Energy Conservation Resource Strategy

2008 - 2012

April 15, 2008

Eugene Water & Electric Board

500 East 4th Avenue/Post Office Box 10148
Eugene, Oregon 97440-2148
(541) 484-2411
www.eweb.org

In December 2004, EWEB adopted the most recent update to the Integrated Electric Resource Plan (IERP). Consistent with EWEB's three prior Integrated Energy Resource Plans, the 2004 IERP identified energy conservation as the top priority resource. To guide EWEB's acquisition strategies, the IERP listed a number of recommended strategic initiatives and action items. The strategic initiative listed here and its two action items from the 2004 IERP specified the steps that EWEB should take regarding future energy conservation resource acquisition activities.

Strategic Initiative

- *Over the next several years, re-evaluate existing demand-side resource programs and measures to maximize opportunities for cost-effective conservation and to ensure that EWEB programs are capturing energy savings that may not be achievable in the future because of a lost opportunity.*

Action Items

- *Re-assess the present mix of demand-side management programs aimed at achieving the maximum savings in all sectors at the lowest cost. The Working Group process resulted in a range of recommendations regarding how much demand-side management (DSM) should be included in EWEB's resource portfolio. All Working Group members agreed that at a minimum the existing levels of DSM should be carried forward, and that an additional increment of funding should be considered. This additional increment of funding should focus on introducing new emerging technologies that can expand lost opportunity resource acquisition as well as increase resource acquisition from existing programs and measures.*

- *Maximize the amount of energy savings from DSM programs by continuing to identify and utilize new emerging technologies and new program delivery strategies. Implement demand-response programs when appropriate to reduce energy costs and support system reliability.*

In response to the directions described in the 2004 IERP Strategic Initiative and Action Items, EWEB initiated a conservation resource planning process to re-evaluate its demand-side management activities. The process that was developed identified the following steps to be completed to position EWEB to meet the intentions of the directives included in the IERP.

- **Complete a Conservation Resource Assessment**. The first step was to complete a conservation resource assessment. EWEB did not have a conservation resource assessment that identified how much conservation resource was available. The resource assessment would be a detailed survey of the potential conservation resource available over the next 20-years, and identify by customer class and end-use measure where the resource potential would be available.

- **Complete a Conservation Programs Assessment**. It would evaluate EWEB's existing programs, and identify opportunities to improve the effectiveness of

current programs or better align programs to the resource potential identified in the Conservation Resource Assessment.

- **Re-examine Existing Conservation Acquisition Strategies and Objectives**. Using the information gathered from the conservation resource and programs assessments, a re-examination of the existing operational strategies and objectives that have governed EWEB's conservation resource acquisition activities would be undertaken to identify how the operational strategies and objectives need to be adjusted to better support effective acquisition of the conservation resource in the future.

- **Develop an Energy Conservation Resource Strategy**. Based upon the information learned in the prior three steps, an Energy Conservation Resource Strategy would be developed that would provide guidance for managing future conservation resource acquisition work.

The Energy Conservation Resource Strategy that has been developed is responsive to what has been learned from the Conservation Resource and Programs Assessments. The Strategy specifies the critical operational objectives that are needed to maximize future acquisition of the cost-effective energy conservation resource, and identifies resource targets and funding requirements for the five-year period 2008 - 2012. The recommendations and objectives in the Strategy will be used to guide the development of annual implementation plans.

I. Conservation Resource Potential (2008 – 2027)

The Conservation Resource Assessment estimates that there is approximately 54 aMW of achievable conservation potential that will be available in the twenty-year planning period at a levelized of cost of $0.055 per kWh or less. Achievable potential is the amount of resource that the utility can reasonably expect to acquire taking into consideration the physical limitations of customer facilities, as well as the willingness of customers to implement conservation measures.

Figure 1 plots EWEB's conservation supply curve for the utility's levelized cost of resource acquisition. EWEB's acquisition costs include the cost of incentives and rebates paid to customers, and the labor and administrative costs that are associated with conservation program implementation. The utility cost does not include the additional costs of measures that are above the utility incentives, and that customers pay.

The supply curve plotted in Figure 1 shows the cumulative resource potential that is available at a specific levelized cost. For example, the cumulative amount of achievable resource available from all measures that have a levelized cost of $0.04 per kWh or less is approximately 51 aMW. Also shown on this graph is the technical potential. The technical potential is the amount of conservation resource that is available when only restricted by the physical limitations of customer facilities.

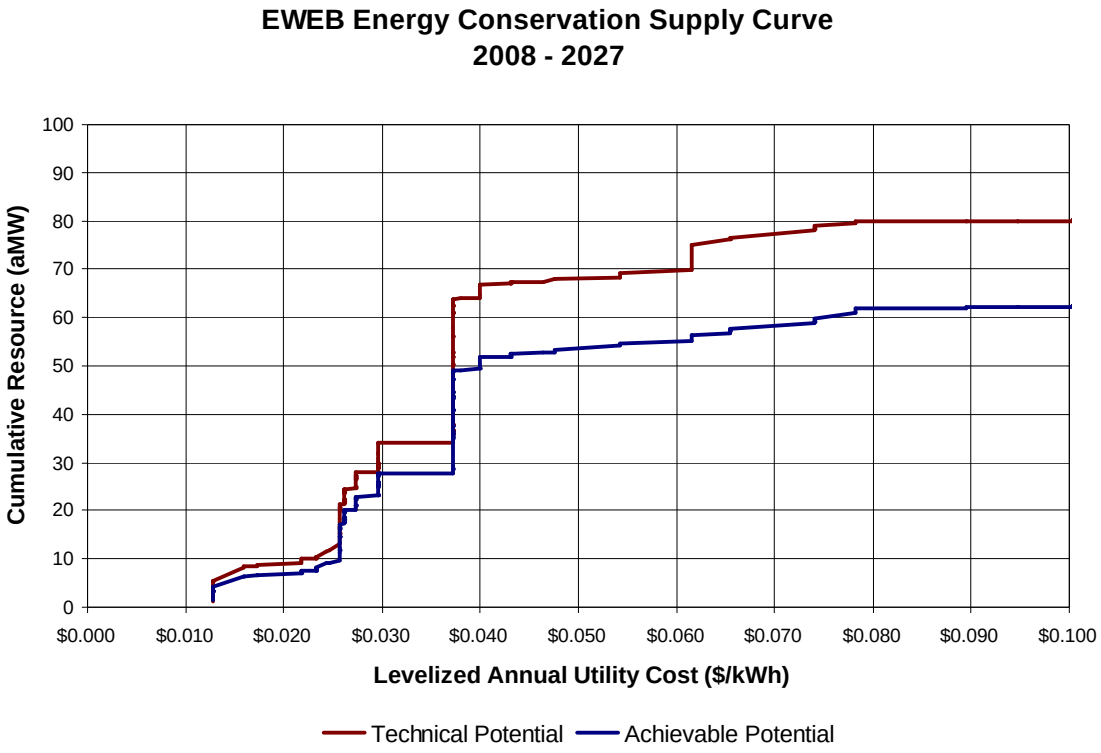

Figure 1: EWEB Energy Conservation Supply Curve

Figure 2 shows the percentage share of the total achievable resource that is available in the three customer sectors. The residential sector is approximately 19 percent (9 aMW) of the potential resource. Historically, EWEB has acquired a significant amount of retrofit conservation in the residential sector. In the 1980's nearly all of EWEB's conservation resource acquisition was in the residential sector. The remaining residential resource is primarily available in rental housing retrofits, lighting, and energy efficient appliances. The residential resource available below $0.055 per kWh can be acquired for a combined cost of $0.023 per kWh.

The commercial sector has the largest potential resource (45 percent) at 25 aMW. Of this, approximately 40 percent (10 aMW) is lost-opportunity resource that will become available in construction of new commercial buildings over the 20-year planning period. The commercial resource that is cost-effective can be acquired for a combined cost of $0.029 per kWh.

The industrial sector has a potential resource of 20 aMW, or 36 percent of the total achievable resource. The bulk of the industrial resource that is available is concentrated with EWEB's largest industrial customers. The cost-effective industrial resource can be acquired for a combined cost of $0.038 per kWh.

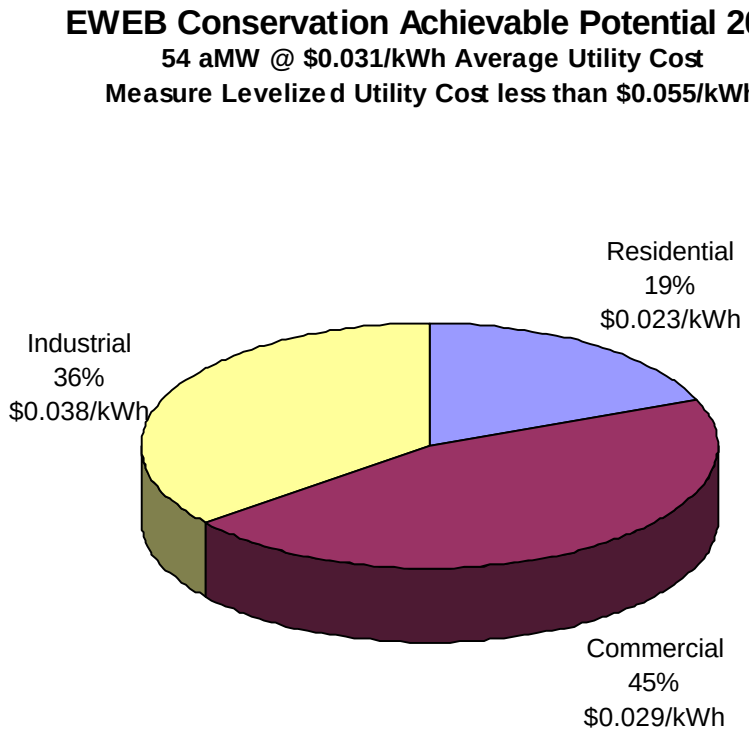

Figure 2: Conservation Potential – Sector Shares

II. Energy Conservation Resource Strategy Objectives

Based upon what was learned from the resource and programs assessments, and the re-examination of the strategies and objectives that are currently being employed to manage EWEB's energy conservation resource acquisition activities, the following objectives have been developed to provide planning guidance for future acquisition activities.

1. **Acquire all cost-effective conservation.**

   The conservation resource that has been identified is the utility's least cost resource option. EWEB should set a target that no cost-effective conservation will be overlooked.

2. **Rate of annual acquisition will be reasonable and predictable, and will support the local delivery infrastructure.**

   Unpredictable or irregular annual conservation acquisition levels create obstacles to meeting long-term resource acquisition targets. Instability in annual acquisition levels reduces customer and contractor participation and increases costs. Stable acquisition rates allow programs to build long-term contractor commitment to

programs supporting the local implementation infrastructure and help to acquire the maximum available resource at the lowest cost.

3. **Annual acquisition targets will determine plan-funding requirements.**

   Currently 5-percent of EWEB retail electric revenues are budgeted to fund energy conservation resource acquisition. With the 5-percent funding approach, each year's utility revenues determine that year's resource acquisition rates and have no direct relationship to achieving a specific long-term acquisition target. The preferred approach would have the resource acquisition plan determine what the funding needs are.

4. **Sector resource targets will be determined by the resource potential for each sector.**

   Under the current 5-percent funding formula, funds to support resource acquisition programs are allocated between the residential and business programs in proportion to the share of retail revenues derived from each customer class. This method of allocation does not accurately reflect the potential of resource that is available in each sector. In order to maximize resource acquisition at the least cost, residential and business conservation targets will be prioritized based upon where the available resource is and not upon where revenues come from.

5. **A set of conservation programs will be offered that allows for broad based customer participation.**

   An array of programs will be offered to all customer segments so that broad access to programs is available. But marketing, outreach and promotion of programs will be aimed at those segments where the most cost-effective resource is.

6. **All approaches to acquire the conservation resource will be considered.**

   a. **EWEB will continue to support market transformation as a resource acquisition strategy.**

      Market transformation either through adoption of building codes or efficiency standards on consumer products and white goods, is the most effective approach to acquire long-term cost-effective conservation. Adoption of building codes or efficiency standards most often happens only after the efficiency improvements have been demonstrated to be market ready. By implementing programs that support regional and national market transformation efforts, EWEB can help demonstrate the long-term value of adopting higher efficiency standards.

   b. **All program implementation approaches will be considered to acquire the conservation resource.**

      EWEB has historically relied on utility-implemented programs. In recent years direct-install programs have been successfully used where they show greater efficiency. In order to ensure that EWEB is maximizing resource acquisition at the lowest cost, all approaches to program implementation that offer the greatest

program success, including contractor implemented, direct-install, and utility implemented, will be employed.

c. Hookup fees and standards should be used as a last resort if conservation programs or improvements in building codes and efficiency standards are ineffective.

Hookup fees and standards require the adoption of policies that set efficiency standards as a condition for receiving electrical service. Hookup fees and standards are limited in their scope and do not address all of the possible efficiency opportunities, and may not be targeted at the most cost-effective resources. Hookup fees and standards will be considered as a last resort approach to be investigated after all other approaches have been explored.

III. Acquisition Scenarios (2008 – 2012)

In developing a recommendation for resource acquisition targets for the five-year period 2008 – 2012, a number of possible acquisition scenarios were developed and compared to the current approach. The scenarios developed represent a range of possible rates of resource acquisition. Two of the scenarios plot a more aggressive resource acquisition rate than the Current Path, and one scenario assumes a rate of acquisition that is initially lower in the near-term and then becoming more aggressive than the Current Path in later years. The following is a description of each scenario.

Current Path: Maintain the current rate of resource acquisition.

This scenario assumes that EWEB continues to acquire conservation at the current annual rate of 2.5 aMW. At this rate EWEB will not acquire all of the available conservation resource that has been identified as cost-effective and achievable in the next 20 years.

Scenario 1: Acquire all cost-effective conservation at a steady rate.

This scenario sets the annual rate of acquisition of 2.7 aMW. At this rate of acquisition, EWEB will acquire all 54 aMW of the achievable cost-effective conservation in 20 years.

Scenario 2: Acquire all cost-effective retrofit conservation in 15 years.

This scenario sets a target of acquiring all of the achievable cost-effective conservation within 15 years. This scenario assumes that the annual acquisition rate would ramp up to 3.5 aMW. At the end of the 15-year period when the cost-effective retrofit resource has been acquired, the annual rate of acquisition would decline to 0.5 aMW, the assumed level of lost-opportunity resource that is available annually. Because the near-term rate of acquisition is more aggressive than the current path, it is expected that the utility's unit cost ($ per aMW) of acquisition would increase. As a result some measures that are at the cost-effectiveness margin under the current path could see their unit cost of

acquisition increase and would no longer meet the cost-effectiveness test. As a result the available resource is reduced by 2 aMW to 52 aMW.

Scenario 3: Acquire the minimum resource needed to meet EWEB's Conservation Rate Credit (CRC) requirement through the Bonneville Power Administration Power Sales Agreement.

This scenario assumes that from 2009 – 2011 EWEB would acquire the minimum amount of conservation resource that would be required for EWEB to continue to receive the Conservation Rate Credit on wholesale power purchases from the BPA. The minimum annual acquisition rate is approximately 1.5 aMW. In order for EWEB to acquire all of the achievable conservation resource available in the 20-year period, the rate of annual acquisition would need to increase to 3.0 aMW post-2011. In the post-2011 years, the accelerated rate of acquisition would have a similar impact on the available resource as Scenario 2 due to a higher acquisition unit cost, resulting in a reduction of 1aMW to 53 aMW.

Table 1 summarizes the three acquisition scenarios that were developed and assessed along with the Current Path.

Table 1: Acquisition Scenarios

	Current Path	Scenario 1	Scenario 2	Scenario 3
Annual Acquisition Rate	2.5 aMW	2.7 aMW	3.5 aMW (thru 2022) 0.5 aMW (after 2022)	1.5 aMW (thru 2011) 3.0 aMW (after 2011)
20-year acquisition	50 aMW	54 aMW	52 aMW	53 aMW
Annual Budget (2008 $)	$9.1 million	$9.8 million	$12.8 million (thru 2022) $4.0 million (after 2022)	$6.7 million (thru 2011) $10.6 million (after 2011)

In estimating the budget requirements for each of the three scenarios, it was assumed that the rate of acquisition would be controlled primarily through adjustments in the level of incentives that are paid for installation of measures. These incentive adjustments affect the unit cost of resource acquisition as measured by dollars spent per average megawatt acquired. The changes in resource acquisition cost for each scenario was based upon data collected during a test of incentives that was conducted in the late 1990's in EWEB's commercial programs. In that test changes in incentives were systematically implemented and the change to the amount of resource acquired was observed. The estimated budgets in the table reflect the change in the cost of acquisition from the Current Path that the commercial program incentive test data predicts.

Economic Benefits

Using the rates of acquisition and budget projections, an economic analysis of the four scenarios was completed. This analysis employed a standard cash flow model used in evaluating all of EWEB's supply-side resource acquisitions. The model was modified to reflect the financial costs and benefits of demand-side electric savings.

The analysis modeled a five-year implementation plan (2008 – 2012) for a twenty-year period of benefits (2008 – 2027). The resource weighted measure life used in the analysis was 16 years. However, it was also assumed that 60 percent of the energy savings would be retained beyond the original measure life because some measures would be replaced at the end of their life by measures that would be equally or more efficient than the original measure installed. An example of this retained savings has occurred in the residential appliance sector. Appliances that qualified as energy efficient in 1992 when EWEB first implemented an appliance efficiency program, no longer meet the minimum Federal energy efficiency standards for appliances. As a result, as those appliances are replaced with newer models, even if they only meet the minimum Federal standards, the savings originally acquired will be retained. Table 2 summarizes the results of the cash flow analysis.

Table 2: Acquisition Scenario 20-year Cash Flow Summary (values in 2008 dollars)

	Current Path	Scenario 1	Scenario 2	Scenario 3
Total Installed DSM for 5-years (aMW)	12.5	13.3	16	9
Total NPV Benefit for 20-years	$33,100,000	$35,410,000	$41,097,000	$21,730,000
Benefit Cost Ratio	1.90	1.91	1.87	1.75
Levelized Unit Cost ($/MWh)	$44.06	$43.83	$45.16	$47.59
Levelized Power Market Unit Cost ($/MWh)	$83.06			

This table shows that when compared to the expected cost of future wholesale power markets, all four scenarios have a significant benefit in lower levelized unit costs than the expected levelized costs of wholesale power. Scenario 3, which takes a course of reducing the annual rate of acquisition for the initial three-years of the analysis period, has the lowest economic benefit and highest levelized unit cost of the four options. Scenario, 2 the most aggressive of the four scenarios, provides the greatest long-term net present value benefit from reduced power purchases. Scenario 1, which increases annual acquisitions by 10-percent over the Current Path, has the lowest levelized unit

cost as well as the best benefit-cost ratio. However, the differences between Scenario 1 and the Current Path are slight over the full 20-year analysis. The Current Path is differentiated from the other three scenarios by the fact that it would not acquire all cost-effective conservation that was identified as available over the next 20 years in the Resource Assessment.

Figure 3 plots the cash flows for all four scenarios for the twenty-year analysis period. This chart helps to illustrate the differences in the four scenarios over time. Scenario 2 has the greatest long-term benefit, but also has the greatest negative cash flow in the initial years. On the other hand, Scenario 3 has the least negative cash flow, but also has the lowest long-term benefit. The chart also helps to illustrate the small difference in both cash flow and long-term benefit between the Current Path and Scenario 1.

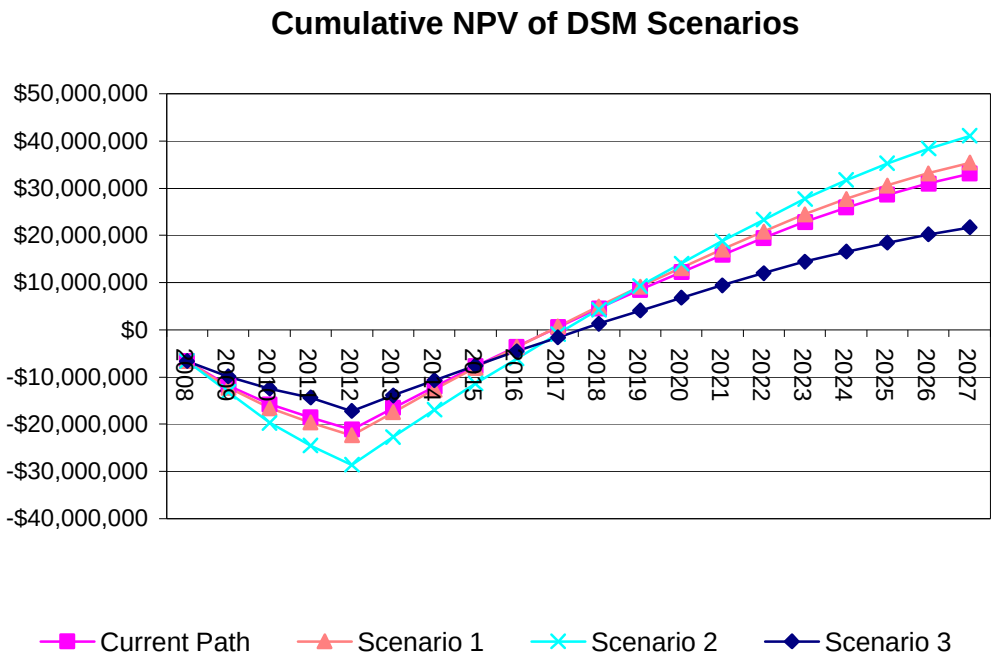

Figure 3: Acquisition Scenario Cash Flows

Another assessment of the benefits and costs of the three scenarios can be made by comparing how each differs from the Current Path strategy. The Current Path is the baseline from which any change in acquisition strategy would be measured. By comparing the change from the baseline as a percent increase or decrease, a relative comparison can be drawn between each of the optional scenarios and the Current Path baseline parameters. Table 3 shows the changes from the Current Path for each of the Scenarios.

In this comparison, Scenario 3 shows that it has the highest percentage increase in levelized unit cost of all three options, and also has a significant reduction in the long-term benefits to EWEB. This helps to illustrate the benefits of maximizing conservation resource acquisition both in terms of the long-term value and the cost of acquisition. Scenarios 1 and 2 both offer long-term economic benefits over the Current Path. But in

the case of Scenario 1 the acquisition cost is slightly less than the Current Path, whereas in Scenario 2 the acquisition cost increases by nearly 3-percent.

Table 3: Percentage Differences Between the Optional Scenarios and the Current Path Baseline

	Scenario 1	Scenario 2	Scenario 3
Five-year Resource Acquisition	6.4%	28.0%	-28.0%
Five-year Acquisition Expenses	3.6	25.8%	-20.5%
Twenty-year Levelized Unit Cost	-0.5%	2.5%	8.0%
Twenty-year Total NPV of Benefits	7.0%	24.2%	-34.4%

Environmental and Social Benefits

Another way to assess the four options would be to evaluate the social and environmental benefits of each option. Typically the social and environmental benefits of energy conservation are compared to building or purchasing supply-side resources. The benefits of energy conservation compared to supply-side resource options are many. The following is a list of some of the social and environmental benefits that result from energy conservation.

- Reduces greenhouse gas and other air emissions from fossil fuel generators.
- Lowers the use of water resources for power generation.
- Reduces environmental damage from the exploration and extraction of fossil fuels.
- Reduces impacts on plant and animal habitats.
- Reduces impacts on bird and animal migratory paths.
- Energy efficiency programs create jobs in sales, construction, and installation, with a multiplier affect on other local employment and economies.[1]
- Customer savings on bills are often redirected toward other activities that increase local employment with a higher impact than if the money had been spent on energy purchases.[2]
- Reduces the need to import energy from out of state suppliers, and the export of dollars from the local community.
- Investments in energy efficiency create long-lasting changes in buildings, equipment, and appliance stock that create improvement in economic (property) values.[3]

[1] *New York Energy $mart^{SM} Program Evaluation and Status Report*, New York State Energy Research and Development Authority, May 2004.
[2] *Electric Energy Efficiency and Renewable Energy in New England: An Assessment of Existing Policies and Prospects for the Future*, R. Sedona, May 2005.

- Investments in energy efficiency in commercial and industrial facilities result in improved productivity.
- Lowered energy expenses for businesses improve their competitiveness.
- Reduces per capita energy consumption, decreasing vulnerability of individual customers to energy price disruptions.

All four of the acquisition scenarios provide the social and environmental benefits listed. It is difficult though to make a comparison of the scenarios against one another to derive which scenario affords the greatest social and environmental benefits. However, from a qualitative perspective, the more energy efficiency that is acquired the greater will be the social and environmental benefits.

An estimate of the greenhouse gas reductions resulting from conservation activity is possible if the conservation implemented under any of the four scenarios is assumed to displace new efficient natural gas turbine generation. The twenty-year impacts of the five-year implementation plan for each of the scenarios is listed in the following table.

Table 4: Estimated Greenhouse Gas Reductions (GHG)

Scenario	GHG Reductions (tons of CO^2)	Percent Increase (+) or Decrease (-) in GHG Reductions from Current Path
Current Path	942,000	---
Scenario 1	1,004,000	7%
Scenario 2	1,199,000	27%
Scenario 3	681,000	-28%

Table 4 also shows the percent increase or decrease in greenhouse gas reductions from the three scenarios compared to the Current Path. Scenarios 1 and 2 increase the reductions in GHG emissions by 7-percent and 27-percent respectively. Scenario 3 results in an increase in GHG emissions by 28-percent from the Current Path.

IV. Recommended Acquisition Plan

Current Path: Inadequate to acquire all cost-effective resource.

The Current Path, while having similar economic benefits as Scenario 1, does not have a rate of acquisition sufficient to meet the objective of acquiring all cost-effective conservation available over the next 20-years. Continuing to follow the Current Path would mean that EWEB would be making additional investments in supply-side resources that will be more costly than the conservation resource that is available.

[3] *Energy Management & Investor Returns: The Real Estate Sector*, Innovest Strategic Value Advisors, October 2002.

Scenario 1: Recommended Acquisition Plan

Scenario 1, with an annual acquisition rate of 2.7 aMW, is the recommended acquisition plan to pursue over the next five-years. Scenario 1 has several advantages over the other three scenarios.

- Provides the greatest benefits at the lowest acquisition cost.
- Puts EWEB on the path to acquire all cost-effective conservation.
- Is a manageable incremental step (10 percent increase) in the rate of acquisition above the Current Path.
- Allows EWEB to test and develop the capability to be more aggressive in conservation resource acquisition.
- Positions EWEB to step up resource acquisition to a higher level in the future.

Scenario 2: Elevated acquisition rate that has not yet proven sustainable.

Scenario 2 provides the greatest long-term benefit. It increases the annual rate of acquisition by 40 percent over the Current Path to 3.5 aMW. In the past EWEB has had several years (2001 and 2002) where the annual acquisition has almost reached 3.5 aMW. However, EWEB has not been able to demonstrate the capability to consistently acquire conservation at this higher annual rate. Reaching to the higher acquisition level in Scenario 2 will require some significant shifts in the programs that EWEB runs, how those programs are delivered, and the incentives offered. It will also require a commensurate adjustment in the local contracting and supply business to deliver and install measures, as well as the willingness of EWEB customers to make additional investments in energy efficiency improvements. The complexity of all these factors creates a higher risk that EWEB would not be able to consistently acquire the 3.5aMW called for in Scenario 2. Several years of demonstrated performance at the elevated Scenario 1 level would make Scenario 2 much more viable of an option and would warrant revisiting the rate of acquisition in the future.

Scenario 3: Highest cost alternative.

Scenario 3 has a significant decrease in the rate of acquisition between 2009 – 2011, followed by a very significant increase in the rate of acquisition that gets phased in over 3-years. The sudden stop and start that is characterized by Scenario 3 creates the problems that Strategy Objective 2, "*Rate of annual acquisition will be reasonable and predictable, and will support the local delivery infrastructure*", intends to avoid. Scenario 3 also has the lowest long-term economic benefit, and the highest levelized unit cost of all the scenarios.

Recommended Five-Year Acquisition Plan Budgets

Table 5 shows the annual acquisition targets and costs over the next five-years for Scenario 1, and compares them to the Current Path. In the first year (2008) of the plan EWEB will begin to position itself for the higher 2.7 aMW acquisition target. Because of this, the acquisition target in 2008 will be the Current Path 2.5 aMW.

Table 5: Recommended Acquisition Plan: Scenario 1

	Recommended Plan Annual Costs (million 2008$)	Recommended Plan Annual Acquisition (aMW)	Current Path Annual Costs (million 2008$)[1]	Current Path Annual Acquisition (aMW)
2008	$9.1	2.5	$9.1	2.5
2009	$10.1	2.7	$9.4	2.5
2010	$10.4	2.7	$9.9	2.5
2011	$10.8	2.7	$10.4	2.5
2012	$11.1	2.7	$10.9	2.5
Total	$51.5	13.3	$49.7	12.5

[1]Current Path costs are based on the 5-percent funding formula and are the projected revenues that would be available in each year for conservation funding.

V. Action Items

1. **Update the 10-year Financial Plan to include the additional funds necessary to support the new conservation resource acquisition targets.**

   The current utility Financial Plan uses an ongoing 5 percent funding formula for estimating the costs of energy conservation acquisition. This present approach is forecast in the annual funding shown in Table 5 for the Current Path. The Energy Management Services department will work with Fiscal Services to update the utility Financial Plan to reflect the new estimates of costs for energy conservation resource acquisition.

2. **Assess and redesign existing programs, and develop new programs to ensure that cost effective resources are being targeted for acquisition. Implement recommendations from the Programs Assessment where feasible.**

   EWEB's current energy efficiency programs will be evaluated and changes will be implemented to incorporate any cost effective resources that currently are not being acquired. New programs that take advantage of opportunities to acquire new, cost-effective resources will be investigated and implemented. Process improvement opportunities identified in the Programs Assessment will be evaluated for ease of implementation, and impact on improved program performance. Proposed improvements will be scheduled in conjunction with other program changes where possible. Some improvements will take longer to implement, and may be dependent on changes in EWEB's information technology capabilities to support the program improvements.

3. **Develop and update annually an implementation plan that identifies resource acquisition targets, budgets, and program strategies by sector.**

   A two-year implementation plan will be developed that translates the Energy Conservation Resource Strategy into near-term operational planning. The implementation plan will provide the detail regarding resource acquisition targets, budgets, and program strategies to set the direction of EWEB's energy efficiency programs for the two-year period. At a minimum the implementation plan will have details by sector (residential, commercial, industrial) and building type (existing and new). The implementation plan will also include details on information technology deployment, and staff management plans, and would be updated to coincide with annual utility budgeting work.

4. **Develop and adequately fund a marketing communication plan that is integrated with, and fully supports the implementation plan.**

   Results of customer surveys and focus groups indicate that a large percentage of residential and business customers are not aware of, or familiar with the conservation programs EWEB has available. This unfamiliarity creates a barrier to program involvement on the part of customers. A marketing communication plan will be developed with the objective to create greater customer awareness of EWEB programs, and the opportunities available to customers to participate in a conservation program. Additional funds will be budgeted to adequately support more visible marketing, and to implement ongoing market research that will help inform decisions on marketing strategy.

VI. Additional Recommendations

In addition to the recommended acquisition plan, the following are additional recommendations for planning and implementing EWEB's Energy Conservation Resource Strategy.

1. The Energy Conservation Resource Strategy described in this document is the first such strategy formally adopted by EWEB. It is recommended that in the future as EWEB undertakes to regularly update the IERP, that it also include a process to update the Energy Conservation Resource Strategy. The process would include updating the Conservation Resource Assessment and resource strategy objectives.

2. The acquisition plan should be flexible and allow for easy adjustments to the acquisition targets that take advantage of changes in economic conditions, emerging technologies, or expanded infrastructure capability.

3. Resource acquisition targets should be reviewed annually to ensure that the appropriate rate of acquisition has been targeted.

4. The recommended 2.7 aMW annual acquisition rate should be the minimum level of acquisition. EWEB should continue to test and pursue the capability to achieve higher levels of cost-effective conservation acquisitions.

Appendix I

Historic Background

EWEB began offering energy conservation programs to assist customers in 1977 with the establishment of the EWEB Conservation Center. The first program that EWEB implemented was the EWEB Energy Efficient Home Awards Program. Soon after, EWEB began to offer home and business energy audits that provided customers with advice and recommendations on what they could do to retrofit their homes and buildings to be more energy efficient.

In the early 1980's Bonneville Power Administration (BPA) began working with Northwest utilities to implement conservation programs. In 1982, EWEB signed a residential weatherization contract with BPA and began to offer rebates to customers for home weatherization. EWEB and BPA eventually entered into several additional contracts in the mid 1980's that took advantage of EWEB bond sales and expanded Bonneville funding assistance to programs for commercial building audits, energy efficient new home construction, and solar and heat pump water heater promotions.

Through much of the 1980's and the early 1990's EWEB and Bonneville cooperated in achieving a significant conservation resource acquisition. In 1992 EWEB adopted its first Integrated Energy Resource Plan (IERP). The plan identified energy conservation as the priority energy resource, and set out an aggressive conservation resource target that relied upon close cooperation with continued active investments by Bonneville that had an acquisition target of 82 average megawatts over 20 years. Since then, EWEB's Integrated Energy Resource Plan has been updated three times and in each of those updates the IERP has consistently identified energy conservation as the priority resource.

In the mid 1990's Bonneville significantly reduced regional funding for conservation programs. This reversal of direction by Bonneville prevented EWEB from reaching the full 20-year resource potential outlined in the first IERP. However, at the time, EWEB had in place several contracts with Bonneville that continued to provide program-funding assistance through 1997. With the subsequent final termination of the BPA contracts, funding for EWEB's conservation programs was shifted solely to EWEB. In response to Bonneville's reduction in regional funding, the EWEB Board of Commissioners in 1997 committed EWEB to full financial support for the historic level of conservation acquisitions starting in 1998 by allocating 5-percent of retail electric revenues to support EWEB's energy conservation activities.

I. Acquisition Accomplishments

Since 1982 EWEB in cooperation with our customers have installed approximately 53 average megawatts of energy efficiency measures that are saving approximately 466,000 megawatt-hours of electricity annually. Financial incentives paid to customers by EWEB have totaled $95 million dollars. The savings to EWEB and its customers from avoided wholesale power purchases totals $135 million dollars. Figure 1 shows a

breakdown by sector of the conservation resource acquired by EWEB over the past 25 years

EWEB Energy Conservation Resource Sector Shares
1982 - 2006
53 aMW

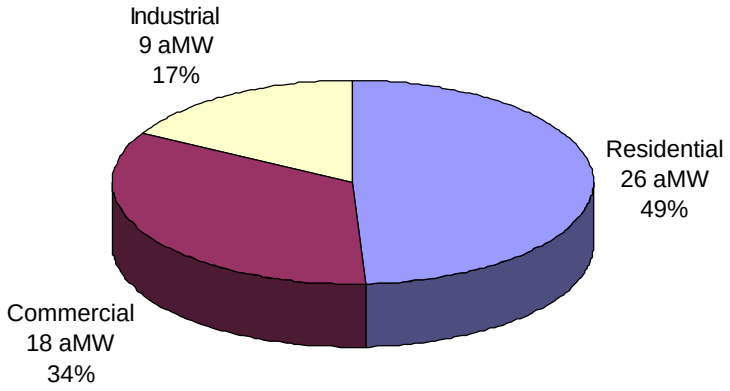

Figure 1: Twenty-five Year Conservation Resource Acquisition by Sector

Through the 1980's EWEB's programs were primarily directed at the residential customer sector, with 94 percent of the resource acquisition in the residential sector. The predominant program throughout the 1980's was EWEB's aggressive home weatherization program, which accounted for 80 percent of the conservation resource acquisition in the 1980's.

Beginning with the 1990's EWEB's programs became more diversified. Residential programs, and in particular residential weatherization, became less dominant. Early in the 1990's EWEB began implementing programs for commercial retrofits, energy efficient new commercial buildings, and industrial process efficiency. Program expansion in the residential sector included energy efficient appliances, duct sealing, energy efficient heat pumps, heat pump maintenance, and solar water heating. During the 1990's, the commercial and industrial customer sector accounted for approximately 60 percent of the conservation resource acquisition.

Since 2000, EWEB's conservation resource acquisition has continued to diversify with the commercial and industrial sectors providing over 70 percent of the resource. Figure 2 shows the annual resource acquisition since 1982. This graph illustrates how the mix of conservation resource has shifted to be more diversified across the three customer sectors over the 25 years. Figure 3 shows the percent of energy conservation resource acquired in each sector for the three decades, 1982 – 1989, 1990 – 1999, and 2000 – 2006. This graph further illustrates the shift in resource acquisition priorities that began in the 1990's.

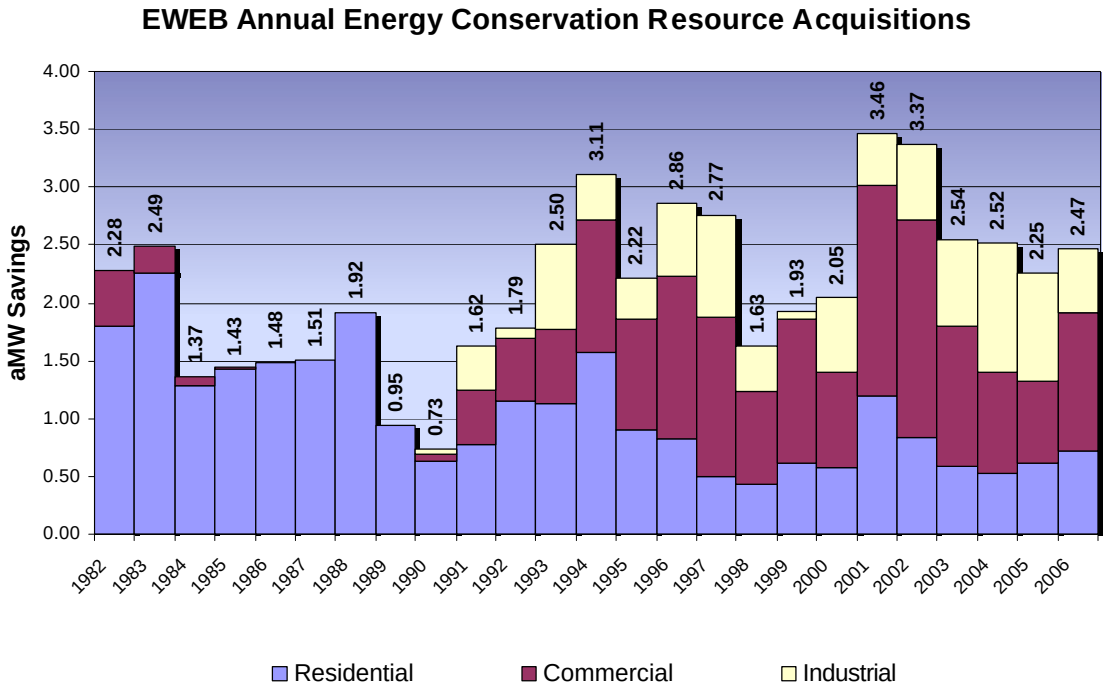

Figure 2: Annual Conservation Acquisition by Sector, 1982 - 2006

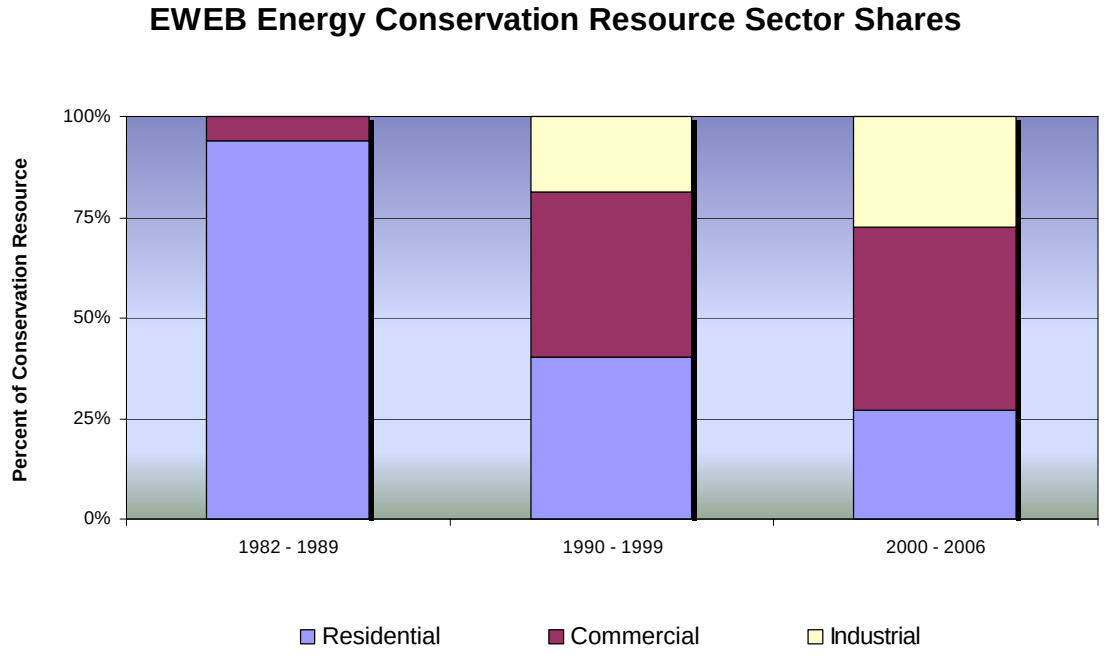

Figure 3: Sector Shares of Conservation Resource Acquisition

II. Budget and Sector Allocations

From 1982 through 1988 and starting again in 1991 through 1997, EWEB programs were funded primarily under contracts with the Bonneville Power Administration. In 1998 EWEB began funding energy conservation resource acquisition by allocating 5-percent of retail electric revenues for energy conservation.

By adopting the 5-percent funding formula EWEB created stability in program funding and dictated the amount of conservation resource acquired. Between 1998 and 2000, the level of funding provided from the 5-percent formula supported an annual resource acquisition rate that was approximately 1.9 aMW. In 2001 and 2002 the West Coast energy crisis had two significant impacts on the amount of funds available for conservation resource acquisition. First, with the rise in wholesale power prices, EWEB implemented several retail rate increases. Those rate increases resulted in an increase in the amount of funds available to support conservation programs. In addition, in 2001 and 2002 EWEB allocated funds in addition to the 5-percent for conservation resource acquisition. With the additional funds from increased rates, and the additional increment of funds made available in 2001 – 2002, the annual rate of acquisition increased to approximately 3.4 aMW. Since 2003, the funds available from the 5-percent funding formula have supported an annual rate of acquisition of 2.5 aMW.

Figure 4 shows the total expenditures and the associated resource that was acquired in each year since the 5-percent funding formula was put in place in 1998. This shows how the amount of resource acquisition is tied to the level of funding available.

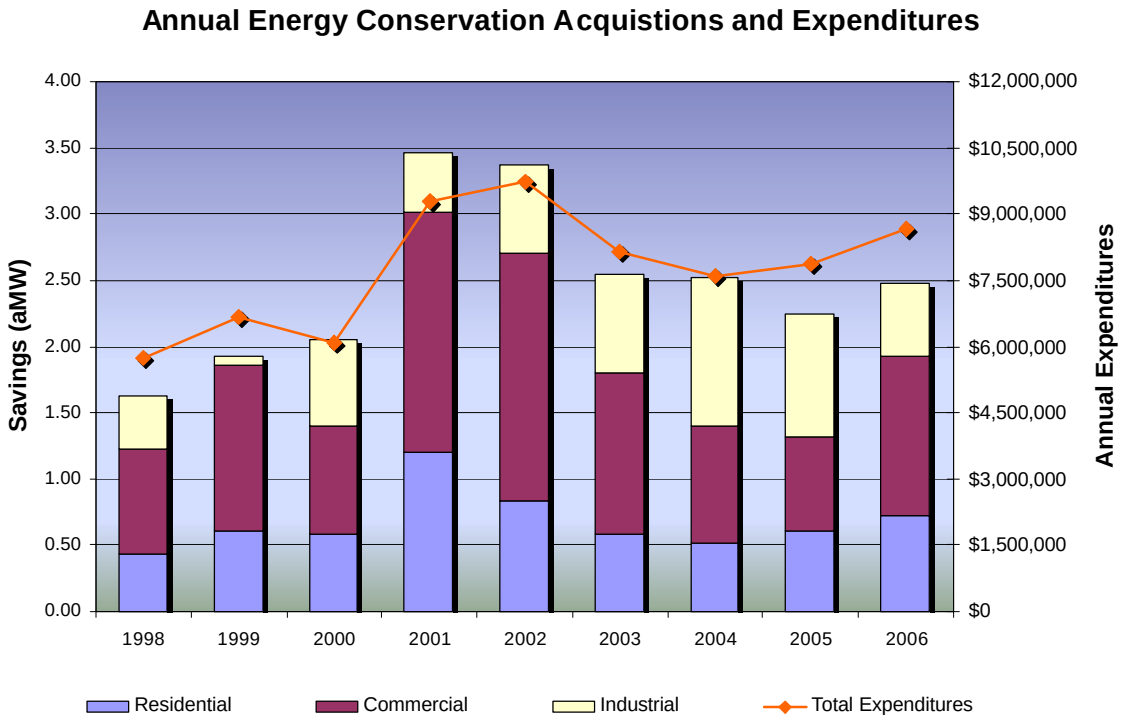

Figure 4: Comparison of Conservation Resource Acquisition to Total Conservation Expenditures

Under the current 5-percent funding formula, sector targets are established based upon the percent of revenues collected by each sector, and the cost of resource acquisition in each sector. The commercial and industrial sector revenues have historically accounted for 55-percent of total retail revenues, with the residential sector generating 45-percent of revenues. The funds available for resource acquisition (after accounting for general administration, energy education and information activities, and program marketing expenses) are allocated using a 45/55 split. Annual sector resource targets are then established by applying the costs of acquisition by sector to the funds allocated to each sector. In the four year period since the end of the West Coast energy crisis, funding and acquisition costs have resulted in resource acquisition targets that are approximately 0.6 aMW in the residential sector and 1.9 aMW in the business (commercial and industrial) sector, totaling 2.5 aMW.

III. Resource Cost

The cost of the energy conservation resource over the last nine years has averaged $0.0298 per kWh, fluctuating from as low as $0.0238 per kWh to as high as $0.0352 per kWh. These are levelized costs based on the utility's cost of acquisition that includes labor, incentives, and general and administrative overheads.

Total resource acquisition costs are dependent on a number of factors. One of those factors is the mix of resource by sector. The cost of commercial and industrial conservation resource is typically less than residential. Any shift in the resource mix that results in an increase in the percentage of residential resource will increase the overall resource cost. Another factor is the cost of the resource by measure and the mix of those measures in the resource from one year to next. For example, residential weatherization that primarily retrofits homes with insulation saves more energy and is lower cost than weatherization that primarily retrofits homes with new energy efficient windows. The cost of the residential weatherization program can increase or decrease from year to year based on the mix of insulation and window measures. Another factor are changes to baseline energy use that results from improvements in building codes or equipment efficiency standards. For example, changes in the Federal appliance efficiency standards reduce the savings that can be captured from energy efficient appliances. As a result, the cost of the appliance efficiency resource will increase.

Figure 5 plots the resource acquired by sector and the total cost of the resource. In 2001, the total resource had a higher than average percentage of residential resource in the total. However, the increase in the residential resource was due to a significant effort in residential lighting, which is a very low cost resource. In 2005, the residential resource was again higher than the recent average. But unlike 2001, the residential resource in 2005 was more evenly distributed across all programs, so the impacts of the higher cost residential resource are observed in the high total resource acquisition cost. In 2006 the cost decreased due to a balanced mix of sector resource with the commercial sector providing 49-percent of the resource, much of that coming from the Energy Smart Design program for new buildings which is a low cost resource.

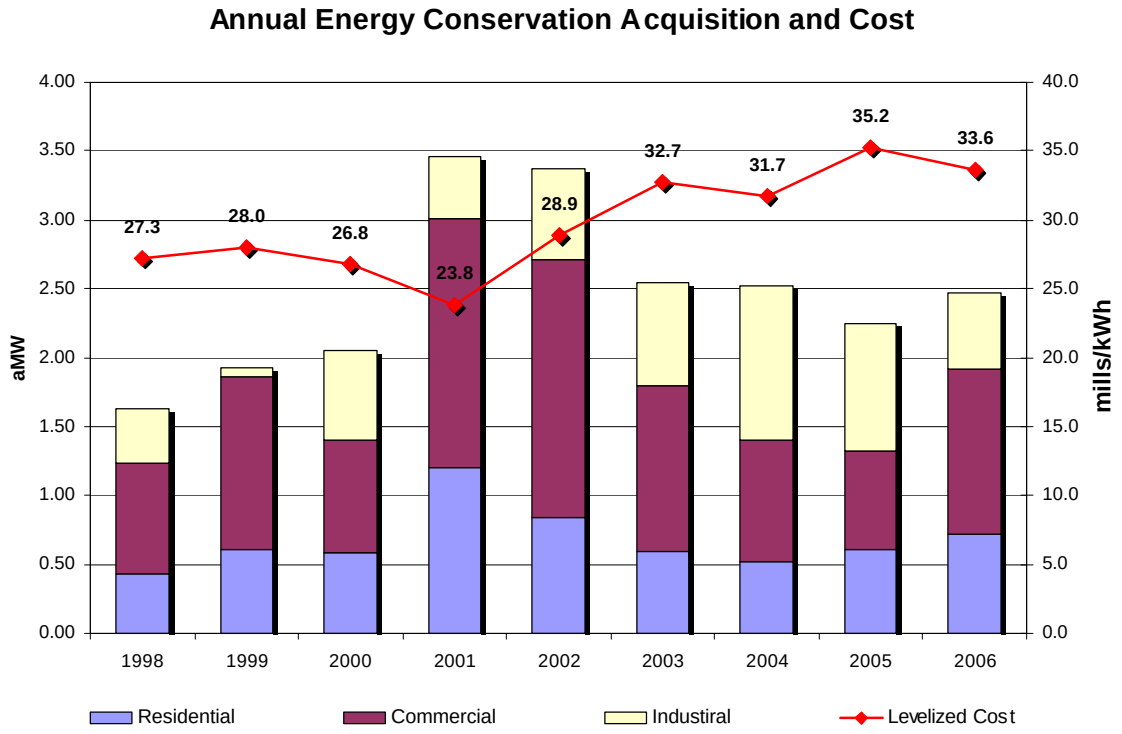

Figure 5: Comparison of Annual Conservation Resource Acquisition by Sector to Acquisition Cost

Appendix II

Conservation Resource Potential

The first step undertaken in the conservation planning process was to complete a conservation resource assessment to identify the resource available for acquisition over the next 20 year. The resource assessment completed was the first detailed inventory of the available conservation resource that EWEB has conducted, and establishes a target that EWEB can use in planning conservation resource acquisitions in the future.

The process of identifying the conservation resource potential involves developing a characterization of customer facilities that includes a segmentation of facilities by building occupancy or use type, age as defined by the year constructed, energy fuels saturations, and detailed examination of EWEB conservation program records. From this information buildings are categorized and energy use characteristics are developed for each category that estimates building energy use by fuel type and end use (i.e. lighting, water heating, space heating, pumps, motors, etc.). Where program records for small commercial buildings and multi-family housing complexes was limited, site surveys were conducted to provide more complete information on building characteristics. EWEB customer records were used to tabulate the total number of buildings in each building category. Census data was used to further characterize new building developments and to estimate the rate of building growth. Models were developed for each customer sector that estimate the system energy use by sector, building type, and end-use. The models were tested and calibrated using historic electric sales data to accurately predict total electric sales by sector.

The other step in the process of completing the conservation resource assessment was to develop detailed libraries of potential conservation measures for each sector and building type. The libraries include an estimate of the energy savings and incremental cost for each measure. The sector models estimate the total incremental costs and system wide energy saving impacts from installing the conservation measures in buildings using the measure libraries. Applicability factors were identified for each measure that determined the fraction of buildings in a particular building category that the measure could be installed in. The measure library and associated costs and savings was assembled from published regional resources such as the Regional Technical Forum list of conservation measures, other utility conservation resource assessments, and the professional experience of EWEB staff and consultants who conducted the resource assessment.

The conservation resource potential through the year 2027 is estimated to have an achievable potential of 54 aMW (473 million kWh) at a utility levelized cost of $0.055 per kWh or less. Achievable potential is defined as the amount of resource that the utility can reasonably expect to acquire taking into account the physical limitations of customer facilities, as well as the willingness of customers to implement conservation measures given other financial concerns or interests. The identification of achievable potential is not an exact science. However, studies conducted in the Northwest over the past twenty-five years on utility conservation programs suggests that 85 percent of the technical potential is the upper end of what can be expected to be acquired.

Figure 6 shows EWEB's conservation "supply curve" for the utility's levelized cost of resource acquisition. The utility cost is the cost of incentives, rebates, labor and overhead associated with the acquisition of the resource, and does not include the additional costs of the measures above utility incentives paid by customers. Shown on this graph are both the technical potential, the amount that is available when only restricted by the physical limitations of customer facilities, and the achievable potential.

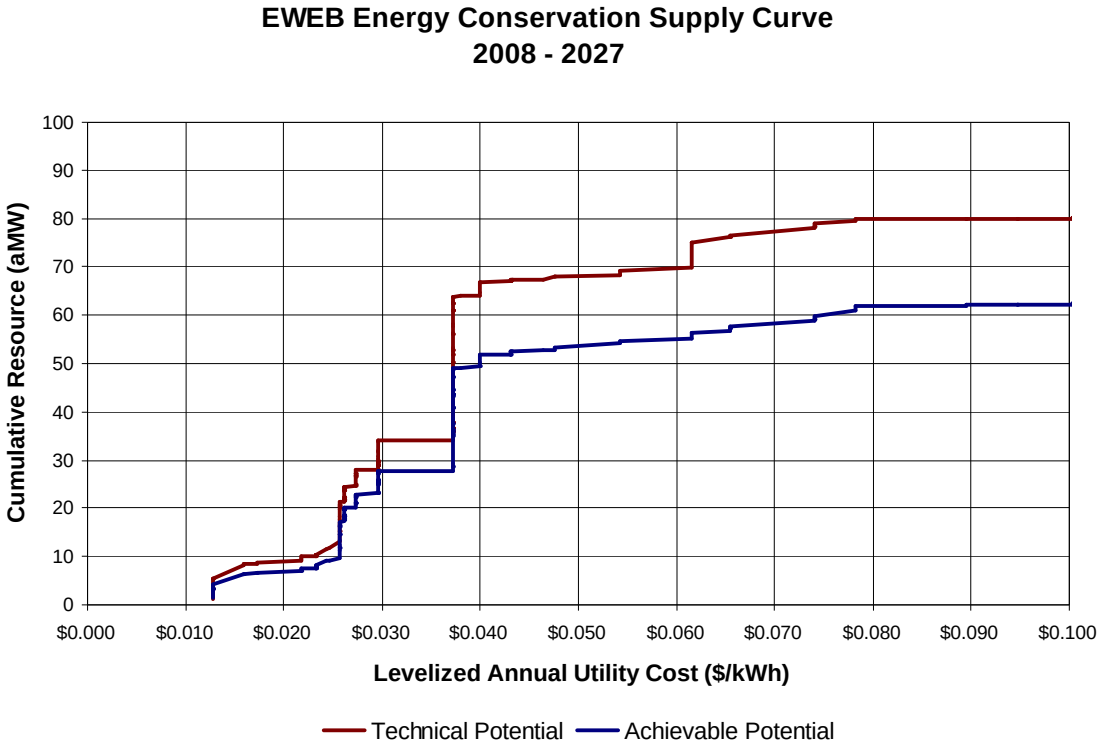

Figure 6: EWEB Energy Conservation Supply Curve

What is noteworthy in this graph in addition to the 54 aMW that are available at or below a cost of $0.055 per kWh, are the two major steps of resource available less than $0.03 per kWh and $0.04 per kWh. Approximately 52 percent (28 aMW) of the achievable potential resource can be acquired at a cost of $0.03 per kWh or less, and 93 percent (50 aMW) of the achievable potential resource costs less than $0.04 per kWh.

Figure 7 shows the percentage share of the total resource that is available in the three customer sectors. Of the total achievable potential resource available at a cost of $0.055 per kWh or less, the residential share is approximately 19 percent (9 aMW). The cost-effective residential resource potential is in three measures. The bulk of the resource is low cost weatherization in rental housing. Residential lighting is the next lowest cost resource. The last residential measure that meets the cost-effectiveness limit is energy efficient appliances. Overall the residential resource available below $0.055 per kWh can be acquired for a levelized cost of $0.023 per kWh.

The commercial sector has the largest potential resource at 25 aMW. Of this, 40 percent (10aMW) is lost-opportunity resource that will become available in new construction over the 20 years. The industrial sector has a potential resource of 20

aMW. Figures 8, 9 and 10 show the amount resource and cost of acquisition that is available in each sector by end use application.

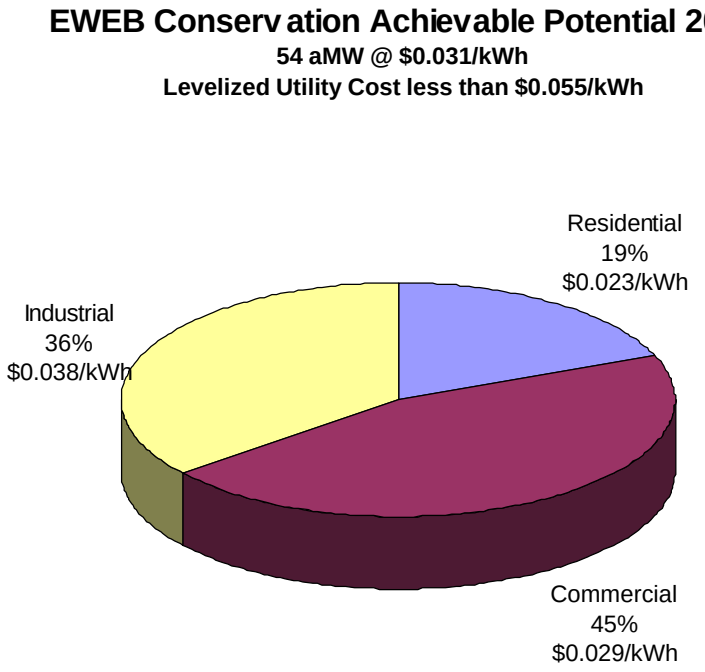

Figure 7: Conservation Potential – Sector Shares

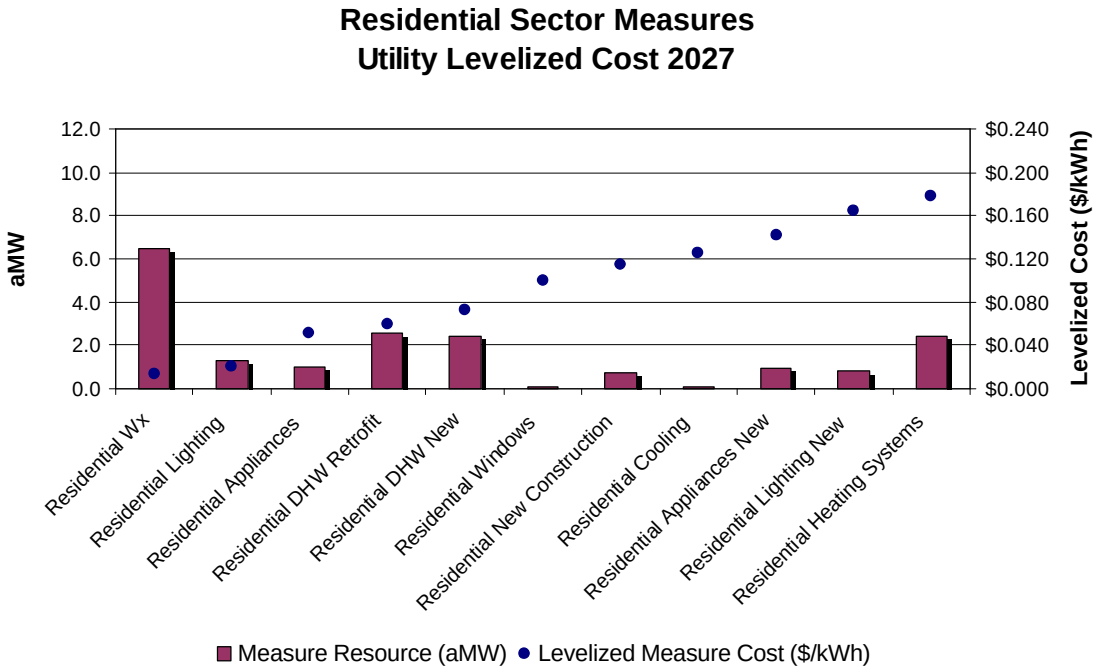

Figure 8: Residential Sector Resource and Cost by Measure

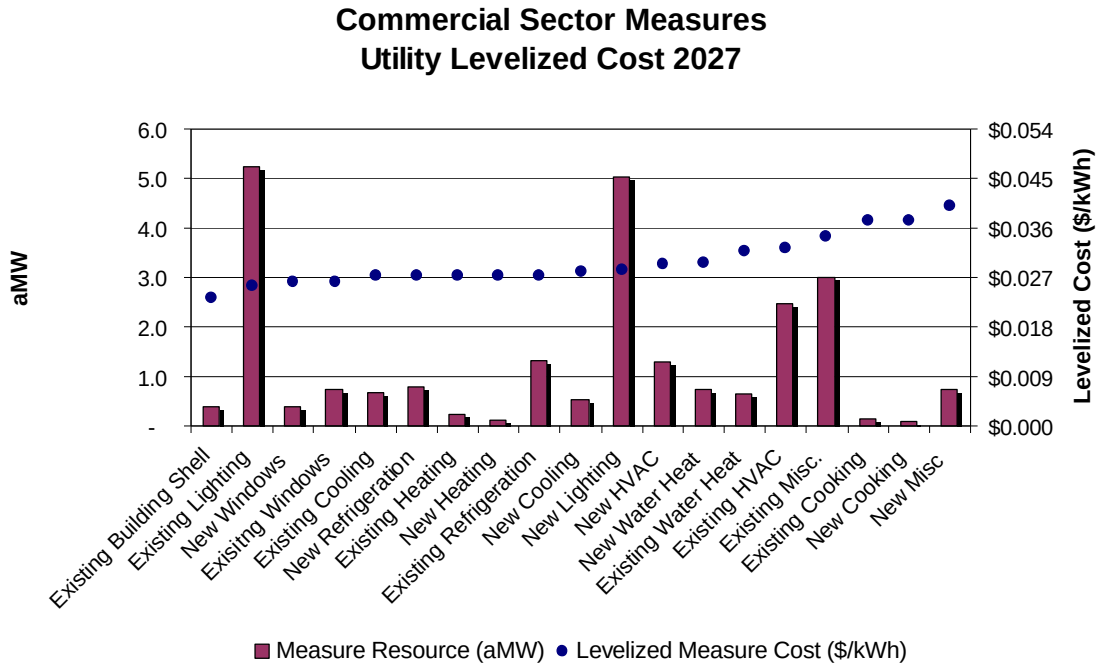

Figure 9: Commercial Sector Resource and Cost by Measure

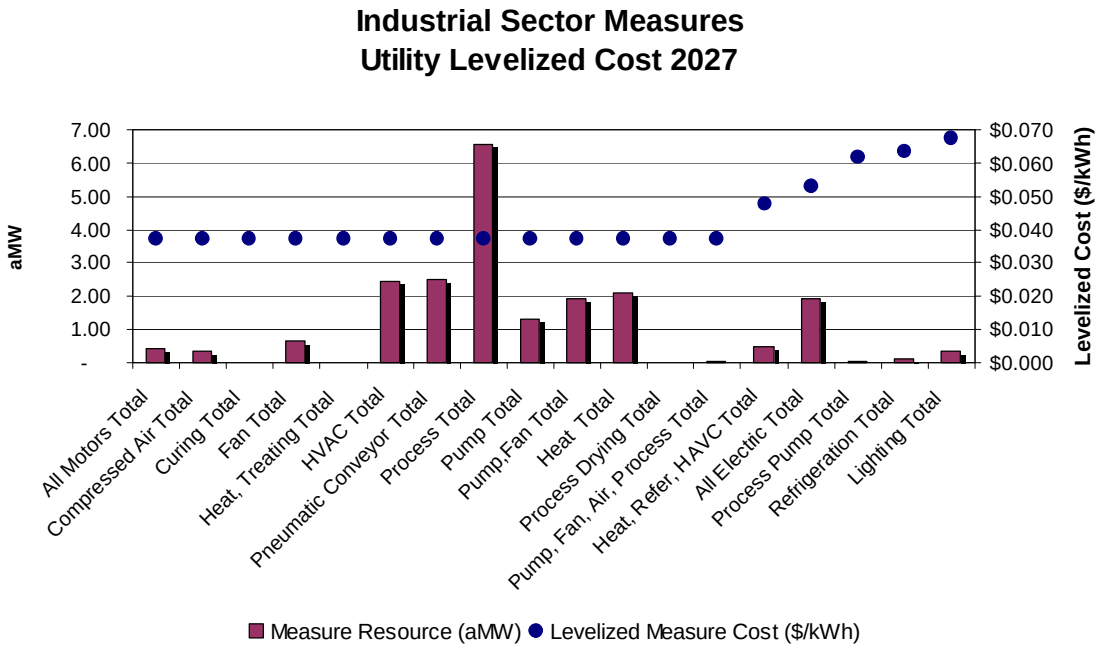

Figure 10: Industrial Sector Resource and Cost by Measure

Appendix III

Conservation Programs Assessment

The programs assessment that was completed in tandem with the resource assessment found that EWEB's program implementation strategies to be consistent with the best practices of other utilities. The programs assessment report made the following recommendations regarding EWEB's program operations, and program design and implementation.

I. Program Operations

- EWEB Energy Management Services faces retirement of nearly one third of its technical program staff in the near future. It is important to develop an approach to hiring and training staff that will allow for integration and at the same time meet the slow rate at which staff will retire.

- EWEB staff complete a fair amount of paper work in the application, project development and tracking process. The information collected on paper is then entered into the Energy Management Services databases. Most utilities and energy agencies are moving toward web-based systems for their programs including applications, tracking and invoicing in these systems.

- Consider developing web-based tools for program application, project tracking and filing of invoices, and other paper work associated with projects.

II. Program Design and Implementation

- EWEB follows many of the best practices in each program area; the potential opportunities to enhance program design are limited to small changes that could be considered. Some of these, of course, may be outside the range of possibility, but they are offered as food for thought as ways to reconsider the focus of programs. The following by sector are suggestions for ways to expand or enhance programs to reach more participants or increase savings opportunities.

III. Residential

- A substantial amount of savings has already been accomplished in space heating. However, potential for further weatherization remains. High efficiency windows and heat recovery ventilation – measures that may require new program offerings – dominate the new savings potential.

- Most new construction measures do not meet the cost-effectiveness criteria. Such measures may still be implemented but will require consideration of the program design to reduce EWEB's cost.

- Since the potential for new homes is limited, a decision must be made about developing a new home program. If such a program is to take place, it will take time to rebuild connections with new homebuilders. One possibility is to adopt the home performance approach as part of working with contractor; many of the features of a home performance program are already embedded in the programs for heat pump homes.

- EWEB may also need to document programs in such a way that other agencies can identify those measures that pass a total resource cost (TRC) screening and those measures that do not.

- Consider working more closely with contractors for all residential programs. Allow contractors the option of completing applications and submitting them directly to EWEB rather requiring the customer to submit applications. If web-based reporting tools were developed this might further facilitate contractor involvement. Additional training might be required on program steps, but this could be enhanced with technical training as well.

- Additional potential remains for improved lighting and appliances in the residential sector. Consider a baseload program that could expand EWEB services to gas heated customers – targeting refrigerators and lighting, and using education to influence behavior.

- Continue the long process of building relationships with lighting retailers. Consider expanded promotions for compact fluorescent lamps (CFL). CFLs have greater appeal and help build interest in energy efficient lighting fixtures as people have positive experiences with them.

IV. Commercial and Industrial

- A large amount of potential savings lies with a few major customers. In lighting, the major opportunity lies with the University campus, which also offers the largest potential for HVAC and controls measures. Special attention for working with this customer and other major customers should be continued.

- The next largest opportunity in commercial sector lies with controls measures, primarily in new construction. Controls measures should receive more emphasis in program offerings, primarily in new construction.

- Continue working with HVAC and lighting contractors to ensure they are apprised of new technology, design, testing, etc.

- Consider offering co-branding as a way to demonstrate to lighting and HVAC contractors EWEB's confidence in them, and to help stimulate interest in energy efficiency.

- Consider increasing the marketing of Energy Smart Improvements and Replacement programs to ensure that the message reaches customers at the point when they are making an investment.

- Consider a small C&I direct install program using a walk-through audit and direct installation of the measures with a small customer contribution. A negotiated rate for contractors or a contracted contractor could be used to implement the program in an approach similar to that used for the residential Comfort STAT™ and Comfort SEAL™ programs.

- Continue to work with industrial customers directly, and continue to carefully review incentive offers.

Appendix IV

Resource Planning Issues

In order to develop an energy conservation resource strategy that provides guidance for managing future energy efficiency activities, it was necessary to re-examine the current criteria that are used to manage our conservation resource acquisitions. The following issues were identified as important factors that needed to be addressed by the strategy. With each issue, important questions were clarified and considered. The conclusions to the questions provided the foundation for developing the energy conservation resource strategy objectives that provide planning guidance for developing an implementation plan and operational standards.

I. Rate of Acquisition

Current Situation: The last ten years resource acquisitions have ranged from 1.63 to 3.45 aMW, averaging 2.49 aMW. The lowest annual acquisition rate occurred in the first year after the loss of Bonneville funding for legacy conservation programs begun in the 1980s and early 1990s. The two highest acquisition rates occurred during the height of the West Coast energy crisis of the 2001 and 2002. Since 2002 the rate of acquisition has been more consistent at or about 2.5 aMW.

Questions:

1. How much resource should be acquired over what period of time?
2. Should targets be set for a percent of load growth or percent of existing load?

Recommendations:

Resource Targets:	Acquire all the conservation resource that costs the utility less than the market price of power to acquire.
Acquisition Rate:	The rate of acquisition should be reasonable and predictable, and should support the local delivery infrastructure needed to implement measures.

II. Plan Funding

Current Situation: EWEB budgets 5 percent of retail revenues to fund all conservation activities including resource acquisition, energy information and education, and department administration. The budget for 2007 is $8.4 million, with $6.3 million budgeted for direct resource acquisition programs.

Questions:

1. Should EWEB continue to budget 5 percent of retail revenues to fund conservation activities?

2. Are there other sources of revenue that could be used to fund conservation programs?

Recommendation:

Plan Funding:	Annual acquisition targets will dictate the level of funding that is needed to support the plan.

III. Resource Cost

Current Situation: EWEB uses the average wholesale power costs as the benchmark for comparing conservation resource acquisition costs. The conservation resource cost is been determined at the total acquisition level rather than at the sector, program, or measure level.

Questions:

1. How should EWEB assess conservation resource cost effectiveness in the future?
2. How should the societal and utility cost perspectives be used in this assessment?
3. What discount rate should be used, EWEB's or the Regional planning discount rate?
4. What, if any, credit should be given for transmission and distribution savings resulting from conservation at customer facilities?
5. Should we cost effectiveness limits be imposed at the sector, program or measure level?
6. What cost effectiveness limits should guide planning in the short-term (2008 – 2012)?
7. What cost effectiveness limits should guide planning post-2011 under new BPA contract?
8. Do lost opportunity resources warrant a higher cost effectiveness limit?

Recommendations:

Resource Cost:	The utility resource cost perspective will be used to determine the conservation resource cost. Societal costs should be used to prioritize resource acquisitions.
Cost-effectiveness:	Cost-effectiveness will be assessed at the total utility acquisition level. Near-term cost limits will be based on the marginal new resource cost. Post-2011 cost limits will be based on Bonneville's Tier 2 rate.
T & D Credit:	Conservation measures will be credited with the savings from reduced losses in transmission and distribution within EWEB's system.
Lost Opportunity:	Lost opportunity resources do no warrant a cost limit higher than the marginal cost.

IV. Sector Resource Objectives

Current Situation: The budget allocated to conservation activities from the 5 percent of retail revenue, is allocated by sector at a ratio that matches the percentage of total electric revenue for that sector. In turn, sector resource objectives are based upon the budget allocated and the historical cost of resource acquisition in each sector.

Questions:

1. Should budgets and resource targets be allocated by sector in the plan?
2. If so, how should the allocation be determined, by percent of retail revenue or by resource potential?

Recommendation:

Sector Objectives:	Sector resource objectives will be determined by the resource potential for each sector, and will dictate the allocation of budget by sector.

V. Low Income Programs

Current Situation: EWEB has a low-income component in all residential conservation programs. Some of these programs offer higher incentives to low income customers then non-low income customers. Because of the higher incentive payments, the acquisition cost for low income programs is higher than non-low income. Low-income programs are also growing in volume of customers served, and as a result low-income expenditures account for nearly half of all residential resource acquisition costs.

Questions:

1. What, if any, resource cost limits should apply to low-income programs?
2. What level of low-income expenditures is appropriate?

Recommendation:

Low Income Programs:	Low-income program costs will be governed by the same cost effectiveness limits as all programs, and by the level of customer interest.

VI. Customer Participation

Current Situation: EWEB strives to have a variety of programs available to allow a broad base of customers to participate in conservation programs. In the residential sector annual goals are set for the number of customers participating in programs, and at the department level the number of customer participants is tracked and reported.

Questions:

1. How important is broad based customer participation?
2. Is there a need to have equity for all customers to participate in programs?
3. Should customer interest influence the kinds of programs offered?
4. What, if any, measure of customer participation should be used in the plan?

Recommendations:

Customer Participation:	A complete set of programs will be offered that provides access to programs for a broad base of customers. Access to available programs in all sectors will be monitored as a measure of success.
Customer Interest:	Programs will be designed to leverage customer interest to acquire cost effective resources.
Participation Targets:	Participation targets will prioritize customer segments based on resource potential.
Participation Measurement:	Customer participation will be measured in higher resource priority customer segments.

VII. Codes and Standards

Current Situation: EWEB has in the past, and continues to support adoption of energy efficiency requirements in building codes, land use ordinances and equipment standards as mechanism to improve the energy efficiency of customer facilities. EWEB has not used utility policies that impose standards or fees as a condition for receiving electric service, instead choosing to defer to codes and standards to define minimum energy efficiency requirements.

Question:

1. Should EWEB consider hookup standards or fees as a resource acquisition tool?

Recommendation:

Hookup Standards:	Hookup fees and standards should be used as a last resort if conservation programs or building codes/efficiency standards are ineffective, and inaction on the part of some customers impacts EWEB's whole customer population through higher resource costs.

VIII. Market Transformation

Current Situation: EWEB currently supports market transformation at several levels. Primary support is provided through membership and financial support for the Northwest Energy Efficiency Alliance (NEEA) at the regional level and the Consortium for Energy

Efficiency (CEE) at the national level. EWEB staff has worked with both organizations through board memberships and participation on various sector and initiative technical committees. EWEB also provides support for NEEA and CEE program initiatives through local program implementation. Examples include the Northwest Energy Star Homes program, residential lighting programs such as Savings with a Twist and Change a Light, and promotion of high performance T8 lighting. EWEB has also supported stricter energy standards in State of Oregon building codes and Federal energy standards. Currently EWEB does not account for resource acquisition that derives from market transformation activities unless it involves direct involvement through an EWEB implemented energy efficiency program.

Question:

1. How should market transformation, such as improvements in building codes and efficiency standards, be recognized in planning for conservation resource acquisition?

Recommendation:

Market Transformation:	Continue to support market transformation as a resource acquisition strategy. Account for market transformation in acquisition accomplishments, and adjust resource acquisition targets as market transformation occurs.

IX. Program Acquisition Strategies

Current Situation: EWEB currently relies primarily on utility implemented and administered acquisition strategies. Several programs are designed as direct-install programs that employ a subcontractor who installs measures in customer facilities under the management of EWEB. However, at this time EWEB does not utilize any contractors to manage and implement programs. EWEB supports market transformation activities through its' support of the Northwest Energy Efficiency Alliance, and through several of its' programs. Currently market transformation is not included in tabulation of resource acquisition, nor is the impact of market transformation considered in establishing resource targets.

Question:

1. Should EWEB continue to rely on EWEB managed and implemented programs, or should EWEB rely on contractor managed and implemented programs, or some combination?

Recommendation:

Program Strategies:	EWEB will consider all program implementation strategies in designing programs.

Appendix V

Implementation Plan Guidelines

Guidelines for developing and managing the Energy Conservation Implementation Plan were assembled from the recommendations identified in the analysis of the resource planning issues. The following table lists each planning topic and the associated guidelines and operational standards that were assembled from the recommendations described in the previous section. These guidelines and standards will be used to provide direction in planning, implementing and managing the Energy Conservation Resource Plan.

Table 1: Energy Conservation Strategic Plan Objectives and Implementation Plan Guidelines and Measures

Strategic Plan Objectives	Implementation Plan Guidelines and Measures
1. Acquire all cost-effective conservation.	A. EWEB's conservation resource potential will be determined using the Utility cost perspective. B. Resource targets in the acquisition plan will use the EWEB achievable potential resource supply curve. C. The Societal cost perspective (total resource cost) will be used to prioritize EWEB's conservation resource acquisitions. D. Acquisition targets will be compared to load growth.
2. Rate of acquisition will be reasonable and predictable, and support the local delivery infrastructure.	A. Annual rates of acquisition will be compared to existing EWEB load.
3. Annual acquisition targets will determine plan funding.	A. Annual resource acquisition targets will identify aMW and budget requirements.
4. Sector resource objectives will be determined by the resource potential for each sector.	A. Sector budgets will be determined by the sector resource objectives.
5. A set of programs will be offered that allows for broad base customer participation.	A. Access to available programs in all sectors will be monitored as a measure of success. B. Participation targets will prioritize customer segments based on resource potential. C. Participation will be measured in higher resource priority customer segments. D. Programs will be designed to leverage customer interest to acquire cost-effective resources.

Strategic Plan Objectives	Implementation Plan Guidelines and Measures
6. All approaches to acquire the conservation resource will be considered. a. EWEB will continue to support market transformation as a resource acquisition strategy. b. All program implementation approaches will be considered to acquire the conservation resource. c. Hookup fees and standards should be used as a last resort if conservation programs or improvements in building codes and efficiency standards are ineffective.	A. Market transformation will be accounted for in acquisition accomplishments. B. Adjustments to resource acquisition targets will be made as market transformation occurs.

Appendix VI

Public Comments on Draft Strategy

In the process of developing the Energy Conservation Resource Strategy (ECRS), EWEB conducted a public involvement process to seek customer opinion on the proposed strategy and EWEB's energy conservation activities in general. EWEB's Public Affairs Department conducted an evaluation of the public participation component of the proposed conservation strategy using the "Public Participation for Community-owned Utilities" model developed by the American Public Power Association. Specifically, the results of those evaluations indicated that the appropriate level of public participation was to "consult" with the public. The public participation strategies that were used included one-on-one consultation with the utility's major customers, four focus groups with sub groups representing small commercial customers, additional questions included in the annual Benchmark Survey, and a web based survey posted on the EWEB web site along with the draft Energy Conservation Resource Strategy.

All together approximately 650 customers provided input on the draft Energy Conservation Resource Strategy through the various strategies employed. Through the focus groups, 40 commercial customers participated in one-hour discussions that covered a range of questions. The annual Benchmark Survey contacted 400 randomly selected customers, and provided the most statistically significant information. The on-line survey had 100 respondents complete the survey. Surveys that were distributed at the Good Earth Home Show and the Lane County Energy Roundup resulted in 120 completed surveys being turned in. And finally, one-on-one consultations with two industrial contract customers were conducted.

The large number of customers who provided input through the various strategies was significantly larger than the number of customers who typically participate in an EWEB hosted forum, which most typically have only two-dozen attendees.

Comments received from the public through the public involvement process can be summarized in three general statements.

1. A large majority of residential and commercial customers believe that it is very important that EWEB maintain an aggressive energy conservation program.

This is consistent with the community's historically strong support for energy conservation as the preferred first choice energy resource. The strength of the support expressed was significant, as shown in Figure 11, with the majority of respondents choosing the highest levels of importance.

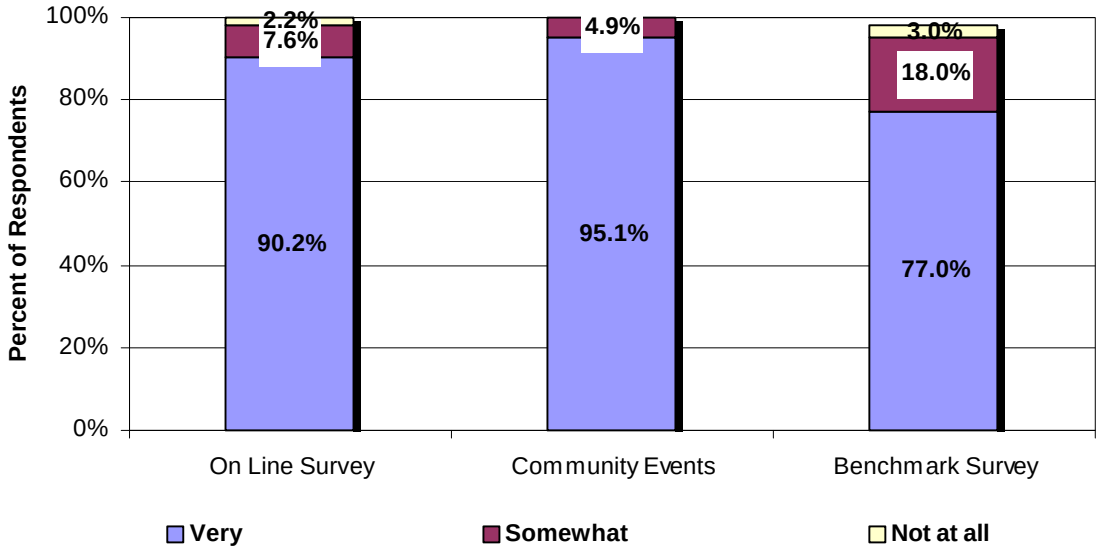

Figure 11: How important is it to have aggressive energy conservation programs?

2. Only about half of EWEB customers indicate that they are aware of EWEB's energy conservation programs (Figure 12).

EWEB is able to meet its' annual conservation resource targets with less than 10 percent of customers participating in our programs each year. Combined with the relative high degree of customer turnover that EWEB experiences annually, it is not surprising that many customers are unfamiliar with our programs. For some customers who do participate in our programs, their recognition of EWEB's involvement is minimal since either a contractor or an appliance dealer is their primary contact with the program.

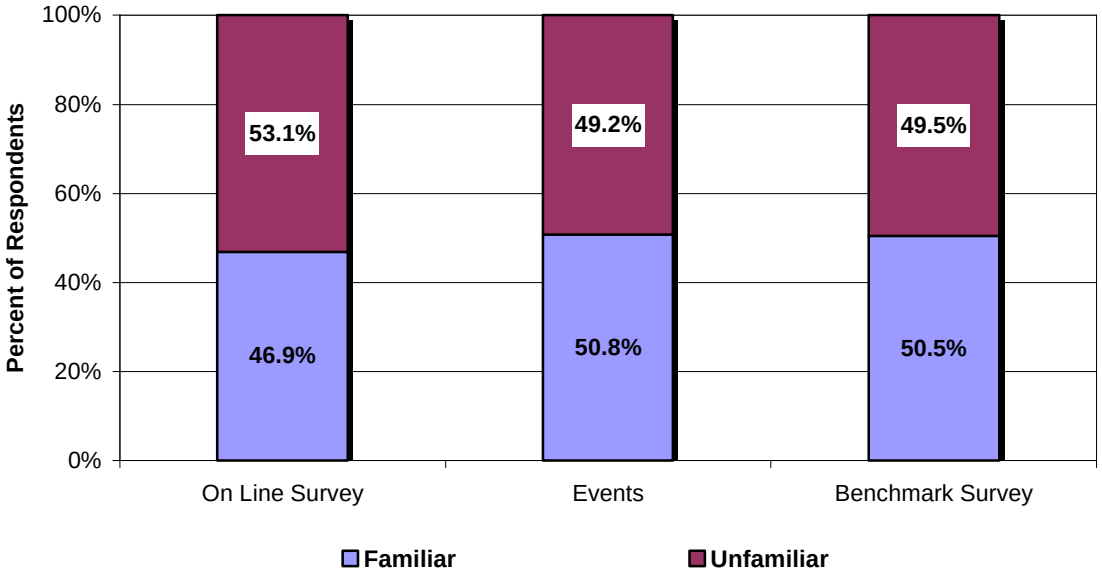

Figure 12: How Familiar are customers with EWEB's energy conservation programs?

3. Customers who have participated in an EWEB energy conservation program are very satisfied with the service that they received.

This is consistent with feedback that is received on exit surveys conducted with customers after they have participated in a program.

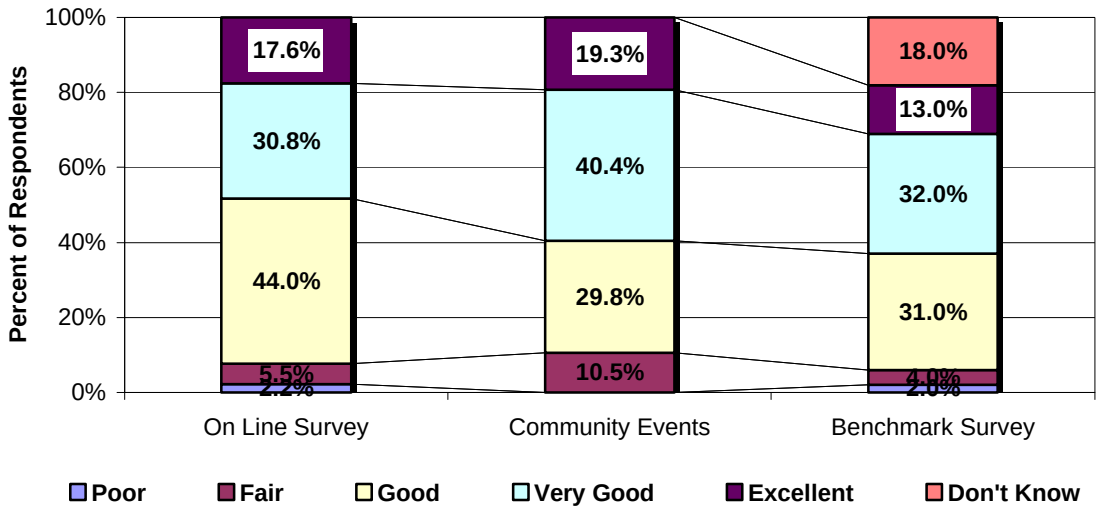

Figure 13: How well has EWEB performed in delivering energy conservation programs?

Based on the comments received from customers, staff believes that there is strong support for the draft Energy Conservation Resource Strategy as it has been proposed. The DSM resource acquisition strategy that has been developed is clearly the least cost new energy resource available to EWEB. The question of how fast to acquire the resource will need to be continually evaluated in the future as the post-2011 impacts of the new Bonneville contract become clearer and as energy markets change. At this time though, staff believes that the annual rate of acquisition of 2.7 average Megawatts proposed in the draft ECRS is the preferred rate of acquisition to adopt for the reasons that are stated in the ECRS.

In preparing the final version of the Energy Conservation Resource Strategy, staff responded to the customer comments to address their lack of familiarity with our programs by adding Action Item 4 to the ECRS. This Action Item calls out the need to assess our current marketing activities, and to develop an enhanced marketing communication plan that better informs customers of our efforts in energy conservation and the opportunities available to them to participate in our programs. Funding for the annual energy conservation resource acquisition has also been increased (Table 5 in the Energy Conservation Resource Strategy) by $100,000 to support a more robust, consistent and effective marketing communications plan.