

Market Activities Report

2005

OCTOBER 6, 2006



**NORTHWEST
ENERGY
EFFICIENCY
ALLIANCE**

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Executive Summary

The Northwest Energy Efficiency Alliance (“NEEA”) is a non-profit corporation supported by Bonneville Power Administration, electric utilities, public benefits administrators, state governments, public interest groups and energy efficiency industry representatives. These entities work together to make affordable, energy-efficient products and services available in the marketplace.

Since 1997, the Northwest’s electric utilities and public benefits administrators have invested jointly in regional market transformation as part of their strategy to secure a least-cost electricity future for ratepayers. Market transformation strategies work within existing market environments to affect the supply of, or demand for, energy-efficient technologies and services. The over-arching goal is long-term, sustainable change that makes affordable energy saving products and services an accepted and expected part of the marketplace. The long-term benefit of market transformation is the sustainable cost-effective energy savings delivered to regional ratepayers.

2005 marked the first year of the current five-year funding cycle for NEEA. The voluntary funding contributions totaling \$20 million a year are made by the Bonneville Power Administration, the region’s electric utilities and public benefits administrators. Market change is what we are after and that takes time. But after nearly 10 years, we have seen the potential of market transformation to change the way Northwest consumers choose products they buy and the way the region’s businesses think about managing their energy use.

This report includes 2005 highlights of NEEA-supported regional projects, such as key activities in the region, documented market effects, energy savings achieved, and indicators that the projects are successfully moving the market to accept and offer higher efficiency products and services. While all NEEA projects contribute in some way to improving the efficiency of electricity use in the region, some of the gains are difficult to measure and/or track. As a result, tracking energy savings is limited to about half of the projects supported by NEEA. Accurately tracking the remaining projects is difficult because the data is unavailable for a variety of reasons. For example, the data may be inaccessible because it is proprietary in nature. In all cases, the data reported in this document should be viewed as best available data given the constraints of market realities.

In an attempt to reduce the chance of double counting energy savings in the region NEEA has adopted a simplified accounting mechanism to report savings. The accounting simplification takes average megawatt savings tracked in markets within the entire region in which NEEA-sponsored regional projects work to transform markets. From this calculation, a baseline of what the market might have done on its own—without local utility/administrator or regional NEEA investment—is subtracted. Further, an estimate of

local utility/administrator direct incentives is subtracted from the total savings. The net of these two adjustments is accounted to net regional market effects.

2005 Highlights of Market Progress

2005 saw many significant market transformation milestones for the region, including:

Residential Sector

- Total CFL sales reached 6.8 million, which is 36% more than in 2004.
- The CFL purchaser survey indicates that 75% of purchasers intend to replace a CFL with a CFL.
- 50% of the stores (350) participating in the regional CFL Savings With A Twist™ promotion represented new retail relationships, and included grocery, variety, and independent hardware stores.
- The Northwest region maintained an 11% market share lead over the national average of 33% for ENERGY STAR clothes washers. Models at or above MEF 1.8 efficiency levels share is approximately 38%.
- The Consortium for Energy Efficiency has adopted revised clothes washer tiers for 2007 that start at MEF 1.8.
- The Department of Energy revised the ENERGY STAR criteria for clothes washers to increase from MEF 1.42 to MEF 1.72 in 2007, and must have a water factor (WF) of 8.0 or lower to qualify.
- Over 200 builders signed on to the regional ENERGY STAR Homes Northwest program. 40% of participating builders interviewed listed the ENERGY STAR name as one of the biggest advantages to participating.
- Approximately 100 builders have a commitment to build 100% of their homes to ENERGY STAR standards.
- Regional trade ally training resulted in 30 new verifiers and 69 new performance testing technicians.

Commercial Sector

- Washington Legislature passed a bill requiring new K-12 school construction receiving state funding to meet LEED Silver requirement or pass the Washington Sustainable Schools Protocol. The protocol was created with support by NEEA, through the Washington Sustainable Schools Protocol Advisory Committee.
- NEEA helped fund the construction and study of a full-size High Performance Classroom prototype built at Mt Angel, Oregon. Modeled savings resulted in as much as 70% better than Oregon code requirements. The Oregon Department of Energy coordinated three tours of the high performance classroom prototype for Oregon School Districts, A&E firms, a portable classroom manufacturer and utilities/public benefits administrators.
- New design labs were established in Spokane and Bozeman.
- Region wide over 124 workshops and classes were organized and delivered by all the labs combined.
- A Technical Reference Guide to High Performance Glazing was developed.

- Over 20 commercial buildings participated in the Building Performance Services test, including office buildings, hospital facilities, a manufacturing/office facility, a co-location (data center)/office building and a community college. All test buildings were benchmarked using the ENERGY STAR® *Portfolio Manager* web-based performance-rating tool.
- The BetterBricks Awards was held for the third year in Portland, second in Boise and the inaugural year in the Puget Sound.

Industrial and Agriculture Sector

- Much of the 2005 activity was targeted at raising the awareness of the value of including energy as a part of business decisions. Companies participating in One-2-Five analysis include: New Season Food, Henningson Coldstorage, Basic American Food, Boise Cascade, Smurfit-Stone and Potlach.
- Training activities focused on the development of a regional training calendar for the Industrial Efficiency Alliance, Washington State University, Northwest Food Processor's Association and Utility training events related to Best Practices.
- Two new courses, Pumps 101 and Compressed Air for Floor Operators were piloted. Twenty five employees from 10 companies were Refrigerating Engineers & Technicians Association (RETA) certified. Seventy two end users and 6 vendors/consultants attended refrigeration system optimization training. Employees from 27 firms have participated in systems training.
- Fifteen northwest utilities are participating in the Distribution Efficiency initiative, with eight participating in substation pilot projects that include 13 substations with 43 feeders serving approximately 60,000 customers
- Eight AgriMet weather stations were upgraded with new High Data Rate satellite transmitters, improving data quality and reliability.

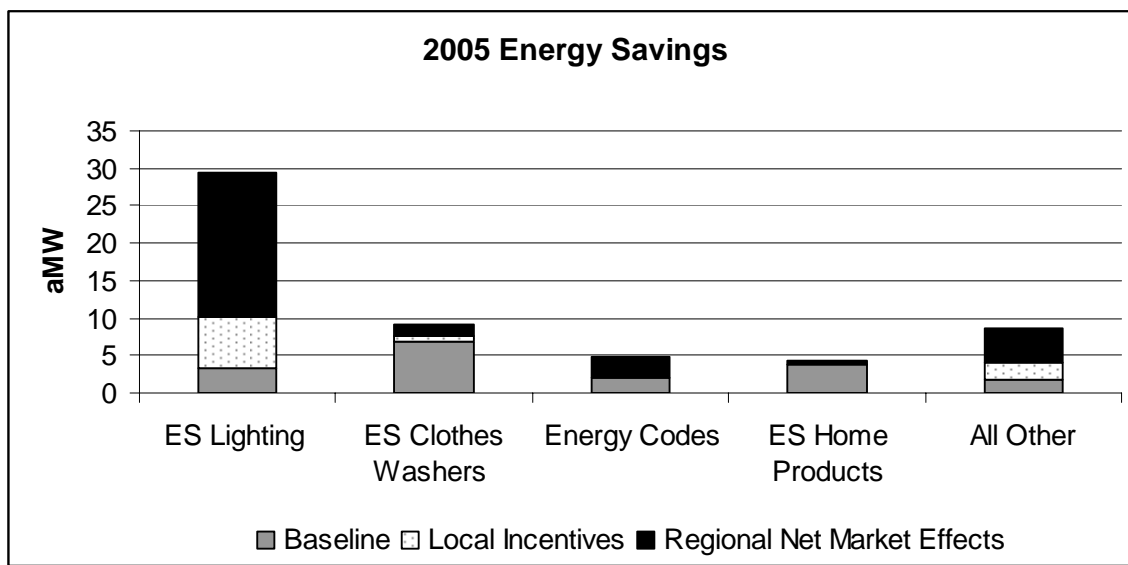
Code Support

- The Northwest Energy Code Group (NEEA's contractor group) proposed 14 code changes to the International Code Council. Ten of the proposals passed and will be incorporated into the ICC code series in 2006.

Energy Savings

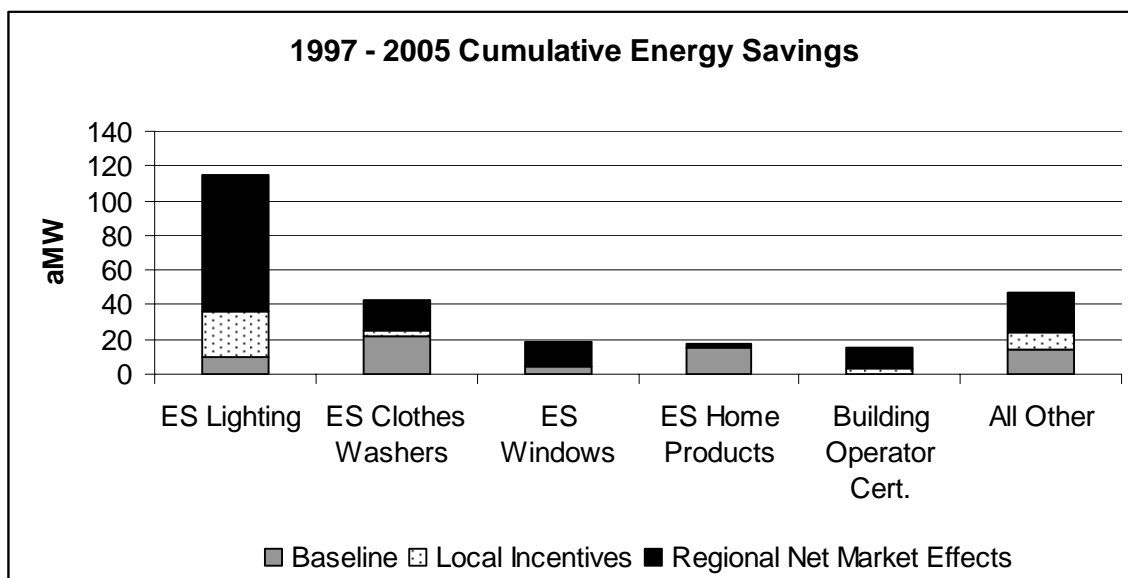
For the period January 1, 2005 to December 31, 2005, the region saved a total of about 57 average megawatts¹ ("aMW") in markets where NEEA has supported market transformation activities and tracked electricity savings. Out of this total, about 18 aMW could be accounted for by baseline market forces that were in play prior to initiation of a NEEA market transformation project. Another 10 aMW had some form of direct incentive (rebates, coupons, etc.) associated with local programs run by regional utilities and public benefit administrators ("administrators") in these same markets. The remaining 29 aMW are the regional net market effects. The chart below shows the savings of the top four regional market transformation projects, with the balance of the projects savings included in all other.

¹ These are savings at the end-use customer's application. When compared to generation, they do not include credit for reduced transmission and distribution line losses.



Activities in the residential sector account for approximately 81% of the 2005 regional net market effects savings, or about 24 aMW. Of this, 3.5 aMW are the result of NEEA-supported efforts whose new funding started in 2005, and represents all the savings for 2005 resulting from newly funded activities.

Expanding the savings time horizon beyond a single year, the graph below presents a cumulative annual perspective of the savings for the top six regional market transformation activities, along with a consolidation of the remaining regional programs, listed as all other.

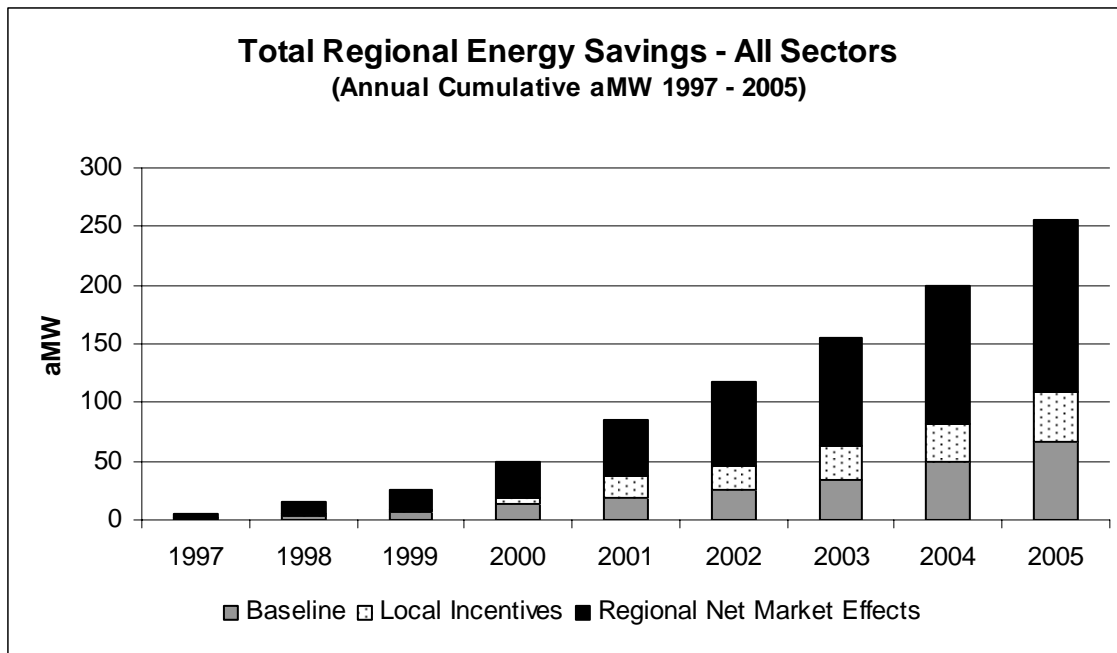


From 1997 through 2005, the top five programs produce 85% of the savings for the region, and are estimated to be a result of net market effects. Building Operator

Certification, ES Windows, and ES Clothes Washers provide 8%, 10%, and 11% of the savings, respectively, while Energy Star Lighting remains the leader with 54% or nearly 79 aMW of the total regional net market effects savings of 146 aMW. Additionally, Energy Star Lighting provides the highest regional total cumulative annual savings (including baseline and local incentives) at approximately 115 aMW.

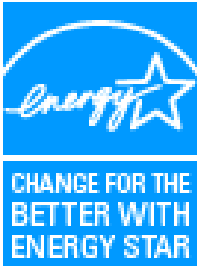
The cumulative energy savings from market effects is less than what was reported in 2004, due to a critical review of historic methodologies, and data collection, as well as learning's from market research and evaluation reports. This review and resulting changes have been recommended by NEEA's Cost Effectiveness and aMW Savings Board Committee. NEEA is committed to continuously improving its savings accounting and reporting process, and as such will be addressing strategic issues such as how long should NEEA claim credit for savings from market change.

The following graph displays total accumulated regional savings as a result of regional market transformation activities in a cooperative effort with Bonneville Power Administration, local utilities, administrators of systems benefit charges and other participating organizations.



Since NEEA's inception, accumulated total regional savings through 2005 are 189 aMW, after removing an estimate for what may have happened in the region without any investment, or 66 aMW of baseline savings. Regional net market effects account for 146 aMW, of which 3.5 aMW were saved in 2005 and were the result of NEEA's third funding cycle. The balance of the savings or 142.5 aMW are the result of previously funded regional market transformation efforts.

Residential Sector



Northwest ENERGY STAR® is the branding platform for the region’s residential market transformation initiative. The two main elements of the initiative are ENERGY STAR Consumer Products and ENERGY STAR Homes Northwest.

ENERGY STAR Consumer Products aggregates the Northwest’s market power to encourage market actors, including national appliance and lighting manufacturers and the region’s retailers, to make and sell higher efficiency clothes washers and lighting products. By aggregating the power and influence of the Northwest marketplace, ENERGY STAR Consumer Products has been and will continue to be an effective mechanism for increasing the market share of qualified products in the region.

ENERGY STAR Homes Northwest targets homebuilders to encourage them to construct new houses to the Northwest standard for ENERGY STAR homes. By offering a regional standard, large homebuilders that work in multiple utility service territories have one easy option when choosing to build efficiently. This standard, which was negotiated by Alliance on behalf of its investors in the region and other stakeholders, is the highest ENERGY STAR specification in the country for homes and 15% more efficient than the Northwest’s best building code.

ENERGY STAR Consumer Products

Strategy

The Consumer Products element includes market-based promotion of ENERGY STAR (“ES”) products, efforts to demonstrate and foster the commercialization of emerging products, and efforts to influence product specifications and standards. ES products will be promoted through a single marketing and implementation platform for lighting and appliances/home products. Based on a recent assessment of residential efficiency opportunities, the ES products promotions will focus on lighting (Compact Fluorescent Lights and fixtures) and on ultra high-efficiency clothes washers. Additionally, this project will identify and pursue development of “next generation” and selected high-value products as part of the commercialization process.

- **Lighting** focuses on increasing consumer satisfaction regarding Compact Fluorescent Lights (“CFLs”), with the goal of encouraging repeat purchases. Continued innovation and improvement in CFL lighting products will be encouraged through product testing and national coordination of ES specifications.
- **Clothes Washers** focuses on the promotion of the highest tier of commercially available efficient clothes washers as a way to demonstrate consumer demand and increase the ES program specifications in 2007. Leveraging co-investment and promotion of “differentiated” products by leading manufacturers and retailers will

influence consumer decisions. Increasing market share will motivate others (market actors and consumers) to follow, ultimately providing sufficient evidence and support for the establishment of increased ES product specifications (2007) and Federal efficiency standards (long-term).

Status

Start Date 2004²
 Total Allocated Dollars..... \$5,515,000³
 2005 Expenses\$1,842,529
 Current Cost Effectiveness Analysis Yes
 aMW Savings Tracked..... Yes

Market Objectives (✓ Indicates Completed)

- ✓ Increase annual incremental total bulb sales in the region by 1,000,000, with a goal of selling a total of 9,000,000 bulbs annually by 2010.
- ✓ Increase consumer intentions to replace CFLs with CFLs to 80% by 2010.
- ✓ Increase product availability, selection, and affordability in smaller market areas of the region.
- ✓ Maintain northwest annual market share leadership in ES clothes washers by achieving annual share of 10% above national average.
- ✓ Work with national groups to define a target efficiency level for ultra-high efficiency clothes washers.
- Achieve market share for Modified Energy Factor (“MEF”) 1.8 clothes washers of at least 50% of all ENERGY STAR clothes washers by 2007.
- ✓ Facilitate adoption of target efficiency level as 2007 ES specification.

Key Highlights for 2005

ES Lighting

- Total CFL sales for 2005 are 6.8 million or nearly 1.8 million higher than 2004. Approximately 75% of the units sold in 2005 were purchased by consumers without utility-sponsored coupons or discounts, compared to 80% in 2004.
- CFL Sales by State

	2004	2005	% Increase
WA	2,764,625	4,009,229	45%
OR	1,457,422	2,095,218	44%
ID	505,142	804,348	60%
MT	370,499	540,358	46%
	5,097,688	7,449,153	

² NEEA has funded regional market transformation activities in lighting and clothes washers since 1997. The efforts described here are in part a continuation whose goals have been revised to reflect the changes in the market. Please refer to the end of the residential section of this document for more information on previously funded activities and their continued benefits to the region.

³ This budget is for 2004 through 2006.

- The CFL purchaser survey that was part of the 2005 Market Research and Evaluation Report (MPER) for the Consumer Products program indicates that 75% of purchasers intend to replace a CFL with a CFL.
- The 2005 Consumer Products MPER indicates that the 60-watt equivalent CFL (e.g., 13-watt twister bulb) is available in all big box stores; product diversity and availability is limited in smaller markets, prices higher in smaller markets.
- Participated in the national ENERGY STAR Lighting Partner meeting with a goal of determining and qualifying lighting manufacturer interest in the regional Savings With A Twist™ (SWAT) promotion. SWAT was initiated in August 2005 to leverage the combined purchasing power of regional utilities, making inexpensive high quality CFLs available to customers in the region. Fourteen retail chains in more than 800 locations participated in the promotion. Almost half of the store locations (350 stores) represented new retail relationships with stores that have never participated in the program. They included grocery, variety, and independent hardware stores. CFLs were supplied from five participating CFL manufacturers. By the end of December 2005, 897,000 of the total 1.2 million lamps expected to be shipped during the promotion had been confirmed as having been sold.
- NEEA Field Representatives made 8,746 site visits to Northwest lighting and appliance dealers in 2005; of these, approximately 7000 were at lighting dealers. The primary activity for lighting during these visits consisted of training sales associates on the benefits of ENERGY STAR lighting.

Site Visits by State

State	Total	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
ID	1057	72	82	69	64	66	49	75	84	108	143	132	113
MT	841	72	74	30	75	81	95	69	66	64	83	80	52
OR	3124	281	157	170	163	221	198	135	302	354	397	394	352
WA	3692	163	132	189	285	298	321	217	356	404	484	395	448
WY	32	12	0	0	0	8	11	0	0	0	0	0	1
Totals	8746	600	445	458	587	674	677	496	808	930	1107	1001	966

- Over sixty lighting retail partners participated in the 2005 *Cooperative Marketing* offer to promote ENERGY STAR lighting. As a result, an additional \$35,750 of marketing funds was leveraged on a contribution of \$24,666, or a 1.5:1 match from the industry.
- 2004 efforts were built upon to develop consumer education around proper CFL disposal. Assistance was provided to two retail-based CFL recycling programs.
 - Eugene Water and Electric Board led a coalition of area utilities, energy-efficiency stakeholders, county officials and the Oregon Department of Environmental Quality in crafting a campaign to get residents to recycle not only CFLs, but also all types of fluorescent lamps. Assistance was provided to this effort by providing subject matter expertise, crafting copy for promotional materials, creating consumer and retailer surveys and deploying field staff to provide on-the-ground support throughout the campaign. The pilot program ended after one year in October 2005. As of

December 31, 2005, more than 22,000 fluorescent lamps had been dropped off for recycling. Approximately 15% of those lamps were CFLs.

- King County’s Solid Waste division led a coalition of regional solid waste county officials, electric utilities and energy-efficiency stakeholders in a retail-based campaign across four counties. To support the Puget Sound Lamp Recycling Coalition (PSLRC) effort, Puget Sound Energy, Seattle City Light and Snohomish PUD offered 50¢ coupons for a replacement CFL to consumers when they dropped off used bulbs for recycling. Total coupons redeemed amounted to just over 450. Support was provided to this six month campaign by helping to design the campaign and providing field support to train some of the retailers prior to the January 2005, launch. The program also provided PSLRC with a survey instrument to assist with acquiring retailer feedback. This pilot ended in July 2005, by which time more than 3,000 fluorescent lamps had been dropped off for recycling. Approximately 57% of those lamps were CFLs.

ES Clothes Washers/Appliances

- Market share of ENERGY STAR consumer products increased across the region. The Northwest region maintained an 11% market share lead over the national average of 33% for clothes washers in 2005. In addition, based on findings from the Consumer Products evaluation, estimated Northwest market share for clothes washers at or above MEF 1.8 efficiency levels is 38-40% in 2005.

Segment	Clothes Washers	Dishwashers	Refrigerators
2004 - Regional Average	38%	80%	38%
2004 - National Average	27%	78%	33%
2005 - Regional Average	44%	91%	40%
2005 - National Average	33%	88%	37%

Projected market share for 2005, provided by D&R

- Consortium for Energy Efficiency has adopted revised clothes washer tiers for 2007 that start at MEF 1.8.
- DOE revised the ENERGY STAR criteria for clothes washers to increase from MEF 1.42 to MEF 1.72 in 2007. In addition to the changes in minimum MEF levels, clothes washers must have a water factor (WF) of 8.0 or lower to qualify.
- 43 utilities in the Northwest (1 Idaho, 2 Montana, 4 Oregon, and 36 Washington) offered tiered rebates on ENERGY STAR qualified clothes washers. Higher incentives were provided on models that were rated for higher efficiency. The tiered rebate structure provided significant support for the goal of increasing the market share of ultra-high efficiency clothes washers.
- Created an ENERGY STAR Online Sweepstakes to raise consumer awareness for ENERGY STAR qualified clothes washers during the Spring into Savings national appliance promotion. Four winners were randomly selected out of 2,046 qualifying contestants, each winning a three-piece appliance suite donated by multiple appliance manufacturers.

- \$18,000 was leveraged from retailers and manufacturers to bring marketing messages about Spring Into Savings and ENERGY STAR Online Sweepstakes to the market.
- NEEA field representatives provided support and coordination for 81 Outreach events in 2005 by working in utility sponsored booths at shows and community events. They provided consumer marketing materials and coordinated appliance loans from local retailers for the events.

Cost Effectiveness⁴ and aMW Savings

ES Lighting

Estimated Cost Effectiveness Index: Total Resource Perspective.....	2.3
Estimated Levelized Cost: Total Resource Perspective ⁵ (cents/kWh)	0.6
2005 Regional Total (aMW).....	6.6
<i>Baseline (aMW)</i>	0.1
<i>Local Utility/PBA Rebates (aMW)</i>	3.4
<i>Regional Net Market Effects (aMW)</i>	3.1
Projected Regional Net Market Effects aMW through 2015.....	200

ES Clothes Washers⁶

Estimated Cost Effectiveness Index: Total Resource Perspective.....	1.6
Estimated Levelized Cost: Total Resource Perspective (cents/kWh).....	-0.1
2005 Regional Total (aMW).....	2.3
<i>Baseline (aMW)</i>	1.7
<i>Local Utility/PBA Rebates (aMW)</i>	0.2
<i>Regional Net Market Effects (aMW)</i>	0.4
Projected Regional Net Market Effects aMW through 2015.....	12

ENERGY STAR Homes Northwest

Strategy

The core effort of ENERGY STAR Homes Northwest is a fuel-neutral, marketing effort based on EPA’s ENERGY STAR brand and new construction program, adapted to meet the unique needs of the Northwest. ENERGY STAR serves as the mechanism to both differentiate builders and the homes they build as well as to provide consumers with an easy way to identify the home as efficient. Certification, labeling, and marketing efforts in the program are designed to increase the market share of ENERGY STAR energy efficient homes.

As market share for ENERGY STAR Homes begins to grow, the differentiating ability of the brand will need to be protected. Focus will be given to identify and test the next level

⁴ The two consumer products currently focused on for market transformation are analyzed separately for cost effectiveness.

⁵ No costs have been included in the model associated with recycling mercury. Data currently shows that the real cost of recycling is \$3.60 per bulb, based on the costs of one pilot recycling project. Analysts estimate that a cost of 36¢/bulb may be achievable with a full scale recycling program in the northwest.

⁶ The cost effectiveness and aMW savings information is only on the market for clothes washers with a MEF of 1.42 and higher.

of energy efficiency in new homes through a series of demonstration projects. Those measures that are successful in the demonstration efforts will be developed to a “next generation” ENERGY STAR specification.

Similarly, as measures in the current ENERGY STAR specification become part of current practice, the proposed plan will support the adoption of these elements into minimum code requirements.

Finally, as market demand builds for the ENERGY STAR home, builders should be paying a fee sufficient to support the ENERGY STAR certification quality assurance program costs.

Status

Start Date	2004
Total Allocated Dollars.....	\$7,170,000 ⁷
2005 Expenses	\$2,954,530
Current Cost Effectiveness Analysis	Yes
aMW Savings Tracked.....	Yes

Market Objectives (✓ Indicates Completed)

- Establish the use of the ENERGY STAR as differentiating factor for builders in the marketplace.
- Establish ENERGY STAR as label that consumers, builders and other market actors link energy efficiency and quality/value.
- Convince builders of the long-term cost savings from reductions in callbacks that should result from performance testing and quality assurance practices.
- Increase the builders’ and subcontractors’ awareness of key efficiency and quality issues.
- Stimulate market actors and trade allies to spend their own resources marketing ENERGY STAR Homes and to match NEEA’s investments.
- Expand the necessary knowledge and skills of builders and their subcontractors to address key energy efficiency and quality issues, particularly performance testing of HVAC ducts and equipment.
- Increase consumer recognition of the ENERGY STAR label and—more importantly—understanding of what it means for new homes.
- Establish the use of ENERGY STAR label in multiple listing service (MLS) listings to indicate whether a home is certified ENERGY STAR.
- Establish the automatic incorporation of the value of efficiency upgrades in the home appraisals.
- Upgrade residential energy codes to incorporate some or all of the current ENERGY STAR requirements.
- Create and adopt a new level of efficiency for ENERGY STAR based on successful demonstration of new and emerging technologies.

⁷ This budget is for 2004 – 2006.

Key Highlights for 2005

Homes and Builders

- 205 builders signed on to the program between January 1, 2005 and December 31, 2005. MPER (Market Progress Evaluation Report) 2, September 2005 – 40% of participating builders interviewed listed the ENERGY STAR name as one of the biggest advantages to participating in the program. Since its inception, 337 builders, who collectively build over 11,000 homes per year, have signed agreements to participate. This is an increase of over 310% from 2004. A total of 101 builders have indicated a commitment to build 100% of their homes to ENERGY STAR standards.
- Large builders accounted for 8% of all signed builders and certified 57% of all homes. Of those large builders, 3 certified over 100 homes. Those builders were Seattle Housing Authority in Seattle Washington with 227 homes, DR Horton in Portland Oregon with 136 homes and Holton Homes in Nampa Idaho with 125 homes.
- Worked with the Seattle Housing Authority to certify 227 homes in its High Point development. The development is a Hope IV project with the first phase including over 300 rental homes. Working with the development's marketing firm to include ENERGY STAR messaging in the development's promotions, including the 2006 Green Living Expo.
- Issaquah Highlands in Puget Sound is the first development to require ENERGY STAR. Worked with Suncadia, High Point, and Brasada Ranch, as well.
- Achieved approximately 1.2% market share, totaling 988 homes certified in 2005 including: 512 in Washington (1.4% market share), 251 in Oregon (1.1% market share), 207 in Idaho (1.2% market share) and 18 in Montana (0.5% market share). Certifications grew significantly quarter-by-quarter, with the first quarter accounting for 7% and the fourth quarter accounting for 55% of the year's homes.
- The Baseline MPER 1, February 2005 indicated that 19% of consumers were aware of the ENERGY STAR label for homes. Those consumers who are aware of ENERGY STAR Homes link them to lower energy bills (86%) higher resale value (19%) which may be some indication of quality/value. 56% of builders are aware of the ENERGY STAR label for homes. Attitudes about the ENERGY STAR label from builders indicate that some agree that ENERGY STAR homes tend to be higher quality (30% strongly agree) and that they command a higher price (9% strongly agree) which may be an indication of quality/value.
- Forty builders participated in the co-op ad campaign spending at least \$61,338 of their resources in advertising ENERGY STAR Homes.
- Idaho and Montana now require class 35 windows as part of the IECC 2003. ENERGY STAR standards are adopted by the NW Best efforts for future residential codes changes. Washington and Oregon are planning code proposals for 2006 and 2007 respectively to adopt at least the class 35 windows.

Trainings and Workshops

- Nineteen builder breakfasts were held across the four-state region, seven in Washington, seven in Oregon and five in Idaho, attracting over 320 participants.

- Developed a sales training curriculum highlighting the key features and benefits for consumers. Three sales trainings were delivered to builder sales staff and realtors.

Utility Coordination

- Eighty utilities are providing various level of support for ENERGY STAR Homes. Twenty-three are offering incentives for ENERGY STAR Homes while seventy-five are offering incentives for components of ENERGY STAR Homes.
- Nineteen utilities have joined together to form five different ENERGY STAR Homes Working Groups for Puget Sound area, eastern Washington, Idaho, Willamette Valley, and the Tri-Cities. In addition, twenty utilities have supported outreach through Builder Breakfasts and nine have provided links to www.northwestENERGYSTAR.com

Marketing

- Cooperative Marketing Fund – A total of 37 builders took advantage of the 2005 Cooperative Marketing Fund. This included 18 builders in Oregon, 10 builders in Washington, 7 builders in Idaho, and 2 builders in Montana. Builders were paid a total of \$21,351 and the program was able to leverage \$61,638.
- Model Home Incentive Fund – A total of \$19,500 was distributed to 33 builders for 39 ENERGY STAR qualified model homes. Seventeen builders in Oregon received a total of \$8,500 in model home funds for 17 homes. Eleven builders in Idaho received \$8,000 in model home funds for 16 homes. Three builders in Washington received a total of \$2,000 for 4 homes. Two builders in Montana received \$1,000 in model home funds for 2 homes.
- Leveraging \$24,000 of U.S. EPA 2005 Outreach Partnership one-for-one matching funds, ENERGY STAR homes consumer awareness ad campaigns ran for 16 weeks in Puget Sound, Portland/Vancouver, Bend, Boise, Spokane and Missoula. In Puget Sound, the program ran its first billboard campaign.
- High-volume builders & developer marketing support – thirteen high volume builders and two high profile developments were provided with marketing assistance, ads, PR assistance and cooperative funds. The premier example was the partnership with Issaquah Highlands marketing firm, Fusionpartners, to secure several news stories and a four-ad series in The Seattle Times New Homes Saturday. The stories and the ads featured five builders, one verifier and creatively co-branded ENERGY STAR and Built Green.
- Supported 12 local home tour/parade of homes events featuring 36 ENERGY STAR qualified homes built by more than 30 builders.
- Secured more than 50 news stories in local newspapers, magazines and television stations resulting in more than 5 million impressions throughout the region for ENERGY STAR homes and ENERGY STAR home builders. Most placements focused on the consumer audience.

Market Infrastructure

- Thirty new verifiers were trained in 2005, bringing the total verifiers trained in the region to 80.

- Sixty nine performance testing technicians were trained in 2005, bringing the total PT techs trained to 131.
- Worked with 69 builders to assist with the lighting requirements. Support ranged from lighting focused breakfast training to individualized lighting reviews.
- Worked with 28 showrooms in support of builders. Support ranged from manager training to lighting schedule reviews with the showroom representative.

National Coordination

- The EPA introduced a national Builder Option Package specification for ENERGY STAR Homes that follows closely with the NW BOP. Continued coordination with the EPA to influence national program policy.
- Washington State University Energy Extension began coordination with the IRS, DOE, RESNET and many northeastern states to influence rulemaking for the federal tax credits for new homes that were instituted as part of the Energy Policy Act of 2005. The intended outcome is to ensure the ENERGY STAR Homes Northwest infrastructure can effectively utilize the federal tax credits to encourage additional energy efficiency measures.

Cost Effectiveness and aMW Savings

Estimated Cost Effectiveness Index: Total Resource Perspective.....	1.8
Estimated Levelized Cost: Total Resource Perspective (cents/kWh).....	-1.9
2005 Region Total (aMW).....	0.2
<i>Baseline (aMW)</i>	0.0
<i>Local Utility/PBA Rebates (aMW)</i>	0.2 ⁸
<i>Regional Net Market Effects (aMW)</i>	0.0
Projected Regional Net Market Effects aMW through 2015.....	14

Market Transformation Activities Funded from 1997 through 2004 in the Residential Sector

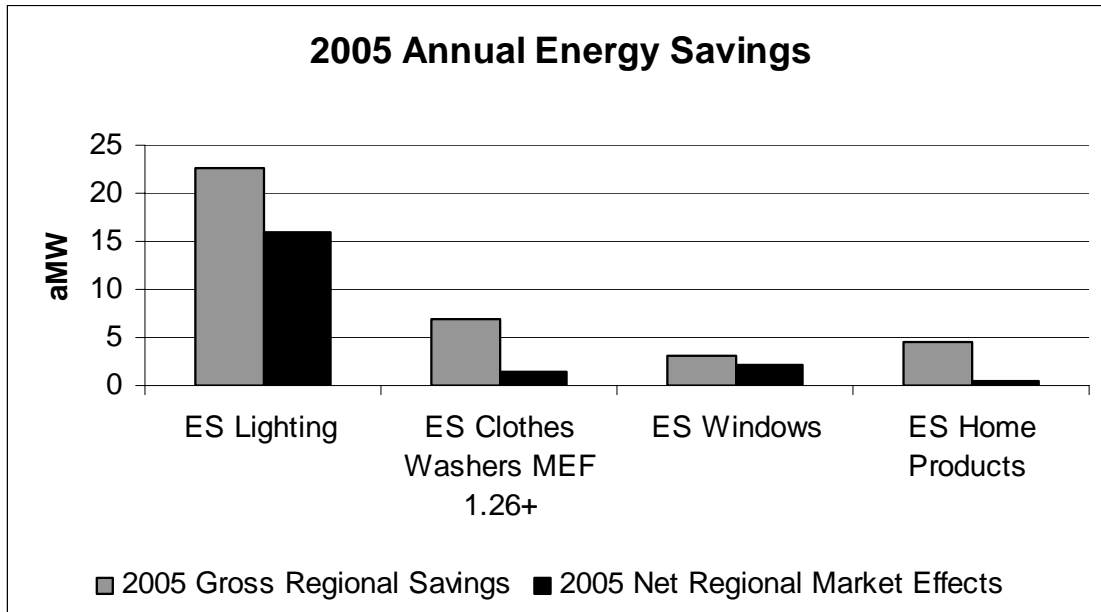
NEEA’s first regional market transformation efforts started in 1997. Many of the projects were targeting the residential sector, and were built off years of local efforts by many, including the Bonneville Power Administration, electric utilities, and state organizations. Four of these early efforts are continuing to produce savings as a result of transformation and are savings that are tracked. These include ENERGY STAR Clothes Washers⁹, ENERGY STAR Residential Lighting¹⁰, ENERGY STAR Residential Windows, and ENERGY STAR Home Products. In 2005, these efforts produced 37 aMW of savings for the region, of which 20 aMW are net market effects (net savings once naturally occurring savings and any savings that have a direct incentive from a local

⁸ Close to all of the homes received utility or administrator incentives

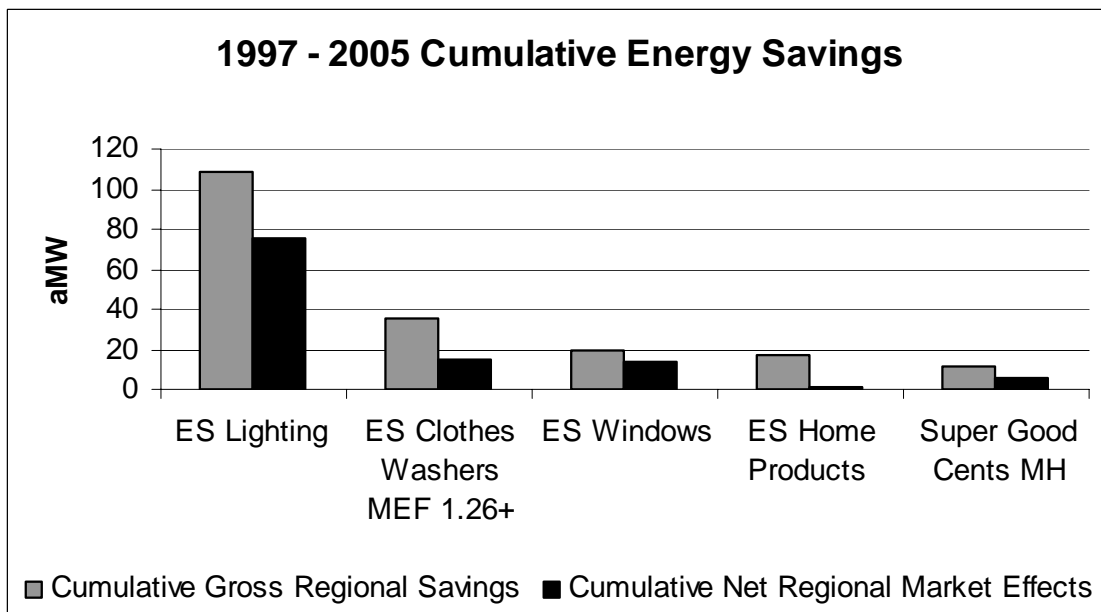
⁹ Regionally supported clothes washer market transformation efforts started in 1997 when NEEA was first formed. The program was called WashWise, and later became ENERGYSTAR.

¹⁰ Regionally supported lighting market transformation efforts started in 1997 when NEEA was first formed. The program was called Lightwise, and later became ENERGYSTAR. Activities primarily targeted CFL bulbs; however, there were some CFL fixtures activities as well.

utility or administrator have been removed). ENERGY STAR Residential Lighting accounts for approximately 60% of the savings. The chart below illustrates the 2005 aMW savings to the region.



Since NEEA's inception in 1997, these market transformation efforts have cumulatively produced 191 aMW, of which 112 aMW are estimated to be the result of net market effects.



In addition, four other regional market transformation projects were funded through NEEA and include, National Standards, Performance Tested Comfort Systems, Public Housing Efficiency, and Super Good Cents. These activities savings have either never been tracked or are no longer tracked.

For additional information on any of these previously funded activities, please visit NEEA's website at www.nwalliance.org.

Commercial Sector



In 2005 NEEA continued many of the commercial sector projects that were active in 2004. At the same time, NEEA Board members and staff set the foundation for commercial sector activities for the 2006-08

timeframe. In 2006, BetterBricks will be the branding platform for the NEEA-funded market transformation initiative in the commercial sector. BetterBricks will focus on changing business decision-making practices within the hospital, grocery and real estate markets. The effort will also work with trade allies to develop and offer new energy-efficient products and services within the design and construction and building operations markets.

By focusing on changing business practices in these markets to favor energy management planning, energy efficiency considerations will be better integrated into business decision-making and the demand for related trade ally products and services will be stimulated. A focus on trade allies will also stimulate demand. We want these firms to recognize the business opportunity, evolve their product and service offerings and enhance their capabilities of providing energy-efficient design and operations practices.

Vertical target markets include hospitals and health care, grocery, and office real estate. These are the initial target markets previously approved by the NEEA Board with the addition of office real estate. With the addition of office real estate, the top target markets identified by NEEA market research are addressed. New school construction opportunities will continue to receive attention through design and construction market activities.

Cross-cutting markets include design and construction and building operations. Within the design and construction market the focus is on trade allies involved in the building design and construction process, including architects, lighting designers, design engineers and construction contractors. Within the building operations market the focus is on trade allies and facility staff involved in operating and maintaining buildings, including mechanical contractors, building controls companies, equipment manufacturers and commissioning agents.

The strategies and tactics employed within the vertical and cross-cutting markets are similar, yet tailored to individual market needs. Strategies include partnering with utilities/public benefits administrators, trade associations and national organizations; presenting the business case for changing energy related business practices; and providing technical information, tools, training and support. Tactics include awareness building (marketing) within and across markets, education and training to enable market actors to take action, and business and technical advisory assistance as a catalyst for change.

Some of the highlights in 2005 include the following:

- Target market start-up activity in hospitals and healthcare and with regional groceries. Follow-through in the new schools construction market.
- Continued progress towards promoting and advancing Integrated Energy Design within the new construction market.
- Completion of the Building Performance Services (BPS) test and identification of viable future building operations market activities.
- Partnering on activities that build market awareness throughout the region, such as the Sustainability Forum Series with the Urban Land Institute in Seattle, and the BetterBricks Awards in Portland, Boise, and Seattle.
- Regional education and training on high performance buildings in partnership with others, such as the American Institute of Architects (AIA) and the Cascadia Region Green Building Council.
- Advances in technology through projects such as Desert CoolAire, 80 Plus, and the Commercial Windows Initiative.

BetterBricks – New Schools

Strategy

In partnership with regional utilities, the strategy is to work with leading, high-growth school districts, state agencies, and other market players to develop a high energy efficiency standard and accompanying support materials that can be adopted as formal policy for new high performance schools. The development and adoption of a commonly accepted standard for energy-efficient construction will help to ensure the successful implementation of energy-efficient designs and equipment by school districts and their supporting architect/engineering firms in future projects. In addition, this effort will help ensure that high efficiency standards are a part of any future “green school” or high performance school standards as that market evolves.

Status

Start Date	2003
Total Allocated Dollars.....	\$295,000
2005 Expenses	\$35,897
Current Cost Effectiveness Analysis	No
aMW Savings Tracked.....	No

Market Objectives (✓ Indicates Completed)

- ✓ Establish a rating system in Washington with an energy-efficient component.
- ✓ Develop model implementation guidelines.
- ✓ Develop integrated design training curricula.
- ✓ Provide design and other assistance, as needed, for the construction of five high performance schools in addition to the pilot projects.
- ✓ Develop collateral material, including 2-3 strong case studies.
- ✓ Impact 400,000 square feet by the end of 2005.

Key Highlights for 2005

- The State of Washington Sustainable Schools Protocol Advisory Committee completed its work in December. A final draft of Washington Legislature passed a bill requiring new K-12 school construction receiving state funding to meet LEED Silver requirement or pass the Washington Sustainable Schools Protocol. The protocol was created with support by NEEA. Due to the new legislation, a Washington Sustainable Schools Protocol Advisory Committee was reconvened to revise the protocol. The committee completed its work in December. The Washington Sustainable Schools Protocol will be finalized in early 2006 by subsequent integration committees being led by the State of Washington Office of Superintendent of Public Instruction. Energy related changes to the protocol are out for review.
- NEEA helped fund the construction and study of a full-size High Performance Classroom prototype built at Mt Angel, Oregon. Modeled savings resulted in as much as 70% better than Oregon code requirements. The Oregon Department of Energy coordinated three tours of the high performance classroom prototype in October at the Mt. Angel Abbey & Seminary. Attendees included Oregon School Districts, A&E firms, a portable classroom manufacturer and utilities/public benefits administrators. A web- based virtual tour of the prototype is available at the BetterBricks website. (www.betterbricks.com/schools).
- School new construction project assistance throughout the region provided by the Design Labs. See Design Lab Network highlights for more details.

BetterBricks – Hospitals and Healthcare

Strategy

The strategies and tactics in the hospitals and healthcare market center on partnering with the four northwest state hospital and affiliate healthcare associations. The partnership with state hospital associations and affiliates is the primary means for increasing market awareness with key hospital decision-makers, and building market capability to change energy related business practices through education and training. Direct assistance will be provided to specific hospitals to support adoption of strategic energy management plans, changes in energy related business practices, and the application of best practices as identified by design and construction and building operations market strategies.

Status

Start Date	2003
Total Allocated Dollars ¹¹	\$1,559,000
2005 Expenses	\$397,706
Current Cost Effectiveness Analysis	Yes
aMW Savings Tracked.....	Yes

¹¹ Total Dollars allocated for 2003 through 2005.

Market Objectives (✓ Indicates Completed)

- ✓ Complete initial product and service development efforts, including the business case guide and the financial resources guide.
- ✓ Establish partnerships with the Northwest state hospital associations and plan joint activities to build market awareness and conduct education and training.
- Ensure that NW hospital decision-makers are aware of the specific benefits available from new and existing high performance hospitals.
- Hospitals adopt energy management plans that change business practices
- Hospital management/staff with design and construction (D&C) responsibility are capable of managing change in energy related business practices.
- Facility managers are capable of managing change in energy related business practices for facility operations.

Key Highlights for 2005

- Providence Health System and Providence Health Care (PHC): To date, Providence Health System's Board has formally adopted a Strategic Energy Management Plan (SEMP) and energy efficiency requirements are now included in the capital budgeting process, with life-cycle cost analysis (LCCA) as a core requirement. Market specialists have helped Providence select an LCCA tool and are providing technical support and training to construction and facility managers. Market specialists have completed development of a draft SEMP at PHC. PHC and Providence Health System are combining in early 2006.
- Peace Health: Market specialists are supporting development of a system-wide strategic energy management plan. Next steps include an organizational assessment of business practices, facility benchmarking and development of guiding principles for the energy management plan. Three facilities have now been benchmarked. One facility qualifies as EnergyStar.
- Kalispell Regional Medical Center: Executives have signed a letter of commitment to pursue strategic energy management planning and business practice change. Market specialists are meeting with the facilities manager to discuss a work plan for moving forward with SEMP.
- St. Lukes: An energy design charrette was held in mid-November in Boise to kickoff an integrated energy design process for a new facility of about 140 beds. The project is impacting St. Lukes' design and construction practices and will demonstrate the value of strategic energy management planning.
- Overlake Hospital Medical Center: Market Specialists together with representatives of Puget Sound Energy (PSE) met with the CEO and the Vice President for Facilities. The market specialist presented the value of strategic energy management planning and Overlake expressed strong interest. As a first step, the market specialists are working with PSE to help Overlake benchmark their main campus, and also assess their broader energy related business practices.
- Good Samaritan Hospital: An initial meeting with the CEO, VP of Business Development, and Facility Director resulted in executive level commitment to engage in strategic energy management planning. Discussion continues with the hospital and their architect on a planned new patient tower.

Cost Effectiveness and aMW Savings

Hospitals and Healthcare – Building Operations

Estimated Cost Effectiveness Index: Total Resource Perspective.....	1.8
Estimated Levelized Cost: Total Resource Perspective (cents/kWh).....	0.5
2005 Regional Total (aMW).....	0
<i>Baseline (aMW)</i>	0
<i>Local Utility/PBA Rebates (aMW)</i>	0
<i>Regional Net Market Effects (aMW)</i>	0
Projected Regional Net Market Effects aMW through 2015.....	3.0

Hospitals and Healthcare – New Construction

Estimated Cost Effectiveness Index: Total Resource Perspective.....	2.9
Estimated Levelized Cost: Total Resource Perspective (cents/kWh).....	-1.0
2005 Regional Total (aMW).....	0
<i>Baseline (aMW)</i>	0
<i>Local Utility/PBA Rebates (aMW)</i>	0
<i>Regional Net Market Effects (aMW)</i>	0
Projected Regional Net Market Effects aMW through 2015.....	2.0

BetterBricks – Grocery

Strategy

The strategies and tactics in the Northwest’s grocery market focus on working with market leverage points to increase market awareness with regional and national grocery chain decision-makers, build market capability to change energy related business practices, and build market technical capability of grocers’ service providers, especially in refrigeration. These natural market leverage points include regional wholesalers and their accompanying “community” of independent grocers and food groups, leading regional grocery chains, and regional business/management units of national chains. Direct assistance will be provided through these grocery market leverage points to support adoption of energy management plans, changes in energy related business practices, and the application of best practices as identified by design and construction and building operations market strategies.

Status

Start Date	2003
Total Allocated Dollars ¹²	\$952,000
2005 Expenses	\$117,243
Current Cost Effectiveness Analysis	Yes
aMW Savings Tracked.....	Yes

Market Objectives (✓ Indicates Completed)

- ✓ Development of the delivery strategy, business case, and best practices with input from key grocery decision makers and trade allies.

¹² Total Dollars allocated for 2003 through 2005.

- NW grocery decision-makers are aware of the specific benefits available from new and existing high performance groceries.
- Grocers implement energy tracking and benchmarking, set up roles, expectations, and accountability for operations and procurement practices.
- Grocery management and staff responsible for design and construction are capable of managing change in energy-related business practices.
- Store and facility managers are capable of managing change in energy related business practices for facility operations, with operations staff capable of providing or obtaining enhanced O&M services.
- NW refrigeration contractors align their businesses to deliver best practices in refrigeration design, O&M.

Highlights for 2005

- Collaborated with Avista to prepare an in-depth study on the feasibility of recovering heat from refrigeration systems for space heating for Yokes Fresh Markets in Eastern Washington. Also provided study on the interaction between skylights, lighting controls, refrigerated cases, and HVAC for Yokes.
- Provided a Store Operations and Energy Efficiency Analysis Report on the New Seasons Market at Seven Corners in Portland, addressing the optimization of existing facilities. Also provided design review and recommendations on plans for upcoming New Seasons construction projects in the Portland area.
- Worked with Town & Country Markets in Poulsbo, WA to incorporate daylighting into a major remodeling project. Also conducted a business practice assessment discussion with management using Envinta Achiever as a facilitation tool. Subsequent follow-up will identify a series of action items that will lead to more consistent, sustainable management of energy and energy-related costs across the entire organization.
- Worked with Albertsons and Wild Oats on the daylighting aspects of prototype store templates.
- Completed market research interviews with decision makers in regional grocery chains, wholesalers, and refrigeration service providers that will inform the further development of materials, tools, and education & training offerings.
- Began development of a database on the energy usage of regional grocery stores for use in benchmarking.

Cost Effectiveness and aMW Savings

Grocery – Building Operations

Estimated Cost Effectiveness Index: Total Resource Perspective.....	3.6
Estimated Levelized Cost: Total Resource Perspective (cents/kWh).....	-0.1
2005 Regional Total (aMW).....	0
<i>Baseline (aMW)</i>	0
<i>Local Utility/PBA Rebates (aMW)</i>	0
<i>Regional Net Market Effects (aMW)</i>	0
Projected Regional Net Market Effects aMW through 2015.....	6.0

Grocery – New Construction

Estimated Cost Effectiveness Index: Total Resource Perspective.....	3.2
Estimated Levelized Cost: Total Resource Perspective (cents/kWh).....	-0.8
2005 Regional Total (aMW).....	0
<i>Baseline (aMW)</i>	0
<i>Local Utility/PBA Rebates (aMW)</i>	0
<i>Regional Net Market Effects (aMW)</i>	0
Projected Regional Net Market Effects aMW through 2015.....	1.0

BetterBricks Design and Construction – Design Lab Network

Strategy

The strategy for new buildings is to shift design and construction practices toward achieving energy efficient, high performance buildings. The design labs work within the A&E community to help build capability to better promote, design and construct energy efficient buildings. The labs serve as a technical resource of credible and unbiased information and education on energy efficient design strategies. Each lab can provide a variety of services that include: information on tools and resources available, consultations on climate analysis and appropriate building responses, design consultations for daylighting and electric lighting, and daylighting modeling. Some labs offer additional services such as consultations on HVAC system integration and energy performance analysis. Labs are now located in Seattle, Spokane, Portland/Eugene, Boise and Bozeman.

Status

Start Date	2003 ¹³
Total Allocated Dollars ¹⁴	\$3,520,000
2005 Expenses	\$1,614,562
Current Cost Effectiveness Analysis	No
aMW Savings Tracked.....	No

Market Objectives (✓ Indicates Completed)

- ✓ Establish design labs in Spokane (Washington State University) and Bozeman (Montana State University).
- A&E firm decision makers are aware of the business opportunity and client benefits of energy efficient, high performance buildings.
- A&E firms representing a significant percentage of the design and construction market adjust their business practices to deliver energy efficient, high performance buildings.
- A significant percentage of projects incorporate integrated energy design strategies that rely on passive or low-energy solutions for lighting, ventilation, comfort and critical process loads.

¹³ The concept of having a network of integrated labs in the region was first realized in 2003, funding through NEEA of the Lighting Design Lab in Seattle started in 1998.

¹⁴ Total Dollars allocated for 2003 through 2005.

Key Highlights for 2005

Region wide

- New design labs (initially focused on daylighting) were established in Spokane and Bozeman.
- Region wide over 124 workshops and classes were organized and delivered by all the labs combined.

Washington

- Seattle Daylighting Lab provided design assistance on 65 key projects including Providence Everett Cancer Center, Town & Country Market, Puget Consumer Coop, Bank of California Remodel, Boeing 7E7 Assembly Facility, Data I/O office, Tulalip Tribes office and meeting hall, Tacoma Community College and numerous other schools, offices, retail buildings.
- Three prototypes were developed integrating daylighting: a Starbucks store, a Patagonia retail store, and GreenLab, a high tech lab facility.
- The Spokane Lab moved into its new space and has a fully operational heliodon and overcast sky room.
- The Spokane Lab provided design assistance on 18 projects, including analysis and advice on several Yokes Groceries, post occupancy evaluations on St Anne's preschool, a WA Sustainable Schools pilot (Lincoln Heights Elementary School) that is impacting school design in the region, the Premera Office building and Spokane Community College.
- Seattle Daylighting Lab staff delivered 12 workshops and an additional 10 workshops were delivered in Spokane.
- The Lighting Design Lab in Seattle conducted 163 lighting consultations, 20 mock-ups, and delivered 39 classes on aspects of efficient lighting.

Oregon

- The Oregon lab provided design assistance on 17 diverse projects including 4 buildings at the University of Oregon, a Eugene Fire Station, Mt Angel Abbey Education Building, New Seasons Grocery, EWEB Headquarters, Novelty Hill Winery, several offices, and a community center.
- The Oregon Energy Studies Lab developed, built and analyzed a full-scale prototype high performance classroom. Numerous tours for architects and school officials were provided. Several articles were published on the prototype.
- A research study to create a high performance hospital patient room was conducted by the Oregon lab with ZGF Architects. The study determined optimum configurations for daylighting. A presentation was given at the USGBC national GreenBuild conference.
- The Oregon lab conducted study on feasibility to reduce or eliminate perimeter beams of offices and hospitals to increase daylight penetration.
- The Oregon lab developed and delivered 10 workshops. Topics included high performance schools at the Northwest Regional AIA Conference, natural ventilation, integrated design, building envelope, daylighting, energy modeling, and "the Window".

- The Lighting Design Lab conducted 20 lighting consultations and 2 mock-ups on Oregon projects and delivered 19 classes on aspects of efficient lighting in Oregon.

Idaho

- The Idaho lab provided design assistance on 47 projects including: Lakes Middle School in Coeur d’Alene, the first high performance school in Idaho; Nampa School District plans to include high performance classrooms in 2 new elementary schools; and a new state university office targeting energy use at 50% less than IECC code.
- The Idaho lab organized, led and participated in a 2-day charrette for St Luke’s two new hospital/health care facilities (Twin Falls and Eagle).
- Worked on prototypes for two grocery chains: work with Albertson’s led a senior manager to claim that “the skylighting work of the Integrated Design Lab has made Albertson’s change the way we do business.” Work on a skylit prototype for Wild Oats Grocery.
- Coordinated and delivered 14 workshops and an all day forum on natural ventilation.
- The Lighting Design Lab conducted 20 consultations and delivered 7 classes on lighting efficiency in Idaho.

Montana

- The Integrated Design Lab in Bozeman began operation in 2005, with an official opening event coinciding with a Montana AIA conference in October.
- The lab has already provided design assistance on six projects including Kalispell high school, the Bluebird Building in Missoula, buildings at Montana State and University of Montana, and 2 park visitor/interpretive centers.
- The MT lab has conducted two workshops on climate responsive design (Billings and Missoula), and made presentations on integrated design at the Joint Engineers Conference and on daylighting design at the Wyoming AIA Conference.
- The Lighting Design Lab conducted 19 consultations on Montana projects and delivered 9 classes on lighting efficiency in Montana.

BetterBricks Design and Construction – Technical Advisory Services

Strategy

BetterBricks Advisors include technical specialists that compliment design lab services. Advisors are brought in as needed to support specific projects or research activities.

Status

Start Date	2001
Total Allocated Dollars ¹⁵	\$1,917,000
2005 Expenses	\$779,278
Current Cost Effectiveness Analysis	No
aMW Savings Tracked.....	No

¹⁵ Total Dollars allocated for 2003 through 2005.

Market Objectives (✓ Indicates Completed)

BetterBricks Advisors support the Design Labs in meeting the Design Lab Network market progress indicators.

Key Highlights for 2005

- Technical support on numerous design assistance projects coordinated with the Design Labs. Support includes modeling, charrette facilitation and participation, specialized technical analysis (e.g. HVAC, heat recovery, commercial kitchens, etc.), limited data logging (2 grocery stores), assessment of simulation tools for natural ventilation, and conducting post-occupancy evaluations.
- Development of training materials (e.g. data for Climate responsive design) and organizing a national technical forum on daylighting and integrated design to enhance lab and advisor capabilities.
- Technical support for target market development and specific target market projects. Includes development and/or review of specific guidelines and tools (e.g. life cycle cost analysis software).

BetterBricks Design and Construction – Advanced Tools and Guidelines

Strategy

To promote the use of existing design tools and guidelines and provide support for the development of new tools and guidelines that encourage the design and construction of high performance buildings and integrated energy design Promotional mechanisms include the BetterBricks website, fact sheets, white papers and technical training.

Status

Start Date	2004
Total Allocated Dollars.....	\$450,000
2005 Expenses	\$203,347
Current Cost Effectiveness Analysis	No
aMW Savings Tracked.....	No

Market Objectives (✓ Indicates Completed)

- ✓ Develop and promote at least 2 tools or guidelines each year.
- ✓ Create and publish 2 technology updates each year.
- ✓ Continued support for the Building Investment Decisions Support (BIDS) tool.

Key Highlights for 2005

- Upgrade of Energy Scheming software with Northwest Climate data.
- Finalized enhancements to Green Building Studio, a web-based 3-D schematic design phase modeling tool.
- Added Northwest utility rates capability and library to eQuest input wizard to facilitate modeling time on Northwest projects.
- Research and development on a simplified Post Occupancy Assessment protocol to assess new building performance and occupant satisfaction.

- On-going development support for commissioning testing procedures and protocols (a USDOE Matching fund project).
- Enhancements to SPOT, a daylighting analysis and sensor location optimization software.
- A comparative assessment of airflow simulation tools that could support natural ventilation design.
- Development of a Technical Reference Guide to High Performance Glazing.

Building Operations – Building Performance Services

Strategy

The strategy is to simultaneously build demand for improved building operating performance through the target market efforts, as well as build the capabilities of both the market and the participating market actors to supply appropriate services. The target market components of BetterBricks are primarily responsible for building demand.

However, this project will address the other barriers through the following activities:

- Creating an infrastructure that can support a viable market for services. This project will create tools and define products and services that will bring coherence to the currently disjointed and incomplete market.
- Training and educating existing market actors to provide the necessary services
- Creating market trust for qualified service providers through quality control mechanisms
- Propose demonstrating in significant numbers the value that can be captured through this new market structure.

Status

Start Date	2002
Total Allocated Dollars.....	\$2,510,000
2005 Expenses	\$311,417
Current Cost Effectiveness Analysis	Yes
aMW Savings Tracked.....	Yes

Market Objectives (✓ Indicates Completed)

- ✓ Test a clearly defined set of building performance services responsive to market needs (included in the BPS Implementation Toolkit).
- ✓ Build a set of market infrastructure tools to support the defined services (included in the BPS Implementation Toolkit).
- ✓ Document the potential for energy savings and reduced building operating costs.
- Increase service provider awareness of the business opportunity and customer benefits from improving building operating performance.
- Service providers adopt business approaches and service offerings that promote building operating performance.
- Service providers have staff capability to tune building energy systems and provide enhanced operations and maintenance (O&M) services.
- In-house facility staff is capable of providing or obtaining building energy system tune-ups and enhanced O&M services.

Key Highlights for 2005

- The BPS Test comprised five service activities: building screening, building scoping, enhanced O&M practices, energy tune-up and commissioning. It was completed in 2005 and targeted medium and large sized commercial buildings with complex heating, ventilation and air conditioning (HVAC) systems, as well as energy management and control systems (EMCS). The BPS Test was conducted in partnership with Seattle City Light, Puget Sound Energy, Snohomish County PUD and the Energy Trust of Oregon. The service activities were performed by local service providers with assistance from the utilities and NEEA contract resources.
- Participating service providers included McKinstry Company, Siemens Building Technologies, Trane and Control Contractors Inc. Several of these service providers intend to continue offering BPS type services in the future.
- In total over 20 commercial buildings participated in the test, including numerous office buildings, several hospital facilities, a manufacturing/office facility, a co-location (data center)/office building and a community college.
- All test buildings were benchmarked using the ENERGY STAR® *Portfolio Manager* web-based performance-rating tool. Relative performance ratings range from 8 (poor) to 60 (good) on a scale of 1 to 100 prior to implementation of the BPS activities in the test buildings.
- All test buildings went through the BPS Screening and Scoping process. In addition, most buildings went through the BPS diagnostic process, which includes the development of enhanced O&M and energy tune-up action plans.
- All buildings that went through diagnostics in the Puget Sound and in Oregon had significant potential energy savings opportunities, ranging from six to fifteen percent of annual usage.
- Most building owners are following through with their utilities and service providers to capture the energy savings identified through the energy tune-up and enhanced O&M action plans.
- The Energy Trust of Oregon (ETO) has initiated a new Building Tune-Up and Operations pilot program based on the BPS Test experience. Puget Sound Energy (PSE) and Snohomish County PUD have programs in place to promote building tune-up activity.

Cost Effectiveness and aMW Savings

Estimated Cost Effectiveness Index: Total Resource Perspective.....	1.8
Estimated Levelized Cost: Total Resource Perspective (cents/kWh).....	2.3
2005 Regional Total (aMW).....	0
<i>Baseline (aMW)</i>	0
<i>Local Utility/PBA Rebates (aMW)</i>	0
<i>Regional Net Market Effects (aMW)</i>	0
Projected Regional Net Market Effects aMW through 2015.....	6.0

BetterBricks - Marketing

Strategy

In 2005 BetterBricks marketing efforts continued to work towards building awareness, inspire and connect building professionals to the benefits and resources available to building high performance buildings. Efforts included awareness building in the cross-cutting design and construction and building operations markets via events, an awards program, ads, the BetterBricks web site, electronic communications and public relations. Work also continued with the Lab Network, Advisor Service and Training and Education to help communicate services and create cohesion and a common language in the market place.

Overall 2005 marketing principals included:

- Marketing efforts must be primarily targeted towards target market areas.
- Focus on changing business practices around energy efficiency.
- Focus on the full building life-cycle, not just design and construction.
- Rely on existing business relationships and market momentum.
- Coordinate and align BetterBricks marketing efforts with others working in the market including utilities.

Status

Start Date	2001
Total Allocated Dollars ¹⁶	\$3,449,000
2005 Expenses	\$951,802
Current Cost Effectiveness Analysis	No
aMW Savings Tracked.....	No

Market Objectives (✓ Indicates Completed)

As marketing is in support to other program areas, for progress indicators, please see sections in each specific market area.

Key Highlights for 2005

- An overall messaging platform that speaks directly to decision makers in the targeted markets was developed in 2005. The messaging centers on the theme - BetterBricks, A More Competitive Environment - and speaks directly towards the bottom-line business benefits that energy efficiency can offer an organization in an increasingly competitive environment.
- The development of specific business-to-business marketing tools for market specialists and others interacting in each target market began in 2005.
- To raise awareness and connect building professionals to the various components of the program, BetterBricks continued to use a mix of collateral, media relations, targeted advertising, an awards program, events, and electronic communications and the web site. It has been the cumulative effect of the mix of disciplines working in concert that has achieved best results.

¹⁶ Total Dollars allocated for 2003 through 2005.

- The *series of eight ads* produced in 2004 whose subjects ranged from daylighting to the productivity message of high performance buildings continued to be used at events and on the web site in 2005. In addition, several design and construction firms requested the materials to use in presentations to pitch clients on aspects of high performance buildings.
- *Public relations* successes included 35 stories placed with a total circulation of 1,438,166 with a value (based on advertising rates) of \$396,612. Particular PR focus included topics on commissioning; Design Labs in Spokane and Bozeman; High-Performance Schools in Washington; Daylighting in School, and BetterBricks award winners In Boise, Portland and the Puget Sound.
- The *BetterBricks Awards* was held for the third year in Portland, second in Boise and the inaugural year in the Puget Sound. Event categories included: architect, engineer, developer, facility management professionals and professional services. All three events were co-sponsored by the local utilities and other partners in commercial building market. Media coverage included a special supplement to the commercial building issues of the local business press in each market.
 - The *Boise* awards were held on October 12th at the Integrated Design Lab and attracted 75+ building professionals. The Boise awards leveraged the Idaho Energy Conference (IEC) with BetterBricks bringing speaker Christine Ervin to both the awards ceremony and to IEC as a Keynote speaker.
 - The *Portland* awards were held on October 14th at the Portland Zoo. Joe Van Belleghem, a successful developer of sustainable developments, was the keynote and the event was attended by over 160+ building professionals. Partners included the Energy Trust of Oregon, AIA, Cascadia USGBC, and the Portland Office of Sustainable Development (OSD).
 - This was the first year for the *Puget Sound Awards*. The awards were held at Seattle City Hall, and were sold out to over 190+ building professionals, many who were decision makers in the commercial building market. The four local utilities both sponsored and played a central role in the execution of the event. Award winners and the event itself received media coverage.
- Additional 2005 BetterBricks events included:
 - *ReThink 2005: An Exploration of Portland's High Performance Buildings*. BetterBricks with Portland' Office of Sustainable Development sponsored in the first quarter of 2005 the commercial building track and brought keynote speaker, David Orr, to the series.
 - Again, in partnership with OSD and PSU's Department of Architecture, BetterBricks sponsored in February 2005 a talk by *Ken Yeang*, an internationally renowned architect that specializes in passive low-energy designed commercial buildings. The event was sold out with an attendance of over 200+ building professionals and architecture students. BetterBricks secured local media coverage on Mr. Yeang and coordinated with BetterBricks advisors to bring Dr. Yeang to visit with several leading firms and City governments in the Portland area (BOORA, TVA, SRG, ZGF, Cities of Portland, Beaverton & Hillsboro).
 - In April 2005, in an effort to target building professionals working in the healthcare sector, BetterBricks partnered with *AIA Seattle on the Plan for*

Planning: Medical Design Forum 2005. BetterBricks sponsored a talk by Robin Guenther, author of the Green Guide to Healthcare and was able to introduce the High Performance Hospitals Partnership to 80+ Puget Sound area medical design professionals.

- In September 2005 marketing collaborated with BetterBricks Training to bring a renowned expert on Under floor Air Distribution Systems, *Fred Bauman* to Portland and Seattle. Both workshops were sold out.
- BetterBricks supported grand openings of the Spokane and Bozeman Daylighting Labs in the fall of 2005.
- Throughout 2005 in the Puget Sound BetterBricks co-sponsored the *Urban Sustainability Forum (USF)* with the City of Seattle and the Urban Land Institute. This was a series of 14 different lectures by national experts on various topics relating to urban sustainability. BetterBricks, being focused on energy efficiency, was the main sponsor on three of the events, but received coverage on all 14. The USF culminated in the Puget Sound BetterBricks awards ceremony (mentioned above).
- Other events and speakers that BetterBricks sponsored included:
 - Sustainability in the Inland (Boise, ID)
 - ASHRAE Conference (Boise, ID)
 - AIA Meeting in the Mountains (Red Lodge, Montana)
 - AIA What Makes it Green (Seattle, WA)
 - AIA Regional Conference (Seattle, WA)
 - Washington Association of Maintenance and Operations Administrators (Spokane, WA)
- Electronic marketing efforts included monthly “push” emails to over 4,000 building professionals. These emails publicized BetterBricks trainings, supported events like the awards, pushed integrated design practices, supported partner events, and included interviews with “leaders” of high performance buildings. Website traffic significantly increased with these push emails.

BetterBricks – Professional Education & Training

Strategy

Professional education and training supported BetterBricks’ dedication to raising awareness and demand in buildings with the people who design, own and operate them. Specifically, education and training efforts focused on the information and resource needs of architectural, engineering, and contractor communities, as well as those for whom they work – the developer, owner, and manager of commercial properties.

The primary focus of the BetterBricks Professional Education curricula was on the core BetterBricks competency of energy efficiency in commercial buildings. Where appropriate, curricula built on regional and national efforts in sustainable commercial building, thereby leveraging interest in sustainability issues back into the issues of energy efficiency.

Education and training formats included workshops (half-day participant centered trainings), brown bags (hour-and-a-half presentation/discussion usually at firm offices), and roundtables (interactive, facilitated panel discussions).

Where possible, coordination and partnerships for education and training were established with the energy efficiency community (utilities, public benefit administrators and state/federal agencies) and appropriate trade associations (AIA, ASHRAE, USGBC).

Status

Start Date	2002
Total Allocated Dollars ¹⁷	\$917,000
2005 Expenses	\$527,300
Current Cost Effectiveness Analysis	No
aMW Savings Tracked.....	No

Market Objectives (✓ Indicates Completed)

As professional education and training is in support to other program areas, for progress indicators, please see sections in each specific market area.

Key Highlights for 2005

- Ninety three education and training events held (27 workshops/special events, 60 brown bags, 6 roundtables) with over 1,800 total attendees/participants throughout the region (31 events in Idaho, 28 events in Oregon, 4 events in Montana, 30 events in Washington).
- Large expansion of education and training in Idaho in coordination with the Idaho Integrated Design Lab. Education and training series was very well received by local design & construction community.
- Other successful education and training events include Under floor Air Distribution System (presented by Fred Bauman – see Marketing), eQuest Training for Energy Professionals, and LEED-EB: Achieving the Energy and IEQ Points.
- Well-received webinar series in partnership with the Energy Trust of Oregon.
- Expanded and tailored topics towards the hospital and healthcare market, including Integrated Design for High Performance Hospitals and Energy Modeling for High Performance Hospitals.
- In addition to utilities and public benefits administrators, cooperating organizations included AIA, ASHRAE, Cascadia Chapter USBGC, Seattle LEED User Group, Idaho Energy Conference and Sustainable Idaho.

New Technology - Desert CoolAire

Strategy

In 2005 NEEA funded the first phase of a multi-phase project intended to develop and market the Desert CoolAire unit, which provides innovative evaporative packaged

¹⁷ Total Dollars allocated for 2003 through 2005.

heating, ventilation and air conditioning for commercial buildings. This product includes an innovative Maistesenko system, a patented evaporative cooling technology that is significantly more efficient and potentially less costly to manufacture than previous approaches to evaporative cooling. The technology presents the opportunity to save significant amounts of energy, 50-80 percent of cooling energy use, and the potential to eliminate compressor-driven cooling altogether in certain situations.

The goals of this first phase of the project are to establish product performance, test field installation issues and refine the product design to increase the performance-to-cost ratio. If the first phase is successful, NEEA will consider supporting additional phases of market testing, commercial product marketing, and market expansion and regulatory consolidation.

Status

Start Date	2005
Total Allocated Dollars.....	\$450,000
2005 Expenses	\$337,861
Current Cost Effectiveness Analysis	No
aMW Savings Tracked.....	No

Market Objectives (✓ Indicates Completed)

- ✓ Successful completion of the laboratory testing that indicates that the units function properly and are suitable to be installed on commercial buildings.
- Agreement by owners of at least 10 and up to 15 buildings that will accept a unit for installation.
- Successful installation and commissioning of 10 to 15 units on commercial building in the three target areas, Seattle, Portland and Boise.
- ✓ Involvement of three local utilities.
- Clean and useful data provided by the monitoring system and made available to NEEA and interested building owners via the internet.
- Metering data for July through September, 2005 on no less than 10 and up to 15 units.
- A final report by November, 2005.

Key Highlights for 2005

- Sixteen units were manufactured; three units were installed (two in Portland, one in Boise).
- Lab testing was conducted to verify unit performance under specific conditions.
- The project coordinated site selection with the Energy Trust of Oregon, Clark Public Utilities and Idaho Power.
- Field measurement data are available at the one-minute level on a secure website.
- Four California utilities have expressed interest in participating in the project.
- Due diligence efforts were completed on the market for small, packaged HVAC; a DesertAire business plan review; and a market opportunities assessment.

New Technology - 80 Plus Power Supply

Strategy

The primary project strategy is to use a manufacturer buy-down approach coordinated across multiple utilities/regions to stimulate market demand for and delivery of 80 PLUS efficient power supplies in PCs and, in turn, influence EPA's ENERGY STAR specification for PCs. Implicit in this strategy is the assumption that the industry will continue to embrace ENERGY STAR as a significant marketing advantage and will pull the market without additional NEEA or utility support.

Status

Start Date	2004
Total Allocated Dollars.....	\$925,000
2005 Expenses	\$154,724
Current Cost Effectiveness Analysis	No
aMW Savings Tracked.....	No

Market Objectives (✓ Indicates Completed)

- Develop national initiative. This will include:
 - Participation of at least one of the major desktop manufacturers, Dell or Hewlett-Packard.
 - ✓ Participation and significant funding (>\$1 million) by one other major utility/energy efficiency organization.
 - ✓ Increase the number of power supply manufacturers offering and supplying the product to the desktop manufacturers by at least one.
- EPA inclusion of at least an optional power supply efficiency standard in the proposed revisions to the ENERGY STAR specifications in 2005.
- EPA finalization of the new standards ENERGY STAR specifications.
- Unit sales of at least 70,000 before the end of 2005.

Key Highlights for 2005

- To date, nearly \$5 million has been committed to the 80 PLUS program by utilities across North America.
- Currently, more than 15 power supplies provided by 10 power supply manufacturers have received 80 Plus certification, including some of the largest power supply companies in the world.
- Five power supply manufacturers submitted products for testing and qualification.
- EPA announced in September 2004 that the next revision of the PC ENERGY STAR specification would include the internal power supply.
- One regional value-added reseller of PCs committed to installing 80 PLUS power supplies in all their PCs.

Cost Effectiveness and aMW Savings

Estimated Cost Effectiveness Index: Total Resource Perspective.....	5.7
Estimated Levelized Cost: Total Resource Perspective (cents/kWh).....	0.5
2005 Regional Total (aMW).....	0
<i>Baseline (aMW)</i>	0
<i>Local Utility/PBA Rebates (aMW)</i>	0
<i>Regional Net Market Effects (aMW)</i>	0
Projected Regional Net Market Effects aMW through 2015.....	67.0

New Technology - Commercial Windows Initiative

Strategy

The market transformation strategy is to define high efficiency window products, build product image and ease of recognition via brand or label association, and increase sales of high efficiency windows so they become the market norm in all four Northwest states. The target is an increase in the market share of high efficiency manufactured windows in the commercial punched openings market from an estimated baseline of 12% to at least 50% by 2005.

The focus of this project is on promoting energy-efficient National Fenestration Rating Council (“NFRC”) rated manufactured commercial windows that exceed code in terms of a high level of thermal performance (“U-factor”), an achievable Solar Heat Gain Coefficient (“SHGC”) to block heat gain, while also retaining a high level of visible light transmittance (“VLT”) for daylighting.

Status

Start Date	2002
Total Allocated Dollars.....	\$1,644,925
2005 Expenses	\$598,569
Current Cost Effectiveness Analysis	No
aMW Savings Tracked.....	No

Market Objectives (✓ Indicates Completed)

- ✓ Creation of an industry-supported steering committee.
- ✓ Creation of a broadly accepted product specification.
- ✓ Increased awareness of the Initiative’s specification and associated products (partially achieved among architects and most manufacturers).
- ✓ Increased production and sales of qualifying product (signs of increasing sales or stable sales where market decline occurred for other products).
- ✓ Increased projects with punched openings that specify qualified product.
- ✓ Increased availability and number of qualifying product (a few manufacturers added qualifying products).
- ✓ Matching funding and in-kind services.

Key Highlights for 2005

- A 2005 Designers Guide booklet was prepared and distributed at the beginning of the year and the 2006 Edition was sent out in early December.

- Key education events included Northwest AIA Windows on Design Seminar in Seattle and Bellingham as well as a number of brown bag sessions with architecture firms.
- Technical assistance was provided to a number of projects referred from both the Lighting Design Lab and the Seattle Daylighting Lab.
- CWI specifications were used to establish the target energy performance parameters for a large national manufacturer's design and development of a new line of energy efficient factory built commercial glazing products.
- The annual recognition event this year thanked a number of architects (in Seattle and Boise), window manufacturers and distributors for their commitment to CWI qualified windows.

Market Transformation Activities Funded from 1997 through 2004 in the Commercial Sector

Cumulative regional energy savings for activities in the commercial sector between 1997 and 2005 total nearly 18 aMW, of which 1 aMW was saved in 2005. Net market effects contribute the majority of the energy savings, and account for approximately 80% of the savings, due in large part to the Building Operator Certification program (BOC). Although no longer funded, BOC continues to certify or renew certification of operators for a cumulative energy savings of nearly 12 aMW through 2005. Direct local utility incentives are associated with an additional 3 aMW of savings. In addition to BOC, two other projects contributed savings to the region. Commissioning in Public Buildings close to 2 aMW, of which net regional market effects accounts for 1.5 aMW, and Surveyor Network Energy Manager (Verdiem; formerly EZConserve) contributed about three quarters of an average megawatt.

In addition, seven other regional market transformation projects were funded through NEEA and include, Architecture + Energy: Building Excellence in the Northwest, Efficient Building Practices Initiative, EZ Sim: Billing Simulation for Small Commercial Facilities, Northwest Energy Education Institute, Northwest Lighting On-Line, Building Commissioning Association, and Small Commercial HVAC O & M Service Pilot. These activities savings have either never been tracked or are no longer tracked.

For additional information on any of these previously funded activities, please visit NEEA's website at www.nwalliance.org.

Industrial Sector



The Industrial Efficiency Alliance is the branding platform for NEEA-funded market transformation activities in the industrial sector. The Industrial Efficiency Alliance focuses on making energy efficiency an integral part of both corporate and plant business practices, within the pulp and paper and food processing markets. Simultaneously, the initiative works with trade allies in pump, compressed air, refrigeration and motor markets to offer new energy-efficient product and services in order to meet this market demand.

Partnerships with entities that have existing relationships with targeted market actors are critical to this market transformation effort. For example, NEEA has formed a strategic partnership with the Northwest Food Processors Association (NWFPA) to reach targeted food processing companies as well as trade allies serving the food processing markets. Otherwise, it could take years to build these relationships from scratch. In addition, the role of NWFPA also offers a sustainable mechanism for reinforcing the market changes effected by the Industrial Efficiency Alliance over time.

As in the commercial sector, collaborating with local utility and public benefits administrator programs is an important component of the effort for two reasons. First, local incentives for specific actions that result from energy management planning will further accelerate the adoption of this business practice in targeted markets. And secondly, the two efforts work together to enhance both near and long-term benefits. The local incentives provide near-term savings for the installation of an energy-efficient product. In addition, the market transformation focus of changing business practices offers energy-saving opportunities in the long run by making energy-efficiency a core consideration of key decision-makers.

Some of the key highlights for 2005 for the overall effort include:

- Much of the 2005 activity was targeted at raising the awareness of the value of including energy as a part of business decisions. Companies participating in One-2-Five analysis include: New Season Food, Henningson Coldstorage, Basic American Food, Boise Cascade, Smurfit-Stone and Potlach.
- Training activities were focused on the development of a regional training calendar for the Industrial Efficiency Alliance, Washington State University, Northwest Food Processor's Association and Utility training events related to Best Practices.

- Two new courses, pumps 101 and compressed air for floor operators were piloted and will become part of the curriculum in 2006. Twenty five employees from 10 companies were Refrigerating Engineers & Technicians Association (RETA) certified. Seventy two end users and 6 vendors/consultants attended refrigeration system optimization training. Employees from 27 firms have participated in systems training.

In addition to the efforts described above, NEEA is funding a new technology. The program named the Distribution Efficiency Initiative (DEI), seeks to identify and support efficiency improvements in utility distribution system design and operation. The initiative is in the early phases and will work to demonstrate a variety of conservation voltage regulation (CVR) strategies to document costs, benefits and successful practices required to achieve distribution efficiency improvements that serve light commercial and residential consumers. All projected savings associated with this investment are expected to be claimed by each individual utility participating, and are therefore not reported here.

Industrial Efficiency Alliance - Food Processing

Strategy

The strategies and tactics in the food processing market center on partnering with the Northwest Food Processors' Association. This partnership is a primary means for increasing market awareness with key decision-makers, and building market capability to change energy related business practices through education and training. Direct assistance will be provided to specific food processing companies to support adoption of strategic energy management plans, changes in energy related business practices, and the application of best practices. In addition, the development and deployment of a refrigeration systems element is integral to the overall food processing strategy.

Status

Start Date	2004
Total Allocated Dollars.....	\$2,997,000
2005 Expenses	\$451,148
Current Cost Effectiveness Analysis	Yes
aMW Savings Tracked.....	Yes

Market Objectives (✓ Indicates Completed)

- Participation of 15% (by market size) of NWFPA members and 5% non-members in Systems and Food Processing project training/education/outreach/etc. activities each year during the contract period. It is expected that participants achieve an average of 5% savings of the non-refrigeration motor load.
- Participation of large food processing plants in up to four demonstration projects per year for food processing-specific motor systems, saving 10% of their motor load.
- Participation of large food processing plants in up to three demonstration projects per year for food processing-specific refrigeration systems.

- Participation of 10% of the large NWFPA-member food processing firms and 5% of the non-members in a business practices initiative/service per year.
- Approximately 25 individual end-users and 10 trade allies participate in refrigeration system operation training (with a focus on system operators), with 20 participants receiving certification per year.
- Refrigeration Best Practices goals include distributing 15 Best Practices Manuals per year, with up to four demonstration projects per year. These activities will lead to 15% savings of the participating refrigeration systems.
- Utilities serving 25% of the food processing refrigeration load specify a uniform systems approach for analysis of refrigeration efficiency opportunities.

Key Highlights in 2005

- Employees from 27 firms have participated in systems training.
- Completed One2Five sessions at New Season Foods, Henningson Cold Storage and Basic American Foods. All are following up with awareness training, reviewing energy policies and identifying champions for compressed air & refrigeration.
- 25 employees from 10 companies acquired RETA certification in 2005.
- Co-sponsored activities during the NWFPA Expo included Best Practices seminar, IEA presentation to targeted firms, compressed air training and RETA training.
- 500 plus refrigeration best practices manual have been distributed. The manual is now part of the RETA training and is being managed and distributed nation wide through RETA.
- Continuing to work with RETA and the region’s utilities to finalize an approved best practices approach that will be uniform through out the NW.

Cost Effectiveness and aMW Savings

Estimated Cost Effectiveness Index: Total Resource Perspective.....	2.8
Estimated Levelized Cost: Total Resource Perspective (cents/kWh).....	1.2
2005 Region Total (aMW).....	0
<i>Baseline (aMW)</i>	0
<i>Local Utility/PBA Rebates (aMW)</i>	0
<i>Regional Net Market Effects (aMW)</i>	0
Projected Regional Net Market Effects aMW through 2015.....	12

Industrial Efficiency Alliance – Pulp and Paper

Strategy

The general approach to this market integrates cross-cutting and vertical market concepts to target business practices and systems opportunities by providing technical support and business practices services directly to mills focusing on several highly visible firms which have a significant regional market presence. The effort will demonstrate the value of a systems based approach to reach the industry’s energy efficiency goals and objectives through a balance of technical and business practices projects. The demonstrated value provides the basis for obtaining senior management buy-in and will

be used to leverage adoption of the systems based approach in additional mills on a corporate wide basis.

Status

Start Date	2004
Total Allocated Dollars.....	\$1,390,000
2005 Expenses	\$211,853
Current Cost Effectiveness Analysis	Yes
aMW Savings Tracked.....	Yes

Market Objectives (✓ Indicates Completed)

- Participation by 10% of the technical consultants (by market share) in joint marketing activities promoting energy management and business practices activities per year.
- Increasing the number of technical consultants (by market share) actively promoting energy management and efficiency as part of their core service offering by 10% per year.
- Marketing to all 30 mills each year.
- Nine mills participating in industry specific Systems Optimization training, resulting in 1% savings of the facility motor load for each participant.
- Two mills per year participate with corporate commitment in business practices training and implementation activities, resulting in savings of 1.7% of the facilities electric load;
- Two case studies per year relating to business practices and systems improvement.
- Utilities serving 25% of the pulp and paper market load actively participate in promoting training/education/outreach to pulp and paper customers.

Key Highlights for 2005:

- Presentations were made to: Boise Cascade, Smurfit-Stone, Georgia Pacific, Weyerhaeuser, Potlatch, Inland Empire Paper, and Simpson Tacoma Kraft with personal letters to 70 PnP staff in the northwest. The one day regional TAPPI conference was focused on the IEA initiative with 60 attendees from industry, trade allies and utilities.
- Five corporations which include 7 mills have participated in trainings. The savings will be determined through the evaluation process in during 2006.
- Potential case studies were identified in 2005. Decision will be made in 2006 pending capital investment and plant shut down scheduling requirements.
- 16 of the 27 plants have agreed to participate in a regional key performance indicator.
- NW TAPPI conference hosted and presented Industrial Efficiency Alliance.

Cost Effectiveness and aMW Savings

Estimated Cost Effectiveness Index: Total Resource Perspective.....2.9
Estimated Levelized Cost: Total Resource Perspective (cents/kWh).....1.1
2005 Region Total (aMW).....0
 Baseline (aMW)0
 Local Utility/PBA Rebates (aMW).....0
 Regional Net Market Effects (aMW).....0
Projected Regional Net Market Effects aMW through 2015.....9

Industrial Efficiency Alliance – Cross-Cutting Markets (Systems)

Strategy

The Systems strategy is closely linked to the Food Processing strategy – directing some of the Channel Management and trade ally activities at the Food Processing industry in coordination with activities in that element. The Systems strategy also builds on common messages and themes that can be utilized by utilities and other channel partners to market systems optimization to customers. The systems technologies currently addressed by the initiative include compressed air, pumps, motors, and refrigeration and collectively comprise the crosscutting markets. The key strategies are to:

- Build customers’ awareness and understanding of the business case for systems optimization.
- Build trade allies’ awareness and understanding of the business case for systems optimization such that they will naturally promote and offer these services to customers.
- Develop the technical capability in the market place to deliver systems optimization.
- Develop the tools and technical resources necessary to identify, analyze, and deliver systems optimization.
- Coordinate with the Initiative’s Food Processing and Pulp and Paper Initiatives to ensure systems optimization is being considered with business practices.
- Coordinate with utilities and other market activities to leverage the effectiveness of the project.
- Use the existing market channels to build and improve the ability of the market to identify and delivery systems optimization.

Status

Start Date2004
Total Allocated Dollars.....\$3,463,000
2005 Expenses\$1,064,334
Current Cost Effectiveness Analysis Yes
aMW Savings Tracked..... Yes

Market Objectives (✓ Indicates Completed)

- Participation by 50% (by market share) of the motors trade allies (by market share) in training activities by 2009.

- Participation by 50% (by market share) of the pump trade allies (by market share) in training activities by 2009.
- Participation by 75% (by market share) of the compressed air trade allies in training activities by 2009.
- Participation by 10% of the motors and pump trade allies (by market share) in joint marketing activities each year, with 5% savings from 3% of the market touched by this component of the project.
- Participation by 15% of the compressed air trade allies (by market share) in joint marketing activities each year, with 5% savings from 3% of the market touched by this component of the project;
- Three systems optimization related products with broad market applicability “developed” or “disseminated” each year.
- Five utility or other organization-sponsored trainings per year.
- Three utility or other organizations actively participating (agreeing to adopt standards, etc.) in product and service development per year (for the first two years).

Key Highlights for 2005

- A limited number of courses were held during 2005 but employees from Gould, Rogers Machinery and Cascade Engineering were involved in training activities.
- Rogers Machinery is now training their CA auditors on the system approach for more efficient CA systems. Joint marketing activities will begin in 06Q2
- Utilities participating in trainings include: EWEB, Idaho Power, BPA, Tacoma Power, SNOPUD, PSE, Clark County PUD, Grant County PUD, Northwestern, Forest Grove Dept Light & Power, PacifiCorp, Franklin PUD, Benton PUD
- Work began with Tacoma Power and other Puget Sound Utilities to establish standards for compressed air.

Cost Effectiveness and aMW Savings

Estimated Cost Effectiveness Index: Total Resource Perspective.....	2.8
Estimated Levelized Cost: Total Resource Perspective (cents/kWh).....	1.2
2005 Region Total (aMW).....	0
<i>Baseline (aMW)</i>	0
<i>Local Utility/PBA Rebates (aMW)</i>	0
<i>Regional Net Market Effects (aMW)</i>	0
Projected Regional Net Market Effects aMW through 2015.....	15

New Technology - Distribution Efficiency Initiative

Strategy

The Distribution Efficiency Initiative (“DEI”) seeks to identify and support efficiency improvements in utility distribution system design and operation available to Northwest utilities. DEI will demonstrate a variety of voltage regulation strategies to document the cost, benefits, and successful practices to achieve efficiency improvements for light commercial and residential customers. The overall objective of DEI is to transform the

distribution system market, supporting distribution engineers and utility management in adopting DEI strategies and technologies when appropriate to their operations.

Status

Start Date	2004
Total Allocated Dollars.....	\$2,936,000
2005 Expenses	\$916,713
Current Cost Effectiveness Analysis	Yes
aMW Savings Tracked.....	Yes

Market Objectives (✓ Indicates Completed)

- Recognition of the value of distribution efficiency as a viable alternative in the capital and operations budget-setting process for utilities.
- Development and introduction of tools that facilitate the analysis of distribution efficiency and simplify its application.
- Demonstration and quantification of the costs and benefits of a range of implementation options.
- Development, validation, and regional adoption of a benefits calculator for use in utility programs.

Key Highlights for 2005:

- The preliminary versions of the tools that facilitate the analysis of distribution efficiency and simplify its application have been sent to a few participating northwest utilities for review and comment. Initial comments are positive and their recommendations are being incorporated into the next version.
- 15 northwest utilities are participating in the initiative
- 8 utilities are participating in substation pilot projects that include 13 substations with 43 feeders serving approximately 60,000 customers.
- 11 utilities are participating in the load research project
- 427 customers are participating in the load research project
 - 384 residential assessments completed
 - Over 350 installations are recording data
 - Currently replacing the 72 customers who have dropped out of the project.

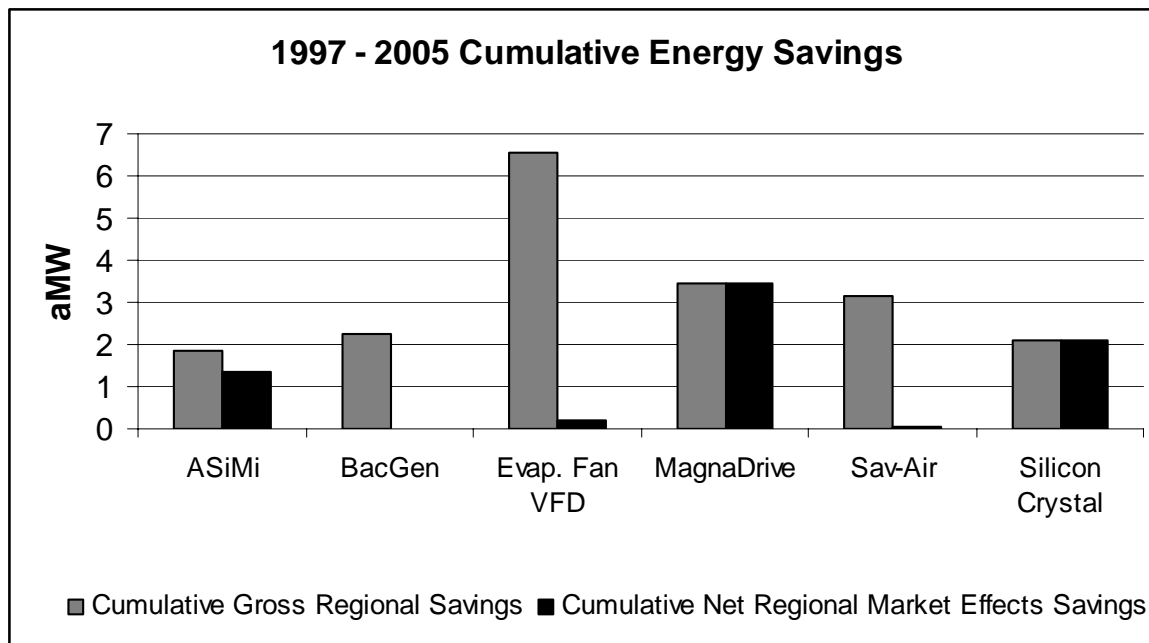
Cost Effectiveness and aMW Savings

Estimated Cost Effectiveness Index: Total Resource Perspective.....	1.9
Estimated Levelized Cost: Total Resource Perspective (cents/kWh).....	1.6
2005 Region Total (aMW).....	0.3
<i>Baseline (aMW)</i>	0
<i>Local Utility/PBA Rebates (aMW)</i>	0.3
<i>Regional Net Market Effects (aMW)</i>	0
Projected Regional Net Market Effects aMW through 2015.....	33

Market Transformation Activities Funded from 1997 through 2004 in the Industrial Sector

Cumulative regional energy savings for activities in the industrial sector between 1997 and 2005 total nearly 20 aMW, of which 4 aMW were saved in 2005. Of the four gross regional aMW saved in 2005, savings accounted to net market effects was 25% and was the result of one project, MagnaDrive. Sav-Air's gross regional savings in 2005 was just over one average megawatt, but none of the savings could be accounted to net regional market effects, since all the installations had a local utility/public benefits administrator incentive. The Evaporator Fan Variable Frequency Drive Initiative and BacGen were similar situations as SavAir, producing slightly fewer gross regional average megawatt savings.

Of cumulative gross regional savings of 20aMW, eight aMW or 40% had a local utility/public benefits administrator incentive associated with it. Net market effects account for approximately 37% of the total regional gross energy savings, with MagnaDrive accounting for nearly 50% of those savings. Silicon Crystal Growing Facilities has resulted in just over two average megawatts, and Advanced Silicon Materials Inc. project (ASiMI) over one average megawatt. The balance of the savings or 23% are NEEA's best estimate of what would have happened without any intervention, and are referred to as regional baseline savings. The chart below illustrates cumulative savings by project.



In addition, four other regional market transformation projects were funded through NEEA and include, Compressed Air Challenge, Drive Power/Electric Motor Management, Just Enough Air (JEA), and Microelectronics Industry Efficiency Initiative. These activities savings have either never been tracked or are no longer tracked.

For additional information on any of these previously funded activities, please visit NEEA's website at www.nwalliance.org.

Agriculture Sector

There is currently one project funded in the agriculture sector, the AgriMet weather station network, which supports irrigation scheduling programs around the region.

AgriMet Weather Station Network

Strategy

The market transformation goal is that irrigators will use data from the AgriMet Weather Station Network sites to manage their water usage. The project strategy is to continue to operate, maintain, and expand the AgriMet Weather Station Network and its use by irrigators. The project goal is to develop a long-term funding strategy to keep the service available to irrigators.

Status

Start Date	2001
Total Allocated Dollars.....	\$655,250
2005 Expenses	\$80,750
Current Cost Effectiveness Analysis	No
aMW Savings Tracked.....	No

Market Objectives (✓ Indicates Completed)

- ✓ Operate and maintain the AgriMet Weather Station Network.
- ✓ Provide information and technical assistance to AgriMet users.
- ✓ Develop a strategic plan for continued funding support.
- ✓ Provide education and training opportunities.

Key Highlights for 2005:

- Eight AgriMet weather stations were upgraded with new High Data Rate satellite transmitters, improving data quality and reliability.
- New components were purchased in 2005 to improve solar radiation measurements at AgriMet weather stations, and will be installed during 2006. Solar radiation is the most important factor in computing evapotranspiration.
- AgriMet added numerous improvements to the web site, and implemented a new web use tracking system to improve analysis of web site usage.
- In addition to NEEA, AgriMet funders include the U.S. Bureau of Reclamation, Bonneville Power Administration, and a number of cooperating agencies (e.g., Northwest irrigation districts, universities, and soil conservation services).
- BPA will use AgriMet evapotranspiration data as a baseline to compute payments for irrigation scheduling practices.
- The USBR provided information and technical assistance through the AgriMet website. In 2005 the website received an average of more than 7,000 visits per month.
- AgriMet staff made seven presentations at water management and agricultural workshops, and authored three publications.

Market Transformation Activities Funded from 1997 through 2004 in the Agriculture Sector

Cumulative regional energy savings for activities in the agricultural sector between 1997 and 2005 totaled one average megawatt, of which 25% was saved in 2005. Net market effects contribute the majority of the energy savings, and account for 70% of the savings, due to the funding of the Soil Moisture data logger product (AM 400).

In addition, two other regional market transformation projects were funded through NEEA and include Scientific Irrigation Scheduling (SIS), and Subsurface drip irrigation project. These activities savings have either never been tracked or are no longer tracked.

For additional information on any of these previously funded activities, please visit NEEA's website at www.nwalliance.org.

State Energy Code Support

Strategy

NEEA supports both residential and non-residential energy codes and standards. These lock into place the improvements in technologies and building techniques that become widely practiced through the educational and promotional efforts of the voluntary programs of NEEA and other organizations. While improvements to energy codes and standards do not by themselves make typical buildings or equipment more energy efficient, they improve the average efficiency of the stock by outlawing the most inefficient practices and models. This sets the stage for the introduction and acceptance of higher efficiency buildings and equipment in the marketplace because, at the time a new code or standard is adopted, the efficiency gap between the legal minimum and typical practice is minimal. Those seeking an advantage through increased efficiency must adopt new practices and equipment to differentiate themselves from those just meeting the legal minimum. Over time, the new practices and equipment enter the mainstream and become part of standard practice. As this occurs, the gap between standard practice and code minimum increases until there is once again the opportunity to incorporate the advances into new codes and standards. This cycle will repeat itself as long as efficient innovations continue to enter the marketplace.

Status

Start Date	1997
Total Allocated Dollars.....	\$4,493,299
2005 Expenses	\$838,744
Current Cost Effectiveness Analysis	No
aMW Savings Tracked.....	Yes ¹⁸

Market Objectives (✓ Indicates Completed)

- In Oregon, implement a major education and training initiative to support adoption of its new code.
- In Washington and Idaho, initiate support for field compliance as well as continuing general training and education efforts.

Key Highlights for 2005

- The Northwest Energy Code Group (our contractor group) proposed 14 code changes to the International Code Council. Ten of the proposals passed and will be incorporated into the ICC code series in 2006.

¹⁸ The Alliance report *Non-Residential Energy Savings From Northwest Energy Code Changes 1996-2004* provides estimates of non-residential code savings in the four Northwest states. The report uses a reproducible methodology similar to those historically accepted by the region. Residential savings estimates were calculated by the Northwest Power & Conservation Council and are available from that organization.

Washington

- Site trainings with building officials were completed at 16 jurisdictions.
- Revised versions of the NREC Technical Reference Manual and NREC compliance forms published.
- Residential code support documents were updated to be consistent with the 2005 WSEC.
- A detailed comparison between the International Energy Conservation Code and the Washington State Energy Code was completed by the State Building Code Council Energy Code Technical Advisory Committee
- Trainings

Audience/Topic	Attendance
Non-Residential Overview	155
Residential HVAC Installations	64
Residential Energy and Ventilation	112
Site visits to jurisdictions	16

Oregon

- Over a two-year period Oregon trained over 300 people on the new code. General understanding of the new code among designers and builders is now at a good level.
- As a result of the Circuit Rider program, ODOE affected energy code review on two of the largest projects on the West Coast – Bridgeport Plaza (primarily lighting) and Sacred Heart Hospital.
- Worked with Oregon lighting designers to initiate an expedited code change that provided relief for retail display lighting requirements.
- Maintained non-residential energy code compliance forms and documentation including handwritten and Excel 2000 spreadsheet versions of the forms.
- Trainings

Audience/Topic	Attendance
Design Professionals	44
Building Department Staff	26

Montana

- DEQ provided the Montana Department of Labor and Industry with 500 commercial and 1,000 residential energy code summary booklets for their trainings.
- State electrical inspectors are placed a packet with a residential energy code summary and an energy component label in an estimated 5,000 houses outside of building code jurisdictions.
- Trainings

Audience/Topic	Attendance
IECC trainings	144
On-Site	48

Idaho

- Site trainings with building officials were completed at 14 jurisdictions.
- Renewed the commitment of a collaborative effort between the state, the Idaho Association of Building Officials and the Association of Idaho Cities to work together for effective implementation and adoption of the 2006 IECC.
- Commitment by the collaborative to support legislation to give the Building Codes Board authority to promulgate new codes.
- Trainings

Audience/Topic	Attendance
IECC Residential	80
IECC Non-Residential	80
HVAC	300
Jurisdiction Site Education	35

Cost Effectiveness and aMW Savings

Estimated Cost Effectiveness Index: Total Resource Perspective.....	N/A
Estimated Levelized Cost: Total Resource Perspective (cents/kWh).....	N/A
2005 Region Total (aMW).....	4.9 ¹⁹
<i>Baseline (aMW)</i>	1.9
<i>Local Utility/PBA Rebates (aMW)</i>	0
<i>Regional Net Market Effects (aMW)</i>	3.0
Projected Regional Net Market Effects aMW through 2015.....	55 ²⁰

¹⁹ These savings are from Non-Residential code changes that have already been adopted. NEEA currently does not track residential code changes.

²⁰ These savings are from code changes that are already adopted for non-residential buildings in the four state area. To that extent, these savings will be realized to a larger or smaller degree depending primarily on actual construction volumes over the period 2005-2015.

Information Resources

NEEA continued support for a range of projects that provide general support for energy efficiency within the region. These include a general information service delivered via the web, a technical information service for commercial and industrial utility users, and support for local government associations throughout the four state region.

EnergyIdeas Clearinghouse

Strategy

The market transformation strategy is to increase the knowledge of energy efficiency by providing fast, cost-effective and centralized access to comprehensive and objective energy information, education, resources and technical assistance. EnergyIdeas Clearinghouse provides energy professionals and decision-makers with energy information at the critical time when they are making a decision that involves energy choices.

Status

Start Date	1997
Total Allocated Dollars.....	\$5,889,500
2005 Expenses	\$551,424
Current Cost Effectiveness Analysis	No
aMW Savings Tracked.....	No

Objectives (✓ Indicates Completed)

- ✓ Refine marketing plan and continue focus on electric utilities as target.
- ✓ Review listservs for appropriateness.
- ✓ Refine website and maintain content.
- ✓ Respond to customer inquiries in average of 8 hours.
- Prepare up to ten product and technology reviews at request of electric utilities.
- ✓ Provide evaluation follow-up for each area listed above.

Key Highlights for 2005

- All marketing tasks were directed at the utility audience. Forty-five percent of technical requests were from utility companies. EnergyIdeas.org now features the Utility Resources section as a home page menu item.
- EnergyIdeas sponsored three utility events with the Northwest Public Power Association, and the Washington PUD Association annual conference, as well as maintained membership in the Oregon Rural Electric Cooperative Association.
- EnergyIdeas staff attended several other utility roundtable meetings and events in the region for information sharing and marketing purposes.
- The website redesign in late June 2005 resulted in a significant increase in users, user sessions and page views. By the end of 2005, the number of users per month had increased over 200% (4,500) from the beginning of the year (9,700), totaling nearly 2 million hits during the year. The number of user sessions per month

increased over 198% (6,170 to 12,270) and the number of page views per month increased over 170% (24,760 to 42,220).

- Website content was regularly posted, reviewed and updated, with 300 new resources and 260 events added and a total of 2,444 resources were posted to the EnergyIdeas.org database as of Dec 31, 2005.
- The Energy Newsbriefs listserv was delivered weekly to approximately 600 members for a total distribution of approximately 28,000. In 2005, added a html version of the Newsbriefs that included regional program information, events, resources, and direct links to other EnergyIdeas Clearinghouse resources. The intent is to cross-market the services. Membership increased 20% during the year.
- Four new PTRs were completed and posted; one additional one was substantially revised. Five PTR waivers were pursued and the manufacturers chose not to participate.
- Published Building Commissioning fact sheet

Local Government Associations

Strategy

The market transformation strategy is that a partnership between NEEA and local government associations furthers the success of market transformation efforts in the region. The project strategy is to engage the services of the region’s local government associations to inform NEEA of local government interests in market transformation and support the implementation of NEEA-sponsored projects that have benefits to local communities. The project goal is to maintain an effective relationship with NEEA on energy efficiency matters of mutual interest.

Status

Start Date	1997
Total Allocated Dollars.....	\$2,197,780
2005 Expenses	\$262,810
Current Cost Effectiveness Analysis	No
aMW Savings Tracked.....	No

Objectives (✓ Indicates Completed)

- ✓ Establish a list of key communities to target for efficiency actions.
- ✓ Complete the planned visits to the key communities.
- ✓ Hold clustered community meetings to promote energy efficiency and attend annual city and county conferences.
- ✓ Document actions taken by the key communities and assess effectiveness of the conference or meetings in achieving greater community energy efficiency.
- ✓ Participate in at least one meeting per year with NEEA Board members.

Other Key Highlights for 2005:

- Each association developed approaches for reaching out to targeted communities. The Association of Idaho Cities (AIC) included energy efficiency outreach as part of its Spring District Seminars. The Association of Washington Cities (AWC)

targeted individual community meetings in the Puget Sound area. The League of Oregon Cities (LOC) did not establish a list of key communities due to the long 2005 legislative session. The Montana Local Government Energy Office (MLGEO) targeted 12 communities for in-person visits.

- The AIC discussed energy efficiency opportunities in its Spring District Seminars in Lewiston, Coeur d'Alene, Idaho Falls, Twin Falls, and Boise. The AWC met with Snohomish County PUD and Seattle City Light to discuss local government efficiency opportunities. The MLGEO completed visits to Anaconda, Bozeman, Butte, Columbia Falls, Dillon, Glacier County, Glacier Electric Cooperative, Great Falls, Hamilton, Havre, Kalispell, Lewistown, and Whitefish.
- Each association documented significant community efficiency actions and assesses the effectiveness of its outreach approaches. The AIC updated its survey of communities and found that 80 percent of respondents had implemented energy saving projects in the past year. For example, Post Falls will seek LEED certification for its new city hall. The AIC also surveyed attendees of the Idaho Energy Conference; all presentations were well received. The AWC identified more than 50 cities that are planning the construction or remodeling of a municipal building in the next few years. The AWC worked with the City of Liberty Lake on contract language for incorporating energy efficiency into its Request for Qualifications for new municipal buildings. The AWC linked the City of Lacey to commissioning services. The LOC distributed its 2005 follow-up to its 2003 survey of cities. The 2005 survey showed that many communities had increased their efficiency efforts, particularly in their water and wastewater facilities. These facilities are typically the largest energy consumers for local governments. The MLGEO received updates as part of its community meetings. For example, Kalispell, based on its success with water system improvements, made improvements to its wastewater system that resulted in a 20 percent reduction in its electricity costs. The Bozeman city library is using resources from the Lighting Design Lab and BetterBricks in pursuing a LEED rating. The MLGEO has found that in-person community visits are effective at communicating efficiency information that can be acted on by community leaders.
- In lieu of state-specific meetings with NEEA Board members, in 2005 the focus was on a group meeting tied in to the Idaho Energy Conference. Three Board members attended this meeting. In addition, the AWC held separate meetings with Board members from Snohomish PUD and Seattle City Light.
- The AIC held its 19th annual Idaho Energy Conference, in Boise. The 3-day event attracted 131 attendees to 17 sessions with 26 speakers. Attendees reported a high level of satisfaction with the conference. The AIC updated and distributed its "Energy Efficiency in Idaho" CD.
- The AWC supported passage of energy efficiency legislation, including a bill that raises the standards for certain commercial products.
- The AWC prepared and distributed three issues of *The Operator* newsletter for municipal building operators.

- The LOC saw its efforts to market the BacGen/Energy Trust efficiency opportunities come to fruition. BacGen completed 12 municipal fresh water and 9 waste water system optimization projects, and one irrigation district project, in Oregon. Annual savings from these system improvements are more than 10,370,000 kWh, worth more than \$518,000 at 5 cents per kWh.
- As a result of information provided by the MLGEO, the cities of Dillon, Havre and Kalispell invested in wastewater system efficiency improvements. Bozeman’s LEED-rated library project includes commissioning.
- The MLGEO helped support the passage of HB 212, which enables local governments to enter into performance contracts.

nwcurrent

Strategy

Focused primarily on electric utility executive management; utility staff; energy efficiency professionals; state and regional policy makers; and renewables professionals, this electronic newsletter seeks to raise awareness of and inform readers about a) energy efficiency and renewables policies and activities; b) news and information; and c) associated technological advances in the Northwest region.

Status

Start Date	2005
Total Allocated Dollars.....	\$523,600
2005 Expenses	\$165,998
Current Cost Effectiveness Analysis	No
aMW Savings Tracked.....	No

Objectives (✓ Indicates Completed)

- Increase subscriptions by 10% annually among targeted audiences.
- ✓ Increase referral of individual articles from reader to reader.
- Increase web site traffic among target audiences, indicating archival copies of newsletters and web conferences are used as a research resource.
- ✓ Increase use of newsletter content.

Key Highlights for 2005

- Overall subscribership increased from 58 in January 2005 to 1,088 in December 2005.
- In the second quarter, nwcurrent hosted a web conferencing seminar on grid optimization.
- Several utilities and various companies posted nwcurrent articles on their internal and/or external websites.
- nwcurrent implemented an RSS news feed, thereby enabling other firms and organizations to post nwcurrent headlines on their own websites.