Leading the Way: BPA's Efforts to Accelerate Energy Efficiency in the Northwest

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ABSTRACT

Traditionally, the Pacific Northwest minimized greenhouse gas (GHG) emissions from its power sector through the strength of the federal hydropower system. Soon, however, growing electricity demand will exceed the capacity of the existing system, and supply-side alternatives are facing restrictions and will increase the system's overall GHG output. Some mayors in the region, including those in Seattle, Boise, Portland, and Billings, signed the U.S. Mayors Climate Protection Agreement, committing their cities to meet or exceed Kyoto Protocol emissions reduction targets. Increases in GHG emissions from electric generation will impede their ability to meet such targets.

Bonneville Power Administration (BPA), the region's largest wholesale power provider, is seeking to meet a greater portion of load growth through energy efficiency. Bonneville has embarked on a significant effort to re-invigorate and expand its efficiency programs, which rely on regional utilities to reach end-users. Changes undertaken include significant revisions to program rules, which have inhibited some utilities from taking full advantage of Bonneville's existing programs. In addition, strengthening the current program and market support infrastructure provided to the region will facilitate more robust resource acquisition programs.

This paper focuses on Bonneville's accelerated energy efficiency efforts, including the financial incentives designed to promote efficiency. In the face of new market realities, Bonneville is working to overcome preconceived notions about what is and isn't possible for a wholesale provider. Special attention is paid to Bonneville's efforts to respond to identified barriers in existing programs and creating operational and attitudinal shifts required to accelerate conservation efforts regionally.

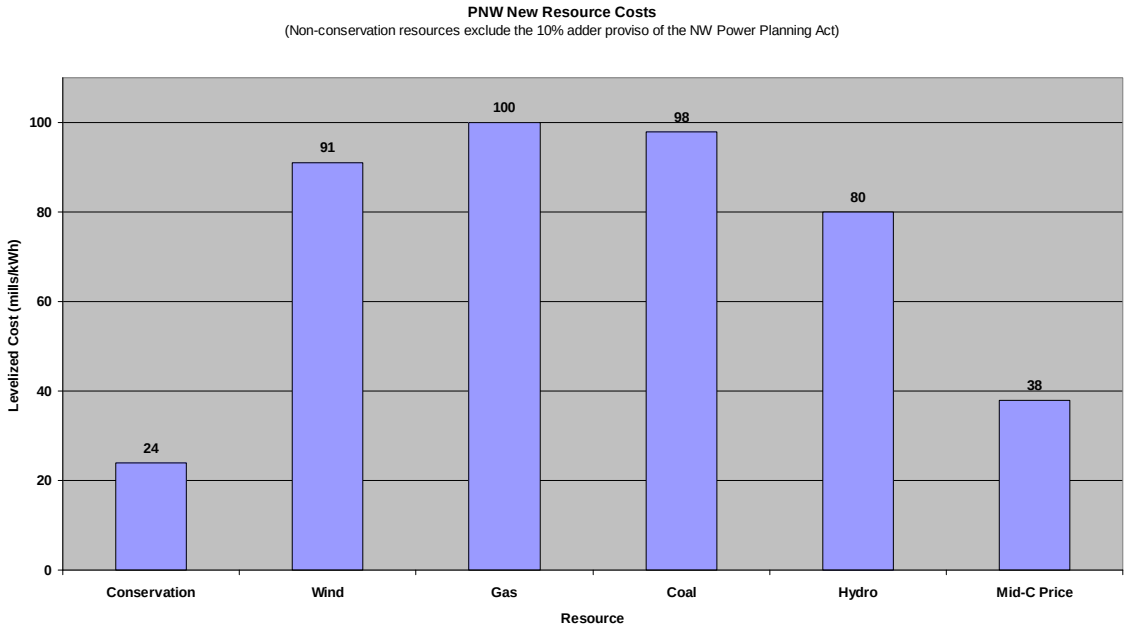
Introduction

Over the past few years, many factors have created drivers for implementing conservation measures. Rising natural gas prices and increasing capital costs for new generation have driven up the price of electricity, creating new financial incentives for energy efficiency. State restrictions on the carbon profile of new power purchases and renewable portfolio standards (RPS) have introduced restrictions on the types of fuel that can be used to produce electricity, limiting opportunities for new generation. At both the state and federal levels, regulation of greenhouse gases is looming over the energy industry. This introduces additional environmental risks to those needing to build new fossil generation and creates financial disincentives for doing so. In addition, in the Northwest, increasing fluctuations in annual snowpack can create uncertainty regarding the availability of hydro resources.

These trends tend to limit choices for the future supply of electricity and increase its price. Regional economic growth, a trend toward larger homes, more home plug loads, and greater penetration of air conditioning all contribute to increased demand for power,

exacerbating the supply-side trends. Energy efficiency and demand response together can help limit the growth in demand and relieve some of the upward pressure on prices. As the least-cost resource identified by the Northwest Power and Conservation Council (NWPCC), energy efficiency will play an ever increasing role in regional resource planning.

Figure 1. Pacific Northwest New Resource Costs



Source: NWPCC, BPA, October 2007.

Load forecasts indicate there will be a need to expand power supplies to meet demand growth in the Northwest before 2012. BPA will be responsible for augmenting its supply of electricity, if demand for power increases beyond the firm capability of the federal hydropower system. Since BPA is required to consider conservation before all other resources[1], it is identifying opportunities to achieve savings prior to the need to augment Federal Power Supplies. In doing so, it may be possible to reduce the need for purchasing energy beyond what the federal system can produce.

BPA's customers and the end users throughout the system have their own reasons for pursuing energy efficiency. In addition to the issues listed earlier – limits on generation resources, increasing cost of electricity, and climate change legislation – utilities and end users face additional incentives for energy efficiency. Some examples include the voter approval of Initiative -937 in Washington. This ballot initiative requires utilities serving more than 25,000 customers to achieve all cost-effective conservation beginning January 1, 2010. The 17 utilities that currently fall under the jurisdiction of I-937 will be required to develop a 10-year conservation potential study and two-year target, updated every two years - starting in 2010. Many of these utilities are now beginning to re-evaluate the conservation potential within their

[1] Northwest Power Act, Section 6(a)(1) requires that Bonneville "shall acquire such resources through conservation, implement all such conservation measures, and acquire such renewable resources which are installed by a residential or small commercial consumer to reduce load, as the Administrator determines are consistent with the plan". Also described in the BPA statutes - http://www.bpa.gov/corporate/docs/Statutes_03-03.pdf, page 114.

service territories and to identify opportunities for programs and technologies that will meet the initiative's criteria. In addition, initiatives abound at the local level. The City of Seattle has committed to serving its electricity needs with zero net greenhouse gas (GHG) emissions, to be achieved through conservation and renewable energy acquisition. In 2001, it committed to reducing citywide GHG emissions by seven percent by 2010.

These and other factors motivated BPA to embark on an effort to identify opportunities to step up its energy efficiency efforts over the next few years. Working with its customer utilities, which have direct access to end users, and other regional energy efficiency entities, the authors, along with additional BPA staff, explored potential areas in which significant energy efficiency gains can be made in the near future. Sectors, technologies, programs, and program rule changes were mined for potential energy efficiency resources. The team identified barriers to increasing energy efficiency targets and, at the same time, detected synergies that could assist in goal attainment within specific regions of BPA's service territory.

The result of the team's research was an internal business plan that sets the stage for accelerated energy efficiency efforts in today's social and market environment – including motivations, industry needs, and market structure. The resulting plan focused on three primary factors:

1. Ability to address barriers described by regional partners;
2. Capacity to leverage economies of scale in the region; and
3. Opportunity for aMW savings.

The remainder of this paper focuses on these factors and summarizes key elements of the plan for accelerating conservation through mechanisms available to BPA.

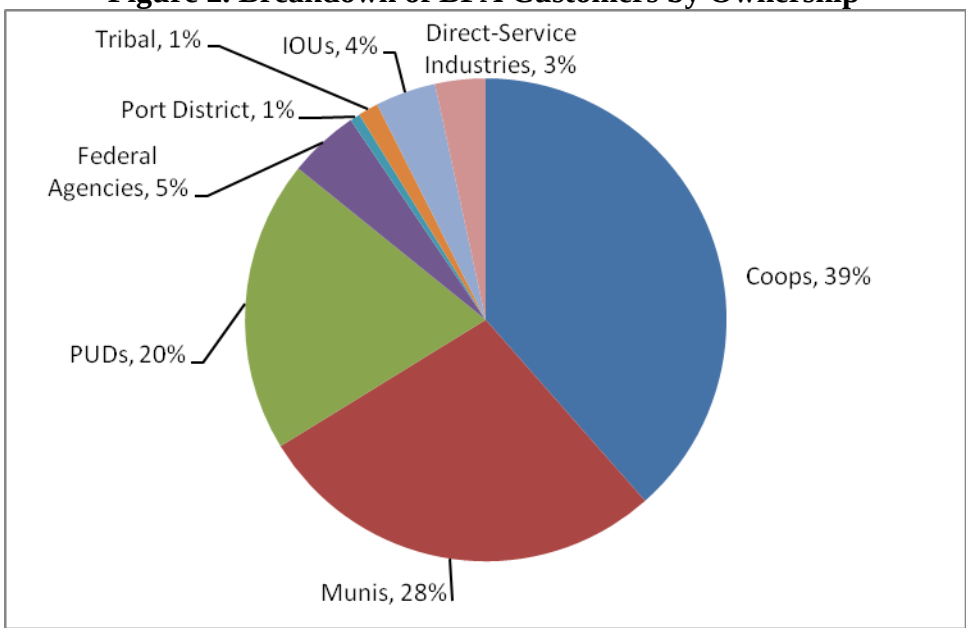
Barriers to Accelerated Conservation Efforts

BPA's customers have been vocal about issues that hinder their participation in BPA's programs. Most say that they would increase participation in BPA's programs if they were more user-friendly. Due to staff and budget constraints, BPA's customers typically welcome outside assistance, provided it is framed and designed properly.

BPA's customer base has historically been largely uncoordinated on energy efficiency. Although utilities within the same geographic area (e.g., Eugene, Oregon, or the Tri-Cities, Washington) speak to one another, there is frequently little coordination in terms of program development or data collection. In part, different budget and planning cycles and motivating factors create this reality. The fact that energy efficiency is just one program that a utility runs also influences the relationships. In cases where utility approaches to energy supply-side resource procurement differ, the role of demand-side resources is likely to differ as well. Add to this the understaffing of energy efficiency departments across the region, and it is easy to see why coordination is not a frequent practice. As utilities face increasing pressure to accelerate conservation, some of the utilities that share borders and utilize many of the same trade allies are starting to explore ways that coordination might result in an increase in their acquisition levels.

These differences are especially acute for the politically-sensitive publicly-owned utilities, which make up more than half of BPA's customers by type (see Figure 2). Many more factors are at play for publicly owned utilities than a bottom line or strategic vision; these create multiple interpretations of very similar situations, making coordination difficult.

Figure 2. Breakdown of BPA Customers by Ownership



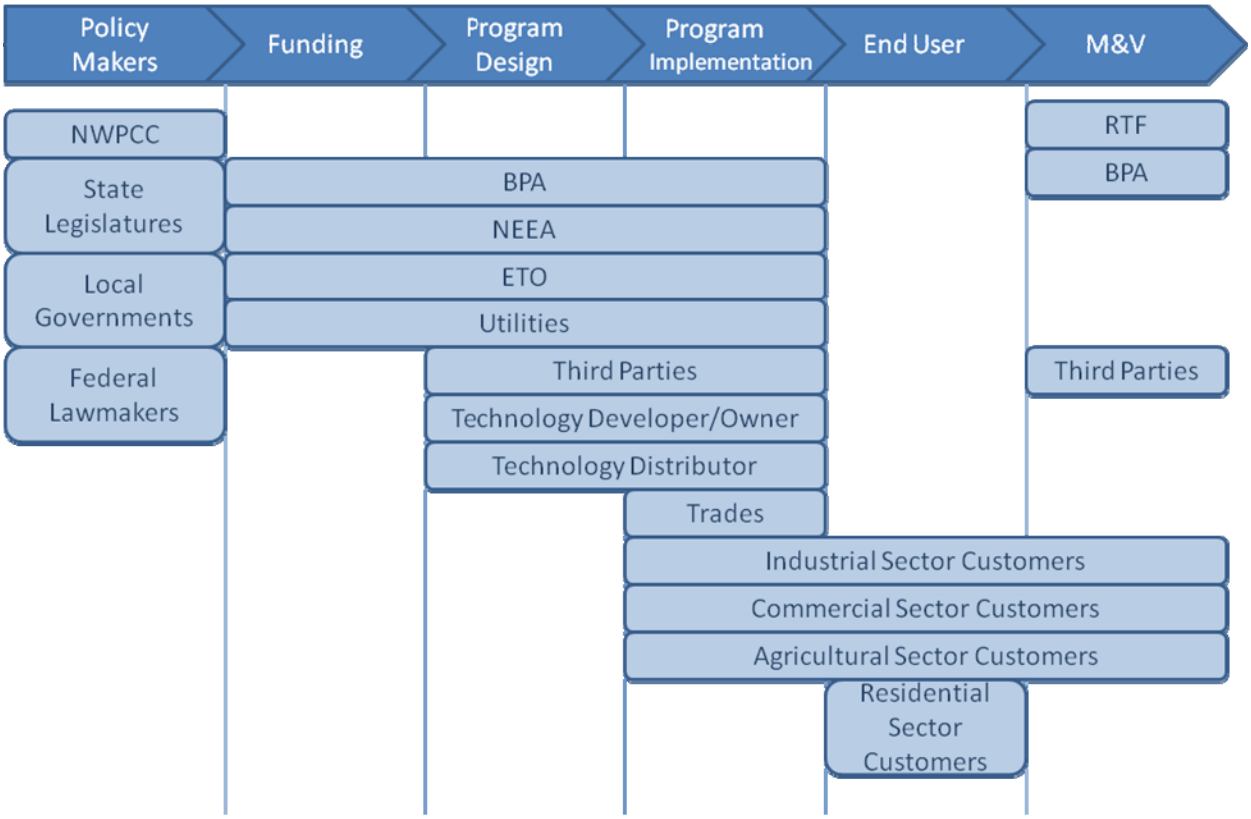
Source: Bonneville Power Administration, 2006.

As seen in Figure 3 below, Bonneville's customers are only a subset of the efficiency value chain. The tone is set in the region by policy makers – including state officials, BPA, the NWPCC, and federal lawmakers – that design the rules governing energy efficiency. Other regional entities with important roles in the development of energy efficiency programs and services include: the Northwest Energy Efficiency Alliance (NEEA), which focuses on market transformation; the Energy Trust of Oregon (ETO), which implements energy efficiency programs for investor-owned utilities in Oregon; Investor Owned Utilities (i.e., Puget Sound Energy, Idaho Power and Avista, etc.); and the Regional Technical Forum (RTF), which provides technical support for the NWPCC.

Beyond these entities, private sector parties also play important roles in energy efficiency program design, implementation, and evaluation in the Northwest. Programs may be designed by these public entities, utilities, and third-party implementers, each of which may consult with technology providers on program design issues. Once programs are operational, program administrators often rely on third parties, such as trade alliances and corporate energy/facility managers, to facilitate the deployment of efficiency measures. Commercial, industrial, and agricultural sector participants are typically more directly involved with the implementation of the program than residential participants, due to the nature of the program delivery mechanisms and M&V requirements; residential customers' are more typically the recipient of an efficiency technology and receive rebates or other incentives.

Value must be created for market actors all along the value chain to create a successful energy efficiency programs. A program requires both an effective underlying technology/service and effective program implementers. Incentives that encourage participation in these markets are not limited to rebates or other incentives paid through ratepayer dollars; profitability associated with the delivery of program services will drive most private-sector delivery partners. Regardless of the mechanism, each entity must see clear avenues for participation.

Figure 3. Energy Efficiency Value Chain in the Northwest



Barriers to Utility Partner Efforts

The following is a summary of some of the barriers identified by customers[2] in working with BPA's current energy efficiency programs:

1. Cost-effectiveness tests that are applied at the measure level. BPA requires that all cost-effectiveness tests be performed at the measure level and are below the regional cost-effectiveness threshold. BPA's customers contend that this leaves a number of viable energy efficiency measures on the table and that it prevents them from getting credit for real energy efficiency savings.
2. Overly stringent M&V requirements. While recognizing that BPA must ensure that actual savings are achieved, many customers feel that its M&V requirements are too stringent. Some programs require M&V on every installation of a measure, which is simply not feasible to do, nor is it necessary. Such requirements create barriers for contractors to participate in the programs when they lack the expertise needed to do this, and the extra hassle can create too much annoyance for other contractors. M&V standards should accept that a statistically determined sample size can provide a valid indication of program-wide performance.

[2] Information on barriers was gathered through a series of interviews with representatives from various market actors described above, as well as with conservation staff at BPA. In addition to one-on-one in-depth interviews, a focus group was held with Puget Sound area utilities in the summer of 2007 to discuss acceleration of their individual conservation efforts and how BPA could best support these efforts.

3. For smaller utilities, lack of marketing to support programs. Smaller utilities do not have the in-house expertise needed to effectively market programs, either BPAs or their own. Unless BPA's programs come with a packaged marketing strategy and materials, these utilities have low levels of success in turning them into tangible savings.

Other Market Barriers

In addition to utilities' internal barriers to energy efficiency, and their issues in working with BPA's programs, is a set of issues that is much further-reaching. These *macro issues* are important in framing the discussion about how energy efficiency in the Northwest will proceed:

1. Organizational overlap and lack of coordination. In many parts of the region, BPA, utility, and NEEA programs overlap. They are located in the same utility territories, and their programs may even cover the same technologies or industries. Despite this physical proximity, they do not always offer consistent incentives or insist upon the same requirements. Contractors and trade allies can be confused about whose program they are working under and how different sets of rules apply on two similar jobs in the same town. End users can be confused about which organizations are connected to which programs, making it difficult to determine how to take advantage of them.
2. Energy efficiency is not sexy. Renewable technologies are exciting technologies with the potential to 'save the world' and prevent climate change - so are energy efficient technologies. Yet, energy efficient technologies lack the visual appeal of renewables and the associated consumer pull. Although some commercial and industrial partners understand the benefits, the vast majority of the public does not. As a result, the efficiency conversation often begins with the question, "Why is this important?" while the renewables conversation begins with the question, "How much can I buy?"
3. Regional need for data. One large regional utility just developed its conservation potential assessment using 15-year-old industrial data and 17-year-old residential data. These assessments, along with program design and implementation efforts, are only as good as the data that goes into them. Although some measures can and should be pursued without perfect knowledge, hitting the niche markets will require additional information. The cost of acquiring that data on a utility-by-utility level will be significant; there are opportunities for coordination from a regional perspective. While NEEA has conducted more recent residential and multifamily characterization studies, the newest complete commercial measure saturation data is from 2001. These reports provide a good baseline for further testing by utilities to determine local applicability, but more data will be needed, especially in terms of market segmentation and channel delivery systems.
4. Shortage of skilled efficiency experts in the region. Energy efficiency efforts are ramping up across the region and across the country. At the same time, there are few new college or certificate programs that prepare workers to enter this field. The Northwest is in the middle of a game of musical chairs, with many veterans changing hats within their organizations and many more leaving for different positions. In this game, however, there will be plenty of seats for the current players and many more left to fill. While this cannot be resolved immediately, it does need to be addressed immediately in order to develop staff needed in the next five to 10 years to sustain efficiency efforts.

5. Exhaustion of lower-hanging energy efficiency "fruit." Energy efficiency has been an area of focus for organizations in the Northwest for over 25 years. As a result, these groups have captured much of the low-hanging fruit – compact fluorescent bulbs, energy efficient appliances and windows, and weatherization. As Bonneville accelerates its efforts to acquire efficiency resource resources, it will deplete the low hanging fruit quickly. Bonneville will need to develop more creative ways to reach deeper into the region's energy efficiency resource options and to achieve conservation from "hard to reach" markets such as small commercial and non-owner occupied facilities.

Key Strategies for Accelerating Energy Efficiency

This section outlines action items for BPA's acceleration of energy efficiency efforts. It divides the recommendations into three categories: fundamental changes to the rules that govern BPA's programs, efforts that can be undertaken in the near-term in order to achieve quick wins, and initiatives that will secure mid- and long-term energy savings. The recommendations are grouped in this manner to address the range of input the research team received indicated that there were some basic ground rules that needed to change if other efforts were to be successful, and that other ideas expounded by partners and market actors included some activities or programs that could be implemented quickly, and others that would require a much longer ramp up time. The barriers outlined above, and the respective recommendations to address these barriers are summarized in Table 1 below. Each recommendation is described after the table.

Table 1. Connection between Barriers and Recommended Activities

Barrier	Recommendation(s)
Cost-effectiveness tests applied at the measure level	Portfolio-level bundling
Overly stringent M&V requirements	Implement less prescriptive M&V measures, increase number of deemed measures
For smaller utilities, lack of marketing to support programs	Develop regional web resources Engage local governments to promote EE
Organizational overlap and lack of coordination	Enhance coordination with NEEA Facilitate cooperation of Puget Sound-Area utilities
Energy efficiency is not sexy.	Initiate high level corporate outreach
Regional need for data	Facilitate regional data collection efforts Provide training on integrating EE into the utility planning process
Shortage of skilled efficiency experts in the region	Initiate efforts to attract talent
Exhaustion of lower-hanging energy efficiency "fruit"	Bid program for C&I customers Accelerate small business EE Deploy mini-splits Bring heat pump water heaters to the market

Changing the Rules of the Game

Utilities are typically resistant to set stretch goals because they can be penalized if they don't meet them. There are mechanisms in place in a number of states that provide financial incentives for utilities to engage in higher levels of energy efficiency. For example, the

California Public Utility Commission (CPUC) creates economic incentives for utilities to achieve energy savings through a three-part strategy:

- Provide cost-recovery mechanisms when the utilities engage in energy efficiency activities;
- De-couple the utilities' sales (kWh) from its revenue stream so that they aren't losing revenues when they implement energy efficiency; and
- A proposed shareholder incentive that rewards the utilities financially (and generously) when they achieve energy savings.

This strategy aligns well with the surging interest in regulatory decoupling and shareholder performance incentives identified in a recent ACEEE study on decoupling and performance incentives. The authors of that study indicate that utilities or other program providers governed by such mechanisms often demonstrate strong commitments to meeting or exceeding established goals. BPA does not serve the role of state regulator, thus it cannot directly control these types of incentive decisions directly. BPA *can* provide financial incentives that feel more like carrots than sticks to both PUDs and other utility participants. Regulatory incentives are a challenge for public utility districts. There are no shareholder profits to return to the utility. In the long term, public utilities benefit from a lower cost resource, but in the short term, conservation may cause a loss of revenue, which is anticipated to meet local operating costs. This often makes it difficult to convince the many small PUDs in the region to do something that is in their long-term best interest but not in their short-term best interest. While there are customer relations benefits and other non-energy benefits associated with increased conservation delivered through local utilities, a broader effort to work directly with the boards of public utilities so they better understand the long term benefits to the region (cheaper clean power for all) is needed. BPA can also work with other local and state governments to link conservation efforts to other initiatives, such as meeting GHG-reduction goals.

The following recommendations were made by the project team, and action has already been taken at BPA to implement them.

Recommendation: At a minimum, BPA should evaluate cost-effectiveness at the program level and should consider portfolio-level bundling, rather than requiring every measure to pass the cost-effectiveness screen. Many utilities across North America are allowed to bundle measures to more effectively capture efficiency resources at the time equipment and service purchase decisions are being made by end users. California takes this strategy one step further and allows each IOU to bundle its programs into one EE portfolio. So long as the entire suite of programs and measures considered *together* are cost-effective by the California total resource cost (TRC) standard, the CPUC approves the portfolio. Another approach to consider would be to bundle all of the energy efficiency activity at a *group* of utilities, such as the group that comprises PNGC Power.

Recommendation: Implement less prescriptive M&V requirements and increase the number of deemed measures**.** While BPA does have an M&V light option, BPA currently requires M&V on all custom projects. BPA needs to establish M&V protocols or guidelines that appropriately match the risk (in terms of savings uncertainty) with how extensive the M&V process needs to be. In cases where M&V is still considered necessary, BPA will need to do a better job of outreach to trade allies to help them better understand M&V practices and the need for them. At the same time, BPA can maintain confidence that the funding is achieving results by

performing M&V on a statistically significant sample of installations. In the event that savings are less than expected, utilities' incentives, such as a rate credit, could be retroactively adjusted. Alternatively, BPA could provide additional support to the Regional Technical Forum (RTF) to develop additional deemed savings and reduce the M&V burden in these cases.

Gaining Momentum: Short-term Wins

Introducing a new effort, including one that accelerates existing activities, can be difficult. Overcoming the initial doubt about the potential for success is an important step in moving toward that success. Quickly demonstrating that the goals of the effort are achievable is one of the key strategies used to generate organizational and community support for the effort and build momentum for the remainder of the effort. In order to do this, BPA needs to engage in efforts that will demonstrate to both internal and external stakeholders that it is possible to accelerate energy efficiency efforts in its new framework. The initiatives in this section provide an outline for securing that buy-in.

Many of these efforts will enable BPA to build on the reputation it has developed during its 70-plus years building and operating large portions of the region's transmission and hydropower systems. Because of its regional reach, BPA is in a position to create value across the region, not only through programs but also by strengthening the fundamental building blocks on which all of the Northwest's efficiency efforts rest – public awareness, trade ally partnerships, and coordination among organizations. Each of the initiatives outlined in this section is designed to strengthen one of these components.

Additionally, many of the program budgets provide for third-party contractors to handle much of the implementation work. This group of initiatives must be rolled out quickly in order to gain momentum and build support for the accelerated efforts. Due to long lead times for internal hires, these efforts rely heavily on the private sector for launch and execution. It is also in keeping with BPA's aim to *enable* private sector efforts in energy efficiency.

Recommendation: Develop web resources that benefit the entire region. Implement a web-based trade ally clearinghouse. Integrate some of the general marketing content issues, such as more user-friendly forms, as well as information about technical issues. This effort should focus on one area of emphasis at a time (e.g., lighting and then mini-split installation). It will benefit both smaller utilities that need help marketing their programs and larger utilities with service territories in close proximity to one another.

Recommendation: Initiate efforts to attract more talent to the field of energy efficiency. Collaborate with utilities, other efficiency organizations, and consultants around the region that have a need for additional staffing. Activities should be diverse in order to reach a wide range of talent and should segment the market, reaching out to communities that have high potential and high need first. Such activities may include organizing speakers for college classes, attending job fairs, and organizing regional training for new energy efficiency personnel.

Recommendation: Introduce a bid program to achieve savings through commercial and industrial end users**.** BPA should design a program that provides flexibility to utilities and to their customers in how they achieve aMW savings. This can be effectively done through an auction in which either end users or utilities engage in bidding. The entity that proposes energy savings for the lowest price is selected to receive incentives at a level that makes the project work financially.

Recommendation: Initiate high-level corporate outreach. A team of BPA executives should personally engage high-profile business leaders in the region on energy efficiency, appealing to their sense of community and desire to do good, while highlighting the positive business aspects of energy efficiency. The executives of companies like Nike and Starbucks have demonstrated their commitments to supporting sustainability. Personal outreach from the leadership of a $3.5 billion organization might be the impetus needed to get them to both a) integrate efficiency into all business investment decisions within their organization, and to b) co-fund a large-scale regional social marketing campaign. (See the Marketing section for more detail.) Such an effort would create a market *pull* for energy efficiency.

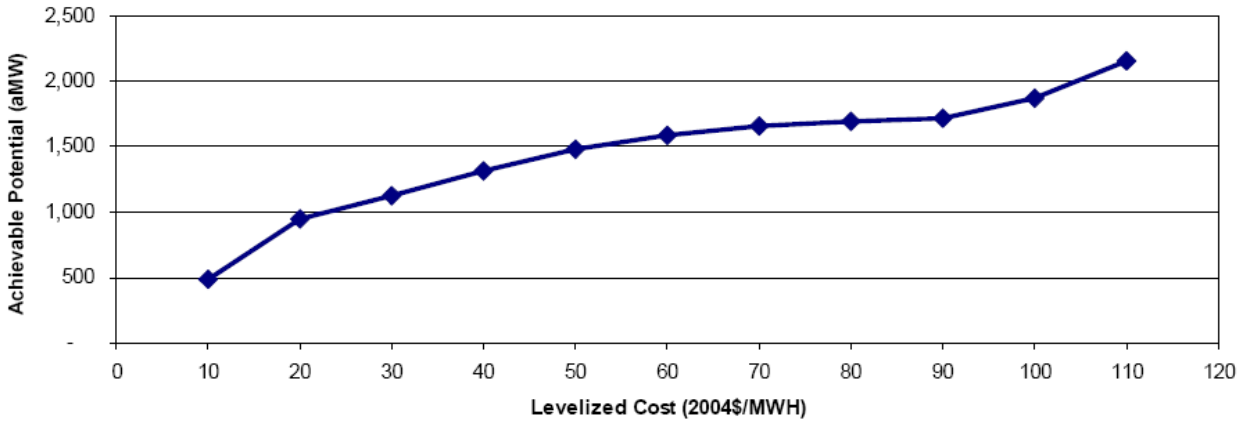
Recommendation: Increase support of the Puget Sound Area utilities' coordination efforts. BPA should offer to manage components of the partnership – facilitating communication among program implementation staff, offering to outreach to trade allies affected by the program, facilitating co-funding of market research, utilizing technology research and or programs, and participating in discussions about effective ways to present information to trade allies. The utilities have taken the first step toward coordination on lighting efforts; BPA should support these efforts and encourage additional coordination.

Recommendation: Enhance coordination with NEEA**.** Designate a liaison with NEEA's program managers to focus on high potential, effective NEEA programs that can be transitioned to BPA. Identify NEEA programs that fit BPA's needs, and maintain regular communication with the program managers about program development, experience, and opportunity for a second-phase program application. *Two examples of opportunities for such partnerships are discussed in the following recommendations.* BPA has taken an active role in setting NEEA policy through board participation in the past and plans to continue this going forward. Some of the additional coordination needed is to work together to better communicate the roles of each organization to utilities, trade allies, and other market actors in the region. Since the research was completed, efforts have begun to better define the roles of various conservation players in the region.

Recommendation: Accelerate small business energy efficiency**.** BPA should design an aggressive small business sector program that draws upon advanced practices from around the U.S. These programs focus on innovative marketing efforts, high incentive levels, and high potential savings. Audits are frequently used to engage this sector and yield high levels of energy savings.

Recommendation: Deploy new technologies. New technologies will not provide the silver bullet to accelerate energy efficiency in the Northwest. Avoided generation costs will increase in the region, but they will not increase to a level where a significant amount of new cost effective technology is available to gain large additional aMW savings, as seen in Figure 4. New technologies must be included in the portfolio of strategies used to accelerate energy efficiency but not as a stand-alone strategy.

Figure 4. Non-Lost Opportunity Achievable Potential (aMW)



Source: "Achievable Savings: A Retrospective Look at NWPCC's Conservation Planning Assumptions." Council Document May 2007

Two technologies that have received significant attention in the region are ductless mini-split heat pump units and heat pump water heaters. The ductless mini-splits have significant energy savings potential (in the range of 50 aMW has been estimated for the Northwest), but in the United States, there are few distributors or installers with knowledge of the product and little market awareness. Internationally, however, mini-splits are popular, especially in Japan, where various models are offered to fit different needs.

The second technology is the heat pump water heater, which has been included in the NWPCC's regional energy efficiency plan for over two decades. The same central challenge remains: product availability; only one model is available from the four U.S. manufacturers. Yet, NEEA estimates potential regional savings from this product at 200 aMW over 20 years. A 'golden carrot' approach may work to jump start the manufacturing of this technology.

The technologies are at two different stages of market readiness. While mini-splits are not wildly popular in the United States, there are commercially available technologies that are ready to plug into this market. The supply chain is the real issue for mini-splits; the distribution channels have not been cultivated, and contractors will require training to properly install them.

Recommendation: Deploy mini-splits soon**.** Because mini-split heat pumps present such a concentrated opportunity for energy savings, BPA can work with NEEA to accelerate their deployment in the market place. Since mini-splits are not commonly available in U.S. stores, BPA can partner with NEEA on this effort, in areas such as trade ally training, outreach to retailers, and public education. If appropriate, BPA should provide NEEA with additional funding to lead the market transformation efforts associated with this technology.

A mini-split program will require incentives at many stages along the supply chain, along with outreach, to kick start the market for this product. Consumer awareness of this product is believed to be fairly low and adoption even lower. An upcoming NEEA study should determine the level of awareness and adoption. This effort will need both a push at the market supply chain level and a pull from the consumer side.

BPA has already begun to create the pilot study that will be provide the data needed to deem the savings from mini-splits. Deeming the savings for mini-splits would lower the hurdles to installing them by removing M&V requirements. It will require at least one full year of operating data, however; additionally, it will be important to understand how consumers interact

with the technology and how usage patterns differ from those of conventional HVAC technologies. BPA will provide incentives and perform data collection to support those efforts.

Rollout:

Year 1: Identify pilot project participants; initiate monitoring; design and implement outreach to trades and distributors; and initiate public awareness effort.

Year 2: Continue monitoring effort; analyze results and present to RTF for deemed measure assignment; ramp up outreach to trade allies; and design program.

Year 3: Continue outreach to trade allies and program implementation

Building Momentum from Organizational Strengths

Once BPA has demonstrated success and generated stakeholder buy-in, it can turn its focus to less visible, more process-oriented efforts. These will lay the groundwork for future efficiency efforts throughout the region by providing utilities and partners with the skills and tools needed to ensure that efficiency is incorporated into their business development efforts. Quantifying the energy savings related to these efforts is difficult because they focus on process rather than outcome. The tools and skills developed through the efforts outlined in this section are intended to fill market awareness and delivery gaps.

Engage local governments to promote energy efficiency**.** Local governments can significantly influence the adoption of energy efficient practices and technologies within their communities. BPA should leverage its relationships with municipal utilities to enhance the dispersion of energy efficiency throughout the region. By building on existing social structures and spheres of influence, BPA can reach a broader audience than through its own efforts alone.

Facilitate regional data collection efforts**.** Realize economies of scale by introducing a forum for collaborating on data collection efforts. Focus on data needs for the next five years. In most cases, the data will center on market research, including penetration levels of specific measures, trends in specific industries that are favorable to efficiency, and segmentation of different markets. Conservation potential assessments may also be appropriate in some areas. Further research may be conducted into the best approach for marketing to specific segments. Results will be shared regionally.

Provide training on how to integrate energy efficiency into the utility planning process**.** Develop a course and supporting materials to educate utility planners about how to integrate energy efficiency resources into their future resource planning efforts. Target the course to utilities that have not utilized the IRP process in recent years. This effort will build on the regional data collection efforts.

Bring heat pump water heaters to the market**.** BPA should team up with a venture capital or manufacturing firm that is willing to put up significant capital to bring this product to market. Such a partnership would create a global search for innovation in this space. BPA's primary role in this partnership would be to provide a market ready for these products. Thus, BPA would prime the channel partners, e.g., distributors and installers, on the technology.

Looking Ahead: The Role of Accelerated Efforts

BPA has a lot of work to do in order to significantly ramp up the energy efficiency efforts in the Northwest. Realistically, it will require a one- to two-year ramp up period, during which a lot of work will be going on with little tangible energy savings to show for it. Such an investment

of time and money will not go unrewarded, however. BPA is currently developing a ten-year resource program that will provide a blueprint for BPA's future resource acquisitions. The Resource Program will identify the types and amounts of resources best suited to fulfill BPA's expected resource obligations. Accelerated conservation is being evaluated with other resources to identify the lowest cost and risk portfolio.

In the meantime, several of the recommendations from the study are already being implemented including rule changes such as TRC testing at a program level, program activities including implementation of a large ductless heat pump pilot program in coordination with NEEA, initiation of a regional trade ally network (initially focused on commercial lighting trade allies), and regional coordination activities for data collection and trade allies.

In addition, on April 28, 2008, Pacific Power, the Northwest Power and Conservation Council, and the Bonneville Power Administration announced a regional effort to further improve the efficiency of electricity use throughout the Pacific Northwest. The effort will build on the region's significant accomplishments over the last 25 years. It will be led by the Energy Efficiency Taskforce, a newly created, volunteer organization of regional leaders of electric utilities, businesses, government agencies, environmental groups and energy efficiency organizations. The Taskforce is designed to pull together innovative ideas from successful energy-efficiency programs and highlight the important regional role that energy efficiency can serve in ensuring an ample and cost-effective supply of electricity. The Taskforce will explore how, through regional collaboration, energy efficiency can be delivered to consumers more efficiently. Technical work groups will be formed to undertake tasks.

Finally, NEEA is undergoing a significant strategic planning effort to determine its future role. This effort involves interviews with key stakeholders as well as public meetings. The outcome of the Energy Efficiency Task Force will also help inform NEEA's future role.

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