No. 98-11-02 required CL&P to submit a status report regarding 1999 C&LM expenditures with its next C&LM filing. In its October 15, 1999 filing, CL&P estimated that 1999 C&LM expenditures would be \$1.5 million less than budgeted. CL&P will discuss with the ECMB how to use those funds and try to reach consensus before making a proposal to the Department. A likely approach would be to spend the money on new initiatives for 2001. However, the Company will consider using the funds in 2000. Tr. 12/2/99, pp. 178-181.

The Decision in Docket No. 98-11-02 directed CL&P to carry over any unspent 1999 C&LM dollars into 2000. Decision, p. 17. Therefore, the Department directs CL&P to discuss the utilization of the remaining funds from 1999 with the ECMB as soon as the amount is known. CL&P must then inform the Department as to how it will spend the money in 2000. The Department does not want the remaining 1999 funds to be carried into 2001.

I. FUTURE C&LM PROGRAMS

CL&P states that cost-effective delivery of energy services requires a vigorous energy services industry. CL&P's programs already stimulate the energy services industry by using vendors to deliver DSM programs. The Company plans to increase its emphasis on ESCO market development with a program that will allow ESCOs to bid on work for customers using DSM incentives. Exhibit MWT-2, p. 7

CL&P's revenues and ultimately its financial success are directly linked to sales. Therefore, as with any business, the Company has an incentive to retain and augment its sales base.¹² However, although CL&P's conservation programs can add value to the Company in certain limited situations, such as attracting or retaining business customers, successful implementation of C&LM measures reduces sales and revenue. Tr. 12/2/99, pp.163-166. Absent the incentives required under Conn. Gen. Stat. 16a-49(a)(2), the Company has little motivation to pursue conservation aggressively.

The Department believes that developing the ESCO market is an appropriate goal. Although ESCOs are involved in the programs, their ability to maximize participation is limited since CL&P controls all programs. Therefore, in addition to allowing ESCOs to bid on work for customers that are participating in DSM programs, the Department believes that ESCOs and others should be allowed to bid to implement and operate C&LM programs. These companies would not be faced with the conflicting

¹² In addition, Northeast Utilities has unregulated companies, such as Select Energy, whose financial success is directly linked to sales of electricity.

goals that challenge CL&P regarding the implementation of these programs. ESCOs would have a pure incentive to maximize the success of a program since the ESCO's success would be tied to the success of each programs (i.e., number of measures installed and related kWh savings).

The Company, with the assistance of the ECMB and some consultants, has planned an extensive range of programs for 2000. Many of the programs have been operating for years but have been expanded for the coming year. The Company's proposal includes a few new, innovative programs for research, development and demonstration and a customer-initiated program for commercial/industrial customers.

CL&P has generally done a good job of planning and implementing its programs but the planning process remains centralized. The expansion of the C&LM budgets creates an opportunity for CL&P and the ECMB to explore new methods to plan and deliver conservation programs. The Company and the ECMB should consider bidding out a portion of the conservation program in 2001. This would allow a wider range of input into the planning process and could expand the number of contractors implementing ratepayer-funded C&LM programs. The Department believes this approach will enhance competition and development of the ESCO markets. Competition to win the bid would also drive ESCO's to be creative and efficient. This would reduce the need for the Department to evaluate and determine the appropriate level of program costs, savings, profits or incentives for program delivery.

The Department will order the Company to work with the ECMB to develop a request for proposals (RFP) and criteria to evaluate the bids for approval at the time of its next annual C&LM filing. The group should consider whether the Company as well as licensed suppliers or their affiliates should be eligible to participate in this program. The program should be designed to encourage electric conservation and renewable energy projects but should not subsidize other fuel substitution.

III. FINDINGS OF FACT

1. The ECMB supports CL&P's overall goals, objectives and strategic focus of the Plan.
2. The Prosecutorial Unit of the Department expressed its full support for CL&P's Plan as endorsed by the ECMB.
3. Conn. Gen. Stat. §16-245m requires the Department on and after January 1, 2000, to assess or cause to be assessed a charge of three mills per kWh of electricity sold to each end use customer of an electric distribution company to be used to implement C&LM programs.
4. CL&P proposed a C&LM budget of \$67,314,000 for 2000.
5. The overall goals of CL&P's Plan are to advance the efficient use of energy, reduce air pollution, improve public health, and promote economic development in Connecticut.

6. The Act requires CL&P to implement conservation programs, effectively requiring the Company to reduce sales.
7. CL&P's Plan contemplates a coordinated effort among the utilities in the region as well as participation in national initiatives.
8. CL&P's SmartLiving Center, located in Newington, opened in September of 1999.
9. The SmartLiving Center demonstrates many of the energy efficiency lighting fixtures and CFLs offered through the SmartLiving Catalog.
10. CL&P is currently planning a second SmartLiving Center and is considering locating this center in southern Connecticut.
11. CL&P has established target savings for the SmartLiving catalog of 8,583 MWhs, based on 33,750 orders shipped in 2000.
12. The Company is working with manufacturers to encourage the production of lighting products that are in high demand in the residential market.
13. CL&P continues to expand the line of high quality lighting fixtures and conservation-related products offered through the catalog.
14. The Company has created a "kids section" in the SmartLiving catalog.
15. CL&P's Retail Lighting Program is designed to supplement the SmartLiving Catalog.
16. CL&P will provide point-of-purchase rebates for Energy Star fixtures and qualifying CFLs under the Retail Lighting Program.
17. The overall goal of the Retail Lighting Program is to create and sustain change in the residential lighting market, increase availability, consumer acceptance and use of energy efficient hard-wired and screw-based lighting products.
18. CL&P will participate in a consumer marketing campaign in conjunction with the marketing efforts for the NEEP Regional Energy Star Lighting Initiative.
19. CL&P's proposed target for the Retail Lighting Program is 3,567 MWhs, based on the sale of 30,750 fixtures in 2000.
20. The retail point-of-purchase lighting program is one of nine programs that CL&P and UI will pursue jointly.
21. The Company launched its Retail Lighting Program in the fourth quarter of 1999.
22. Instant days are promotional events at which a customer can purchase an energy efficient fixture or CFL and receive a coupon for an instant price reduction at the cash register.

23. The Energy Star Homes Program is part of a national energy efficiency campaign sponsored by the EPA and the DOE.
24. CL&P supplements the national Energy Star Homes Program platform to encourage and assist home buyers and builders to achieve greater energy efficiency for heating, cooling, lighting and appliance operations.
25. The educational component of CL&P's former Energy Crafted Homes Program will continue under Energy Star Homes.
26. The current projection of building permits that will be issued in Connecticut in year 2000 is 8,600 single-family units and 1,300 multi-family units.
27. The program staff located at the SmartLiving Center will provide most of the program services for the Energy Star Homes Program.
28. The budget for the Energy Star Homes Program in year 2000 is \$1,515,000 and the target participation is 450 homes.
29. The Energy Star Homes Program offered throughout New England achieved participation beyond projections.
30. CL&P proposes to offer a free Hot Shot water heater under the Energy Star Homes Program.
31. CL&P proposes to offer to install a free closed loop for geothermal heat exchange units as part of its Energy Star Homes Program.
32. The Hot Shot heat pump water heater is a technology that reduces water heating costs by removing heat energy from the air surrounding a water heater tank and transferring it to the storage tank.
33. The Hot Shot can reduce the energy required to heat water by up to 50%.
34. The budget for the Hot Shot Program is \$2,336,000, with target savings of 7,919 MWhs, assuming 2,933 units are installed.
35. CL&P's Plan includes appliance rebates for Energy Star clothes washers, refrigerators and dishwashers.
36. CL&P does not plan to use consumer rebates to support the sale of Energy Star refrigerators or dishwashers except as part of the Energy Star Homes Program for residential new construction.
37. There are approximately 52,000 clothes washers, refrigerators and dishwashers sold annually in Connecticut.

38. CL&P estimates that it will spend approximately \$55,000 in the year 2000 on energy conservation activities geared toward children and young adults.
39. The Company will simplify WRAP eligibility criteria and all customers who meet income requirements will be eligible for some services under the program.
40. The Company did not provide the targeted low-income budget for New Residential Construction.
41. CL&P monitors the progress of its conservation programs through the WRAP tracking system and quarterly reports to the ECMB.
42. Two different Cost-Benefit tests were conducted, the Electric System Test and the Societal Test, to evaluate the cost effectiveness of CL&M programs.
43. The Company proposes a C&I conservation budget of \$35,590,000 with two-thirds of it allocated to five existing programs, the remainder to 4 new C&I programs
44. The new C&I Express Medium/Small Program targets small business customers having demands up to 100kW.
45. The Municipal Building program will be open to all economically distressed municipalities in CL&P's service territory offering turnkey technical and financial assistance.
46. The purpose of the Load Management pilot programs is to assess the market and determine the feasibility and conditions necessary to implement them as full scale programs.
47. The Residential Load Management Services Pilot Program is open to residential customers who take energy from a supplier under a TOU rate with enough coincident controllable load to justify the installation of control equipment.
48. The Residential class funds 40% of the CL&M budget.
49. C&I programs account for 77% of the total energy savings and are 45% less expensive than Residential programs.
50. CL&P has budgeted \$5 million or approximately 7% of the total budget to implement the new RD&D program for 2000.
51. CL&P plans to implement a general marketing campaign for its Year 2000 programs that includes media, collateral materials, bill inserts and its website to develop an energy efficiency ethic.
52. The Company plans to develop brochures for residential and for commercial/industrial customers and is currently assessing its brochures for potential additions and improvements.

53. CL&P believes that establishing a hotline with staff trained on its conservation programs would be beneficial to its conservation effort.
54. CL&P's corporate task force will examine how its website can be improved and enhance its messaging on conservation programs and ratepayer funding.
55. CL&P proposes to apportion 8%, pre-tax, or \$4,986,000, of the total 2000 C&LM program expenditures of \$62,328,000 to the management performance incentive.
56. Prior to restructuring, part of CL&P's C&LM programs were in rate base and amortized over a period of time greater than one year. After restructuring, the C&LM programs will be expensed.
57. As a distribution company, CL&P collects the charge of three mills per kWh and is required to provide C&LM services.
58. CL&P anticipates increasing its work force by 60 positions, 12 to 15 of which will be conversions from contract vendor labor, to gear up and handle the 2000 C&LM programs.
59. The ECMB adopted a resolution stating its unanimous support for allowing the Company to earn a performance incentive for the delivery and administration of quality energy efficiency programs.
60. In prior Decisions, the Department approved after tax incentive percentages.
61. Customer awareness of C&LM programs is an important objective of the marketing activities that are integral to the success of the Plan.
62. Each month CL&P will record the revenues from the three-mill per kWh charge and will accrue C&LM expenses in the same amount.
63. If the Company receives more revenue than it spends for C&LM, the liability reflecting the unspent funds will carry over to the following year.
64. CL&P estimated that 1999 C&LM expenditures would be \$1.5 million less than budgeted.

IV. CONCLUSION AND ORDERS

A. CONCLUSION

The Department approves CL&P's proposed 2000 C&LM budget of \$67,314,000. The Department commends the Board for being able to reach consensus on an extensive array of issues, but believes that even more can be done for the year 2000. The C&LM programs for 2000, as modified in this Decision, will allow CL&P to achieve the overall goals of the Plan of advancing the efficient use of energy, reducing air pollution, improving public health, and promoting economic development in Connecticut. The Department believes that the Company and the Board can work together to design even more innovative cost-effective C&LM programs for the future.

The Department believes the Company is entitled to receive an appropriate management performance incentive to develop and implement cost-effective C&LM programs that will achieve the overall goals of the Plan. However, the Department believes that the Company should be required to achieve superior performance to receive the maximum allowed incentive.

B. ORDERS

For the following Orders, submit an original and nine copies of the requested material identified by Docket Number, Title, and Order Number to the Executive Secretary.

1. By **May 17**, 2000, the Company shall provide goals, cost and benefits for the three load management pilots as described in Section II.B.4.
2. No later than **May 31**, 2000, the Company shall incorporate the Energy Care initiative's Pilot Low Income Program Service Delivery Process into its CSR training and its customer service policies and procedures. It shall revise its customer service procedures requiring that CSRs, as part of the Energy Care initiative and, in all communications with low-income customers, it shall make them aware of available conservation programs. The revisions shall require CSRs to mail a conservation brochure to each such customer who contacts the Company about any low-income issue, conservation or high billing complaint.
3. On or before June 1, 2000, CL&P shall submit sample modifications to the SmartLiving Catalog, as discussed in Section II.B.2.b., for Department review.
4. No later than June 1, 2000, the Company shall develop separate brochures, in English and Spanish, for its residential and commercial/industrial conservation programs, with a brief description of each program. Each brochure shall indicate, prominently displayed on the front cover, that "Conservation programs are funded by the Conservation Charge on customer bills. These programs are designed to help customers manage their energy usage and reduce their costs." The covers shall also show the hotline number and website address. All brochures shall be submitted to the Department for review prior to printing.

5. No later than **June 15**, 2000, the Company shall establish a hot-button at the top of the CL&P Home Page that provides a direct link to a web page devoted specifically to its residential and commercial/industrial C&LM programs. The introduction to the web page shall include the customer-funding tagline and the hotline. Downloading the conservation brochures shall also be available. All website references to conservation (e.g., under public policy costs, your electric bill, restructuring and the environment) shall include an explanation of the availability of programs and include the customer-funding tagline and hotline number.
6. No later than **June 15**, 2000, CL&P shall establish a dedicated hotline for energy conservation that utilizes a telephone number related to the conservation theme, such as the number the Company suggested. The hotline shall be staffed with trained personnel having specific knowledge of C&LM programs.
7. No later than **July 1, 2000**, CL&P shall develop a general conservation awareness campaign plan in conjunction with UI that promotes overall awareness of the availability of conservation programs.
8. No later than July 31, 2000, and quarterly thereafter, the Company shall submit to the Department copies of its reports through the WRAP tracking system and the quarterly reports to the ECMB on the status of overall conservation program participation. The quarterly ECMB reporting shall include the annual budget and the year-to-date expenditures for each C&LM program, itemizing the low-income portion of New Residential Construction separately.
9. In its next C&LM filing CL&P shall:
 - a) report on its efforts to have UI involved in the second SmartLiving Center as discussed in Section II.B.2.a.;
 - b) submit a summary of its efforts to stimulate the infrastructure for the installation of geothermal loops as discussed in Section II.B.2.d.;
 - c) include an educational program as discussed in Section II.B.2.g.;
 - d) report on its progress regarding implementation of C&LM in assisted living facilities as discussed in Section II.B.2.h.;
 - e) include a table similar to the one presented in Appendix A of this Decision. The program name will be its marketing name with a note that distinguishes the major feature or requirement of the program. The last column will include a brief description of program changes from the prior year, its primary services, and delivery method. The electronic filing will have all formulas in tact.;
 - f) include a proposal to reflect customer awareness of C&LM programs in the management incentive fee;
 - g) propose methods other than kWh savings upon which to base a management performance incentive;
 - h) file a plan to bid out a portion of its conservation programs;
 - i) address the issue of cross—subsidization among customer sectors;
 - j) submit itemized C&LM program budgets; and
 - k) include a firm level of funding for Urban Act Towns.

10. The Company, with the assistance of the ECMB, shall develop an RFP for 2001 C&LM programs and criteria to evaluate the bids. The Company shall submit the RFP in its next C&LM filing.
11. Effective with the next edition of the SmartLiving catalog, all future catalogs must include the message box discussed in Section II.B.2.b.
12. In referencing conservation programs **exclusive to CL&P and to CL&P and UI combined**, the Company shall consistently note, in all television and radio advertising, in all communications and printed materials, the CL&P customer-funding tagline, that "Conservation programs are funded by the Conservation Charge on customer bills," and provide the hot-line number and the website address for conservation.

DOCKET NO. 99-09-30 DPUC Review of The Connecticut Light and Power Company's Conservation and Load Management Programs for 2000

This Decision is adopted by the following Commissioners:

Donald W. Downes

John W. Betkoski, III

Linda Kelly Arnold

CERTIFICATE OF SERVICE

The foregoing is a true and correct copy of the Decision issued by the Department of Public Utility Control, State of Connecticut, and was forwarded by Certified Mail to all parties of record in this proceeding on the date indicated.

Louise E. Rickard
Acting Executive Secretary
Department of Public Utility Control

5/11/00

Date

APPENDIX A

COMPARISON OF CL&P CONSERVATION PROGRAMS FOR 2000														
Exh MRT-2	Data Source:	EL-54	EL-37	EL-37	EL-37	Calc	EL-37	EL-37	Plan	Plan	EL-37	EL-37	Calc	EL-54 and Plan
Plan Page No.	Program	Utility Costs 1999 (000)	Utility Costs 2000 (000)	Customer Costs 2000 (000)	Societal Costs 2000 (000)	% of 2000 Budget	Electric System B/C Ratio	Societal B/C Ratio	Goals: #	Units	Annualized Savings (MYE)	Lifetime Savings (MYE)	Utility Cost Rate \$/LT-kWh	2000 Program Compared to 1999 Program
18	SmartLiving Catalog (lighting fixtures mail orders)	\$ 2,036	\$ 2,394	\$ 1,489	\$ 3,373	4.0%	1.3	1.3	33,750	Orders Shipped	8,583	100,871	2.36	Increase # of participants.
20	Retail Lighting (point of sale rebates)	89	1,052	-	1,052	1.8%	1.8	2.9	30,750	CFL's and fixtures	3,267	71,240	1.47	99 initial program start-up, 2000 full year participation, increased marketing and retailer support.
31	Energy Star Appliances (point of sale rebates)	1,003	1,472	1,728	3,200	2.5%	0.7	1.2	14,408	Appliances	2,182	34,512	4.27	Increase # of participants & continue aggressive marketing and retailer support. Energy Star washers, dish washers and fridge.
23	New Residential Construction	774	1,515	-	1,515	2.6%	0.7	1.3	400	Homes (% of new construction)	1,688	35,370	4.26	Increase # of new homes & increase focus on fuel-burning homes. Energy Star shell standards.
28	Hot Water Heat Pump Water Heaters (HPWH)	762	2,336	440	2,776	4.0%	1.3	1.6	1,253	HPWHs	7,010	118,785	1.87	Increase # of participants and purchase new HPWH units. Supplement electric HPW heater.
84	Energy Conservation Loan Program (ECLP)	480	380	-	300	0.5%	0.1	0.2	200	Loans	66	1,201	34.98	Reduce budget based on reduced contribution requirement from CL&P in 2000.
68, 77	WRAP (Low Income)	1,500	5,130	-	5,130	8.7%	0.9	2.0	6,000	Households	9,295	160,261	3.20	Introduction of Energy Care, increased participation due to expanded intake mechanism including 1000 fuel-burning stoves.
39	Residential Electric Heat- SPECTRUM	1,536	1,638	1	1,639	2.8%	1.2	1.7	3,100	Customers	3,833	71,614	2.29	Similar to 99 Program. Fee shell improvements
	Energy Efficient Water Heating	0	1			0.0%								
62	Residential Audit-RCS Tech Center (SmartLiving Center)	30	32	33	65	0.1%	0.3	0.2	100	Customers	28	377	8.40	Similar to 99 Program.
64	General Non-Program Construction	0	630								0	0	0	Increase budget to reflect the cost for another center & operate both. New for 2000.
	Total Residential	\$ 8,600	\$ 17,598	\$ 3,691	\$ 21,248	29.8%	0.9	1.4			27,661	894,631	2.98	
42	C&I New Construction and Major Renovation	6,800	7,900	468	8,388	13.4%	1.4	1.9	268	Customers	22,362	412,230	1.92	Similar to 99 Program. Thus designers and large customers at design stage. 50% lighting.
39	C&I Custom Services	5,527	7,511	438	7,989	12.8%	1.7	2.2	404	Customers	27,118	426,365	1.76	Similar to 99 Program. Thus audits. Proactive measures.
51	C&I Express Services	1,500	2,032	-	2,032	3.5%	2.8	3.9	1,214	Customers	12,661	199,101	1.02	Similar to 99 Program. Thus trade show. Upsell, 54% lighting.
66	C&I Operation & Maintenance Services (pretest agreements)	2,211	3,665	-	3,665	6.2%	2.2	2.9	171	Customers	20,299	229,338	1.41	1999 incentives based on 50% incremental costs. 2000 incentive covers 100% of measure costs.
86	State Office Buildings (In 1999, \$1.5 M equilibrium and \$3.3 M reimbursement)	(1,800)	2,150	-	2,150	4.3%	1.2	1.6	12	Customers	8,559	99,762	2.26	1999 program had 50% co-pay by State. In 2000 100% of measure costs will be paid by program. 82% lighting.
45	C&I Express Medium/Small Customers (up to 100 kW)	-	1,525	-	1,525	2.6%	2.0	2.8	651	Customers	6,898	107,466	1.42	New for 2000. Small businesses with high use. Turn key services. 92% lighting.
96	Economic & Competitive Market Development	-	4,200	4,246	8,746	7.6%	2.6	1.9	28	Customers	27,640	411,020	1.09	New for 2000. RFP for large projects >350 kW and efficient measures not in CLM programs.
87	Municipal Buildings	-	3,204	-	3,204	5.4%	1.3	1.7	16	Customers	8,779	127,383	2.53	New for 2000. Open to all CL&P municipalities. Only 7 cities in 1999.
	BAP - Con	2,474	33								0	0	0	Program discontinued. 2000 funding for program evaluation only.
64	General Program Construction	0	400								0	0	0	New for 2000.
	Total C&I	\$ 16,512	\$ 33,340	\$ 5,171	\$ 38,511	56.6%	1.8	2.2			140,616	2,040,666	1.63	
111	C&I Load Management Pilot Cooperative	0	1,000	-	1,000				25	Customers	Not provided			Provide dispatchable loads to ISO.
117	C&I Load Management Pilot Assistance Fund	0	1,250	-	1,250						Not provided			Education, audits and marketing for single or combined facilities >1 MW load.
100	Residential Load Management Services Pilot	0	750	-	750						Not provided			Study TOU rate for supply.
103	Total Load Management	0	3,000	-	3,000	5.1%	2.6	2.9			Not provided	0	0	New for 2000. Arouse a market value of dispatchable load of \$100,000/year.
125	Research, Development, and Demonstration	0	5,000			8.8%					0	0	0	New for 2000. Develop new technologies and efforts to promote customer participation.
	Total Programs	\$ 25,202	\$ 50,890	\$ 9,862	\$ 67,760	100.0%	1.4	1.8			180,277	2,637,197	2.23	
147	Admin Planning & Evaluation	725	1,081											Admin (\$67k) for evaluation is in 2000 individual program budget.
	BCMB	154	250											Oversee planning of programs but will not evaluate actual results.
	Data Processing	410	800											
	Other Expenditures	3541	3,429											
	Total Programs and Other	28,743	62,327								180,277	2,637,197		
143	Max Perform Incentive 8%	0	4,966											Legislative compensation for lost sales.
	GRAND TOTAL	\$ 20,743	\$ 67,313								180,277	2,637,197	2.65	
	Programs will save 25 MW plus 5 MW saved in the Load Management pilots. Tr. 12/2/99, pp. 61-62.													