

# Seattle City Light Energy Conservation Goals & Accomplishments for 2002

August 2002

The Energy Management Services Division (EMSD) has the responsibility to acquire cost-effective energy conservation through the programs and services offered to its customers. Over the last few years, Seattle City Light has financed the acquisition of energy savings. However, Seattle City Light has recently signed a two-year Conservation Augmentation Contract with the Bonneville Power Administration for the purchase of energy savings from the utilities' activities. EMSD is working to achieve the annual contract goal of 9 aMW of energy savings from completed conservation projects for BPA's fiscal year (October 1, 2001 to September 30, 2002). As the table below shows, after three-quarters of the BPA fiscal year, SCL has achieved 7.7 aMW and 86% of the BPA contract goal. The Division is on pace to meet or slightly exceed the 9.0 aMW target by the end of BPA's fiscal year (September 30, 2002).

The table below summarizes the Division's accomplishments through the first three-quarters of our BPA Conservation Augmentation contract.

## Completed Conservation for BPA Contract as of 6/30/02

	Community Conservation	Commercial & Industrial	Total Conservation
Average megawatt (aMW) completion goal	1.9	7.1	9.0
Savings completion goal (kWh)	16,379,790	62,500,000	78,879,790
Average megawatts from completed projects (aMW)	1.6	6.1	7.7
Energy savings from completed projects (kWh)	14,397,589	53,142,714	67,540,303
Percent of completion savings goal achieved	88%	85%	86%

Historically, EMSD has set and monitored performance according to the energy savings contracted with customers. These projects are usually contracted or "authorized" prior to implementation of energy efficiency improvements, so there can be a significant lag before they yield "completed" savings, especially for new construction and industrial retrofits. It is important for EMSD to sustain a high level of contracted activity in order to ensure that 9 aMW of completed projects will come through for both BPA fiscal years.

This brief update provides an update of the *Plan* accomplishments achieved through the first half of 2002.

## Community Conservation

During the last quarter of 2001 and the first two quarters of 2002, Community Conservation programs resulted in completions totaling 1.6 aMW of energy savings, or approximately 88% of the annual goal of 1.9 aMW for the 2002 BPA fiscal year. Overall, new contract activity remained strong and most programs appear to be within reach of meeting their annual contract/authorization goals during 2002.

### Multifamily and Small Commercial

Community Conservation continued to serve the multifamily residential sector in both new construction and retrofit of existing apartments and condominiums. The Built Smart Program, SCL's beat-the-code program, contracted with an additional 1,265 units of residential new construction during the first six months of 2002, reflecting a continued historically high level of activity in this sector. The Built Smart for Affordable Housing program, which targets low-income housing being developed by non-profit low-income housing developers and governmental agencies, contracted for service to an additional 130 units. SCL's two multifamily retrofit programs, Multifamily Weatherization and Common Area Lighting, contracted to serve an additional 2,091 units of existing multifamily buildings with the installation of new windows, insulation, or efficient lighting

The Smart Business program continued to provide lighting retrofits to a wide variety of small businesses, both through the city-wide and Neighborhood Power Project (NPP) components, with the NPP component active in the Greenwood neighborhood. A total of 88 small businesses participated in this program during the first six months of 2002.

### Lighting and Appliances

Torchiere Retail Coupon Program. This BPA-funded program provided all SCL customers with a \$15-off coupon for Energy-Star labeled compact fluorescent-based torchiere floor lamps. These lamps are much more energy-efficient than halogen torchieres, and are also much safer since the bulbs create much less heat than halogens. The coupons were mailed to customers in their January/February bill; they expired April 30<sup>th</sup>. There is a several month lag for stores to batch and mail in their coupons for reimbursement. To date, 1,103 coupons have been returned by participating stores to BPA's program coordinator.

WashWise Program. The collaborative effort with SPU continues to achieve historically high levels of rebates, even with the combined rebate having been lowered from \$100 to \$75 during the first quarter of 2002. Through the first six months of the year, 2,427 rebates were processed for qualifying machines installed in SCL's service territory.

Water Heater Rebate Program. As reported to the Council during discussions regarding 2002 budget cuts, the Water Heater Rebate Program (WHRP) is being ended as of July 31, 2002. The

program phase-out has proceeded smoothly thus far, with staff focusing on communications with retailers and trade allies to make them aware of the program's end. WHRP has been a very effective program during its ten-year history, providing rebates for over 45,000 efficient water heaters and delivering cumulative annual energy savings in 2001 of approximately 1.25 aMW. The program contributed valuable data in support of federal rulemaking that resulted in new federal efficiency standards equivalent to WHRP's requirements that will take effect in 2004. This limited remaining life of the program was one of the key reasons behind the decision to end it during 2002.

### **Neighborhood Power Project**

The Greenwood/Phinney Neighborhood Power Project was kicked off with a mailing in March that included project description and volunteer cards. Over 180 residents responded by volunteering to distribute compact fluorescent bulbs, pick up litter, and plant trees in the neighborhood.

The Greenwood/Phinney NPP co-sponsored the Home Design and Remodeling Fair at the Phinney Neighborhood Center in February and participated in the Northwest Sector event at the Woodlawn Park Zoo in March to enlist volunteers and provide information on City Light's conservation programs. With the help of over 130 volunteers, over 4,000 compact fluorescent bulbs and over 400 efficient showerheads and aerators have been distributed in the neighborhood. Eleven residents have participated in the Green Audit service.

### **Low Income**

Regular Low-Income Conservation Programs. Through June, the Office of Housing (OH) contracted for retrofit of 522 multifamily units, 87% of its annual 600-unit multifamily goal, and 13 single-family and multiplex units, 12% of its 106-unit goal in the HomeWise program.

Utility Tax Funds. Council Ordinance 120322, passed in April 2001, allocated \$1.1 million of utility B&O tax funds to additional energy conservation efforts targeted towards low-income housing providers and the facilities they operate. SCL and OH are completing this work during 2002. During the first six months, OH the completion of common-area lighting retrofits in the buildings of 18 non-profit housing providers. City Light is continuing to work directly with King County Housing Authority and Seattle Housing Authority to have common area lighting work performed in their buildings using the utility tax funds. SHA and KCHA will now be directly administering the bidding and contracts for this work, which will be completed by the fourth quarter of 2002. In addition to the lighting retrofits, over 4,600 electric baseboard thermostats were replaced in buildings owned by six non-profit housing providers and SHA.

### **High Bill Audits**

Community Conservation staff are providing home energy audits for some of the customers who have called SCL to complain about their high bills. The audit service is limited to those customers

who are referred by the Hearing Examiner or Accounts Services management. To date, 40 audits have been conducted; 5 are pending. Most customers of the customers who received audits called SCL because their winter consumption put them in the Third Tier and their bills were much higher than last year's.

## Commercial & Industrial

### C & I Energy Savings

In 2002 the primary focus of Commercial & Industrial activity is on **completion** of conservation projects that are eligible for BPA funds. As a direct result of the high level of conservation activity in 2001, the energy savings from completed projects in the commercial & industrial sector is at 6.1 aMW through June 2002, representing 85% of the annual completion goal of 7.1 aMW.

In regards to **contracted** energy savings that will become future completed projects, the Commercial & Industrial Section has signed contracts representing 52% of the 7.1 aMW goal for 2002. However, new contracting activity in the first half of the year is actually down considerably from the frenetic levels of 2001. The carryover contracts from 2001 (representing 15,003,088 kWh and 1.7 aMW) are responsible for 46% of the savings shown above.

This predictable slowdown was due to a number of factors. First, the generous 10+10 bonus incentive offer in 2001 caused many customers to undertake projects earlier than they had originally planned. Second, the economic slowdown has affected local capital expenditures. Finally, the C&I Section ceased active marketing in early fall of 2001 due to the tremendous 10+10 response, so applications for the Energy Smart Services program declined for several months.. More active ESS marketing commenced in second quarter to counteract these factors. This marketing includes a greater presence in the *Daily Journal of Commerce* and the *Puget Sound Business Journal*, as well as a direct mail campaign targeting commercial customers and trade allies.

### Facility Assessment Audits

Despite the cost-saving decision to discontinue use of consultants to deliver facility assessments, 13 FAs were completed in the first six months of the year by C&I Section field staff. Since the annual goal was set at 15 for 2002, progress has been better than expected. Facility Assessment audits can contribute to marketing and project development by identifying and analyzing energy conservation opportunities customers may not recognize.

### Vending Miser Installations

City Light launched its Vending Miser initiative with Bayview Technologies in June 2001 to help reduce commercial sector plug loads. In 2001 there were 531 units installed worth 584,000 kWh. Earlier this year, the opportunity arose to participate in the regional program operated by BPA through their Conservation Augmentation Program. City Light signed on to the regional Vending Miser program and BPA agreed to make pay for installations under City Light's initiative retroactive to June 2001.

In the first six months of 2002, the savings from installation of 1,578 Vending Miser units amount to 1,903,000 kWh.



## **Seattle Energy Code**

Seattle City Light and the Department of Design, Construction, and Land Use work to increase energy efficiency through the design, implementation, and enforcement of both the Washington State Energy Code and the Seattle Energy Code. Both of these codes have been updated twice within the last year. The first update for both energy codes was to occur concurrently on July 1, 2001. However, the City Council made their recommendation known through Resolution 32080 that the Seattle Energy Code should strive to be 20% more efficient than the ASHRAE 90.1-1999 standard. This was viewed as a significant leap in energy efficiency for commercial buildings located within the city limits. Due to the technically complex nature of this standard, the public process ran much later than anticipated for a July 1 implementation date and it was eventually implemented on October 1, 2001. The Division's staff has been involved in implementing the 2001 Seattle Energy Code throughout late-2001 and early-2002. A second update of both codes was initiated in early 2002. Because updates to both codes in 2001 were complex, both energy codes needed additional attention in 2002 to clarify certain details. EMSD staff were engaged in a series of technical discussions in early 2002 and the second update of both codes took effect on July 1, 2002.

## **Sustainability**

Encouraging sustainable building in private sector development continues to be a goal of the Seattle City government. This is results from commitment of Council Members and motivated City staff who have developed a variety of programs to foster and support sustainability and sustainable building. EMSD has assumed a major role in promoting these activities over the last few years through sponsorship of the Northwest Regional Sustainable Building Action Plan in 1997, development and sponsorship of the two year old Sustainable Building Professional Certificate Program which is provided at Seattle Central Community College, completion of the Sustainable Demand Project grant in 2000 and early 2001, and continuing participation in the City's Green Building Team.

Major projects for the first half of 2002 included:

- Council Resolution 30280, which requires developing a plan to accelerate the City's Green Building Program. EMSD and the Lighting Design Lab have participated in and contributed to this planning activity which will get formal presentations to the Energy and Environment Committee, and then full Council in August, 2001.
- LEED™ Pilot Incentive Program. Jointly funded by SCL and SPU, EMSD began development of this incentive program to financially assist private sector projects to become LEED™ certified. Funding is provided early in the conceptual and design stages to facilitate establishing sustainable building goals into overall project goals. As additional inducement, current incentive programs at both SPU and SCL will be incorporated into the

service to be provided. To date, three projects have signed letters of agreement, five projects have submitted pre-application forms and LEED Scoring charettes have been conducted with an additional nine project teams.

- BUILT GREEN™ Incentive Program. As there was significant early interest in the LEED™ Incentive from multi-family residential projects, for which LEED™ 2.0 is not the most suitable benchmarking tool, EMSD has worked with the Master Builder's Association of King and Snohomish Counties to make their Built Green™ multi-family benchmarking tool more rigorous. A number of multi-family projects were scored with Built Green™ and analytically compared to LEED™ to define comparable levels of sustainable building performance. A Built Green™ Incentive program was launched in July, 2002.
- Support of Sustainable Neighborhoods. EMSD has taken the lead in developing collaborative and cooperative support from City departments to encourage and support sustainably developed neighborhoods in the South Lake Union neighborhood and in the redevelopment of the High Point neighborhood. Beyond supporting neighborhood sustainability goals, each neighborhood is being encouraged to use benchmarking tools – LEED™ and Built Green™ - as measures of performance.

Major goals for the second half of 2002 include:

- Council Resolution 30280, with continuing participation in the acceleration of the City's Green Building Program, to ensure that it is compatible with and enhances EMSD's current incentive and community assistance programs.
- LEED™ and Built Green™ Incentive Programs. The goal will be to contract with five private sector commercial real estate development projects in Seattle to assist them certifying their projects with the US Green Building Council's LEED Scoring System or the Master Builder's Association Built Green™ Multi-family checklist.
- Sustainable Building Professional Certificate Program. The program will begin its fourth year, with classes being offered in a one weekend a month, nine month session, beginning in October, 2002. Highly successful, enrollment fills quickly and other jurisdictions are interested in adopting this curricula for their own use. EMSD is continuing to pursue the concept of adapting this curriculum for training project managers of federal agencies.

## Green Power

Through the Green Power Program, promote solar (equipment) and other renewable resources for Seattle Public Schools and other identified public facilities so that customer understanding is increased and the local market for green power is transformed.

**Achievements:** The Green Power Program performance is described in the table below.

### Green Power Program Statistics through Q2 2002

Green Power Statistics	Q2 2002	Q3 2002 (projection)
Number of customers participating:		
Recurring payment signups	2,444	2,550
Single payment contributions	236	260
<b>Total</b>	<b>2,680</b>	<b>2,810</b>
% Customer Base (340,000)	0.79%	0.82%
<i>Recurring payment % enrollment</i>	~100%	100%
Amount of revenue collected	\$52,700	\$70,000
Number of projects installed	0	0
Cost of projects installed	NA	NA
kWh generated	0	0

During the 2<sup>nd</sup> Quarter of 2002, the Green Power Program focused on working with the Seattle School District and Western SUN to identify appropriate sites for the installation of equipment. Those sites include:

- Orca at Columbia – two potential installations.
- Greenwood Elementary – setting up a site survey to determine appropriate location for installation
- Washington Middle School – need to accomplish a site survey

The Green Power Program focused on outreach and marketing in the first half of 2002 including:

- Media kick-off event with Mayor Greg Nickels at Pathfinder School on January 30.
- Green Power Program highlighted with sign-up form in Jan/Feb *Light Reading*.
- Website launched and program flyers distributed at local events.
- Green Investments Business Forum at Sheraton Hotel on March 12.

## Lighting Design Lab

During the first half of 2002, the Lighting Design Lab ("LDL") received 1,795 visitors. The website received 106,442 hits. The LDL staff conducted a total of 85 classes with the majority being off-site classes around the region. A total of 1,948 attended these classes. There were 119 commercial consultations for customers around the region. Among SCL commercial consultations

were Airborne Express, Benaroya Hall, Fred Hutchinson Cancer Research Center, Group Health Cooperative (IT Center), PCC Natural Markets, and Regence BlueShield.

**Awards:** Energizing America's Cities Award

The City of Seattle was recently recognized and honored by being selected as exhibiting one of the "seven most effective and creative sustainable metropolitan energy and environmental plans from around the nation."

The City of Seattle entered the "Energizing America's Cities" sustainable energy planning competition earlier in 2002 and was recently notified of being a finalist in the category of energy efficiency. The Seattle plan was judged to present the best approach to energy efficiency of the more than one dozen metropolitan plans submitted in the national contest. The intent of the competition was to bring forward plans designed to meet the nation's growing energy demand and focused on power generation, energy efficiency, renewables, alternative transportation fuels and future technologies.

The other finalists in their respective categories are:

Austin – Future Technologies

Chattanooga – Alternative Transportation Fuels: Mass Transit

Chicago – Electricity Generation

Denver – Alternative Transportation Fuels: Alternative Fuel Infrastructure & Fleets

Portland – Renewable Resources: Wind

San Diego – Renewable Resources: Solar