

15. BONNEVILLE POWER ADMINISTRATION (BPA) PROGRAMS

Program Names:	A. Conservation and Renewables Discount (C&RD) B. Conservation Augmentation (Con/Aug)
Mechanism:	A. 0.5mill/kWh discount on wholesale price of electricity B. Custom contracts and Limited Standard Offerings between BPA and wholesale customers for resource acquisition.
Creation:	A: 2002 BPA Power Subscription Strategy ["Rate Case"] Decision B: In response to the NWPPC Conservation Acquisition Target
Duration:	A: October 1, 2001 through September 30, 2006 B: March 1, 2001 through September 30, 2006
Administration:	Both: Administered by utilities in partnership with BPA
Budget:	A: ~\$35million/year B: ~\$152million over the five year rate period
Benefit Measure:	A: BPA pays the value of savings to the bulk power system B: BPA pays the lowest possible cost for first year kWh savings
Specific Incentives:	Both: No lost revenue recovery

Survey Questions

1. Process and timeline

C&RD program planning began in 1998. In February 2000 preparation began on the C&RD Implementation Manual ("the Manual"). The Manual was finalized in the Administrator's Record of Decision 2/12/01. Programs began October 1, 2001.

BPA began the Con/Aug public planning process in 2000. Con/Aug purchases began March 2001 in response to the urgent need for resource acquisition.

2. Organizational structure

Both programs are directed toward customers of the BPA throughout its entire service area, which is the Columbia River Basin. Most customers are in Idaho, Oregon, Washington, and west of the continental divide in Montana.

Customers eligible for C&RD are those subscribing to BPA under the 2002 Rate Case. These customers are primarily publicly owned utilities, some direct-service industries, including aluminum plants, as well as some IOUs. Con/Aug targets publicly-owned utilities. BPA's customers serve all customer sectors. Over 45% of the power used in the Pacific Northwest comes from BPA.

Programs are voluntary; customers administer and implement the programs they choose. The customers' programs can address any and all retail consumers. The administrative structures are too varied to describe in this report, since they range from tiny rural cooperatives to large municipal and investor-owned utilities.

In the C&RD program, BPA contracts with customers, offering them a rate discount for the five-year rate period in return for equivalent spending on conservation or renewable measures. The BPA, with assistance from the Regional Technical Forum (RTF), determines acceptable measures and activities, and their C&RD energy savings and discount value. The customer's CPA or auditor must certify that the customer's accounting systems are adequate to document C&RD-related activities.

In Con/Aug BPA contracts with customers, third parties or other federal agencies for the lowest possible negotiated price/aMW conserved, including administrative costs. Utilities may receive a \$0.01/kWh performance payment. This tends to be negotiated in contracts that require more intensive administrative efforts by the customers.

Customers that choose to conduct both a C&RD and a Con/Aug program must explain to BPA how they will keep program achievements separate.

The BPA utilizes the services of about 30 BPA staff to support the C&RD program at an annual rate of about 5 FTE. Two of these staff members are full-time with C&RD. The BPA utilizes the services of about 40 BPA staff to support Con/Aug at an annual rate of about 13 FTE.

The Regional Technical Forum (RTF) is hosted by the Northwest Power Planning Council (NWPPC) and chaired by Tom Eckman, a member of the Council's staff. RTF membership is voluntary and is made up of technical experts, BPA engineers and program staff, utility staff, and consultants. The RTF meets to discuss technical issues concerning the C&RD. The RTF considers proposed additions, deletions, and/or changes of a technical nature to the Manual. The RTF makes recommendations to BPA. BPA uses the technical review of a credible third party to back up its decisions.

3. Funding mechanisms

The costs of both programs are embedded in wholesale power rates for the five-year rate period ending 9/30/2006.

C&RD

BPA forecasts the upcoming year's C&RD for each customer by estimating the customer's Net Requirements Load and multiplying it by the rate discount of 0.5mills/kWh. The discount is spread over twelve months and shows up as a credit on the customer's monthly bill from BPA. At the end of the five-year rate period, the customer must document that the value of the customer's conservation and renewable activities equals the total credits received through the C&RD.

Administrative costs of the C&RD program are reduced by the use of the Manual and web-based reporting. The Manual, developed by BPA with the help of the RTF, integrates diverse engineering, performance and technical assumptions to produce a "deemed" value of

kWh savings and dollar values to the C&RD program for hundreds of conservation and renewable measures. If a measure becomes the norm, then it is no longer considered incremental, and it will be deleted from the Manual.

Customers have several options for meeting their discount savings spending requirement. Small customers (<7.5 aMW load) have a special Small Utility Option involving minimal paperwork. All other customers have chosen Option B: Value of Savings. With this option the customer receives \$32,850 or 20% of its conservation spending (customer choice) for administration, marketing and related activities, and the customer's conservation activities are credited at 80% of their deemed value.

Historically, the payment for conservation and renewable actions taken under the C&RD program has been more generous than payment under the Con/Aug program. However, due to finite limits on C&RD funding, or the size of project, or for other reasons, BPA customers also take advantage of the Con/Aug program.

Con/Aug

Through Con/Aug, BPA seeks to purchase conservation from customers for less than it costs BPA to supply energy. BPA will consider all cost-effective activities until acquisition goals are satisfied. Payments for custom programs are individually negotiated. BPA does not pay the customer until the savings are actually "delivered", invoiced, and confirmed by BPA.

Upfront willingness-to-pay levels have been established for a few Limited Standard Offerings, but not for custom programs. A recent LSO was paying \$0.035 to \$0.12/kWh for first year savings, depending on measure life.

In some cases BPA includes pacing requirements in contracts, so that a threshold of conservation has to be "delivered" before the remainder of the contract goes into effect. Unexpended funds can be mutually de-obligated, freeing BPA to apply them to new contracts.

4. Degree of association with a long run resources plan

Strong. The Northwest Power Planning Council (NWPPC) is directed by federal legislation to assure the region of an adequate, efficient, economical and reliable power supply. Presently NWPPC has a five year goal of 220 aMW in conservation to be reached by the combined efforts of Con/Aug, C&RD, Northwest Energy Efficiency Alliance activities and Low Income weatherization programs.

5. Guidelines for program effectiveness and success

The C&RD program was initially conceived during a time of reduced conservation activity. One of its guiding principles was to keep 100% of utilities involved in promoting energy efficiency to keep the EE/RE market/infrastructure alive. Credits were set to reflect the value of conservation to the bulk power system, therefore they are often the highest possible

cost-effective value.

Con/Aug, on the other hand, is presently BPA's primary tool for reaching the NWPPC's target for 220 aMW conservation acquisition by purchasing energy savings. Con/Aug seeks to purchase the resource at as low a system cost as possible. Con/Aug requires significant cost-sharing by the customer and minimal free riders.

Since Con/Aug is purchasing conservation to meet load requirements, the customers' actions must provide reliable and certain energy savings.

The C&RD Manual states that simple energy payback must be one year or greater for C&I projects. However, highly cost-effective measures can be combined with less cost-effective measures to qualify.

The C&RD program is expected to save 15 aMW* per year, or 75 aMW over the five year rate period.

The Con/Aug program goal is to deliver 100 aMW during the rate period. The Con/Aug plans and budgets are based on a steady state delivery of 20 new aMW/year.

*aMW = an average of one MW per hour per year, or 8760 MWh/year.

BPA requires certification that all programs/projects for both C&RD and Con/Aug provide incremental energy savings.

6. Pre-implementation program evaluation guidance

In C&RD the customers must report accomplishments once/year and provide a final reconciliation at the end of the five-year rate period. The Manual, and the C&RD Program Tracking and Reporting Software (C&RD Software) provide customers with very specific technical measure and evaluation guidance. Customers use the web-based C&RD Software to report their projects. This software incorporates the "deemed" values for conservation and renewable activities from the Manual. Reports include kWh savings by sector and the number of units installed. The Manual and Software are designed so that the RTF can track the regional conservation achievement of the customers. The RTF and BPA will issue a report of conservation achievements.

The customers' financial auditors must prove the customer spent the C&RD funds on approved conservation and renewable activities.

BPA requires that customers have certified energy auditors inspect conservation work to insure that installed measures are in substantial compliance with the C&RD program's technical specifications.

During the first round of each invitation period for the Con/Aug program, the BPA evaluates proposals based on the cost of delivered energy savings. Customers propose programs and

measurement verification methodology, often using proposal templates developed by BPA. BPA engineering staff or contractors standardize and update M&V protocols whenever possible.

During the second round, the BPA and customers negotiate the project's details, including the verification process. Each project is carefully negotiated using historical data and experience of BPA engineers, NWECA and other entities. Due to the specificity of contracts, BPA does not use third party evaluators for Con/Aug.

In Con/Aug, BPA uses the Utility Cost test to determine the Benefit:Cost. BPA compares the cost of programs to BPA's avoided supply costs, including generation or purchase, transmission and distribution.

7. Results of program evaluation

According to BPA staff, C&RD programs have been meeting their participation and savings goals. 130 of 131 eligible customers participate. Close to 18 aMW were saved in the program's first year. Very few C&RD projects are large enough (over 100,000 kWh) to require third party energy savings verification. Independent financial auditing occurs in all cases.

Con/Aug acquired 4 aMW before its expected start date in October 2001. During its first full year (October 2001-September 2002) it acquired 23 aMW. This year and next year Con/Aug expects to acquire 15 aMW each year. The final two years of the program, Con/Aug expects to acquire 21-22 aMW/year to reach its goal of 100 aMW. BPA had to temporarily slow the pace of conservation acquisition due to capital outlay issues. Accurate measurement and verification activities and close oversight by BPA allow the Con/Aug staff to change the pace of invitations for new projects to match goals and achievements.

According to the BPA website, Con/Aug delivered its goals in its first year "at a cost that is substantially below what was originally projected." Con/Aug staff has found custom programs to be the most BPA-staff intensive. However, they can result in the cheapest acquisition of resources, for example an industrial process change-up.

8. Financial or performance incentives

No lost revenue recovery for utilities.

Issues and Special Situations

Northwest Energy Efficiency Alliance (NWEAlliance)

The regional market transformation activities of the NWEAlliance are supported by BPA. In addition, contributions to the NWEAlliance are allowed under the C&RD program.

BPA Conservation Activity

The 1996 Comprehensive Review of the Northwest Energy System recommended that utilities, rather than BPA, invest their revenues in conservation. This did not happen with any consistency in the public or private sectors. The C&RD was developed in part to assist utilities in meeting this goal.

BPA Finances

According to staff, BPA, for the first time in its history is in a financial bind. There are several major reasons. Rates were fixed for five years, from 2001-2006. At the same time, BPA agreed to provide over 3,500 aMW more than its own fixed assets could deliver. It now has to buy power to meet its contractual obligations. Con/Aug was developed to help meet this need for resource acquisition.

As a result all programs are being scrutinized. The C&RD program is built into rate agreements and has limited flexibility. However, one element that can change is the "deemed" value of conservation activities. These amounts were in hindsight too generous at first. Many are being revised downwards, so that customers will have to do more conservation to show they have used their savings appropriately.

Con/Aug "Willingness to Pay"

The Con/Aug budget has been reduced due to market conditions (cost of short term power purchases lower than forecasted) and experience (Con/Aug has been able to contract for conservation at lower-than-expected costs to BPA). As a result, BPA's "willingness to pay" level has dropped considerably.

It has been a source of frustration to BPA customers that BPA won't commit to a specific "willingness to pay" (\$/aMW) figure, other than in the limited standard offers. However, BPA has found it advantageous to negotiate custom contracts, and, despite frustration, has found enough willing customers to meet BPA's goals.

Recently BPA has had to slow the pace of Con/Aug resource acquisition to minimize the impact on rates. According to staff, although the 2002 Rate Case set the rates for five years, there was a "safety net crack" in the rates that allows them to be emergency-adjusted upwards. There will be a near-term rate increase and Con/Aug has been directed to slow the pace of capital outlay to minimize the increase.

C&RD T&D systems

Efficiency improvements to customers' T&D systems qualify for C&RD credit. BPA is developing engineering protocols and credit determinations for these measures.

Equity

The wholesale customers are under no obligation to provide equitable distribution of

conservation opportunities.

Resources

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See www.bpa.gov/Energy/N/projects/conserves_augmentation/index.shtml for Con/Aug documents.

See www.bpa.gov/Energy/N/projects/cr_discount/index.shtml for C&RD docs.

Northwest Power Planning Council

503-229-5171, www.nwppc.org

Northwest Energy Efficiency Alliance, www.nwalliance.org