Market Potential 72% Consumer Confidence 73% Brand Recognition 82% Energy Savings 69%
3% Energy Efficiency 27% Product Awareness 67% Customer Satisfaction 74% Market Share

research/into/action inc

Draft Final Report

PROCESS EVALUATION OF THE CONSERVATION AUGMENTATION (CONAUG) PROGRAM

Funded By:

Bonneville Power Administration

Submitted To:

Ken Keating, Ph.D.
Bonneville Power Administration

Prepared By:

research/into/action inc

Jane S. Peters, Ph.D.
Research Into Action, Inc.

eMI

Robert Bordner
Energy Market Innovations, Inc.

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Acknowledgements

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EXECUTIVE SUMMARY

The Bonneville Power Administration (Bonneville/BPA) is a federal agency that transmits and markets the electricity generated by dams on the Federal Columbia River Power System. Bonneville has contractual relationships with over 100 public utilities in the Pacific Northwest, all of whom rely on Bonneville to provide some portion of the power they require. Bonneville encourages its customer utilities to support energy efficiency projects in their service territories by providing funding mechanisms for those utilities to offer incentives for projects that save energy. One of these mechanisms is the Conservation Augmentation Program (ConAug), through which utilities enter into bilateral contracts with Bonneville to provide conservation resources.

Since September 2004, Bonneville has been engaged in a collaborative conservation planning process to solicit recommendations for the post-2006 conservation program structure (covering the 2007-2009 rate period). In late April 2005, Bonneville contracted with Research Into Action, Inc. and Energy Market Innovations, Inc. to conduct an evaluation of the ConAug program. This evaluation focused on customer utility response to the program and a review of best practices for similar programs. The focus of the evaluation was to identify the perceived strengths and attractive features of the program and to clarify the perceived barriers and what solutions are adequate to address them.

The research was conducted in May and early June 2005, and included: interviews with seven program staff; an email survey of 41 stakeholders, including customer utilities, Bonneville staff and third-party implementers; and in-depth interviews with a sample of 17 customer utilities identified through the email survey.

The evaluation identified strengths and barriers for the program, as well as a series of recommendations that could improve customer response to the program.

FINDINGS

Program Strengths

From the perspective of the customer utilities, there are several strengths of the program:

- ConAug has had relatively stable funding for close to five years.
- Bonneville energy efficiency representatives and engineers received high praise from the utility contacts.
- Participants have used ConAug funds to keep their energy efficiency programs running during the tumultuous 2000-2005 period.
- ConAug and its predecessor the Invitation to Reduce Load through Conservation (IRLC) contain a path for creative and custom projects that works regardless of utility territory characteristics.
- Utilities see that Bonneville has tried in its own way to be responsive to their needs.
- The M&V requirements ensure credible savings.
- The tools are useful.

There are also strengths of the program from Bonneville program staff"s perspective:

- Bonneville's oversight activities do appear to help the agency avoid instances of gaming and fraud, and allow for clarification of the rules in a way that has not been burdensome to participating utilities.
- Bonneville has been able to make modifications to the program design based on experience.
- The program is viewed as highly cost-effective.

Program Barriers

The primary barrier to participation in the ConAug program is the decrement requirement for some utilities. All other issues within the program are really secondary in importance relative to this one, which only affects the non-load-

following, decrement-eligible utilities. Within the decrement issue, there are three important elements including:

- **Decrement Definition and Implementation Guidelines** – Among both participants and nonparticipants, there is considerable uncertainty regarding how the decrement is defined and actually works. There is not, at present, a single cogent explanation of the decrement policy that has been made available to the market.

- **Legitimate Concerns about Fairness** – To customer utilities, it appears that Bonneville gets most of the potential benefit resulting from ConAug, purchasing conservation for 12¢-16¢ and selling it on the market for whatever the market will pay, possibly in excess of its purchased price. The measure life for which Bonneville is willing to pay is 10 years. Utility contacts note that this affects longer-lived measures by discounting long-term savings. This is particularly an issue in residential measures.

- **Long Term Repercussions from the Decrement** – These concerns reflect two things: first a lack of certainty as to what Bonneville means in statements about how they will take the decrement and treat it in the future, and, second, a lack of trust that Bonneville will permit utilities, in future PSAs, to purchase power equal to or in excess of historical purchases once they take a decrement.

In addition to concerns about the decrement, there are a few other barriers. In particular there are some concerns about M&V, project documentation requirements, freeridership and the amount of the incentive. These concerns were more obvious in responses to the e-mail survey rather than the in-depth interviews and affect nonparticipants more than participants. The in-depth interviews revealed that there is general acceptance of these requirements; however some modifications would be welcome.

ConAug has consistently been perceived as more top-down than collaborative. There are, based on the benchmarking research, a variety of opportunities to further simplify or streamline ConAug which could improve perceptions of the program:

- Other programs have developed ways to reduce M&V through sampling for more simple measures.

- Other programs use M&V to determine payment, advancing a portion of the incentive at different stages and reserving 25-33% for a final payment after M&V.
- Other programs modify program requirements for each application period and define the "rules" for a set period of time, allowing for the program to be more responsive to market conditions.
- Other programs have found it is very important to clearly detail the rules and procedures so that all parties know exactly what is expected of them.

RECOMMENDATIONS

The evaluation confirms that there is value for the utilities to have a bilateral contract with stable funding in order to acquire conservation for the region. It also appears that Bonneville needs a program that is more flexible than ConAug, with paths that allow for different utilities to sell Bonneville conservation in the manner that works best for their market.

Recommendation 1: Determine Whether a Bilateral Contract Program Should be Attractive to All Customer Utilities

The decrement is the major problem from the perspective of non-load-following utilities and from many of the staff working with these utilities. There appear to be legitimate issues with the decrement because it shifts the benefits to Bonneville without compensation to decremented utilities. Yet Bonneville is reasonable in concerns about utilities getting the benefits if there is no decrement. Bonneville has expressed the view that the decrement will be included in future bilateral contracts.

If Bonneville wishes to have increased participation by non load-following utilities, there are two primary choices:

- Eliminate the decrement.

Or:

- Keep the decrement, but find a way to ensure that the utilities and Bonneville share the risk and rewards more equitably.

If Bonneville does not wish to increase participation by non-load-following utilities, the decrement can be maintained. However, it will be important to clarify exactly what the decrement means through an improved communication strategy.

Recommendation 2: Develop a Communication Strategy

This recommendation is also important for the program as a whole, irrespective of the decrement. Bonneville should have a well-thought-out communication strategy and should systematically test the program components and the communication materials (e.g., utilizing focus groups, in-person meetings) among the utilities.

Recommendation 3: Consider Developing Program Paths for Different Utility Types

At present, the program structure is focused on customer segment offerings (i.e., residential, commercial). There may be merit to considering tailoring the program offerings more along the lines of the types of utilities that will be offering the programs. A package of ConAug programs might include the following:

- **Large Non-Load-Following Utility Package** – This package would be very customized, designed specifically to reflect the infrastructure that exists at these utilities.
- **Small Load-Following Utility Package** – This package would include standard offer components with deemed savings, plus a custom element that would include the provision of as-needed technical resources to these utilities.
- **Small Non-Load-Following Utility Package** – This package be just like that for load-following utilities but would also include a decrement modeling component that would assist these utilities in understanding the impacts that their system would experience on a project-by-project basis.

Recommendation 4: Consider Revisions to Incentive Levels.

Consistency is important to the utilities in marketing the program and developing projects. Several utilities also made the argument that longer measure lives should be valued appropriately, and this is worthy of consideration by Bonneville as it establishes incentive levels.

Recommendation 5: Consider Refinements to Process and Protocols.

There is a variety of smaller refinements to the processes or protocols of the program that should be considered in a future program using bilateral contracts:

- Within the custom and standard options, where energy savings estimates are made or approved by Bonneville engineers, there should be a recognition of shared responsibility for M&V findings.
- There should be clear protocols for Bonneville and its agents regarding involvement of local utility representatives in marketing and project development work with end-use customers.
- Contacts emphasized the need for flexibility around free-ridership, – recognizing there may be projects that fall within these criteria that truly will not happen otherwise.

Recommendation 6: Empower ConAug Program Staff to Make Final Decisions

Conservation engineers and EERs need to be empowered to make decisions when they represent the program to utilities, so that utility staff will have more confidence about what Bonneville will accept and thus will have confidence about what they can offer their end-use customers.

1. INTRODUCTION

The Bonneville Power Administration (Bonneville/BPA) is a federal agency that transmits and markets the electricity generated by dams on the Federal Columbia River Power System. Bonneville has contractual relationships with over 100 public utilities in the Pacific Northwest, all of whom rely on Bonneville to provide some portion of the power they require. These customer utilities operate in a variety of climates, have a range of population characteristics and experience different economic conditions. Bonneville encourages its customer utilities to support energy efficiency projects in their service territories by providing funding mechanisms for those utilities to offer incentives for projects that save energy. These mechanisms include a rate credit program—the Conservation and Renewable Discount (C&RD)—through which utilities can spend funds on conservation projects and the Conservation Augmentation Program (ConAug), through which utilities enter into bilateral contracts with Bonneville to provide additional conservation resources.

Bonneville's energy efficiency activities and resource planning are influenced by the recommendations of the Northwest Power and Conservation Council, a regional planning body established by the 1980 Northwest Power Act and charged with assuring that a variety of interests are included in planning for future power needs in the Northwest (including conservation, fish and wildlife, and tribal interests). The Council released its *Draft Fifth Power Plan* in January 2005, recommending certain levels of regional conservation be achieved by 2009. The plan establishes a regional target of 700 average megawatts (aMW) of conservation between 2005 and 2009, of which 280 aMW (approximately 40% of the regional target) is expected to come from Bonneville and its customer utilities.

Since September 2004, Bonneville has been engaged in a collaborative conservation planning process to solicit recommendations for the post-2006 conservation program structure (covering the 2007-2009 rate period). As part of this process, Bonneville is hosting work group meetings designed to inform and plan an expanded post-2006 conservation portfolio likely to achieve the conservation targets established in the Council's plan. The work group is comprised of customer utilities, regional policy experts and other stakeholders seeking to influence the final design and budget that will form the structure of conservation investments in the new rate period beginning October 1, 2006. The portfolio is likely to include a program modeled after ConAug.

In May 2005, Bonneville contracted with Research into Action, Inc. and Energy Market Innovations, Inc. to conduct a process evaluation of the ConAug program. Its purpose was to understand the reason for a decline in customer participation. Bonneville was concerned that various stakeholders believe the current program holds significant barriers whose addressing in program redesign could yield significant additional energy savings for future programs. The process evaluation was timed to inform the development of a post-2006 rate period program.

The rest of this chapter presents a description of the program and the evaluation approach used, and outlines the content of the report.

PROGRAM DESCRIPTION

The ConAug program emerged from public meetings held in spring 2000 to discuss Bonneville's conservation portfolio for the October 2001 to October 2006 rate period. Through this public process, Bonneville learned that customers wanted to be able to propose energy efficiency projects to the BPA rather than have it design and dictate programs. Based on this information, Bonneville announced an Invitation to Reduce Load through Conservation (IRLC) in October 2000, inviting utilities to submit proposals for conservation projects for a six-month period.

The IRLC was the focus of initial ConAug activities and was extended for six additional months on April 1, 2001. Since 2001, ConAug has become a more structured and formal effort, evolving into an umbrella program with three main components that achieve energy savings:

- The primary vehicle is a voluntary bilateral Purchase of Conservation Agreement (PCA) between BPA and its customer utilities, who commit to identifying and supporting various energy efficiency projects in their service territories. Specific projects are outlined in exhibits to PCAs and may include standard offer programs or custom efficiency projects.

- ConAug also acquires savings through projects with federal agencies with which Bonneville has a direct relationship (for example, the Army Corps of Engineers, which operates dams, and the U.S. Fish and Wildlife Service, which operates the fish hatcheries along the Columbia River).

- ConAug also provides for limited third-party delivery mechanisms (i.e., installing *VendingMiser*™ technology to reduce power draw on vending machines when no users are present and utilizing BacGen Technologies, a Seattle-based firm that specializes in optimizing wastewater and water treatment facilities for energy and process efficiency).

Bonneville has annual and rate period targets for the energy efficiency efforts it supports. While ConAug is expected to acquire 100 aMW of a 220 aMW energy efficiency goal for the rate period, there are no annual targets established for the different components of the program. This helps ConAug maintain flexibility and allows Bonneville staff to meet the overall target through whatever conservation opportunities are available.

ConAug is somewhat similar to standard offer or performance-based programs offered elsewhere. Like other standard offer programs, ConAug establishes incentives for standard sets of measures, sets payback floors to screen for free-riders, provides a path for custom or complex projects, and requires some form of measurement and verification (M&V) on every project. Instead of relying on energy service companies or trade ally contractors to deliver the program, ConAug utilizes Bonneville's regional customer utilities for its delivery. This reliance on the relationships between Bonneville and its customer utilities makes ConAug unique.

Consistent with other standard offer programs, Bonneville relies on conservative estimates and rigorous M&V. This provides assurance that Con Aug projects have directly reduced Bonneville's load obligation for utilities whose full power requirements are met by Bonneville.

Bonneville has a variety of contractual arrangements with its customers that establish the portion of federal power each will be provided and the terms under which that power will be delivered. Some utilities have their own generation or other sources of power and augment these resources with Bonneville power; others belong to generating cooperatives.

Regardless of the circumstances, utilities that purchase power through a *block* or *slice/block* contract have an additional requirement to participate in ConAug, compared to utilities that purchase all their power from Bonneville,

who do not.[1] The program includes a feature to ensure that Bonneville-supported conservation has actually augmented the federal power system and not simply allowed utilities to reduce demand on their own resources or decrease their own market purchases. These utilities are obligated to take a one-for-one load reduction, a *decrement*, to the block of power they purchase from Bonneville through their Power Sales Agreements. The decrement reflects the conservation load reduction achieved through ConAug. In other words, electricity delivered to these utility customers is reduced in direct proportion to the conservation achieved through their ConAug projects (described in exhibits to the PCA).

Since 2001, Bonneville has periodically changed its level of willingness to pay for conservation through ConAug. This reduction in incentive amounts reflects both a more stable power market compared to 2001, as well as the financial difficulties that Bonneville faced following the 2001 crisis. Over the years, Bonneville has changed other features of the program, including the amount available for administrative costs, the structure of new agreements and the types of measures they are willing to pay for. In response, Bonneville's customer utilities have demonstrated varying degrees of interest in the program with more savings being acquired in the first two years (2000 and 2001) and less forecast in 2004 and 2005.

EVALUATION APPROACH

Faced with the challenge of designing new programs for the 2007 through 2011 rate period, Bonneville requested an evaluation be conducted of ConAug. The key questions of the evaluation were to identify the perceived strengths and attractive features of the program and to clarify the perceived barriers and what solutions are adequate to address them.

This evaluation relied on four interconnected data collection activities. First, the evaluation team interviewed Bonneville staff and reviewed program documents in order to identify key issues and concerns and to identify potential barriers to participation by utility customers. Following these interviews, the evaluation team developed an email survey and invited 60 stakeholders to complete and submit their responses to this electronic survey. These stakeholders included many of the utilities eligible to participate in

[1] Decrement-eligible utilities have *block* or *slice/block* contracts with Bonneville through which they purchase a block of the federal power, negotiated periodically through Power Sales Agreements.

ConAug, as well as other participants in the post-2006 conservation planning workgroup.

The third data collection activity built on the second. Participants in the email survey who indicated they were willing to be interviewed were contacted for an in-depth interview to explore more deeply their views on opportunities to increase participation in ConAug and the structure of future bilateral contracts. Twenty-seven email survey respondents were willing to be interviewed; however, some appeared from their comments in the email survey to have limited information to offer and the evaluation team wanted to make sure we had a cross-section of different types of utilities from throughout the region. We targeted 17 customer utilities to be surveyed and identified four additional Bonneville staff members to interview, of which three were contacted, to clarify questions of program implementation. (See Appendix A for copies of data collection instruments.)

The fourth and final activity involved a review of literature discussing best practices for standard offer programs and evaluations of those programs. The purpose of this review was to identify program features that might be applicable to the unique circumstances of Bonneville and its customer utilities.

ORGANIZATION OF THE REPORT

This introductory chapter gives background on the program and the evaluation and is followed by five additional chapters. Chapter 2 discusses the program history and implementation experience, based on staff interviews and a review of program documents. Chapter 3 reviews the findings from the email survey of stakeholders and is followed by Chapter 4, which discusses the results of the in-depth interviews with key contacts willing to be contacted following the email survey. Chapter 5 describes findings from a review of similar programs and Chapter 6 presents our conclusions and recommendations.

1. Introduction

2. PROGRAM HISTORY AND MAJOR FEATURES

This chapter discusses the evolution of ConAug, the key program features and Bonneville staff perceptions of the program.

THE EVOLUTION OF CONAUG

As noted previously, ConAug was designed to augment the Federal Columbia River Power System by acquiring firm conservation capable of reducing Bonneville's load obligation to regional utilities. This program goal influences many of its features, including the fact that the reliability of conservation purchased is considered equal to power purchased on the wholesale market. Tying the impetus for conservation to the market price of wholesale power can rapidly shift program economics for reasons that are largely outside the control of Bonneville staff and/or participating utilities. As the price of market power declines, the value to the system of program-acquired conservation also declines.

Under the program, Bonneville offers incentive payments to utilities who undertake conservation projects in their territories through ConAug agreements, also known as Purchase of Conservation Agreements (PCAs). After executing a PCA, a utility will describe ConAug projects through exhibits that outline the anticipated conservation measures, the delivery of energy savings and the expected payment stream. There are standard exhibits that have been developed by BPA and individual custom projects may also be proposed. The ConAug program is expected to achieve 100 aMW of conservation load reduction by the end of the 2001-2006 rate period.

Program Initiation in 2000 and 2001

Program activities began prior to the official start of the rate period with an Invitation to Reduce Load through Conservation (IRLC). The IRLC, literally a letter to all customer utilities inviting them to propose conservation projects in their territories, offered a way to begin projects immediately. Officially a rate-period program, ConAug began October 1, 2001, amid high power prices and uncertainly caused by poor water conditions in the Pacific Northwest, turmoil in the California energy markets and concern about West Coast power

shortages. The poor water conditions reduced the output of the hydroelectric system and meant that Bonneville needed to secure an additional 3,000 megawatts of electricity to meet its contracted obligation to the region. In light of the conditions in California and the high price of market power, Bonneville sought to offset a portion of this 3,000 MW deficit through efficiency projects supported through IRLC and ConAug agreements.

According to Bonneville staff, the IRLC letters were well received and utilities signed up to complete a variety of energy efficiency projects through IRLC contracts. The first IRLC contracts allowed many creative approaches to acquiring resources through conservation, and utilities used the flexibility of the open invitation to propose custom projects and programs that met the needs of their service territory. By the end of 2001, Bonneville had contracted for 30 aMW of conservation through IRLC and ConAug contracts.

As a system augmentation program, the price per kWh for ConAug projects is affected by the current price of power on the wholesale market. In fact, Power Business Line Account Executives currently have signature authority for PCAs, while contracts are administered and implemented by staff housed in the Energy Efficiency Group. In the early months of the program, the details of every project proposed through IRLC or ConAug were negotiated in iterative, labor-intensive discussions. The result was a range of projects and prices that Bonneville was willing to pay for the projects.

Though inspiring creativity, the program was launched without the firm price signals or incentive levels such as are now part of the program's standard offers for lighting and commercial/industrial projects. According to program staff, negotiating ConAug projects on a case-by-case basis left too many details for negotiation. Utilities would occasionally accept contract terms Bonneville had developed with other utilities, but often staff would have to negotiate specific prices and details for every contract. The lack of firm incentive levels also made it difficult for utilities to know which projects would qualify and what incentive they could expect. As noted before, Bonneville's customer utilities include a wide range of sizes and staffing levels—the more staff-constrained a utility is, the less time it has available to negotiate the details of conservation project incentives with Bonneville. The smaller utilities tend to need more turn-key program features that provide predictable incentives for straightforward projects.

In response, Bonneville staff developed the Limited Standard Offer for Commercial Lighting (LSO) establishing a list of qualified lighting measures and

a set incentive level. Utilities responded well to the LSO and more than 45 signed up to participate.

ConAug in 2002 and 2003

The energy crisis that gripped the West Coast in 2001 coincided with drought conditions in the Northwest, which reduced the surplus power Bonneville had available to sell during this period. The repercussions of the high power prices Bonneville had been forced to pay in 2001, combined with a lack of surplus power to sell during the same period, were magnified by low market prices for Bonneville power in 2002. These factors united to create a financial emergency for the agency by the end of 2002. The fiscal crisis required cost-cutting activities throughout the organization and reduced Bonneville's willingness to pursue on-going conservation purchases. During 2003, the Bonneville Administrator sought to reduce expenditures and therefore slowed ConAug activities dramatically.

For about six months in late 2002 and early 2003, ConAug stopped accepting new applications and stopped sending out the IRLC letters inviting new proposals. During this period, the staff reviewed the accomplishments of the program and decided to expand its standard offer components. Modeled after the successful LSO (which expired on September, 30, 2003), ConAug staff developed additional standard offers: the Commercial and Industrial Standard Offer and the Expanded Standard Offer for Commercial Lighting (ESO). These became the major components of the program once activity picked up again in the second half of 2003.

Activities in 2004 and 2005

An assessment of Con Aug in 2004 indicated that the pace of projects was unlikely to achieve the desired goal for the program. The assessment predicted that the program would be 6-10 aMW short of its rate period goal of 100 aMW. In response, Bonneville initiated several program enhancements designed to increase the number of projects in the pipeline and strengthen the likelihood that savings goals for the rate period would be met.

By January 2005, following several months of development, several enhancements were available to customers. These enhancements included: a larger list of eligible measures and higher incentives for commercial lighting projects under the Enhanced Standard Offer Plus (ESO+); a new home

construction standard offer component (ENERGY STAR® Homes Northwest); and the Industrial Focus effort.

The Industrial Focus offers a variety of industrial technical services to assist utilities in identifying and developing new industrial projects for either ConAug or C&RD. According to Bonneville staff, the Industrial Focus has generated increased interest and new funding requests for ConAug's existing Commercial and Industrial Standard Offer.

In addition to the new program offers, the ConAug team worked with account executives, energy efficiency representatives, contracting officer's technical representatives and requirements marketing contract specialists to test program concepts. Through this process, the program team reported that they were able to identify and develop customer-friendly methods for modifying existing PCA agreements.

After developing these program enhancements, outreach was expanded; by January 2005, the energy efficiency representatives had initiated a comprehensive outreach effort with current and prospective utility participants to explain the new ConAug offers. The outreach efforts included formal presentations at utility roundtable meetings, one-on-one customer visits, phone calls and email communications. This outreach lasted for three months following the January launch of the Industrial Focus. The outreach efforts were undertaken to allow customers sufficient lead time to begin implementation and to deliver additional savings before the September 30, 2006, implementation deadline for ConAug projects.

Close to 90% of Bonneville's utility customers had been informed of the enhanced program offers by the end of April 2005. At that time, Bonneville staff reported that 39 of the 88 utility customers contacted through outreach efforts either requested new funds, added new programs to their PCA exhibits or rolled over existing funds into new exhibits.

FEATURES OF CONAUG

The following section describes the features of ConAug: staffing, PCAs, the decrement, incremental conservation, monitoring and verification, and oversight.

Staffing

The complex nature of ConAug requires a portion of many people's time. Staff contacts estimated that ConAug had about 10 to 12 full-time-equivalent staff through using "little bits of lots of people's time." Major roles include:

- **Implementation Lead –** Responsible for implementing energy efficiency programs at Bonneville, including ConAug and C&RD.
- **ConAug Lead** – Responsible for delivering the program and meeting savings targets; the role is similar to a program director, coordinating the activities of the core program team.
- **PCA Lead –** A role similar to program manager, but focused on negotiating the details in PCA agreements; it is the primary contract vehicle for the program.
- **Engineering –** Engineers are available to consult on technical details in project applications and provide engineering review for M&V plans and other project documents; they may be called upon to make technical judgment calls about measure substitution and to help customers fully vet projects prior to applying.
- **Marketing** – Conducted primarily through energy efficiency representatives responsible for bringing program information to utility customers and guiding projects through internal BPA processes.
- **Industrial Program Support** – A recently-formed Industrial Program area is charged with working with the utilities to bring more industrial projects into ConAug; by using funding that is outside of the ConAug program, utilities may request technical assistance for customers in preparing project analyses and scopes of work that are then submitted to ConAug.

Purchase of Conservation Agreements and Exhibits

The program's primary delivery mechanism is the regional public utilities that get all or a portion of their power from the federal power system via Bonneville power sales contracts. Currently, there are 100 utilities eligible to participate in the utility component of ConAug. Bilateral contracts (PCAs) are established between Bonneville and participating utilities; these describe the arrangement through which Bonneville agrees to purchase conservation from the utility. The

details of specific projects are then set forth in exhibits that are subsequently negotiated and added to existing PCAs. Since the program's launch, more than one-half of the 100 eligible utilities have participated in at least one component of ConAug.

The specific terms and the duration of a PCA vary by customer; some PCAs span five years, with exhibits that can vary from two to five years. For example, the Limited Standard Offer (LSO) for commercial lighting was implemented through two-year exhibits and has largely been replaced by the ESO and the ESO+. According to program staff, custom PCAs typically have five-year terms, although they may include shorter funding commitments that can be extended if necessary.

The PCAs are umbrella contracts under which standard offer and custom projects can be proposed as exhibits to the PCA. Negotiating a PCA is also the point at which decrement-eligible utilities agree to accept a decrement for the ConAug-sponsored conservation they undertake. Once a PCA exists, there are several steps in adding new or modifying existing exhibits.

Bonneville representatives work with the utility energy efficiency staff to generate interests in custom projects and/or standard offer exhibits. The ConAug Coordinator receives and records a notice of utility interest or a project proposal that would add or modify an exhibit to a PCA. One of two paths are then followed:

- **Custom Projects** – For custom projects, the ConAug Coordinator reviews and revises savings and cost estimates for custom proposals as necessary. The proposal is then sent to the PCA lead, who assigns a lead technical negotiator. The ConAug Coordinator distributes the proposal to the negotiation team, which typically consists of the account executive, the energy efficiency representative, the lead technical negotiator and the contracting officer's technical representative. After the negotiation strategy is developed, the PCA lead develops and submits a *Preliminary Check-Off Approval* request to proceed with negotiations. The lead technical negotiator, account executive and energy efficiency representative then negotiate the specific terms of the exhibit and coordinate with the PCA lead until an agreement is reached. Once an agreement is reached, the contract is drafted and approved for signature.

- **Standard Offer Exhibits** – For standard offer exhibits, the ConAug Coordinator receives notice of utility interest to add or modify a

standard offer agreement. The PCA lead will then conduct a preliminary evaluation and assign a lead technical negotiator. After a lead negotiator is assigned, an evaluation team reviews the proposal. If the proposal is acceptable, the evaluation team develops a negotiation strategy. The lead technical negotiator, account executive and energy efficiency representative then negotiates the specific terms of the exhibit and coordinates with the PCA lead until an agreement is reached. Once an agreement is reached, the contract is drafted and approved for signature.

The process for modifying projects in PCAs not requiring new funds, or for modifying commercial/industrial standard offer agreements, may require an additional engineering review step that will result in a *Notice to Proceed* to the utility. After receiving a written notice to proceed, a utility may authorize the end-user to proceed with the project. Once the project is complete, the utility will submit a completion report to the contracting officer's technical representative detailing results. This report is distributed for review. If the report is acceptable, the representative notifies the utility and requests an invoice.

Marketing of ConAug

Bonneville communicates with its customer utilities through both account executives and energy efficiency representatives, who represent Bonneville through direct personal communication with customers. The ConAug team reports working collaboratively with account executives and energy efficiency representatives to develop draft program improvements and to test program concepts with customers.

The PCA umbrella agreements for ConAug are negotiated primarily by the account executives responsible for managing the business relationship between Bonneville and the utility. These account executives typically communicate with the General Managers at each utility, and Bonneville staff report that it is at this level where discussions regarding the decrement take place. Once the PCAs are in place, signing customers up for specific exhibits (e.g., CISO, ESO+), or the negotiation of exhibits involving custom projects, is typically handled between the energy efficiency representative and the utility energy efficiency staff. Energy efficiency representatives, as part of the core team providing services to the utility, are asked to keep the account executives apprised of any developments with conservation projects. The account executives may also become more involved with implementation issues, if there

is a need for clarification should they arise (e.g., explaining the need for M&V requirements), and otherwise manage the overall customer relationship.

Since the energy efficiency representatives are specifically charged with representing the efficiency programs to their customers, they are often the primary point of contact between a Bonneville energy efficiency program and the utility energy efficiency staff. These representatives are then supported in their implementation efforts by contracting, engineering and program management staff.

Who is responsible for delivering the program can have an affect on how ConAug is received at decrement-eligible utilities. Since participation in ConAug means a de facto change to their Power Sales Agreements for some utilities, marketing the program requires conversations with the power supply staff at these utilities.

The Decrement

One of the most distinctive features of ConAug is the decrement for utility customers who receive power from Bonneville via block or slice/block contracts (typically, those who purchase power from another source, or who have their own power-generating capacity). The decrement ensures Bonneville conservation funds are used to achieve conservation that augments the federal power system rather than freeing up other sources of non-federal power for customers with their own resources. A majority of Bonneville's customer utilities are *load-following*: they have contracts obligating Bonneville to serve them with all of their power needs. Since Bonneville delivers the full power requirements for load-following utilities, the agency is confident that conservation projects supported in the territories of these utilities will acquire resources that benefit the federal system by naturally reducing demand for these participating utilities.

Twenty-eight of Bonneville's customers are decrement-eligible. These customers are required to take a one-for-one reduction in the delivery of their block power equivalent to the conservation paid for by ConAug. Since the decrement reduces the delivery of a utility's block of federal power, participating in ConAug creates fundamentally different economics and planning choices for decrement-eligible utilities.

Understanding the decrement requires a conceptual understanding of the power scheduling and delivery provisions in Bonneville's Slice-Block PSA. The decrement is always applied to the block portion of the participating utilities'

PSA. The decrement can be scheduled in units as small as one-twelfth of an average megawatt (i.e.; one megawatt-month). BPA Power Sales staff and the participating utility jointly determine the actual scheduling of the decrement, based primarily on the months of the year the utility is actually receiving scheduled deliveries under the block portion of their PSA. BPA Power Sales staff notify BPA power scheduling staff to coordinate the actual scheduling of the load decrement.

Bonneville's power-delivery staff tailors the decrement to apply to the block portion of a customer's power delivery and, ideally, matches the load pattern of the acquired conservation. ConAug staff informs power sales account executives about scheduled power decrements. The power-sales account executives notify the trading floor about scheduled load decrements, notifying traders and schedulers that the decremented power is available to cover other needs or to sell on the wholesale market.

ConAug is a time-delimited program defined by the rate-period and as such will end September 30, 2006. However, decrements are applied to the "block" of power allocated to a utility (negotiated through a Power Sales Agreement) for the duration of that agreement. The Power Sales Agreements typically last approximately ten years, but can be extended on the same terms and conditions.

Bonneville periodically recalculates the net requirements of its customer utilities and adjusts loads and contracts accordingly. This typically occurs before the existing Power Sales Agreements expire. Bonneville last completed a recalculation of net requirements in 2001, and nearly all of Bonneville's regional power sales contracts continue through FY 2011. No firm date has been set for re-calculating net requirements; however, this is likely to occur prior to the expiration of the 2001-2011 contracts.

The decrement applies until the net requirements are re-calculated for, and applied to a utility's power delivery. Typically, this occurs prior to entering into a new Power Sales Agreement, but other events can also trigger a recalculation of net requirements. At the time net requirements are recalculated, Bonneville assumes the acquired conservation is embedded in the load for that utility and that any changes in load are likely due to other factors (i.e., changes in population or economics). If net requirements are recalculated for other reasons during the term of the Power Sales Agreement, but the recalculation does not change the contracted purchase power amount, the decrement will be applied again to that utility's block power delivery.

Incremental Conservation

Bonneville wanted to encourage investments in conservation that were *in addition to* the conservation investments utilities would have made without ConAug. Thus, utilities are required to certify the new conservation activities they propose are incremental to what the consumer had planned to do. As with most of its programs, Bonneville has structured ConAug to focus on incremental savings at the project level. This means incentives are only offered on the portion of savings that exceed those resulting from meeting current code requirements.

In addition to ConAug, Bonneville provides funding for conservation projects through C&RD, a rate credit program providing a discount on the wholesale price of power. Utility customers retain the discount to provide a wide range of conservation and renewable energy programs in their territories. Since C&RD is a rate credit program that must be used or repaid to Bonneville, utilities may choose to spend their rate credit before they turn to ConAug. Utilities with unique projects (such as those with specific industrial customers), or utilities that routinely make significant investments in conservation use ConAug to support projects that may not fit into their existing programs, or for projects that might languish due to lack of funding.

BPA Contract Pricing

Bonneville calculates the value of conservation resources procured under ConAug differently than in other programs such as C&RD. Most importantly, the time horizon over which the present value of conserved energy is calculated is limited to ten years. As a result, higher cost measures with long measure lives are not credited with the same value as they might if their full measure lives were considered. This presents challenges for residential measures under ConAug because the savings resulting from these measures are typically smaller, but last over a longer period of time (e.g., 20 years) that is outside of the span of the current contracts.

ConAug does not provide a set administrative percentage reimbursement for on-going administrative costs associated with the program; however Bonneville does allow administrative cost recovery if projects come in below the incentive cap. This lack of an administrative reimbursement occurs in part because Bonneville recognizes that utilities also have the potential to benefit financially from ConAug and believes that these utilities should contribute something in order realize this value.

The pricing of ConAug has fluctuated over the years. According to staff, the *willingness to pay* was as great as 35¢/kWh in 2001; currently it is closer to 12¢- 16¢/kWh. Since the price is negotiated in some agreements, there is no set price published. Once the contract is signed the price cannot be unilaterally changed.

Measurement and Verification

M&V plays a key role in ConAug activities, and 100% of projects must include at least a visual inspection of measures installed by the implementing utility. Rigorous monitoring using metering and on-site verification is required for more complicated projects. While utilities are usually responsible for lighting inspection, industrial customers are often responsible for their own pre- and post-metering, usually performed by the engineering firm already involved in the project. In these cases, the engineering firm will perform the M&V and Bonneville staff will review the results.

The burden experienced by the utility in fulfilling their part of the M&V requirements depends upon several factors, including the size of the utility staff, the size and density of their service territory, and prior experience of the staff in conducting these types of inspections. Since ConAug has historically offered no administrative cost recovery, utilities in which the burden of this inspection requirement is large—typically, staff-constrained utilities with large, rural territories—have been less willing to participate.

Oversight

Bonneville also conducts oversight on all ConAug projects. Bonneville conservation and engineering staff visit each participating utility to inspect program records and to visit a sample of projects. These oversight visits are conducted annually and have typically found the utilities to be implementing the program correctly. Staff report that these visits occasionally reveal inadequate record-keeping or errors in program documentation, but have not revealed major problems in how the program is implemented.

STAFF FEEDBACK

This section is informed by in-depth interviews with seven program staff about the evolution, lessons learned and internal management of ConAug. Key contacts included people involved in program planning and design,

implementation, marketing and outreach to customer utilities, and technical decision-making.

Strengths

Staff contacts were able to identify several key strengths of the program including:

- ConAug has had relatively stable funding levels and customers have not been stung by annual funding cycles or oversubscription of program funds.
- ConAug provides Bonneville with the ability to negotiate contracts with customers and to fund custom projects.
- ConAug is flexible to Bonneville's overall conditions and is adaptive to Bonneville's needs, which is viewed from Bonneville's perspective as a program strength. However, staff recognize that utilities might become concerned because if Bonneville's overall condition improves this can reduce Bonneville's willingness to pay.
- The standard offers have worked well and customers appreciate the relatively straightforward processes. The ESO lighting rebates offer a standard package of commercial lighting measures that work well for utilities of all sizes.
- Funding to support energy efficiency projects is available through the program and flows through ConAug in a timely fashion.

Weaknesses

Staff also identified several areas for improvement, including some aspects that reflect program design decisions and the consequences of those decisions:

- Given ConAug's history as a response to the market crisis emanating from California, some contacts described it as overly focused on short-term power augmentation. There was pressure to garner short term savings, that discounted projects with longer measure lives or longer paybacks.
- There are some terms that utilities find unacceptable, including the lack of reimbursement for administrative costs and the decrement for

some customers. Further, policy inconsistencies between C&RD and ConAug are difficult to explain to customers and create confusion in the market.

- Staff working closely with utilities and their end-users report that there has been a lack of descriptive material about the ConAug processes that can be provided to the utilities and their customers.

- Bonneville's *willingness to pay* has been lowered to the lesser of 12¢ per kWh or 60% of project costs for commercial/industrial projects, and to 16¢ per kWh for residential projects. This ceiling includes all project administrative costs. Program staff report hearing from customers that this ceiling is too low.

- Contracts originally allowed utilities to invoice Bonneville for projects up to a set dollar amount and embedded the dollar limit into the contract. The Notice To Proceed letter offered the financial commitment to the utility to go ahead. When the program ramped up again after its six-month hiatus, contracts were reviewed on a project-by-project basis that slowed the program down. Staff reported that by early 2005, they had returned to allowing for the possibility of additional contract funding, assuring customer utilities they would have the flexibility they needed in their conversations with end-users.

- The contracts can have a level of specificity that does not allow for changes or exceptions to be easily incorporated. A recent review of the contracting procedures detailed the need for improvements in contracting.

- There is an internal perception that ConAug is not as flexible as may be necessary to meet customer needs. One staff person offered the opinion that: "ConAug people are so darn hard to work with. There are so many individuals doing it, so many players, so much confusion on who is responsible for what." Another person reported that he did not even promote it with customers because he didn't think it was beneficial for them. Still another emphasized "management constraints" and noted that there has perhaps been too much emphasis on the front end of ConAug (i.e., contracts) relative to the amount of time spent working with utilities to make sure that it provides value for their end-users.

According to program contacts, ConAug served its purpose, but is now an artifact of earlier concerns. The program is being used as a platform on which

to build a new bilateral contracting program for the post-2006 rate period. Contacts familiar with the post-2006-planning process describe working to align the activities supported by C&RD more closely with the more rigorous projects supported by ConAug.

Program contacts also note this rigor can affect program participation, since it appears Bonneville is unwilling to take any risk in ConAug projects. The program requires 100% inspection of completed projects, but does not provide administrative reimbursements. For utilities with limited staff and/or large rural territories, the inspection requirement can create a barrier. "They have to market it, promote it, inspect projects, and partner with people [electricians or lighting supply companies] as needed," said one contact. "This is a high burden for a low reimbursement."

When asked about other barriers to participation, contacts commonly mentioned Bonneville's reductions in its *willingness to pay* and the corresponding reductions in incentive ceilings, noting these reductions have affected participation. "At the beginning [of the program], Bonneville's willingness to pay was very high," said one contact. "We had the power crisis, then the financial crisis as a result of the power crisis. We slowly negotiated downward our willingness to pay with new agreements."

Program contacts report developing bridge agreements for new projects to assure that opportunities will not be lost in the transition from the existing ConAug program to the new bilateral program. Bridge agreements will extend ConAug for another year to accommodate projects that will be completed by the October 1, 2006, end-date, allowing utilities to continue to make commitments and capture conservation opportunities that may disappear if the utility had to wait for the details of the post-2006 programs.

According to staff, there are internal debates about how restrictive or expansive the bridge agreements should be: Should they be narrowly defined to allow only opportunities certain to be lost if forced to wait, or should they be expansive enough to allow the program to maintain its momentum up to the end of the rate period? "We don't want to give anyone an excuse for slowing down," said one contact. "Our targets will be 25% higher in the future to reflect the Council's regional conservation targets.... This would suggest making the agreements more expansive."

Staff Perspectives on the Decrement

Staff perspectives on the decrement vary considerably within Bonneville. These views fall into one of two camps: 1) the decrement *is not* a significant issue affecting the success of the program; or 2) the decrement *is* a significant issue affecting the success of the program.

- **The Decrement Is Not An Issue** – Those who report that the decrement is not an issue emphasize the internal perspective that the decrement is necessary for Bonneville and an economic argument to invest Bonneville funds in conservation for the utilities affected by it cannot be made without the decrement, that the utilities understand this need, and that each utility affected by this has done its own analysis to assess what works best for their customers. This perspective emphasizes the idea that ConAug is not intended to work for all utilities and note that, as utility circumstances change over time, so will the utilities' interest in ConAug.

- **Decrement Is An Issue** – Those who report that the decrement is an issue tend to be working more closely with customer utilities and to perceive that the majority of customers who are slice/block do not want to take the decrement and therefore will not participate in the program; they believe that without these customers, ConAug will have difficulty reaching its targets. One staff person, noting that "there are lots of opinions, and a general lack of willingness to be creative and open to discussing options," suggested that an objective third party be brought in to assess this issue and work to find new ideas and options.

These differences in perspective, coupled with both internal and external confusion regarding the specific workings of the decrement, highlight the need for Bonneville to reach consensus as to whether or not this is an issue that is important to the success of the program. If there is consensus that this is an issue, any resolution will require an open and creative dialogue with both Bonneville management and staff who are working closely with customers.

SUMMARY

ConAug provided Bonneville with a mechanism through which the agency could reduce its load obligation to customer utilities by acquiring conservation projects throughout the Pacific Northwest. The program has several unique features, the most important of which is the requirement that non-load-

following utilities accept a decrement to their block power delivery equal to the conservation acquired through ConAug. This decrement requirement has created resistance among utilities eligible to be decremented and staff acknowledge significant communication challenges exist with regards to the decrement. Internal perspectives vary considerably and the fact that this dissonance exists highlights the need to resolve whether or not this issue is one that Bonneville considers to be critical to the success of bilateral contracts.

The program has served its purpose, but the requirements for inspection and M&V, the reliance on conservative measures, and short measure life allowances are considered by customer utilities to be program hurdles that get in the way of more conservation investment. Program staff believe that many of these features reflect the needs of the 2000-2001 period and do not reflect the needs of 2006 and beyond.

3. WEB-BASED SURVEY OF UTILITIES AND STAKEHOLDERS

A web-based survey of Bonneville's customer utilities was conducted as part of the effort to inform ongoing discussions and plans for the post-2006 successor to Bonneville's conservation portfolio. After interviews with key staff at ConAug, a survey instrument was created to explore the characteristics of active ConAug participants and nonparticipants, and to explore their views on how well various ConAug procedures and processes have worked for them.

In addition to providing a systematic assessment of stakeholder views on the important issues, results of this survey aided the research team in selecting a subset of the respondents for in-depth interviews. Survey responses also informed and guided the development of interview guides for the in-depth interviews.

The decrement in ConAug is unquestionably the most salient issue for those Bonneville customer utilities who would be subject to it if they were to participate. And, the costs and benefits of participating in ConAug are very different, depending on whether customer utilities are subject to the decrement. The research team expected to find that customer utilities subject to the decrement would have very different concerns about the program than those not subject to it, and that reasons for nonparticipation by any given utility would vary according to whether the utility is subject to the decrement. Therefore, this analysis often groups customer utilities according to whether the decrement would apply to them should they participate, using the terms *load-following* and *decrement-eligible* to distinguish between these two mutually-exclusive types of customer utilities.

DISPOSITION

Bonneville provided the research team with a list of 60 contacts, 49 of whom were staff at utilities who buy power from Bonneville and are eligible to participate in Con Aug. In some cases, more than one contact per utility was provided. Utility contacts were utility staff members who would be most responsible for working with ConAug. The remaining 11 contacts included Bonneville account executives responsible for helping utility staff work with ConAug, representatives of contractors with interest in the program and representatives of interested public policy groups. Many of the contacts (of all

types) are participants in a workgroup Bonneville created to discuss plans for the post-2006 conservation portfolio.

On April 9, 2005, an email message from the evaluation coordinator at Bonneville was sent to each of the contacts, inviting them to participate in the online survey. On April 17, another email message, this time from the lead evaluator, was sent to those who had not yet returned the survey, asking that responses be received by April 20. Forty-one contacts had responded to the survey by April 20 (Table 3.1).

Table 3.1

DISPOSITION

CONTACT TYPE	CONTACTED	RESPONDED	RESPONSE RATE
Decrement-Eligible	18	14	78%
Load Following	31	22	71%
Non-Utility	11	5	45%
Total	**60**	**41**	**68%**

SURVEY RESULTS

Attributes of Sampled Utilities

Over the years, ConAug has developed various opportunities through which utilities can work to deliver conservation programs to their end-user customers. Utilities are able to operate under one or more of the available opportunities, which enumerate qualifying energy efficiency measures and associated incentive levels; customer utilities may also work with Bonneville to develop custom projects.

While all 22 load-following utility contacts reported having been involved in at least one of the various opportunities, less than one-third of decrement-eligible contacts (29%) reported having been involved in any (Table 3.2). Contacts from load-following utilities reported far greater involvement than decrement-eligible utility contacts with each of the opportunities. Four of the five non-utility contacts indicated involvement in at least one of the opportunities.

Table 3.2

EXPERIENCE WITH CONAUG OPPORTUNITIES (N=41)

OPPORTUNITY	DECREMENT-ELIGIBLE (N=14)	LOAD-FOLLOWING (N=22)	NON-UTILITY (N=5)	TOTAL (N=41)
Limited Standard Offer for Lighting (LSO)	0%	68%	20%	39%
Expanded Standard Offer for Lighting (ESO)	0%	73%	20%	41%
Expanded Standard Offer Plus (ESO+)	0%	59%	20%	34%
Invitation to Reduce Load through Conservation (IRLC)	7%	41%	20%	27%
ENERGY STAR® Homes Northwest	7%	36%	20%	24%
C&I Standard Offer	21%	77%	60%	56%
Water and Waste-Water Energy Tune-up (BacGen)	0%	27%	40%	20%
Any of the Above	29%	100%	80%	73%

More than three-fourths (19 of 22) of load-following utilities whose representatives responded to the survey have active contracts under ConAug for 2005. More than three-fourths (10 of 14) responding decrement-eligible utilities do not have contracts for 2005 (Table 3.3).

As explained in Chapter 1, ConAug has experienced a decline in participation and exploring the utilities' reasons for nonparticipation in ConAug is a key question for this research. Therefore, this analysis will often group responses based on whether utility contacts represent a utility that is currently an active ConAug participant. Those with expenditures forecast for 2005 and 2006[2] will be called *participants* or *active participants* and those not actively participating will be called *nonparticipants* (even though they may well have participated in the past).

[2] This information was culled from a spreadsheet provided by Bonneville entitled *Conservation Augmentation PCA Forecasted Expenditures*. Utilities with positive amounts in the *Contractual Budget* column were interpreted to be currently active participants.

Table 3.3

CURRENT PARTICIPATION, BY TYPE

CONTACT TYPE	ACTIVE PARTICIPANT	NON-PARTICIPANT	TOTAL	
			COUNT	PERCENT
Decrement-Eligible	4*	10	14	39%
Load Following	19	3	22	61%
Total	**23**	**13**	**36**	**100%**

* *Includes two contacts affiliated with the same utility and three actively participating decrement-eligible utilities.*

Asked whether their utilities' total loads are currently growing, shrinking, or staying the same, more than three-fourths of utility contacts (28 of 36) reported their loads are growing (Table 3.4). Loads at four utilities are staying about the same, and load at one utility is shrinking.

Table 3.4

LOAD GROWTH AT SAMPLED UTILITIES, BY TYPE AND CURRENT PARTICIPATION

CONTACT TYPE	CURRENT PARTICIPANT	GROWING	SAME	SHRINKING	TOTAL
Decrement-Eligible	**Yes**	1	3*	0	4
	No	10*	0	0	10
	Total	**11**	**3**	**0**	**14**
Load Following	**Yes**	15*	3	1	19
	No	2	1	0	3
	Total	**17**	**4**	**1**	**22**
Total	**Yes**	16	6	1	23
	No	12	1	0	13
	Total Count	**28**	**7**	**1**	**36**
	Total Percent	**78%**	**19%**	**3%**	**100%**

* *Includes two contacts affiliated with the same utility and two actively participating decrement-eligible utilities whose loads are reported to be staying the same.*

Looking within decrement-eligible utilities, almost all (10 of 11) of the ones with load growth are not currently active participants in ConAug. This is in striking contrast with the decrement-eligible utilities whose loads are not growing: all such utilities are current participants in ConAug.

Utility contacts were asked how many full-time equivalent (FTE) staff they have working on energy efficiency or conservation. Few (4 of 35) utility contacts who responded to the question indicated they have more than four staff members working in energy efficiency or conservation. It appears that decrement-eligible utilities tend to have more staff working on energy efficiency than load-following utilities (Table 3.5).

Table 3.5

SIZE OF UTILITY ENERGY EFFICIENCY STAFF, BY TYPE

NUMBER OF FTE ENERGY EFFICIENCY STAFF	DECREMENT-ELIGIBLE	LOAD-FOLLOWING	TOTAL	
			COUNT	PERCENT
1 or Less	1	11	12	34%
2 to 4	8	11	19	54%
5 to 10	2	0	2	6%
10 or More	2	0	2	6%
Total	**13**	**22**	**35**	**100%**

General Issues

Contacts used a five-point scale, where "1" is *strongly disagree*, and "5" is *strongly agree* to rate their level of agreement with a series of statements about ConAug. To ease comprehension, tables group "1" and "'2" responses together as *disagree* and "4" and "'5" responses together as *agree*. While the survey defined "3" responses as *neither disagree nor agree*, these responses are labeled *neutral* in tables.

More than two-thirds (24 of 34) of utility contacts agreed (rated their agreement at "4" or "5") that Bonneville has provided customer utilities with sufficient information to understand ConAug, and nearly all (34 of 35) agreed that their ratepayers want conservation programs (Table 3.6).

Table 3.6

GENERAL ATTITUDES AND CONTEXT, BY TYPE AND CURRENT PARTICIPATION

STATEMENT	RESPONSE	CURRENT PARTICIPANT				TOTAL	
		DECREMENT-ELIGIBLE		LOAD FOLLOWING			
		YES	NO	YES	NO	COUNT	PERCENT
Bonneville has provided sufficient information for our utility to understand ConAug.	Agree	3	5	14	2	24	71%
	Neutral	0	2	4	0	6	18%
	Disagree	1	2	0	1	4	12%
	Total	**4**	**9**	**18**	**3**	**34**	**100%**
Participating in ConAug makes economic sense for us.	Agree	1	0	16	2	19	54%
	Neutral	1	0	2	0	3	9%
	Disagree	2	9	1	1	13	37%
	Total	**4**	**9**	**19**	**3**	**35**	**100%**
Our ratepayers want conservation programs.	Agree	3	9	19	3	34	97%
	Neutral	0	0	0	0	0	0%
	Disagree	1	0	0	0	1	3%
	Total	**4**	**9**	**19**	**3**	**35**	**100%**
Participating in ConAug mainly helps BPA, not us.	Agree	2	8	4	0	14	40%
	Neutral	1	1	5	1	8	23%
	Disagree	1	0	10	2	13	37%
	Total	**4**	**9**	**19**	**3**	**35**	**100%**
ConAug helps us do conservation we wouldn't otherwise be able to do.	Agree	2	0	18	2	22	69%
	Neutral	0	1	1	0	2	6%
	Disagree	2	5	0	1	8	25%
	Total	**4**	**6**	**19**	**3**	**32**	**100%**
We are busy implementing C&RD products, so we don't have time to participate in ConAug.	Agree	0	0	2	1	3	9%
	Neutral	0	3	1	0	4	12%
	Disagree	4	5	15	2	26	79%
	Total	**4**	**8**	**18**	**3**	**33**	**100%**

More than three-fourths of load-following utilities (18 of 22) agree that participating in ConAug makes economic sense for them. However, a similarly substantial majority of decrement-eligible utilities (11 of 13) believe participating in ConAug does not make economic sense for them. The one decrement-eligible utility contact who agreed that participating in ConAug makes economic sense is an active participant. On the other hand, most (9 of 11) decrement-eligible utilities who disagree that participating makes economic sense are not active participants.

Similarly, most (10 of 13) decrement-eligible utilities believe ConAug mainly helps Bonneville, not their utility, while just over half of load-following utilities (12 of 22) disagree that ConAug mainly helps Bonneville. Following the pattern observed with regard to whether ConAug makes economic sense, most (8 of 10) decrement-eligible utilities who agree that ConAug mainly helps Bonneville are not active participants. Interestingly however, all four load-following utilities saying that ConAug mainly helps Bonneville are active participants in ConAug despite this belief.

By a large margin (20 of 23), utilities who are currently active participants in ConAug agree the program is helping them achieve conservation they otherwise would not be able to do.

Also reported in Table 3.6 is agreement with the statement: “We are busy implementing C&RD products, so we don't have time to participate in ConAug.” This question was included as part of the effort to explore reasons for nonparticipation in ConAug. The Conservation and Renewables Discount (C&RD) is a rate credit program Bonneville offers alongside ConAug; C&RD funds can be used for a broader range of conservation activities than those for ConAug. The research team sought to determine whether C&RD could be competing with ConAug for scarce implementation resources, especially at staff-constrained utilities. While Bonneville hopes to maximize participation in ConAug, Bonneville staff indicated that any ConAug nonparticipation that is a result of competition with C&RD would not be a cause for concern. Findings indicate that competition from C&RD does not explain nonparticipation in ConAug: only one of eleven nonparticipants (from a load-following utility) agreed that they were so busy implementing C&RD they had no time to participate in ConAug.

Another possible explanation for nonparticipation in ConAug is that nonparticipants simply do not believe the energy efficiency measures available through ConAug’s standard offers will result in energy savings. Findings indicate that few nonparticipants are opting out of ConAug because of doubt

about the qualified measures: agreement that ConAug-qualified measures will result in a reduced load is nearly as high among nonparticipants (9 of 12) as it is among participants (21 of 23, Table 3.7). Yet, there remain three of the 12 nonparticipants who did not agree: two indicated neutrality to the statement and one disagreed that ConAug-qualified measures will result in a reduced load.

Table 3.7

QUALIFIED MEASURES, BY TYPE AND CURRENT PARTICIPATION

STATEMENT	RESPONSE	CURRENT PARTICIPANT				TOTAL	
		DECREMENT-ELIGIBLE		LOAD FOLLOWING			
		YES	NO	YES	NO	COUNT	PERCENT
I am confident that ConAug-qualified conservation measures result in a reduced load.	Agree	4	7	17	2	30	86%
	Neutral	0	1	2	1	4	11%
	Disagree	0	1	0	0	1	3%
	Total	**4**	**9**	**19**	**3**	**35**	**100%**
The measures qualifying for the ESO and ESO+ standard offers are available in my area.	Agree	1	1	17	3	22	88%
	Neutral	0	2	0	0	2	8%
	Disagree	0	1	0	0	1	4%
	Total	**1**	**4**	**17**	**3**	**25**	**100%**
ConAug should include some newer energy-efficiency technologies in standard offers.	Agree	2	4	13	2	21	64%
	Neutral	2	3	5	1	11	33%
	Disagree	0	0	1	0	1	3%
	Total	**4**	**7**	**19**	**3**	**33**	**100%**
Con Aug standard offers should allow substitutions of equipment with equivalent savings.	Agree	2	7	15	3	27	84%
	Neutral	0	0	4	0	4	13%
	Disagree	1	0	0	0	1	3%
	Total	**3**	**7**	**19**	**3**	**32**	**100%**

With regard to whether qualified measures are available in the service area of sampled utilities, all active participants agree that they are available, as do all load-following utility contacts. The only utility contacts indicating measures may not be locally available were from nonparticipating decrement-eligible utilities: of the four nonparticipant decrement-eligible utilities responding to the question, two indicated neutrality, one agreed and one disagreed.

Nearly two-thirds (21 of 33) of utility contacts believe that ConAug should include some newer energy efficiency technologies in standard offers. There was even greater consensus (27 of 32) around the notion that standard offer rules be changed to allow for substitutions of equipment with equivalent savings.

Half of participants (10 of 20) agree that the M&V requirement of 100% inspection is reasonable (Table 3.8).

Table 3.8

MEASUREMENT AND VERIFICATION, BY TYPE AND CURRENT PARTICIPATION

STATEMENT	RESPONSE	CURRENT PARTICIPANT				TOTAL	
		DECREMENT-ELIGIBLE		LOAD FOLLOWING			
		YES	NO	YES	NO	COUNT	PERCENT
The M&V requirement of 100% inspection for ESO and ESO+ projects is reasonable.	Agree	2	0	8	1	11	38%
	Neutral	0	2	3	2	7	24%
	Disagree	0	4	7	0	11	38%
	Total	**2**	**6**	**18**	**3**	**29**	**100%**
The M&V requirements for custom projects are difficult for our utility to meet.	Agree	1	2	11	0	14	47%
	Neutral	0	2	4	2	8	27%
	Disagree	3	0	4	1	8	27%
	Total	**4**	**4**	**19**	**3**	**30**	**100%**
BPA provides sufficient engineering support to do the M&V for custom projects.	Agree	2	3	14	2	21	68%
	Neutral	0	2	2	1	5	16%
	Disagree	1	1	3	0	5	16%
	Total	**3**	**6**	**19**	**3**	**31**	**100%**

Uncertainty about how M&V results will affect incentives is a deterrent to our commercial and industrial customers' participation.	**Agree**	1	3	9	2	15	52%
	Neutral	0	2	5	1	8	28%
	Disagree	1	0	5	0	6	21%
	Total	**2**	**5**	**19**	**3**	**29**	**100%**

Looking only at decrement-eligible utilities, both of the two participants agree the M&V requirement is reasonable, while most (4 of 6) nonparticipants do not. Load-following utility contacts' responses are less uniform: a plurality (8 of 18) of participants say the requirement is reasonable, yet about as many (7 of 18) load-following participants believe the requirement is not reasonable as believe it is reasonable. The remaining three participants are neutral on the question.

Views are mixed about whether M&V requirements for custom projects are difficult to meet. Just over half (11 of 19) of participating load-following utility contacts believe the requirements are difficult to meet. On the other hand, three of the four participating decrement-eligible utility contacts believe the M&V requirements for custom projects are not difficult to meet. Nonparticipant contacts are split, with decrement-eligible nonparticipants leaning toward agreement that the requirements are difficult to meet and load-following leaning toward disagreement.

There seems to be consensus among all types of contacts that Bonneville provides sufficient engineering support to aid the utilities in meeting M&V requirements. Similarly small portions of each contact type disagree that engineering support is sufficient.

Table 3.8 also presents agreement with the statement: "Uncertainty about how M&V results will affect incentives is a deterrent to our commercial and industrial customers' participation." The more complex a conservation project, the more likely actual savings performance will differ slightly from estimates. Because final incentive amounts for custom projects are tied to measured, verified savings performance, there was concern that uncertainty as to the exact incentive amounts may make recruiting end-user participants more difficult for utilities who want to undertake custom projects in ConAug.

Findings indicate there is a feeling among utility contacts that this uncertainty impedes their efforts to recruit end-user participants: overall, about half of contacts (15 of 29) agree the uncertainty deters their customers' participation. Nonparticipants are more likely to say that the uncertainty has an impact, with

most (5 of 8) agreeing and none disagreeing. Participants had a wider range of views; just under half (10 of 21) agree that the uncertainty has an impact, and 6 of 21 disagree.

Few (6 of 28) utility contacts agree that the contracts used in ConAug are overly specific (Table 3.9). However, a similarly small number (8 of 28) disagree: by far the most common response was neutrality, given by half (14 of 28) of utility contacts. This indifference could be attributed to limited contract experience, but contacts had the option of choosing *not applicable or don't know* in response to the question if they did not have experience on which to base a response (indeed, 8 contacts did so, all nonparticipants—the table excludes these responses). Findings neither confirm nor reject the notion that contracts are overly specific, though the large portion of neutral responses may indicate the issue is not of concern for most utilities.

Table 3.9

WORKING WITH BONNEVILLE, BY TYPE AND CURRENT PARTICIPATION

QUESTION	RESPONSE	CURRENT PARTICIPANT				TOTAL	
		DECREMENT-ELIGIBLE		LOAD-FOLLOWING			
		YES	NO	YES	NO	COUNT	PERCENT
Con Aug contracts are so specific, it's hard to deliver programs that will meet every specification.	Agree	0	1	5	0	6	21%
	Neutral	2	1	9	2	14	50%
	Disagree	2	0	5	1	8	29%
	Total	**4**	**2**	**19**	**3**	**28**	**100%**
The way BPA interprets exhibits to Purchase of Conservation Agreements (PCAs) is usually fair and reasonable.	Agree	1	0	7	1	9	33%
	Neutral	2	3	8	2	15	56%
	Disagree	1	1	1	0	3	11%
	Total	**4**	**4**	**16**	**3**	**27**	**100%**
It's pretty easy to work with BPA to amend exhibits to Purchase of Conservation Agreements (PCAs).	Agree	1	1	10	2	14	52%
	Neutral	1	1	4	1	7	26%
	Disagree	2	2	2	0	6	22%
	Total	**4**	**4**	**16**	**3**	**27**	**100%**
We would do more projects if	Agree	1	1	6	1	9	32%

we did not need to provide so much project documentation before we have agreement from BPA for a budget amount.	Neutral	2	4	6	2	14	50%
	Disagree	0	0	5	0	5	18%
	Total	**3**	**5**	**17**	**3**	**28**	**100%**

There was a similar view among contacts with regard to whether Bonneville is usually fair and reasonable when interpreting PCAs, which are the primary instrument through which utilities contract with Bonneville to participate in ConAug. There was three times as much agreement (9 of 27) that Bonneville interprets these contracts fairly as there was disagreement (3 of 27), yet most (15 of 27) utility contacts expressed neutrality on the question.

Most (14 of 27) utility contacts agree that it's pretty easy to work with Bonneville to amend PCAs when needed. However, half of the decrement-eligible utilities who responded (4 of 8) disagreed that amending the PCAs is easy.

Just under one-third (9 of 28) of utility contacts reported they would do more projects if they were not required to provide so much documentation before getting an agreement from Bonneville on a budget. Half of contacts (14 of 28) neither agreed nor disagreed with the statement.

There is no consensus in responses to questions about custom projects (Table 3.10).

Table 3.10

CUSTOM PROJECTS, BY TYPE AND CURRENT PARTICIPATION

QUESTION	RESPONSE	CURRENT PARTICIPANT				TOTAL	
		DECREMENT-ELIGIBLE		LOAD-FOLLOWING			
		YES	NO	YES	NO	COUNT	PERCENT
It is easy to tell what types of custom projects BPA is interested in funding under Con Aug.	Agree	4	0	7	1	12	40%
	Neutral	0	1	5	2	8	27%
	Disagree	0	3	7	0	10	33%
	Total	**4**	**4**	**19**	**3**	**30**	**100%**

Getting a custom project approved requires too much work.	**Agree**	2	2	5	2	11	38%
	Neutral	1	1	7	1	10	34%
	Disagree	0	1	7	0	8	28%
	Total	**3**	**4**	**19**	**3**	**29**	**100%**
BPA's decision-making process for approving or rejecting custom project proposals is efficient.	**Agree**	2	0	7	2	11	38%
	Neutral	1	2	6	1	10	34%
	Disagree	0	3	5	0	8	28%
	Total	**3**	**5**	**18**	**3**	**29**	**100%**

Responses were about evenly split between agreement, neutrality and disagreement on whether it is easy to tell what type of projects Bonneville is interested in funding under ConAug, whether getting custom projects approved requires too much work, and whether Bonneville's process for approving or rejecting custom projects is efficient. It appears that decrement-eligible participants are more positive than decrement-eligible nonparticipants about the ease of knowing the type of custom projects Bonneville is interested in and about the efficiency of Bonneville's process for approving or rejecting custom project proposals.

Almost half (14 of 32) of utility contacts agree that the processes for implementing projects in ConAug are very labor intensive for them, but close to as many (10 of 32) disagree (Table 3.11). Load-following contacts are about evenly split between agreement and disagreement.

There was little consensus on the matter of ConAug's administrative expense reimbursement policies. Utility contacts were about evenly split between agreement that the policies work pretty well (9 of 27), neutrality (7 of 27), and disagreeing that the policies work pretty well (11 of 27). Nonparticipants leaned towards disagreement.

There seems to be a degree of skepticism about some of the assumptions ConAug makes about free-ridership. Most (17 of 31) utility contacts disagree that whenever incentives cover less than 20% of a project's incremental cost, the project is likely to have occurred in the absence of any incentives. And a similar majority (16 of 27) believes that projects with a payback of less than one year are not necessarily very likely to be undertaken in the absence of incentives.

Four non-utility contacts responded to the questions about free-ridership, though their responses are not reported in Table 3.11. Three of the four non-utility contacts disagree that when incentives only cover 20% of a project's incremental cost, the projects are very likely to happen without incentives; and the same number disagree that end-users are likely to install projects with less than one-year paybacks on their own, without incentives.

Table 3.11

POLICIES AND PROCESS, BY TYPE AND CURRENT PARTICIPATION

QUESTION	RESPONSE	CURRENT PARTICIPANT				TOTAL	
		DECREMENT-ELIGIBLE		LOAD-FOLLOWING			
		YES	NO	YES	NO	COUNT	PERCENT
The processes for implementing projects in Con Aug are very labor intensive for us.	Agree	2	3	8	1	14	44%
	Neutral	1	3	3	1	8	25%
	Disagree	1	0	8	1	10	31%
	Total	**4**	**6**	**19**	**3**	**32**	**100%**
Con Aug's policies regarding reimbursements for administrative expenses work pretty well for us.	Agree	1	0	8	0	9	33%
	Neutral	2	1	2	2	7	26%
	Disagree	0	2	8	1	11	41%
	Total	**3**	**3**	**18**	**3**	**27**	**100%**
When incentives cover less than 20% of a project's incremental cost, it's very likely participants would have done the project on their own, without an incentive.	Agree	0	2	6	2	10	32%
	Neutral	1	0	2	1	4	13%
	Disagree	3	4	10	0	17	55%
	Total	**4**	**6**	**18**	**3**	**31**	**100%**
Our customers are very likely to install projects with less than a 1 year payback on their own, without an incentive.	Agree	0	3	7	0	10	29%
	Neutral	0	2	5	1	8	24%
	Disagree	4	3	7	2	16	47%
	Total	**4**	**8**	**19**	**3**	**34**	**100%**
It is impossible to get our customers to agree to repay conservation incentives if	Agree	1	2	6	0	9	47%
	Neutral	1	0	4	2	7	37%

they change to another energy provider.	Disagree	0	0	3	0	3	16%
	Total	**2**	**2**	**13**	**2**	**19**	**100%**

The Decrement

Decrement-eligible utility contacts are virtually unanimous (11 of 12) in the feeling that the decrement is hard for them because they are reluctant to give up access to any Bonneville power (Table 3.12). They are also virtually unanimous in the belief that the decrement strongly discourages their participation in ConAug. Feelings are strong on the issue, with three-fourths' majorities or greater not just agreeing, but strongly agreeing with these two statements.

Table 3.12

DECREMENT-ELIGIBLE UTILITY CONTACTS' VIEWS ON THE DECREMENT, BY CURRENT PARTICIPATION

STATEMENT	CURRENT PARTICIPANT	AGREEMENT WITH STATEMENT					TOTAL
		1 STRONGLY DISAGREE	2	3	4	5 STRONGLY AGREE	
The decrement requirement makes it hard because we don't want to give up access to any BPA power.	Yes	0	0	1	1	2	4
	No	0	0	0	1	7	8
	Total Count	**0**	**0**	**1**	**2**	**9**	**12**
	Total Percent	**0%**	**0%**	**8%**	**17%**	**75%**	**100%**
The decrement requirement strongly discourages utilities from participating in Con Aug.	Yes	0	0	0	0	4	4
	No	0	0	0	1	8	9
	Total Count	**0**	**0**	**0**	**1**	**12**	**13**
	Total Percent	**0%**	**0%**	**0%**	**8%**	**92%**	**100%**
The length of time to which the decrement applies is not clear.	Yes	0	1	0	0	0	1
	No	0	1	1	1	2	5
	Total Count	**0**	**2**	**1**	**1**	**2**	**6**
	Total Percent	**0%**	**33%**	**17%**	**17%**	**33%**	**100%**

A limited number of decrement-eligible utility contacts were asked to rate their agreement with the statement: "The length of time to which the decrement applies is not clear." There was little consensus in responses to this question, which suggests that a good portion of decrement-eligible contacts are not clear about how long the decrement applies.

We sought to explore how well decrement-eligible utility contacts understand how the decrement works by including some simple statements about how the decrement works and asking contacts to say whether the statements are true or false (Table 3.13). However, phrasing unambiguously true or false statements about how the decrement works proved surprisingly difficult. For example, while "the decrement applies until the end of the Power Sales Agreement" is true in most cases, it is not always true. Similarly, while "the exact time period to which the decrement applies can be negotiated" is true in the sense that scheduling when utilities take a decrement is negotiable, the statement is false if interpreted to mean that the decrement could be prematurely lifted through negotiations.

Table 3.13

DECREMENT-ELIGIBLE UTILITY CONTACTS' COMPREHENSION OF THE DECREMENT, BY CURRENT PARTICIPATION

QUESTION	CURRENT PARTICIPANT	TRUE	FALSE	DON'T KNOW	TOTAL
The decrement applies until the end of the Power Sales Agreement.	Yes	2	0	2	4
	No	3	1	3	7
	Total Count	**5**	**1**	**5**	**11**
	Total Percent	**45%**	**9%**	**45%**	**100%**
The decrement applies until net requirements are calculated again and applied.	Yes	1	0	0	1
	No	3	0	4	7
	Total Count	**4**	**0**	**4**	**8**
	Total Percent	**50%**	**0%**	**50%**	**100%**
The exact time period the decrement applies to can be negotiated between BPA and the utility.	Yes	2	1	1	4
	No	2	1	6	9
	Total Count	**4**	**2**	**7**	**13**
	Total Percent	**31%**	**15%**	**54%**	**100%**

The decrement can be taken in increments as small as 1/12 aMW.	**Yes**	3	0	1	4
	No	1	5	3	9
	Total Count	**4**	**5**	**4**	**13**
	Total Percent	**31%**	**38%**	**31%**	**100%**

Still, given the large portion of *I don't know* responses, the results strongly suggest that most decrement-eligible utilities are not well informed about how the decrement works.

Willingness to Pay

Most contacts believe there are opportunities to acquire conservation at Bonneville's current *willingness to pay* in the commercial (26 of 40) and industrial (27 of 40) sectors (Table 3.14).

Table 3.14

REPORTED AVAILABILITY OF CONSERVATION OPPORTUNITIES AT CURRENT WILLINGNESS TO PAY IN EACH MARKET SECTOR, BY TYPE AND PARTICIPATION

MARKET SECTOR	DO OPPORTUNITIES EXIST AT THE CURRENT INCENTIVE LEVELS?	CURRENT PARTICIPANT				NON-UTILITY	TOTAL	
		DECREMENT-ELIGIBLE		LOAD-FOLLOWING				
		YES	NO	YES	NO		COUNT	PERCENT
Residential	**Yes**	2	2	8	1	1	14	36%
	No	1	3	8	1	1	14	36%
	Don't Know	1	3	3	1	3	11	28%
	Total	**4**	**8**	**19**	**3**	**5**	**39**	**100%**
Commercial	**Yes**	4	4	14	2	2	26	65%
	No	0	2	3	0	1	6	15%
	Don't Know	0	3	2	1	2	8	20%
	Total	**4**	**9**	**19**	**3**	**5**	**40**	**100%**
Industrial	**Yes**	4	5	12	2	4	27	68%

	No	0	2	5	0	1	8	20%
	Don't Know	0	2	2	1	0	5	13%
	Total	**4**	**9**	**19**	**3**	**5**	**40**	**100%**
Agricultural	**Yes**	0	2	2	1	2	7	18%
	No	0	4	6	1	1	12	31%
	Don't Know	4	3	10	1	2	20	51%
	Total	**4**	**9**	**18**	**3**	**5**	**39**	**100%**

In the residential sector, just as many (14 of 39) believe there are no opportunities as believe there are. While more than half of contacts (20 of 39) don't know whether there are agricultural conservation opportunities, more (12 of 39) believe there are no such opportunities than believe there are (9 of 39).

In most cases, actively participating utility contacts were more optimistic about the existence of conservation opportunities at Bonneville's current *willingness to pay* than nonparticipants. However, the portion of participants assenting that opportunities exist in the residential sector was still less than half (10 of 23).

Fewer than half of active ConAug participants claim to understand why incentive levels have changed over the course of the program. Overall, just over one-third (13 of 34) of utility contacts claim to understand why (Table 3.15).

Table 3.15

UTILITY CONTACTS' UNDERSTANDING OF WHY INCENTIVES HAVE CHANGED, BY TYPE AND CURRENT PARTICIPATION

QUESTION	RESPONSE	CURRENT PARTICIPANT						TOTAL			
		DECREMENT-ELIGIBLE			LOAD FOLLOWING						
		YES	NO	TOTAL	YES	NO	TOTAL	YES	NO	COUNT	PERCENT
Con Aug	**Yes**	1	1	2	9	2	11	10	3	13	38%

incentive levels have changed over the course of the Con Aug program. Do you feel you understand why?	**No/ Don't Know**	3	7	10	10	1	11	13	8	21	62%
	Total	**4**	**8**	**12**	**19**	**3**	**22**	**23**	**11**	**34**	**100%**

The 13 utility contacts noted above who indicated they understood why ConAug incentive levels have changed over the course of the program, along with the two non-utility contacts who indicated understanding why the incentives have changed, were asked to give a brief explanation of their understanding (Table 3.16). A review of these responses revealed only a small fraction (4 of 15) think that the changes are chiefly due to fluctuations in the market price of electricity. The same number indicated that Bonneville changed incentives to cut costs and an equal number believed that incentives were changed because they were originally too high.

Table 3.16

WHY HAS BPA CHANGED CONAUG INCENTIVE LEVELS?
(MULTIPLE RESPONSES ALLOWED)

REASON	LOAD FOLLOWING (N=11)	DECREMENT ELIGIBLE (N=2)	NON-UTILITY (N=2)	TOTAL (N=15)
Price of Power	3	0	1	4
Cut Costs	4	0	0	4
Incentives Too High	3	0	1	4
Other	2	1	0	3

Other reasons offered included:

- *"Standard practices have improved."*

- *"Every time BPA staff makes a deal a utility accepts, the staff is gripped by the fear that it paid too much, so BPA staff move to cut the payment level the next time."*
- *"They merited changing."*

Tools

Bonneville has created a number of tools to aid utilities in participating in ConAug, and Bonneville is willing to invest in creating additional tools for utilities if there is a need. We explored how useful utility contacts believe certain currently available tools are, and to what extent there is a need for certain additional types of tools proposed by Bonneville staff.

Most contacts indicated that questions about the tools were not applicable to them, presumably because they did not have experience with the tools (Table 3.17 excludes these responses).

Table 3.17

USEFULNESS OF VARIOUS TOOLS, BY CURRENT PARTICIPATION*

TOOL	USEFULNESS OF TOOL	CURRENT PARTICIPANT		TOTAL	
		YES	NO	COUNT	PERCENT
ESO+ Sample Contract	Useful	13	0	13	76%
	Neutral	2	2	4	24%
	Not Useful	0	0	0	0%
	Total	**15**	**2**	**17**	**100%**
Measure Changes List (explaining changes to program)	Useful	15	2	17	77%
	Neutral	2	0	2	9%
	Not Useful	3	0	3	14%
	Total	**20**	**2**	**22**	**100%**
Lighting Rebate Verification Report (for ESO+ or ESO)	Useful	12	2	14	82%
	Neutral	2	0	2	12%
	Not Useful	1	0	1	6%
	Total	**15**	**2**	**17**	**100%**

Drop-down Wattage Reduction Tool (for ESO+ or ESO)	**Useful**	12	2	14	78%
	Neutral	1	1	2	11%
	Not Useful	2	0	2	11%
	Total	**15**	**3**	**18**	**100%**
ESO Equipment Specifications Document	**Useful**	9	2	11	73%
	Neutral	2	0	2	13%
	Not Useful	2	0	2	13%
	Total	13	2	15	100%
Glossary of Terms	**Useful**	11	2	13	62%
	Neutral	5	2	7	33%
	Not Useful	1	0	1	5%
	Total	17	4	21	100%

* *This table does not present responses grouped by whether the decrement applies to the contacts because of the extremely high number of decremented contacts indicating the questions were not applicable.*

This was especially true of nonparticipants and decrement-eligible utility contacts (Table 3.17). Excluding *not applicable* responses, we find that each of the tools is considered useful by a majority of those responding. The *Lighting Rebate Verification Report* received the highest portion (14 of 17) indicating it is useful, though that majority was only very slightly greater than the portions viewing most of the other tools as useful. The tool with the smallest portion considering it useful was the *Glossary of Terms*; it was still deemed useful by 13 of the 21 who responded.

For every proposed tool we asked about, one-third or more of utility contacts indicated the tool is needed (Table 3.18). However, majorities of about two-thirds or more indicated a need for workshops on specific implementation topics (20 of 31), tools or checklists to assist in verification (22 of 31) and training on how to do verification (20 of 30). Decrement-eligible nonparticipants appear to be especially keen on proposed tools to aid them with verification and workshops on specific implementation topics, while load-following nonparticipants tend to indicate they need every proposed tool we asked about.

Table 3.18

NEED FOR PROPOSED TOOLS, BY CURRENT PARTICIPATION

PROPOSED TOOL	IS TOOL NEEDED?	CURRENT PARTICIPANT				TOTAL	
		DECREMENT-ELIGIBLE		NOT DECREMENT-ELIGIBLE			
		YES	NO	YES	NO	COUNT	PERCENT
Ready-made brochures that can include your logo	Needed	1	0	7	3	11	34%
	Neutral	1	4	4	0	9	28%
	Not Needed	2	2	8	0	12	38%
	Total	**4**	**6**	**19**	**3**	**32**	**100%**
Application forms and other tools for working with end-users	Needed	1	0	8	3	12	39%
	Neutral	1	4	6	0	11	35%
	Not Needed	2	1	5	0	8	26%
	Total	**4**	**5**	**19**	**3**	**31**	**100%**
							Continued
Workshops on specific implementation or technical topics	Needed	2	3	12	3	20	65%
	Neutral	0	2	4	0	6	19%
	Not Needed	2	0	3	0	5	16%
	Total	**4**	**5**	**19**	**3**	**31**	**100%**
Tools or checklists to assist in verification	Needed	2	3	14	3	22	73%
	Neutral	0	1	1	0	2	7%
	Not Needed	2	0	4	0	6	20%
	Total	**4**	**4**	**19**	**3**	**30**	**100%**
Training on how to do verification	Needed	1	3	14	2	20	67%
	Neutral	0	1	1	1	3	10%
	Not Needed	3	0	4	0	7	23%
	Total	**4**	**4**	**19**	**3**	**30**	**100%**

All contacts were given the chance to suggest any workshops, tools or other assistance Bonneville could offer to aid utilities who participate in ConAug. The

most common type of response was in regard to additional training or more information of some kind (Table 3.19).

Table 3.19

SUGGESTIONS FOR WORKSHOPS, TOOLS OR OTHER ASSISTANCE (MULTIPLE RESPONSES ALLOWED)

SUGGESTION	LOAD FOLLOWING (N=22)	DECREMENT ELIGIBLE (N=14)	NON-UTILITY (N=5)	TOTAL
More Information/Training	4	1	1	6
Individualized Contracts	2	0	0	2
More Consistency/ Certainty	1	0	1	2

More information or training specifically mentioned by these contacts included:

- *"Training for completing commercial lighting audits, basic lighting and advanced lighting training."*
- *"On-line seminars."*
- *"Hands-on training."*
- *"A clear statement of measure lives."*
- *"Training for contractors who deliver the program."*
- *"Mandatory workshops for consultants."*

Other suggestions were for more flexibility, that is, less of a "cookie-cutter approach" in contracts, and more consistency and certainty, especially in regard to incentive levels.

General Comments

The survey concluded with two open-ended questions, which invited contacts to name two things they feel are working well with the program and two things they feel are not working well.

With regard to what is working well, the most common response, given by 13 of the contacts, had to do with the people involved in the program (Table 3.20). "Ease of use" was the second-most commonly named program feature that is working well.

Table 3.20

THINGS ABOUT THE PROGRAM THAT ARE WORKING WELL (MULTIPLE RESPONSES ALLOWED)

WORKING WELL	LOAD FOLLOWING (N=22)	DECREMENT ELIGIBLE (N=14)	NON-UTILITY (N=5)	TOTAL
People	9	4	0	13
Ease of Use	3	1	0	4
Other	10	7	3	20

Other specifically mentioned program features the respondents believe are working well included:

- *"The project proposal review process."*
- *"The LSO & ESO programs."*
- *"The tools and information for standard offers."*
- *"The energy AE templates."*
- *"The speed of reimbursements."*

However, one respondent said "nothing" about the program is working well.

With regard to things about the program perceived as not working well, the most common response was the decrement itself, mentioned by ten of the contacts (Table 3.21). The level of the incentives (too low) was the second-most commonly mentioned drawback to the program. Program changes and uncertainty, and program or contract inflexibility were also mentioned several times.

Table 3.21

THINGS ABOUT THE PROGRAM THAT HAVE NOT BEEN WORKING WELL (MULTIPLE RESPONSES ALLOWED)

NOT WORKING WELL	LOAD FOLLOWING (N=22)	DECREMENT ELIGIBLE (N=14)	NON-UTILITY (N=5)	TOTAL
Decrement	6	3	1	10
Low Incentives	3	5	1	9
Change/ Uncertainty	5	1	1	7
Contract/Program Inflexibility	4	1	0	5
Other	10	5	3	18

Other things the contacts mentioned as not working well included:

- *"Lack of administrative reimbursement"* (mentioned twice).
- *"Information regarding the incremental and free-ridership rules."*
- *"Rates are locked."*
- *"The measure list is greatly reduced."*
- *"Upon each budget extension of the already signed Con-Aug contract, BPA lowers what they are willing to pay for conservation."*
- *"The one megawatt increments."*
- *"The aMW increments."*
- *"Oversight and evaluation language."*
- *"The process for adding new measures and program features."*
- *"Contract details are too rigid."*
- *"Engineering assistance to design projects and follow-up with customers."*

- *"Focusing on what BPA's engineer feels is the best option rather than on savings."*
- *"It interferes with local utilities' C&RD and independent conservation programs."*

SUMMARY

All load-following customer utilities that we spoke with have participated in ConAug under one or more of the available opportunities, and most are currently active participants. The decrement-eligible customer utilities we spoke with have far less experience participating in ConAug, and far fewer of the decrement-eligible utilities we spoke with are currently active participants.

The presence of load growth appears to make ConAug participation less attractive to decrement-eligible utilities. The majority of decrement-eligible utilities who are experiencing load growth are not currently active ConAug participants, while the two decrement-eligible utilities who are not experiencing load growth are currently active participants.

Most load-following customer utilities believe participating in ConAug makes economic sense for them and do not believe that their participation mainly helps Bonneville, as opposed to helping them.

In contrast, while decrement-eligible utility contacts do not have a clear understanding of how the decrement works, they believe that participating in ConAug makes no economic sense for them and that if they were to participate, it would mainly benefit Bonneville, not them. They are almost unanimous in feeling reluctant to give up any access to Bonneville power through the decrement. They are also almost unanimous in the belief that the decrement strongly discourages their participation.

While decrement-eligible utilities who believe ConAug mainly helps Bonneville are not actively participating, load-following utilities who believe ConAug mainly helps Bonneville are still actively participating. This suggests that utilities are willing to participate in programs even if they perceive that the benefit is mainly Bonneville's, as long as there is no decrement.

Other issues do not appear to limit participation as much as the decrement. Nonparticipation in ConAug cannot be explained by utilities being occupied with C&RD. Nonparticipants have confidence in the efficacy of ConAug-

qualified measures, so lack of confidence in the measures also cannot explain their nonparticipation.

Some utility contacts believe participating in ConAug is labor-intensive, and some do not. Decrement-eligible utility contacts tend to be more willing to say participation is labor-intensive.

4. IN-DEPTH INTERVIEW RESULTS

As part of the email survey discussed in Chapter 3, respondents were asked if they would be willing to participate in an in-depth interview to explore further their views on ConAug: how the program has worked or not worked for them and how participation might be encouraged in future incarnations of the program. Interviews were completed between May 27 and June 13, 2005. This chapter presents the results from an analysis of these in-depth interviews.

DESCRIPTION OF CONTACTS

Of the 41 utility representatives who responded to the email survey, 27 indicated that they would be willing to participate in a follow-up interview. Selection for in-depth interviews was based in part on the desire to get a representatives sample of the types of Bonneville customers who had and had not participated in ConAug. To accomplish this, the evaluation team selected contacts from each of the four Northwest states, from large and small utilities, and from utilities with different types of power sales contracts with Bonneville, for a total of 17 utility contacts. Two of the email respondents willing to be interviewed were from engineering firms, but were not contacted at this time, as we were only interested in utilities for the in-depth interviews.

Table 4.1 describes the characteristics of the utilities selected for follow-up interviews.

Table 4.1

CHARACTERISTICS OF IN-DEPTH INTERVIEW CONTACTS

CHARACTERISTIC	ACTIVE PARTICIPANT	NOT PARTICIPATING	TOTAL
Decrement Eligible	2	5	7
Load Following	10	0	10
Total	**12**	**5**	**17**

Our final selection included ten Washington utilities, five Oregon utilities, and one each from Montana and Idaho.

All of the utility contacts interviewed described their organizations as supportive of energy efficiency and as seeking ways to provide energy efficiency services to their customers. It was common for utility contacts to report having a board or commission that supported energy efficiency by allocating a percentage of the budget each year to efficiency efforts. This was true even at small utilities, several of which reported establishing funding for an efficiency staff person, irrespective of Bonneville program funds.

One indication of a utility's size is the number of customers served. The number of customers reported by utilities contacted for in-depth interviews ranged from 3,000 to 365,000, with a mean of 57,363 customers and a median of 25,351. Nine of the 17 contacted (Table 4.2) were from utilities with fewer than 20,000 customers. These contacts often described themselves as the sole employee providing energy efficiency services at their utility; several described having other responsibilities as well.

Table 4.2

UTILITY SIZE BY NUMBER OF CUSTOMERS

SIZE	DECREMENT ELIGIBLE	LOAD FOLLOWING	TOTAL
Small (Fewer than 20,000 customers)	2	7	9
Medium (20,000 – 60,000 customers)	2	3	5
Large (More than 60,000 customers)	3	0	3
Total	**7**	**10**	**17**

Another way of understanding size is to consider a utility's total sales by megawatt hour (MWh). Utility contacts represented utilities with sales that ranged from 83,000 MWh to over 9 million, with a mean of 1.65 million MWh and a median of 736,967. Table 4.3 describes the utilities contacted by megawatt hour sales. (Note, some of the small utilities have higher-than-expected sales due to large industries or other specific end-use characteristics.)

Table 4.3

UTILITY SIZE BY NUMBER OF MEGAWATT HOUR SALES (N=17)

SIZE	DECREMENT ELIGIBLE	LOAD FOLLOWING	TOTAL
Small (Less then 500,000 MWh)	0	5	5
Medium (500,000 – 2 million MWh)	3	5	8
Large (Over 2 million MWh)	4	0	4
Total	**7**	**10**	**17**

Participants

Participants described using ConAug funds to keep their energy efficiency programs running, especially given rate increases and other fallout from the 2000-2001 energy crisis. The participant utilities fell into two main categories: those that signed up early and negotiated flexible, long-term contracts; and those that are running mainly standard offer programs, either because they are ineligible for the C&RD, or to augment their C&RD activities. Two of the smaller utilities relying primarily on standard offer programs had also brought custom projects to ConAug.

Contacts that signed up early described responding to the IRLC Bonneville issued in late 2000 and early 2001. Several contacts have used their original IRLC contracts throughout the rate period to maintain or augment their energy efficiency activities; others renegotiated contracts at Bonneville's request or because the original contract expired. The IRLC/ConAug contracts provided a framework under which utilities could propose energy efficiency projects up to a set budget amount and allowed the flexibility they needed to implement projects appropriate for their customers. Several contacts reported that when they had to renegotiate their contracts, the terms were less favorable and they had less negotiating room than existed earlier in the program. According to these contacts, later ConAug exhibits became less of a negotiating process and more of a "take it or leave it" offer.

Utilities relying primarily on standard offer exhibits tend to be smaller, load-following utilities that have a different relationship with Bonneville than the larger utilities. These utilities depend on Bonneville for all of their power and thus portray themselves as more closely tied to the federal system. These

contacts included two utilities with *pre-sub* contracts, that is, contracts that predate the current power subscription period. By signing up with Bonneville early in the program, pre-sub utilities negotiated long-term contracts with low rates that excluded participation in the C&RD wholesale rate credit program. Without C&RD, these utilities have relied on ConAug as their primary vehicle for providing energy efficiency services to their customers. Other participants included load-following utilities using ConAug funds to augment the activities they provide under C&RD. As one contact noted, "C&RD [funding] disappeared quickly. We use ConAug to reinforce C&RD when it runs out, even though the values are substantially reduced."

Utilities with smaller staffs were generally pleased with the standard offer programs and appreciated the Bonneville engineers and energy efficiency representatives who facilitated their program participation and reviewed their paperwork. Since they rely on Bonneville to meet their load, these utilities do not have to consider the decrement. Indeed, most had only a vague understanding of the decrement. "I'm familiar with the subject of it, but I don't know what it really means" said one contact. "It's something like the more energy you save, the less you can buy from Bonneville." "I'm aware of it, but it's not something that I track closely because it doesn't affect us," said another. Another viewed it as a "pretty sweet deal" for larger utilities that have their own generating resources. Not all small utilities relied only on standard offer exhibits; one contact reported launching a new commercial/industrial program with ConAug funds—a program capable of supporting custom projects and allowing them to pass incentive funds through to their customers.

Nonparticipants

All five nonparticipants interviewed were from decrement-eligible utilities, and each reported that participation in ConAug was not an option. These contacts described several of the components of ConAug as profound barriers to participating, the most significant of which is the decrement requirement. Two contacts reported the decrement had created such resistance among management and power supply staff at their utility that they had not taken the time to study other components of the program.

Nonparticipant contacts described conversations and decisions made at the highest levels of management at their utility, conversations in which the decrement was determined to be contrary to their business interests. For most of these utilities, the power they receive from Bonneville is the lowest-cost power in their resource mix. While a project may save an individual customer

money, if the utility loses access to Bonneville power, it will affect the proportion of low-cost resource available overall and could raise rates for all customers. This is consistent with the findings of the email survey described in the Chapter 3: decrement-eligible utilities view ConAug as benefiting mainly Bonneville and do not believe ConAug makes economic sense for them. This has not stopped energy efficiency efforts at these utilities. Indeed, contacts reported undertaking their own conservation projects and funding them through other mechanisms, including C&RD and internal financing.

Nonparticipants mentioned other barriers as well. One was the perception that all ConAug billings must be in increments of one megawatt, which they interpreted to mean that the costs for smaller projects would have to be carried until ConAug billings equaled one megawatt. Nonparticipants also described an overall desire to minimize risk for their utility. Avoiding risk is related to the decrement for these utilities and reflects their fear of having to go to the wholesale power market at an inopportune time. It also reflects concern that taking a decrement will affect a utility's negotiating position in any future allocation of federal power. All of the nonparticipants described occasionally stormy contractual relationships with Bonneville in general and the looming possibility that a new allocation scheme for federal power in the future could negatively affect their customers.

One nonparticipant reported that his customers were aware of the decrement issue and did not want to participate in the program because of concern that such participation would have a negative effect on the local utility and could increase rates over time. This same nonparticipant was wary of the program because of past experiences with Bonneville on custom projects that have frustrated his customers and, from his perspective, damaged the utility's reputation.

OVERARCHING ISSUES

Incentive Levels

As described in previous chapters, Bonneville's willingness to pay for conservation has declined since the program's launch in 2001. This has resulted in decreasing incentives for ConAug projects, which in part reflects the lower overall price of power on the wholesale market relative to FY 2000-2001. The research team heard from participant and nonparticipant contacts that lower incentive levels can make it difficult to find eligible projects.

Contacts that negotiated umbrella contracts early in the program have been able to use their ConAug terms to support a variety of programs, including residential rebates for heat pumps and ENERGY STAR® appliances, commercial lighting programs and custom projects. These utilities, many of whom described signing their ConAug contracts in mid 2001, were able to negotiate higher incentive levels that allowed them to offer residential incentives. Bonneville's declining *willingness to pay* has made it more difficult for utilities entering the program later to offer residential programs, a barrier for those with a high proportion of residential load.

Two contacts reported directing all commercial projects through the Commercial/ Industrial Standard Offer (CISO), which provides a flat 12¢ per first year kWh saved. Both perceived that this would ensure the best possible incentive for their customers, and that it was better than ESO+ because when using the CISO, the incentives may more accurately reflect true operating hours. This is especially important in high-use applications, since the ESO+ incentives were perceived to be based upon relatively conservative assumptions.

One contact noted that, while 12¢ is usually enough with large projects undertaken by big companies with capital expenditure plans, it is a tougher sell for smaller customers who do not always plan for capital expenditures. He suggested that incentive levels be tiered in some fashion in order to cover some of the transaction costs perceived by smaller companies.

The Decrement

The most contentious issue for decrement-eligible utilities (including participants) was the decrement. Only utilities with block or slice/block contracts are required to take a decrement for conservation purchased through ConAug. Of the 100 utilities eligible to participate in ConAug, 28 are eligible to be decremented. Only 3 of the 28 are participating in ConAug.

Of the 28 eligible to be decremented, 14 are members of the Pacific Northwest Generating Cooperative (PNGC), which supplies power to these 14 generally small, rural cooperatives through a slice/block contract with Bonneville, market purchases and other resources. PNGC is governed by a board of directors made up of the general managers at each of the member cooperatives. PNGC also provides its members with power supply management, load aggregation and transmission management services. As a group, PNGC and its members are not participating in ConAug, in part because of the complexity of managing a decrement in their jointly-operated system through which power is

delivered to meet whatever load is required of member utilities. Each PNGC member also has its own block contract with Bonneville and, according to contacts at PNGC, it would be difficult to decrement the block portion of the power delivered through PNGC to that utility alone.

Confusion regarding the actual mechanics of the decrement emerged in all of the interviews, even in conversations with contacts at utilities not required to take a decrement for their ConAug conservation. There is uncertainty among all contacts about the actual term of the decrement and how it is applied. When asked about the time period over which the decrement pertained, contacts reported that it applied "through the rate period," "until the next true-up," "through the end of our power contract in 2011," and "forever." One contact described having the impression that the decrement will last through October 2006, "with a 60/40 chance that the decrement will apply through the 2009 true-up." Regardless of the actual planned termination of decrements applied during the 2001-2006 rate period, the range of answers regarding the duration of the decrement indicates the need to clarify the answers to these questions and to put the information in fact sheets. As one contact noted, "Answering some of these questions in black and white could help overcome mistrust and misinformation."

The decrement is a complex component of the program and, although it is related to energy efficiency initiatives, ultimately it is an issue of most concern to the power supply staff at eligible utilities. Contacts interviewed noted that their power supply staff are a more appropriate target for any information or discussions regarding the decrement. In some cases, energy efficiency staff described themselves as being in the frustrating position of trying to explain the decrement to power supply staff when they really do not understand it themselves. At some utilities, approval to take a decrement for conservation would have to come from the general manager or the board of directors. One contact explained that his utility power supply issues are dealt with through a special committee of the board of directors.

Even at the participating utilities that accepted a decrement for ConAug-sponsored projects, there was uncertainty about the affect of the decrement on the utility's long-term condition. "The decrement takes a tremendous amount of faith on our part and Bonneville doesn't understand this," said one contact. "Our board is committed to energy efficiency; we'll do this. Bonneville assumes that since we signed it, we understand it, but we don't."

Another concern that emerged is whether a decrement would affect a utility's negotiating position in future power-sales negotiations. Contacts described

being aware that high-level conversations are occurring regionally about how to allocate the resources from the federal system on a more long-term basis in the future, and that any change to the allocation scheme creates uncertainty for all non-load-following utilities. Several contacts expressed concern that the decrement might be used to reduce a utility's position in negotiating for the same amount of federal power.

Perhaps the most overarching concern related to the decrement was the perception that Bonneville receives the benefit of ConAug conservation projects, but the risks accumulate to the utility. Discussions about how to share benefits and risks more effectively were common in interviews with decrement-eligible utilities. For these utilities, the risk of having to purchase power on the wholesale market at the wrong time because of conservation actions that reduced their access to federal power created a powerful disincentive to participate.

One contact explained that Bonneville wanted all of the benefits to flow back to the agency, although one could argue that the benefits flow back to the region whenever the overall load is reduced through energy efficiency. For this contact, the difference between the market price and the incentives paid creates a barrier to accepting a decrement. "If the market is paying 32¢, even if you get 30, you're leaving two cents on the table… if there was some way of sharing the difference, that would be great, but Bonneville still gets 12¢ power," this contact explained. "We may have an industrial project for which we'd pay 20¢, but Bonneville can sell that power for 32¢…the difference should be shared. It feels like a double whammy—low prices for conservation and losing access to federal power."

Another contact described reading Bonneville reports in which the agency describes acquiring conservation cheaply through ConAug projects, without acknowledging that the utilities are often covering a portion of the total project cost—in some cases by adding incentives that may double the price paid per kWh. According to this contact, how this is tracked and whether it is accounted for in *price paid per kWh* for a given project was not clear.

Contacts at decrement-eligible utilities also pointed out that new generation is added without a decrement, but that conservation requires a decrement—a fact that reduces the value of conservation relative to new generation for utilities interested in protecting their access to federal power. According to these contacts, whether to do ConAug or not is tied to the potential wholesale power revenues a given unit of power could earn. If Bonneville's reimbursement is greater than the wholesale power prices, ConAug looks attractive. If not, it

makes more sense to sell any power freed up by conservation. The problem for ConAug, or any decrement-based program, is that the price of power on the wholesale market has a recent history of being somewhat volatile. Taking a decrement reflects an individual utility's forecasts and view of wholesale price trends, both of which can be unreliable. The more risk-averse utility decision-makers are, the less likely that utility will be to assume the risk inherent in a decrement.

It is also important to note that not all decrement-eligible utilities sell power on the wholesale market, which creates different economic considerations in deciding whether to accept a decrement for ConAug projects. Utilities that are wholesale market sellers are able to consider the price they could ask for the same unit of power, were they to sell it, and to weigh that price against the price Bonneville is paying for the unit of conservation. Those who do not sell electricity on the wholesale market experience the decrement as a loss of firm resources which, due to factors almost entirely out of their control (weather, the economy, the price of market power), may result in increased risk for the utility in the future.

Local Control and Flexibility

Utility contacts described being proud of the energy efficiency services they offer their customers and of seeking Bonneville energy efficiency dollars to augment their own funds. Virtually all utility contacts reported using utility funds to support energy efficiency. Utility support helps pay for staff, increased incentives, or occasionally for measures not pre-approved by Bonneville. For these utilities, retaining local control means retaining the flexibility they need to implement programs that work for their customers—regardless of Bonneville's measure lists or cost-effectiveness tests determined by the Northwest Power and Conservation Council.

Contacts described several examples of flexible contract terms, including clauses that allow utilities to support projects achieving a program *average* price per kWh, and contracts that reflect a utility's previous energy efficiency efforts when setting incentive caps. The latter was described as matching the program terms with the characteristics of the service territories—utilities with low levels of historical support for energy efficiency were likely to need lower incentives than those whose activities had primarily left them with complex, process-improvement projects.

Bonneville customers are, by their nature, public organizations that must navigate a variety of political sensitivities with their customers and local public

officials. Two contacts from smaller participating utilities emphasized a desire for local utility staff to be involved with any customer interactions related to energy efficiency. These contacts described having the knowledge and information required to ensure project success and high customer satisfaction. While some utilities described establishing clear protocols with Bonneville regarding communication with utility customers, it appears that these arrangements vary by utility.

Two participants noted cases where participation resulted in dissatisfaction among end-use customers. Instances described to the research team involved Bonneville engineers or consultants recommending measures the customer viewed as inappropriate to their situation, or measures that had already been considered and rejected through earlier consultation with the utility. Customer dissatisfaction, especially among large commercial or industrial customers, can be a problem for small utilities, because the number of customers is limited and information travels fast in their communities. And, because these are small organizations, customers may take their issues directly to the general manager and/or elected commissioners. After experiencing these problems, some energy efficiency managers report considering what they perceive as the political risk of taking part in ConAug when deciding whether to participate.

Measurement and Verification and Bonneville Oversight

In ConAug, monitoring is required only for custom projects. Projects completed under standard offers require verification through a visual inspection to assure that the measure claimed was actually installed. Participating utilities in general did not express major concerns about the M&V requirements.

Those with custom projects tend to be: 1) larger utilities with experienced engineering and efficiency staff capable of producing reliable estimates of energy savings that are used to create proposals for their customers; and 2) small utilities with a major industrial or other large end-use customer seeking incentives for a project they are considering (in these cases an engineering firm is often involved, and that firm manages the process of proposing M&V plans and engineering estimates to Bonneville). In either case, the M&V requirements are perceived as standard.

While there were no major issues related to M&V, one contact described an instance in which Bonneville engineers reviewed energy savings estimates for a customer in advance of project installation, but the actual energy savings documented through the M&V process was significantly less than estimated. In this instance, an expected incentive was reduced by half. The customer

involved was unhappy with the results of the project and the utility faced being blamed for any resulting economic hardship. The utility considered making up the difference with utility funds, but decided that it could not afford to do so.

In this case, the utility and its customer assumed that the calculations had been vetted and approved by Bonneville and believed that when Bonneville engineers are involved in reviewing initial savings calculations, the agency should share the risk of a project underperforming. According to this contact, this is a risk-allocation issue and, in these instances, the utility and the end-use customer are assuming all project risk, even if Bonneville engineers are involved in project review and approval.

Another contact described the M&V requirements as reasonable, but acknowledged some technical difficulties with actually measuring projects at the end. "It's something we agree to up front, but there are technical challenges in verifying things," he stated. "Some things are not as easy to verify as others—seasonal variation and changes in weather can affect the results. Pinpointing the energy savings can be difficult."

On the other hand, contacts from larger utilities described the measures and engineering reviews in their custom projects as standard and well-understood—reporting no problems with projects achieving lower-than-expected energy savings. These contacts were less likely to rely on Bonneville engineering staff alone and described their customers as cognizant of the range of outcomes expected from the efficiency project. One contact described these proposals as requiring a delicate balance—conservative enough to avoid the risk of disappointing results, but not so conservative that a good project appears uneconomical. "Our predictions are based on enough analysis to put a good band around the savings," this contact said. "If something doesn't meet predictions, we'll discuss it and try to fix it."

Oversight

Bonneville oversight involves an annual visit by Bonneville staff to review project files and record-keeping and to visit a sample of projects. Participants reported no problems with this process, explaining that the records normally kept for energy efficiency projects have been adequate for ConAug review activities. In at least two cases, contacts said Bonneville had accepted the utility's existing internal auditing requirements as satisfying the oversight condition. In discussing Bonneville oversight, several contacts spontaneously mentioned having a great relationship with their energy efficiency representative or the engineer they work most closely with at Bonneville. These

contacts highlighted the flexibility of their representative in working through issues that came up and in finding ways for the programs to work for their customers.

It appears that Bonneville's oversight activities are beneficial in allowing the agency to check for gaming and fraud, and to clarify rules and expectations. The examples of corrections following oversight activities were relatively minor, involving interpretations of rules and requirements that were easily resolved. In one case, a misunderstanding resulted in an overpayment of a lighting incentive. Because the error was based in part on confusing language, Bonneville and the utility shared the cost of the overpayment—the utility paid Bonneville back half of the overpayment. In another case, oversight activities revealed a project that was just below the minimum incentive. In this case, the customer was able to add to the project, bringing the incentive percentage up to the minimum level.

While no participants reported major issues with Bonneville oversight requirements, several acknowledged hearing complaints about onerous oversight requirements from contacts at other utilities at work group meetings or other events. "People complain about the onerous audit requirements," said one contact, "but we're larger and have a lot of experience with these things; we haven't had any problems." Indeed, this may be a case where the perception is worse than the reality. The contacts who complained most forcefully about M&V and oversight requirements were all nonparticipants who had no actual experience working within the programs.

Communication and Working Relationship

Bonneville has a long history of working with the public utilities of the Northwest, and this history is part of every negotiation that occurs between Bonneville and its customers. The strength of the relationship between Bonneville and a given customer utility can affect how the requirements of ConAug are perceived.

According to three contacts, the original goal of the program was to develop unique bilateral contracts with each utility. Bonneville's protocol was to make decisions, given the context for each utility—those that had aggressively pursued conservation in the past would have fewer low-cost retrofit projects and likely would need higher incentives to facilitate new energy efficiency projects. These contacts expressed hope that the bilateral program developed for the next rate period would follow this strategy and allow utility-specific factors to be considered in contract negotiations.

Most contacts were aware of the process currently underway to develop the post-2006 conservation portfolio and discussed one or more of the issues they saw emerging from that process. Utility contacts expressed varying degrees of frustration in how their input has affected the post-2006 planning. "There seems to be a disjointedness between what we're telling Bonneville and what they are coming out with in the post-2006 proposal process," said one contact. "They are planning to lower the incentives for all these measures, while they assume they'll get more conservation…we're planning to ramp down our efforts." Another said, "Bonneville is implementing programs that make it more expensive to participate and adding features that are punitive for those of us already doing things."

The state of the relationship between Bonneville and its customers is a perennial issue affected by more than the details of energy efficiency program features and, as such, is beyond the scope of this report. However, it is clear that any activity that strengthens communication and trust between Bonneville and its customers is also beneficial to energy efficiency efforts.

Free-Ridership

ConAug has set parameters for incentives to avoid free-riders. These parameters include two main screens: the program will not fund projects with less than a one-year payback or when the incentives cover less than 20% of the incremental cost of the efficient measure. In responding to questions about how these screens have affected their customers' projects, virtually all contacts said they understood the need for such screens and that the payback parameters did not sound overly restrictive. Contacts were less certain of the importance of the 20% minimum, in some cases indicating that it was more difficult to explain than excluding a project with a short payback horizon.

This issue did cause several contacts to discuss the issue of free-riders more generally, elaborating on the philosophical problems in applying the concept of free-ridership to energy efficiency programs. "There are always exceptions," said one contact, "it may help with lighting, but I have a real problem with the whole idea of free-riders anyway… if it is valued for one person it should be valued for all. How do you determine who would have done something?" Another responded, "There is this big, regional debate going on right now about this… anyone that is participating at some level could be a free-rider."

One contact cited an example in which Bonneville indicated in early discussions with a school district that a set of measures would not be funded because these measures were already being included by the school district in a

life-cycle cost analysis. According to the utility representative, state law requires that such analyses be undertaken, but does not require what is installed as a result. In relation to free-ridership, this contact noted, "Aren't you really just trying to predict a customer's state of mind…will the school district install measures or not?"

Another contact described being bothered by the issue of free-riders for many years. From his perspective free-ridership screens make him look as if he's playing a game with his customers. "We find projects that have low incentives and short paybacks, but are still not installed," he said. "It doesn't make any sense for us to stop people from doing good things."

While acknowledging the need for screens, another contact noted that Bonneville appeared overly sensitive to accusations of paying for measures that would have been installed anyway, stating it was important to remember that every customer has a different discount rate and a different acceptable payback horizon. "There is limited capital available and choices are often between increasing production and investing in energy efficiency;" he said, "artificial screens can keep good projects from happening."

"We've had good experiences with the program and the screens are okay," said another contact. "We've found it's better to work with them than against them. We're just glad Bonneville is back in the energy efficiency business."

Measures

We asked contacts for feedback on the list of eligible measures under ConAug. While contacts cited issues with the earlier ESO and LSO, several noted that the current ESO+ measure list now includes a good range of measures and reasonable requirements. As noted by one contact, "BPA has been flexible in finding places for measures to fit." Whenever it was mentioned, flexibility was described by contacts as valuable and is desired in any future arrangements with Bonneville.

One contact explained that the Bonneville engineer he works with has "exception forms," which allow them to propose measures not on the list. He had used these forms mainly for proposing T-5 retrofits and for managing the difference between very high output (VHO) and high output (HO) fixture replacements. According to this contact, whose experience with ConAug was primarily through the lighting standard offers, the incentive levels were adequate, "although vendors always want more."

Another contact explained that increasing incentives and adding to the list would make the program more marketable and flexible, something he thought could encourage more participation among commercial customers in rented space. "We face the normal challenges with commercial customers—they don't own the building, so making investments in lighting upgrades is tough," he said. "Getting around these split incentives may require higher rebates for these customers."

Another contact referenced the Northwest Power and Conservation Council's *Fifth Power Plan* and noted the aggressive list of measures included within this plan. Suggestions for additional measures that this utility was interested in having BPA investigate included:

- Early retirement of refrigerators
- Second refrigerator/freezer collection
- Pre-rinse spray heads
- Heat pumps – upgrading an electric furnace to heat pump (the respondent spent lots of time discussing this)
- Duct testing and sealing
- Heat pump water heaters

Administrative Cost Recovery

When asked about covering the costs of administering energy efficiency programs, contacts were unanimous in stating that some portion of their administrative costs were included in the operating expenses of the utility and accounted for in the annual budget. However, contacts at virtually all C&RD-eligible utilities describe recovering some portion of their energy efficiency administrative costs through the C&RD administrative allowance (historically up to 20% of a utility's C&RD budget). The one exception was a small utility that budgets for a conservation staff person regardless of Bonneville program involvement, passing any administrative cost reimbursements through to customers to facilitate more projects.

One contact described using the margin on lower-incentive projects to recover a portion of the administrative costs for ConAug. For example, if the program

allows up to 12¢ per kWh and a project requires only 10¢, the utility will capture the difference to offset the cost of running the program.

Administrative costs were not a contentious issue for the utility contacts interviewed for this portion of the evaluation. However, several noted the inconsistency between C&RD (which covers a portion of administrative costs) and ConAug (which does not). The research team also heard reports of "rumors on the street" that some utilities had negotiated contracts that allowed for reimbursement of administrative expenses.

SUMMARY

Utility contacts that had participated appreciated the opportunity provided by ConAug and reported few problems with the measure lists, the M&V and oversight requirements, and the PCA or IRLC agreements they negotiated.

Among all contacts, the evaluation team found considerable confusion, or at least uncertainty, about the decrement. Most contacts were not confident about the time period over which the decrement applies and those that were confident did not necessarily agree with each other or with Bonneville's description of the decrement to the evaluation team. The actual mechanics of the decrement are also poorly understood (for example, how it would be scheduled and how it would end—in the later case, one contact speculated it would be hard to add it back into a utility's requirements if it had been allocated to someone else).

Risk management is an inescapable issue at many utilities and this may preclude energy efficiency staff advocating for any activity that might result in increased costs or rates, even if the increase is small. For many decrement-eligible utilities, the decrement requirement is simply not acceptable. These utilities described wanting to protect their access to the federal system and viewed the price of power on the wholesale market as volatile. Unless Bonneville can provide some form of risk mitigation for utilities that might be forced to purchase power on the wholesale market because of a decrement, these utilities are unlikely to participate in any decrement-based program in the future.

Specifically, decrement-eligible utilities perceive the following risks:

- The price for power earned through conservation projects funded by ConAug may be less than the price of power on the wholesale market—giving Bonneville access to firm block power with no way for

the utility to recover the difference between the market price and the ConAug incentives.

- Given the lack of clarity about the period to which the decrement applies, some utilities are concerned that in some instances, the decrement could last longer than the measure-life.

- By taking a decrement, utilities are forgoing access to a portion of their federal power. If market events create a spike in the price of power on the wholesale market, these utilities envision being forced to pay high prices specifically because of conservation activities. Since conservation is frequently described as a hedge against power price spikes, this undermines one of the key values of energy efficiency programs.

- If a utility's other power source is higher-priced than Bonneville, average costs increase when the proportion of Bonneville power decreases, as happens with the decrement. The average cost increase could be small, but if it results in increased reliance on power purchased on the wholesale market when market prices are increasing at a faster rate than Bonneville's, then conservation will have resulted in higher prices for all the customers of that utility.

- Finally, utility contacts are aware that a regional dialogue is occurring about how to allocate the resources of the Federal Columbia River Power System for more stable long-term planning. Since the details of this re-allocation process have not been decided, no one is able to say for sure that a given utility will not be at a disadvantage due to energy efficiency activities generally or a decrement specifically.

Some of these risk issues can be addressed directly with very explicit information about the exact term of the decrement and how the presence of a decrement will be treated in power sales negotiations or in a reallocation of the Federal Base System. Mitigating risks associated with price spikes on the wholesale power market and sharing the benefits that accrue when low-cost conservation is sold for a higher price on the market will take contract mechanisms not currently in place or proposed for the future.

5. BENCHMARKING RESEARCH

This chapter presents findings from a benchmarking effort comparing the features of the ConAug program with that of similar programs. Since Bonneville's relationship with its customer utilities is unique, the evaluation team selected the family of programs considered to be most analogous, standard offer programs which are most frequently designed to facilitate energy service companies' (ESCOs) implementation. These programs often include M&V requirements, use performance contracting or a guarantee of energy savings, and most frequently are offered in the nonresidential sector.

In addition to reviewing ConAug implementation documents, program descriptions and program changes, the evaluation team also relied upon additional sources of information in conducting this research. Specifically, the evaluation team used:

- **The *2004 Non-Residential Large Comprehensive Incentive Programs Best Practices Report*** (Quantum 2004b)[3] – Completed for the California Public Utilities Commission through a contract with Pacific Gas & Electric by Quantum Consulting; in particular the volume of this national energy efficiency, best practices report that presents the results of a comparative analysis of ten large nonresidential comprehensive incentive programs.

- ***Models of Program Administration: State Standard Performance Contract Programs*** (Gilligan 2003) – This 2003 paper was written by Donald Gilligan for the U.S. Department of Energy and compares the administrative structures and lessons learned from three standard performance contracting programs targeting ESCOs in New York, California and New Jersey.

- **The *2002 California Statewide Non-residential Standard Performance Contract Program Measurement and Evaluation Study*** (Quantum 2004a) – This is an evaluation of the standard performance contract program offered statewide in California; it was

[3] See the *References* section at the end of this chapter for a complete documentation of the reports used for the baseline portion of this evaluation.

prepared for Southern California Edison Company. The study includes a process evaluation and market assessment report.

- **The *2004 Process Evaluation of the Commercial Industrial Performance Program*** (Research Into Action 2005) – This report was prepared for the New York State Energy Research and Development Authority (NYSERDA) and focuses on the experience of staff, technical reviewers and participating ESCOs in NYSERDA's standard performance contracting program.

- **The *Comprehensive Commercial Retrofit Programs: A Review of Activity and Opportunities*** (Thorne-Amann and Mendelsohn 2005) – This paper was prepared by staff of the American Council for an Energy-Efficient Economy (ACEEE) and reviews the experience to date implementing comprehensive retrofit programs (including standard offer).

The professional knowledge and judgment of the evaluation team was also important; the breadth and depth of experience represented by members was used to analyze findings and to identify trends.

OVERVIEW

Comparing ConAug to programs operated by other jurisdictions is challenging because of the unique relationship between the program sponsor (Bonneville) and the program delivery system—a diverse group of regional public utilities. Central to ConAug are the relationships embedded in the long-term power contracts between the regional utilities and Bonneville. These contracts ensure the utilities have the power they need for their end-use customers. Bonneville, as the power marketing agency for the federal power provided by the Columbia River system, is in the position to ensure that the power is distributed in a manner consistent with its charge, which does not always coincide with its customers' expectations.

The decrement is an example of a program feature that results from Bonneville's contractual obligations to its utility customers *and* its responsibility to manage the regional power system. Another is the fact that Bonneville's customer utilities are also in a position to benefit from Bonneville-sponsored conservation activities in a variety of ways. If these activities actually reduce the amount of power Bonneville must purchase on the wholesale power market, upward pressure on rates may be reduced. For those customer utilities with their own generation, reduction in the amount of power required to service

end-use customers can free up power for the wholesale market, or reduce the need to purchase additional power on the open market.

Programs targeting ESCOs and using standard performance contracting are the category most analogous to ConAug. In the *National Best Practices Study* (Quantum 2004b), the volume on comprehensive non-residential programs includes these types of efforts. The study identified five main features these types of programs have in common. Specifically, they:

- Typically focus on installing ***custom efficiency measures*** and reach projects less likely to fit in prescriptive rebate program approaches;
- Prioritize ***comprehensive projects*** or those involving more than single measures and common efficiency practices;
- Use incentive strategies that ***encourage and allow for custom and comprehensive*** projects;
- Typically include ***technical engineering review*** as part of the incentive approval process; and
- Often ***require proof*** of project installation.

As can be seen from this list, there are certainly common drivers for these types of programs with the impetus behind the design of ConAug. While not perfectly parallel, these programs rely on the sophistication and expertise of ESCOs to deliver savings in a manner quite similar to the reliance Bonneville places on the experience and knowledge of its customer utilities relative to both efficiency technology and their end-use customers. ConAug, like many of the standard offer programs contains a path for complex custom projects that requires a technical engineering review of proposed projects and a proof of performance, as well as a path for more straight-forward "standard" measure packages that only require a proof of installation.

There are also similarities between the content of a PCA and the standard performance contract (SPC) used in comprehensive non-residential programs. These agreements often lay out the obligations of the two parties and then include exhibits that pertain to the specific projects to be implemented or services to be offered. However, it is also important to recognize that the customer utilities and ESCOs are not identical types of organizations and the similarities may only go part of the way towards suggesting options that could improve future programs for Bonneville.

BEST PRACTICES REVIEW

The *National Best Practices Study* was conducted during 2004 and involved a detailed review of ten programs[4] that offered incentives for non-residential, comprehensive projects. Given its timing and relevance, we reference this study extensively in this chapter and have used its outline to organize this discussion. The volume sites several other studies and is therefore quite comprehensive; however, information from the other sources we referenced is incorporated when relevant.

The *National Best Practices Study* identified common challenges associated with the large non-residential market that drive program design features (Quantum Consulting 2004b, pp.NR5-2). These challenges can be grouped into three main areas:

- **Activities related to protecting program funds and avoiding overpaying for energy efficiency projects** – by minimizing the risks of gaming and fraud, minimizing free-riders, and by reducing uncertainty in savings estimates.
- **Managing the costs of the measurement and verification (M&V) activities designed to reduce uncertainty in savings estimates** – especially the administrative costs, project costs and hassle associated with extensive M&V requirements.
- **Program management decisions and processes that keep participation requirements simple and manageable, yet adequate** – including program systems that allow for even, equitable distribution of funds throughout the program year.

Protecting Program Funds

Like any administrator of energy efficiency funds, Bonneville has to be concerned with protecting program dollars and avoiding overpayment for

[4] The programs included in the *National Best Practices Study Volume NR5* are: California Non-Residential Standard Performance Contract Program, the **New York Energy $mart**℠ C/I Performance Program, United Illuminating Energy Opportunities Program, Power Smart Partners offered by BC Hydro, Xcel Energy Custom Efficiency Program, Northeast Utilities Custom Services Program, Massachusetts Electric's Energy Initiative Program, Alliant Energy Shared Savings Program, Efficiency Vermont Business Energy Services Exiting Construction Program, and SMUD Commercial & Industrial Custom Retrofit Program.

energy efficiency projects, especially those that would have happened on their own. Minimizing the

risks of gaming and fraud and the portion of free-riders will always be a priority for programs supporting large, comprehensive projects among knowledgeable customers in the non-residential sector. Programs can minimize risks by establishing high hurdles for cost-effectiveness and through tests for free-ridership[5] or by offering higher incentives for emerging technologies.

ConAug screens for free-riders by monitoring the total project cost and excluding projects with a payback of less than one year or those in which the incentive is less than 20% of the total project cost. There are advantages and disadvantages to using programmatic rules and requirements to minimize risk. In the evaluation of the 2002 California Statewide Standard Performance Contract Program (Quantum 2004a), the authors note that these strategies provide rules that are "codified and apply equally to all customers." However, the authors also note these approaches "are based on correlations between project characteristics and free-ridership for which there are always exceptions" (Quantum 2004a, pp.2-10).

Managing the Costs of M&V

ConAug, like many of the other programs reviewed in the best practices study, reduces uncertainty in savings estimates by relying upon established, proven measures, using conservative savings estimates and through M&V activities. According to program staff, the measures usually installed through ConAug are well-understood and the typical performance parameters are factored into the savings assumptions. The range of M&V activities includes visual inspection to confirm an installation, to complex measurement strategies such as commissioning, metering, and site-specific engineering and technical review. ConAug currently requires verification activities for every project; however, only the most complex projects mandate extensive M&V.

Like other administrators of standard offer programs, Bonneville balances measurement requirements and conservative savings estimates—allowing one to substitute for the other when appropriate, or by requiring measurement activities only in custom projects or those with uncertain savings estimates.

5 These tests usually include payback floors that exclude projects where the incentive is a low portion of the total project cost or where the payback is extremely short.

Currently, the M&V plan (not the energy savings estimates) provides a basis for determining the verified annual energy savings that will be reported for each measure. This creates some risk that incentive payments could be higher or lower than anticipated in the project scoping. The expectation is that this creates pressure on the utilities and their end-use customers to estimate energy savings as accurately as possible. As with those programs reviewed in the best practices study, ConAug staff need to monitor the cost of M&V requirements as a percentage of the total project cost and watch for reasonableness. There are signs that many standard offer programs are loosening M&V requirements by allowing for calculated savings instead of measured savings for many measures. California, for example, began offing a "calculated savings path" for all but the most complex installations. If the program is truly supporting only the most proven, conservative measures, M&V activities for a census of projects is probably unnecessary and Bonneville could adopt approaches more similar to some of the standard performance programs.

Keeping Participation Simple

Balancing simplicity in application and paperwork requirements with the needs of Bonneville contracting staff and legal oversight was the subject of a recent review and was noted by several contacts as an area for improvement. These types of concerns are common for these types of programs because large, complex, custom nonresidential projects often have large incentives and a significant amount of uncertainty around the savings. The best practices study found that empowering staff to make technical judgments when reviewing project application documents and ensuring responsibilities are clearly defined helps reduce the perceived complexity of the project application process. The NYSERDA CIPP program and the Xcel bidding program have frequent application periods, annual in the case of CIPP and quarterly in the case of Xcel. Both of the implementation teams review the application and make revisions toward simplification whenever possible. In the case of CIPP, the process evaluation found that simplification was a major desire on the part of participating ESCOs, even while they experienced the program as having improved greatly over the seven application periods (Research Into Action 2005).

COMPARISON OF KEY COMPONENTS

The best practice study identified eight program components for which best practices could be appraised: 1) program theory and design; 2) program

management; 3) reporting and tracking; 4) verification, measurement and quality control; 5) program participation process; 6) incentive approaches; 7) marketing and outreach; and 8) program evaluation. The authors compare and contrast the information on each of the ten programs to identify the best practices and lessons learned for that component. Additionally, at the close of the volume, there is a comparison of results such as outcomes and cost-effectiveness indicators.

We carefully reviewed the best practice volume NR5 to identify those best practice components most relevant to ConAug. The program component is listed below along with the best practices most relevant to Bonneville and its customer utilities as they consider next steps to ConAug.

Program Theory and Design

Best Practice: Link the mix of program features to policy objectives and resource constraints.

Interviews with program staff and the customer utilities suggest that all parties felt that Bonneville firmly linked the mix of program features to the specific policy objectives and resource constraints faced in 2000-2001. The specific goal at that time was to augment the federal power system by acquiring 100 aMW of firm conservation resources and thereby reduce the Administrator's load obligation by the same amount. The program contains features that assure this goal is achieved: conservative savings estimates, rigorous M&V requirements and the decrement for those utilities with other sources of power.

A key aspect of this best practice is to not only link the program features to policy, but also to have an adaptive management approach such that, as policy objectives and resource constraints change over time, those changes are reflected in the program parameters. The aftermath of the West Coast energy crisis in 2001 has largely passed and the need to reduce Bonneville's load obligation that provided the impetus for ConAug in 2000-2001 now translates into lower incentives and the exclusion of projects that are less cost-effective.[6] These changes convey to the utilities that Bonneville is now less interested in purchasing conservation resources, thus it is not surprising that participation interest has changed.

[6] Incentives for some commercial lighting measures were increased in November 2004 when the Expanded Standard Offer was revised and re-named Expanded Standard Offer Plus.

The following questions emerge when considering this best practice in the context of ConAug:

- What is the major objective for the present: reducing the Administrator's load obligation or overcoming barriers to energy efficiency upgrades through incentives and technical support?
- Are there options capable of creating a more steady state for conservation resource purchasing while also enabling Bonneville to rapidly increase or decrease its ability to purchase additional conservation resources, depending on market conditions?
- What program options are likely to increase the number of custom or process projects (which typically have high kWh savings), thus helping Bonneville to meet its share of the regional conservation targets established by the Northwest Power and Conservation Council in its most recent Power Plan?

The power market is in a constant state of flux; the policy conditions are rarely stable. There is a need both for long-term stable acquisition of conservation resources and for an approach that can be more responsive to market needs. Communicating these two conditions through program features is likely to require a variety of different offers, each with a time duration comparable to the perceived market needs they address.

Program Management

Best Practice: Use well-qualified engineering staff.

By all accounts, Bonneville has a well-qualified and respected engineering staff capable of assisting utilities in technical review and M&V activities. The staff at Bonneville has the expertise needed to assess project validity, estimate savings and work with utilities to support their efforts with their end-use customers.

This best practice also notes that technical engineering staff often are used to support project implementation and to assure that projects are implemented properly. Technical consultants are used to identify lost opportunities and the interactive effects of systems, and to conduct audits and analysis. In ConAug, whenever the utilities lack this capability, Bonneville staff or contracted engineering support should be involved in these activities.

Verification, Measurement and Quality Control

Best Practice: Tailor measurement rigor, including the use of sampling, to each project's contribution to the cumulative uncertainty in estimated savings for the program overall.

Verification, measurement and quality control are important for these programs because of the risk represented by the potential amount of incentives and complexity of projects in standard offer programs. All ten of the programs reviewed in the best practice study "employed some form of verification process that amounted to a virtual census of projects." (Quantum 2004b, pp.NR5-33) Random sampling is often used for verification for the smallest projects since these represent a minor portion of overall program savings.

Bonneville and NYSERDA both rely on the International Performance Measurement & Verification Protocol (IPMVP) to determine the adequacy of M&V plans. IPMVP provides guidance for establishing M&V for custom or complex projects. The California SPC program references IPMVP for projects that go through M&V, which is currently less than 10% of the total; other projects in the California program use deemed savings estimates to determine energy savings. ConAug and NYSERDA also allow deemed savings for lighting projects similar to Bonneville's through the ESO or ESO+. The use of IPMVP provides room for variation and interpretation of preferred options within the context of the program or a given project.

Best Practice: Carefully consider tradeoffs associated with in-program M&V versus ex post impact evaluation.

Best Practice: Consider using third-party M&V contractors to oversee or conduct M&V.

Best Practice: If in-program M&V is used exclusively (as opposed to independent impact evaluation), results should be periodically aggregated and summarized to produce realization rates and lessons learned.

An affordable, yet effective strategy for M&V and quality control is important for a successful program, and determining the right mix of in-program M&V and impact evaluation activities is a central task for program administrators. The approach used reflects the individual program model and program goals, and the ways different program administrators balance the cost of comprehensive M&V with the risk of unverified savings.

One of the central choices in establishing this balance is to determine the appropriate level of project-specific M&V, as opposed to adjustment through periodic impact evaluations. According to the best practice study, in-program M&V is thought by some to be a defining characteristic of these types of programs, offering a more cost-effective and less-intrusive strategy than either an independent impact evaluation or a combination of in-program measurement and impact evaluation. However, there is disagreement about this issue among program managers, including some with extensive experience using in-program measurement. These program managers "have concluded that in-program measurement is overly burdensome to administration of the program and takes too many resources away from other program implementation activities."(Quantum Consulting 2004b, NR5-38)

Another central choice in program design and administration is determining who will be responsible for M&V activities and who will review the plans and results. According to the best practice study, there are several reasons to consider using specialized third-party firms to oversee or conduct M&V. These reasons include:

- Freeing program participants from the responsibility and financial burden of M&V.
- Improving the consistency in M&V procedures and producing results more cost-effectively.
- Managing the peaks and valleys in work loads—keeping costs down by allowing the program to pay for work performed, rather than staffing to meet peak activity.
- Allowing the program to obtain multiple engineering perspectives and acquire whatever expertise a project requires.

Independent third parties were involved in some aspect of measurement and verification for two-thirds of the programs included in the best practices volume, with the most common model being a mixture of contracted and in-house M&V. For these programs, administrators typically implement different levels of M&V, depending on the type of measure installed—more familiar, standard measures receive less time and money, while more complex or unfamiliar measures receive more attention. For instance, lighting measures are often treated as prescriptive measures and are assigned deemed savings and a set rebate amount. These types of measures are often verified through an inspection that matches installed measures with invoices. In contrast,

industrial process improvements typically require engineering support and M&V plans.

At NYSERDA, the need for a high level of rigor and the desire to minimize administrative costs caused administrators to contract directly with engineering firms to conduct site inspections, provide recommendations about M&V plans and review the results of M&V activities. For smaller ESCOs, or those with less experience designing M&V plans, the technical consultants provide a high level of support directly to the ESCO—a level of support that would be difficult for NYSERDA to provide with its existing staff. This structure has also served to remove NYSERDA staff from the on-going, day-to-day technical decisions and document review, and has created a buffer between the organization and the implementation details of each project (Research Into Action 2005).

Bonneville relies entirely on in-program M&V rather than ex post impact evaluations to determine actual savings. For ConAug, as well as other programs that rely solely on in-program measurement, there is still value in aggregating and analyzing the program's accomplishments overall through periodic ex post impact evaluations. As the best practice study notes, "program implementers are often skilled at site-specific engineering and measurement analyses, but have less experience with, and motivation to design, cross-site and statistically aggregated analyses" (Quantum Consulting 2004b, NR5-39).

The best practice study suggests that it might be important to find ways to reduce the costs associated with in-house M&V for customer utilities, especially staff-constrained utilities. Following the practice most commonly used by programs in the best practice study would be to hire engineering firms capable of providing technical support for the program or for Bonneville to provide these services to the utilities. Given the limited administrative cost allocation for ConAug projects, this could facilitate participation and might enable Bonneville to obtain high quality engineering information without straining relationships with utility customers.

Program Participation Process

Best Practice: Keep the application process and forms from being overly complex and costly to navigate, while at the same time not being overly simplified.

All of these types of programs seek to balance the simplicity of their application and participation processes with the desire to minimize risk and the potential

for gaming. If participation is onerous, it can affect the success of the program. If participation requirements are too loose, the program risks paying for inappropriate projects.

Typically, successful simplification efforts occur because the program staff focus on continual improvement in program processes and prioritize simplification. The LSO and ESO offerings are examples of a more simplified participation path for projects that qualify. The lesson learned from these other programs, however, is that application processes can be improved nearly every year or, as noted previously, more often, if the application period is more frequent than annual. The limited participation in custom projects might warrant efforts to simplify the process.

Best Practice: Provide technical assistance to help applicants through the process.

The best practice study specifically notes that technical expertise should not be limited to the program application and review process, rather, it should be offered to applicants at the outset of their participation effort to help them prepare their applications correctly the first time.

According to program staff, ConAug representatives work with utilities to vet each project thoroughly at the beginning in order to avoid wasting time scoping and proposing ineligible or inappropriate projects. The industrial focus is an example of a means for increasing the technical assistance at the application process, which may help address these on-going issues.

Incentive Approaches

Best Practice: Adjust incentive levels based on market demand.

This best practice generally applies to situations in which funds are over- or under-subscribed. In cases where programs are over-subscribed, a reduction in incentives may be warranted. However, when program funds are under-subscribed, as is the case with ConAug, increasing incentive amounts usually results in an increase in the number of projects proposed and ultimately increases the conservation achieved by the program.

Marketing and Outreach

How standard offer programs are marketed depends on the maturity of the program and the participation level. Most of the programs reviewed in the best practice study required an active marketing effort in their early years, but less marketing as the program became well known. Typically, the ESCOs who participate in the program actively monitor program activity, reducing the need for further marketing.

When end-use customers may also participate, the largest will monitor the program, but attracting all potential customers can still require some effort. The most common strategies used in marketing these programs are to: 1) assign large customers to a specific account representative charged with meeting those customers' needs; 2) appeal to trade groups who work with or represent these same end-users; 3) develop case studies and post them on websites; and 4) use websites to communicate extensive program information.

There are other common tools used by program sponsors of standard offer programs elsewhere, including:

- Seminars and training sessions to inform end-users;
- Relying on personal communication and relationships between trade allies (including ESCOs) and their customers to identify projects and recruit participants;
- Electronic newsletters to inform stakeholders and other market participants of the program opportunities and funding available; and
- Providing basic marketing collateral, including brochures, website information, cooperative advertising and print ads in trade ally publications.

Bonneville uses several of these tools to market ConAug—relying particularly on personal relationships between utilities and their BPA account executives and energy efficiency representatives. Bonneville also uses an electronic newsletter to inform contacts at customer utilities about changes in the program and other news. Like ESCOs, Bonneville's customer utilities often engage in marketing energy efficiency projects with their largest end-use customers as a matter of course. However, there may be opportunities to encourage program participation through case studies and by working with utilities to develop trade ally networks in their territories in order to leverage

the natural marketing connection between these contractors and their customers.

Key to effective marketing is keeping the message simple and clear. The NYSERDA marketing effort is quite limited, but the information provided in the program opportunity (PON) notice used to announce the program clearly states all its rules and requirements. A new PON is prepared annually for each program cycle; the PON identifies what measures are of interest, the incentives to be paid, the duration of the period, the expectations for when savings will be delivered and other details. ESCOs interested in responding can use this to plan and to clarify to their customers the financial parameters of the proposed projects (Research Into Action 2005).

As found in the email survey, there is a great deal of uncertainty about the decrement, suggesting that Bonneville has not clearly explained this feature to possible participants.

Best Practice: Leverage the extensive marketing efforts of the private sector, particularly of ESCOs (or, in the case of ConAug, the utility).

ConAug leverages the existing relationships between public utilities and their end-use customers, but it does not specifically target the contractors and trade allies that exist in the private sector. Individual utilities are often reluctant to allow Bonneville to work directly with contractors in their service territories, in part because they want to be the ones to offer services to their customers and because of the potential for confusion if two organizations are offering energy efficiency information to their customers. There should be opportunities, however, for Bonneville to support trade ally network development and downstream marketing needs of customer utilities.

Best Practice: Keep energy efficiency service providers well informed about program features and changes through seminars, training sessions, trade shows and annual meetings of key groups.

Websites, case studies, and personal connections help illustrate program features and inform customers of program changes. Bonneville has conducted meetings with utilities to discuss the post-2006 program; such meetings, whenever a program offering is developed, might also be very effective.

Best Practice: Use personal (one-on-one) marketing, where cost-effective, to identify and address customer- and industry-specific barriers and customer issues.

Bonneville's energy efficiency representatives and account executives work together to inform customer utilities about strategies for facilitating energy efficiency investments with Bonneville support.

Best Practice: Conduct on-going training of account managers and other marketing staff to keep abreast of the latest efficiency technologies and practices.

Developing and disseminating case studies and providing on-going training for energy efficiency representatives and account representatives should be combined with specific training for utility staff involved in delivering ConAug to their customers in order to assure that they are informed of the latest efficiency technologies and practices—and about how advances in technology may help the utility and specific end-use customers.

Evaluation

Best Practice: Conduct both process and impact evaluations routinely.

The best programs rely on periodic evaluations conducted by independent, third-party evaluators with no stake in the program. Bonneville's post-2006 energy efficiency programs will benefit from the input received through this process evaluation, but the program would also benefit from impact evaluation activities that aggregate project and contract information, develop realization rates and assesses overall cost-effectiveness.

ADMINISTRATIVE STRUCTURES

In his review of standard performance contracting programs in three states, Gilligan identifies four key components in administrative structures for standard offer programs. While his review specifically focused on ESCOs and the role of deregulation and the move to public goods charges, it is worth considering how well they match the circumstances of Bonneville's operating environment and the specific features of ConAug. These components are: the extent of perceived conflicts of interest, the authority of the implementing

organization, the legitimacy of the players and the level of comprehensive market knowledge available to the implementer.

Conflicts of Interest

Gilligan states that it is important that the program administrator have no economic conflicts of interest and that they should not be affiliated with any competitive participant in the energy services market. The most powerful conflict occurs if the entity is likely to suffer a loss of revenues or profits if energy efficiency programs succeed.

Bonneville and its customer utilities operate within a regional power distribution system that has many conflicts of interest. Such conflicts exist between utilities of different types, between utilities interested in protecting their share of low-cost federal power, and between the Bonneville's broad mandates and the utilities' interests in minimizing their own power costs. Additionally, the utilities who deliver ConAug for Bonneville face a loss of revenue if energy efficiency results in lower power sales to their end-use customers. Economic conflicts of interest are magnified for customers eligible for the decrement, because of fears that this requirement raises the possibility that their share of the Federal Columbia River Power System will be diminished in the future due to conservation activities undertaken today.

Authority

Gilligan states that activities should be based on a public consensus that supports the programs.

Bonneville clearly has the authority to provide services to the utilities with which it has contractual relationships. The extent to which Bonneville's authority extends to directing or exhorting utilities to participate in regional conservation programs like ConAug is more complicated. Bonneville's customer utilities often react strongly to activities they feel have the potential to interfere with their relationship with end-use customers, including energy efficiency programs. However, Bonneville develops its proposals in a public process and works hard to include stakeholders and customer utilities in program planning. This inclusion has resulted in general consensus about the characteristics of the conservation portfolio in the past and, if effective, can align competing interests in developing future programs.

Legitimacy

Gilligan indicates that activities must be based on public acceptance of the deregulation of the electricity markets, and the acceptance and participation of key energy players, especially the utilities.

The uncertainty that surrounded the march toward a deregulated wholesale power market in the late 1990s created doubt about Bonneville's role in the future. As the West Coast energy crisis unfolded, regional interests began to demand that Bonneville buffer them from a volatile market and act wisely to buy and sell power on the wholesale market on their behalf. This desire created a legitimate need on the part of Bonneville to identify and acquire conservation that was as reliable as purchased power and created overall understanding about the need for ConAug. However, as noted above in the policy discussion, as conditions continue to change, Bonneville will need to consider how new bilateral arrangements fit within the organization's overall role in regional power supply to ensure the program is viewed as a legitimate solution.

Comprehensive Market Knowledge:

Gilligan states that the activities should be based on sophisticated market research and a working understanding of the business environment and capabilities of the ESCO industry.

Bonneville understands the environment within which its customer utilities operate and has designed tools to help them succeed at energy efficiency efforts. There may be a need for Bonneville to better understand the needs of the end-users at each utility that seeks to implement ConAug or a post-2006 bilateral agreement in order to develop appropriate measure lists and program components. This is particularly true given the diverse climates, different types of service territories and wide range of industrial load characteristics of Bonneville's customers. Programs seeking to compensate utilities for implementing efficiency projects rely on the market knowledge of those utilities. Yet there is no systematic market research available to inform the particular conservation activities at a given utility. Better information may facilitate more targeted and effective implementation.

SUMMARY

The ConAug program is structured in a way that is similar to a class of programs called standard offer programs by most utilities and energy agencies.

The primary difference is that ConAug delivers programs through Bonneville customer utilities and most standard offer programs use ESCOs, however the goals, objectives and mechanisms used to accomplish them are quite similar. We conducted a review of secondary research concerning these types of programs and found in general that the program features of ConAug are consistent with similar types of programs. However the research also revealed some opportunities for modifying a ConAug-type of program:

- Other programs have developed ways to reduce M&V costs through sampling for more simple measures.
- Other programs use M&V for payment, advancing a portion of the incentive at different stages and reserving 25-33% for a final payout.
- Other programs modify program requirements for each application period and set "rules" for a set period of time allowing for the program to be more responsive to market conditions.
- Other programs have found it is very important to clearly detail the rules and procedures so that all parties know exactly what is expected of them.

Implementing some of these types of modifications into future bilateral contract programs, could reduce some of the perceived complexity of ConAug and still provide Bonneville with confidence in the savings.

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6. CONCLUSIONS AND RECOMMENDATIONS

In late April 2005, Bonneville contracted with Research Into Action, Inc. and Energy Market Innovations, Inc. to conduct an evaluation of the ConAug program. This evaluation focused on customer utility response to the program and a review of best practices for similar programs. The goals of the evaluation was to identify the perceived strengths and attractive features of the program and to clarify the perceived barriers and what solutions are adequate to address them.

The research was conducted in May and early June 2005 and included: interviews with program staff; an email survey of stakeholders, including customer utilities, Bonneville staff and third-party implementers; and in-depth interviews with a sample of customer utilities identified through the email survey.

CONCLUSIONS

The load-following utilities are generally satisfied with the program as it is currently structured. The non-load-following, decrement-eligible utilities who are participating are also satisfied with the program, except they remain concerned about the decrement. Nonparticipating decrement-eligible utilities are primarily concerned about the decrement and have additional perceptions of problems with the program. There are a variety of program strengths.

Program Strengths

From the perspective of the customer utilities, there are several strengths of the program:

- ConAug has had relatively stable funding for close to five years and has allowed utilities to develop custom projects they may have otherwise not been able to offer to their C/I customers.
- BPA energy efficiency representatives received high personal praise from the utility contacts for their responsiveness to local concerns and on-going efforts to work with them as best as possible within the constraints of the program design.

- Participants have used ConAug funds to keep their energy efficiency programs running during the tumultuous 2000-2005 period. Through ConAug projects and funding, customers described keeping programs that may have otherwise been cut and expanding programs that otherwise would have been limited.

- ConAug and its precursor, the Invitation to Reduce Load through Conservation (IRLC), contain a path for creative and custom projects that allowed the programs to work regardless of the specific circumstances of a given utility and its territory's characteristics.

- BPA flexibility in ConAug has been welcome. Utilities see that Bonneville has tried in its own way to be responsive to the utilities. ESO+, for example, is considered a marked improvement over the previous standard offers for lighting. The utilities also value very highly Bonneville's flexibility in working with them to accommodate their existing programs.

- One contact specifically noted that the M&V requirements were a strength of the program by ensuring credible savings.

- And generally, all of the contacts in the email survey noted that the tools they had used and the list of measures for the standard offers were useful.

There are also strengths of the program from Bonneville program staff's perspective:

- Bonneville's oversight activities do appear to help the agency avoid instances of gaming and fraud, and allow for clarification of the rules in a way that has not been burdensome to participating utilities. There were examples of sharing costs when errors were due to confusing language. Participants did not report any problems with the oversight activities and reported that their standard record-keeping had been adequate for the review process.

- Bonneville has been able to make modifications to the program design based on experience; for example, they expanded the list of lighting measures and developed the CISO and the Industrial Focus to help funnel industrial projects to C&RD or ConAug.

- The program is viewed as highly cost-effective. Program staff take pride in getting a good price for the conservation resources that are being acquired in the program.

Program Barriers

The primary barrier to participation in the ConAug program is the decrement requirement for some utilities. All other issues within the program are really secondary in importance relative to this one, which only affects the non-load-following, decrement-eligible utilities. Within the decrement issue, there are three important elements including:

- **Decrement Definition and Implementation Guidelines** – Among both participants and nonparticipants, there is considerable uncertainty regarding how the decrement is defined and actually works. There is not, at present, a single cogent explanation of the decrement policy that has been made available to the market.

- **Legitimate Concerns about Fairness** – To customer utilities, it appears that Bonneville gets most of the potential benefit resulting from ConAug, purchasing conservation for 12¢-16¢ and selling it on the market for whatever the market will pay, possibly in excess of its purchased price. The measure life for which Bonneville is willing to pay is 10 years. Utility contacts note that this affects longer-lived measures by discounting long-term savings. This is particularly an issue in residential measures.

- **Long Term Repercussions from the Decrement** – These concerns reflect two things: first a lack of certainty as to what Bonneville means in statements about how they will take the decrement and treat it in the future, and, second, a lack of trust that Bonneville will permit utilities, in future PSAs, to purchase power equal to or in excess of historical purchases once they take a decrement.

In addition to concerns about the decrement, there are a few other barriers. In particular there are some concerns about M&V, project documentation requirements, freeridership and the amount of the incentive. These concerns were more obvious in responses to the e-mail survey rather than the in-depth interviews and affect nonparticipants more than participants. The in-depth interviews revealed that there is general acceptance of these requirements; however some modifications would be welcome. The M&V requirements and the required level of documentation before a large project get a go-ahead from

Bonneville deter some utilities from the program because the uncertainty is difficult for their end-use customers. Utilities believe the freeridership screens eliminate some legitimate projects, and while incentive levels are generally considered acceptable, residential projects need a higher incentive level.

While ConAug had a variety of program changes, it has consistently been perceived as more top-down than collaborative. The benchmarking research found that other programs learned that they had to sit down with ESCOs and use their experience to help design and redesign the program for several iterations. It appears that Bonneville has tended to listen to some, but not consistently to all possible participants and has therefore made changes that do not fully respond to the concerns of the customer utilities.

The benchmarking research also found that there are a variety of opportunities to further simplify or streamline ConAug which could improve perceptions of the program:

- Other programs have developed ways to reduce M&V through sampling for more simple measures.
- Other programs use M&V to determine payment, advancing a portion of the incentive at different stages and reserving 25-33% for a final payment after M&V.
- Other programs modify program requirements for each application period and define the "rules" for a set period of time, allowing for the program to be more responsive to market conditions.
- Other programs have found it is very important to clearly detail the rules and procedures so that all parties know exactly what is expected of them.

RECOMMENDATIONS

The evaluation confirms that there is value for the utilities to have a bilateral contract with stable funding in order to acquire conservation for the region. It also appears that Bonneville needs a program that is more flexible than ConAug, with paths that allow for different utilities to sell Bonneville conservation in the manner that works best for their market.

Recommendation 1: Determine Whether a Bilateral Contract Program Should be Attractive to All Customer Utilities

The decrement is the major problem from the perspective of non-load-following utilities and from many of the staff working with these utilities. There appear to be legitimate issues with the decrement because it shifts the benefits to Bonneville without compensation to decremented utilities. Yet Bonneville is reasonable in concerns about utilities getting the benefits if there is no decrement. Bonneville has expressed the view that the decrement will be included in future bilateral contracts.

If Bonneville wishes to have increased participation by non load-following utilities, there are two primary choices:

- Eliminate the decrement, this would be considered most satisfactory to non-load-following utilities. However, load-following utilities would likely be dissatisfied with this approach.

Or:

- Keep the decrement, but find a way to ensure that the utilities and Bonneville share the risk and rewards more equitably. All of Bonneville's customer utilities are obliged to minimize risk for their own ratepayers, just as Bonneville is obliged to minimize its own risk. Identifying contract mechanisms that could share risks and benefits more effectively between the two parties could increase program participation in the future.

If Bonneville does not wish to increase participation by non-load-following utilities, the decrement can be maintained. However, it will be important to clarify exactly what the decrement means through an improved communication strategy.

Recommendation 2: Develop a Communication Strategy

This recommendation is critical if Bonneville decides to continue the decrement. Given the complexity of the decrement, the communication of issues related to the decrement needs to be carefully thought out and thoroughly explained. The strategy will need to include messages tailored to reflect the various target audiences: energy efficiency staff, power supply staff, general managers, directors and commissioners, Importantly, this should not be a "spin" strategy, as some of these utilities are already quite wary of the

topic. This recommendation is also important for the program as a whole, irrespective of the decrement. Bonneville should have a well-thought-out communication strategy and should systematically test the program components and the communication materials (e.g., utilizing focus groups, in-person meetings) among the utilities.

Recommendation 3: Consider Developing Program Paths for Different Utility Types

At present, the program structure is focused on customer segment offerings (i.e., residential, commercial). There may be merit to considering tailoring the program offerings more along the lines of the types of utilities that will be offering the programs. In other words, offering a package of ConAug programs that might include the following:

- **Large Non-Load-Following Utility Package** – This package would be very customized, designed specifically to reflect the infrastructure that exists at these utilities and to provide the flexibility that they need to use ConAug resources to supplement their existing slate of programs. This package would provide only minimal technical support.
- **Small Load-Following Utility Package** – This package would include standard offer components with deemed savings, plus a custom element that would include the provision of as-needed technical resources to these utilities.
- **Small Non-Load-Following Utility Package** – This package would include standard offer components with deemed savings, plus a custom element that would include the provision of as-needed technical resources to these utilities. This package would also include a decrement modeling component that would assist these utilities in understanding the real decrement impacts that their system would experience on a project-by-project basis.

Recommendation 4: Consider Revisions to Incentive Levels.

Consistency is important to the utilities in marketing the program and developing projects. Several utilities also made the argument that longer measure lives should be valued appropriately, and this is worthy of consideration by Bonneville as it establishes incentive levels.

Recommendation 5: Consider Refinements to Process and Protocols.

There is a variety of smaller refinements to the processes or protocols of the program that should be considered in a future program using bilateral contracts:

- Within the custom and standard options, there may be room for increased standardization relative to performance risk related to energy savings estimates made or approved by Bonneville engineers, such that there is a recognition of shared responsibility for M&V findings.
- Clear protocols for Bonneville and its agents regarding involvement of local utility representatives in marketing and project development work with end-use customers can assuage the concerns of utilities worried about Bonneville communicating with their customers.
- While most utilities did not have any issues with the free-ridership requirements as established, contacts emphasized the need for flexibility – recognizing there may be projects that fall within these criteria that truly will not happen otherwise.

Recommendation 6: Empower ConAug Program Staff to Make Final Decisions

There is a perception among utility contacts that Bonneville staff are not empowered to make decisions about ConAug projects and that as questions go up the chain, the likely response becomes unpredictable. A review of the flowcharts that describe the internal process for invoice approval and contract administration confirm that the decision-making process is complex and includes a large number of steps through multiple decision-makers. Conservation engineers and EERs need to be empowered to make decisions when they represent the program to utilities so that utility staff will have more confidence about what Bonneville will accept and thus will have confidence about what they can offer their end-use customers.

APPENDICES

APPENDIX A

Data Collection Instruments

Appendix A

CONAUG WEB-SURVEY INSTRUMENT

This survey is being conducted by Research Into Action, an independent program evaluation firm. You may be assured of complete confidentiality. The evaluator will ensure that your responses will never be linked with you or your utility in any information disclosed to BPA or made public.

BPA will use the information derived from this survey to learn from Con Aug experiences as they plan the post-2006 bilateral contracts that will succeed Con Aug.

The survey should take about 15 minutes.

Click "next" below to begin.

If you do not directly represent a utility, please try to answer from the perspective of the utilities you work with. If you cannot provide an answer, leave all fields blank.

1. Please estimate the portion (in percent) of your energy sales to each market sector:

   — % Residential

   — % Commercial

   — % Industrial

   — % Agricultural

   — (must sum to 100%)

2. Please estimate the portion (in percent) of your total conservation efforts represented by your conservation work with:

   — % own efforts

   — % Con Aug

   — % C & RD

   — (must sum to 100%)

3. Would you say that your total load is…
   - — …growing
   - — …shrinking
   - — …staying the same
   - — don't know
   - — not applicable

4. How many full-time equivalent staff (full-time would be 40 hrs/wk) do you have working on conservation programs?

5. Which of the following opportunities offered under Con Aug do you have experience with? (multiple responses allowed)
   - — Limited Standard Offer for Lighting (LSO)
   - — Expanded Standard Offer for Lighting (ESO)
   - — Expanded Standard Offer Plus (ESO+)
   - — Invitation to Reduce Load through Conservation (IRLC)
   - — Energy Star Homes NW
   - — C&I Standard Offer
   - — Water and Waste-Water Energy Tune-up (BacGen)

Please indicate how much you agree with each of the following statements (1-strongly disagree, 2, 3-neither disagree nor agree, 4, 5-strongly agree, don't know/ not applicable)

6. Bonneville has provided sufficient information for our utility to understand Con Aug.

7. Participating in Con Aug makes economic sense for us.

8. Our ratepayers want conservation programs.

9. Participating in Con Aug mainly helps BPA not us.

10. Con Aug helps us do conservation we wouldn't otherwise be able to do.

11. We are busy implementing C & RD products so we don't have time to participate in Con Aug.

12. The processes for implementing projects in Con Aug are very labor intensive for us.

Please indicate how much you agree with each of the following statements:

13. I am confident that Con Aug-qualified conservation measures result in a reduced load.

14. The measures qualifying for the ESO and ESO+ standard offers are available in my area.

15. Con Aug should include some newer energy-efficiency technologies in standard offers.

16. The M&V requirement of 100% inspection for ESO and ESO+ projects is reasonable.

17. The M&V requirements for custom projects are difficult for our utility to meet.

18. BPA provides sufficient engineering support to do the M&V for custom projects.

19. Uncertainty about how M&V results will affect incentives is a deterrent to our commercial and industrial customers' participation

Please indicate how much you agree with each of the following statements:

20. It is easy to tell what types of custom projects BPA is interested in funding under Con Aug.

21. Con Aug standard offers should allow substitutions of equipment with equivalent savings.

22. Con Aug contracts are so specific it's hard to deliver programs that will meet every specification.

23. The way BPA interprets exhibits to purchase of conservation agreements (PCAs) is usually fair and reasonable.

24. It's pretty easy to work with BPA to amend exhibits to purchase of conservation agreements (PCAs).

25. We would do more projects if we did not need to provide so much project documentation before we have agreement from BPA for a budget amount.

26. Getting a custom project approved requires too much work.

27. BPA's decision-making process for approving or rejecting custom project proposals is efficient.

Please indicate how much you agree with each of the following statements:

28. Con Aug's policies regarding reimbursements for administrative expenses work pretty well for us.

29. When incentives cover less than 20% of a project's incremental cost it's very likely participants would have done the project on their own without an incentive.

30. Our customers are very likely to install projects with less than a 1 year payback on their own without an incentive.

31. It is impossible to get our customers to agree to repay conservation incentives if they change to another energy provider.

32. The decrement requirement makes it hard because we don't want to give up access to any BPA power.

33. The decrement requirement strongly discourages utilities from participating in Con Aug.

Please indicate how much you agree with each of the following statements:

34. The length of time to which the decrement applies is not clear.

Please indicate whether these statements are true or false. If you aren't sure, please do not guess, mark "don't know."

35. The decrement applies until the end of the power sales agreement.

    — TRUE

    — FALSE

    — Don't know

36. The decrement applies until net requirements are calculated again and applied.

— TRUE

— FALSE

— Don't know

37. The exact time period the decrement applies to can be negotiated between BPA and the utility.

— TRUE

— FALSE

— Don't know

38. The decrement can be taken in increments as small as 1/12 aMW.

— TRUE

— FALSE

— Don't know

The incentive levels offered under Con Aug in 2004 and 2005 are between 12¢ and 16¢ per kWh. Are there conservation opportunities that can be acquired in your area at the current incentive levels for each sector?

39. Residential

— Yes

— No

— Don't know

40. Commercial

— Yes

— No

— Don't know

41. Industrial
    - — Yes
    - — No
    - — Don't know

42. Agricultural
    - — Yes
    - — No
    - — Don't know

If any of 39-42 are no, ask: What is the minimum incentive level (in cents per kWh) you believe would be required in order to acquire conservation in your utility area for each sector?

43. __¢/kWh Residential

44. __¢/kWh Commercial

45. __¢/kWh Industrial

46. __¢/kWh Agricultural

47. Con Aug incentive levels have changed over the course of the Con Aug program. Do feel you understand why?
    - — Yes
    - — No
    - — Don't know

If 47 is Yes, ask:

48. Please briefly explain your understanding of why BPA has changed Con Aug incentive levels. (open)

Please indicate how useful each of the following tools has been in implementing Con Aug at your utility. If you have no experience with the tool please mark "N/A". (1-not at all useful, 2, 3, 4, 5-very useful, N/A)

49. ESO+ Sample Contract

50. Measure Changes List (explaining changes to program)

51. Lighting Rebate Verification Report (for ESO+ or ESO)

52. Drop-down Wattage Reduction Tool (for ESO+ or ESO)

53. ESO Equipment Specifications Document

54. Glossary of Terms

BPA is open to creating additional tools. Please indicate which type of tools you need. (1-not at all needed, 2, 3, 4, 5-very much needed, N/A)

55. Ready-made brochures that can include your logo.

56. Application forms and other tools for working with end users.

57. Workshops on specific implementation or technical topics.

58. Tools or checklists to assist in verification.

59. Training on how to do verification.

60. Are there specific suggestions you have for workshops tools or other assistance BPA could offer that would help you in implementing Con Aug projects? Please use this space for suggestions. (open)

61. Considering all of your experiences working with Con Aug please name two things about the program you would say are working well. (open)

62. And again considering all of your experiences working with Con Aug please name two things about the program you would say have not been working well. (open)

63. The evaluation contractor would like to interview a sample of respondents to this survey. Any information provided in interviews will also be kept strictly confidential. May the evaluator contact you for this purpose?

    — Yes

    — No

64. If it's OK for the evaluator to call you please enter the best number to reach you at during normal business hours (otherwise leave blank). Also please feel free to specify the best times to call. (open)

You have completed all of the questions.

Thank you so much for taking the time to provide your input. Your efforts are very much appreciated.

CONAUG UTILITY IN-DEPTH INTERVIEW GUIDE

1. Has your utility participated in ConAug?

Non-Participants:

2. (If not) Why not?

3. Is there anything that could be changed in the program which would increase the likelihood of your utility participating (be as specific as possible)?

4. (If someone else is making the decision): Who would be the best person to talk to at your utility about how the calculations or decision-making process behind your decision not to participate?

5. What energy efficiency activities are supported without ConAug funds?
   Are there any activities you would like to do but are not doing?
   Why are you not using Con Aug funds for these activities (if not covered above)?

Participants:

6. For those who use ConAug to support additional activities, what type of activities does ConAug enable you to do that would not happen otherwise?

7. What do you consider to be the differences between oversight by Bonneville, monitoring and verification? (Note to interviewer: Bonneville does oversight on a sample of projects, monitoring and verification activities are done by the utilities – we need to know how they view both of these activities)

8. Have your M&V activities ever been used to adjust an incentive to a customer?

9. Have you talked with anyone who has completed projects and M&V and faced a different result between the predicted savings and the verified savings? What did you hear?

10. Are there things about the M&V requirements that bother you?

11. What is your understanding about how oversight results are applied by Bonneville?

12. Tell me about some of the experiences you have had in getting agreement on a project exhibit to a PCA?

13. What have been your experiences implementing the projects after the exhibits are agreed to?

14. Thinking about the measure list for ESO or ESO+, what types of changes do you feel are necessary to make the program more attractive to you and your customers? (thinking in terms of incentives, measures, etc.)

Everyone:

15. ConAug has set parameters for incentives to avoid free riders. These include not funding projects with less than a one year payback or when incentives are less than 20% of the incremental cost of the efficient measure. How do these parameters affect your customers or their projects? What in this formula does and does not make sense to you when thinking of your customers.

16. The economics of ConAug seem to work for some utilities but not others. Why do you think this is the case?

17. Have you talked to anyone at BPA about the time period over which the decrement applies or about the manner in which the decrement can be scheduled?

18. What have you been told about the decrement?

19. Have you talked with anyone who has participated and faced having a decrement taken? What did they say?

20. What is your understanding of custom projects? Can you envision proposing custom projects to Bonneville?

21. Tell me about how you cover your administrative costs for implementing efficiency programs at your utility. How do you cover the costs of ConAug in particular***?***

QUESTIONS FOR BPA CON AUG STAFF

1. What is your role in the program?

2. What is your overall view of the program?

    a. What is working best?

    b. What is not working?

    c. What are the primary barriers to participation?

3. (Ask of Tim S. only:)

    a. What are you hoping to learn about ConAug?

    b. Do you want us to investigate how the Federal component is working? (Karen thought this was not necessary, but will defer to your opinion.)

4. Can you clarify for us the relationship between ConAug and C&RD?

5. What customers have been active and which ones have not?

    a. To what do you attribute the interest and lack of interest?

6. We understand ConAug is comprised of several components. In your opinion, what is the most important component of ConAug? Why?

a. What comments have you heard from the region about the different components?

b. Is there higher interest in one component than others? To what do you attribute the interest and lack of interest?

7. What are the driving principles or objectives for the utility conservation agreements? The third party component? And the Federal portion of the program?

8. What is your understanding of how incentives are set for the utility conservation agreements and the third party agreements that are part of ConAug?

   a. How do the incentive levels work in practice?

   b. What comments have you had about incentives?

   c. What comments have you had about ConAug's focus on incremental savings? Has this been a barrier?

9. What is your understanding of load decrement?

   a. How does the load decrement aspect work?

   b. How important is this requirement?

10. How about the specific templates and tools developed for the ConAug. How successful do you feel they have been in meeting your needs? Your customer's needs?

   a. What comments have you had about them?

QUESTIONS FOR BPA CON AUG STAFF/EERS

1. What is your role in the program?

2. How do you market ConAug to your customers?

3. What are utilities' reactions to the program?

4. Do you feel you understand the details of the program well enough to overcome concerns or answer questions?

5. What customers have been active and which ones have not?

    a. To what do you attribute the interest and lack of interest?

6. What is your overall view of the program?

    a. What is working best?

    b. What is not working?

    c. What are the primary barriers to participation?

7. What is your understanding of how incentives are set for the utility conservation agreements and the third party agreements that are part of ConAug?

    a. How do the incentive levels work in practice?

b. What comments have you had about incentives?

c. What comments have you had about ConAug's focus on incremental savings? Has this been a barrier?

8. What is your understanding of load decrement?

a. How does the load decrement work?

b. How important is this requirement to the utilities you work with?

9. How about the specific templates and tools developed for the ConAug. How successful do you feel they have been in meeting your needs? Your customer's needs?

a. What comments have you had about them?

research/into/action inc

P.O. Box 12312, Portland, Oregon 97212

503 / 287-9136