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United States Government

Department of Energy

# memorandum

DATE: October 12, 2006  
Audit Report Number: OAS-L-07-01

REPLY TO  
ATTN OF: IG-32 (A06DN004)

SUBJECT: Audit of the Bonneville Power Administration's Conservation and Renewables Discount and Conservation Rate Credit Programs

TO: Administrator, Bonneville Power Administration

## INTRODUCTION AND OBJECTIVE

Bonneville Power Administration (Bonneville) is responsible for marketing electric power produced from the Federal Columbia River Power System (System). About 40 percent of the electric power used in the Northwest comes from Bonneville. Since Bonneville has a statutory responsibility for meeting its preference customers' increases in electricity needs, energy conservation is vital in order to reduce the amount of power Bonneville has to provide to users of the System. Moreover, conservation defers the need to build new, more expensive generation and reduces the risk of cost increases from high market prices.

The Pacific Northwest Electric Power Planning and Conservation Act of 1980 (Act) requires the region to encourage and achieve energy conservation. The Act also requires the establishment of a council which sets conservation goals for the region. Bonneville's portion of the regional conservation goal was to reduce customer consumption by 236 average megawatts of energy during the 2002 through 2006 timeframe. To do so, Bonneville established several conservation programs administered by its Energy Efficiency organization. Among them was the Conservation and Renewables Discount (C&RD) Program, which had a \$155 million budget to conserve 75 average megawatts of electricity over 5 years. This program applied a discount per kilowatt-hour to the bills of Bonneville's wholesale power customers who take actions to further develop conservation in the region. Bonneville's customers were obligated to spend their discount implementing approved conservation measures, such as compact fluorescent lighting and heat pumps. Bonneville concluded its C&RD Program at the end of Fiscal Year (FY) 2006 and replaced it with the Conservation Rate Credit (CRC) Program for FYs 2007 through 2009, with the intention of making the program more cost effective. Therefore, the objective of this audit was to determine whether Bonneville had approached its C&RD and CRC Programs in the most cost-effective manner.

## CONCLUSIONS AND OBSERVATIONS

Bonneville has made positive strides in improving the cost-effectiveness of the CRC Program in comparison to the C&RD Program; however, there may be potential for

further cost savings. Also, Bonneville's efforts to enhance oversight and validate data in the CRC Program could be improved.

### Potential Cost Savings

While the C&RD Program appeared to be on track to meet its goal for energy conservation, we noted instances in the C&RD Program where Bonneville had paid customers more than the cost to implement conservation measures, or for measures in which the cost exceeded the value of the energy savings obtained from the measure. Of the \$73.7 million in "deemed" measures (measures where it was possible to quantify the per unit energy savings) offered in the C&RD program, as much as \$16 million -- which represents 35 percent of the measures -- were reimbursed to customers above the cost of the measures. Further, we found that as much as \$15 million -- which represents 45 percent of the measures -- were reimbursed at more than the value of the energy savings. Specifically, these were measures with a benefit/cost ratio of less than 1.0.

To its credit, Bonneville acted to improve the cost effectiveness of its energy conservation efforts in the CRC Program. The percentages of approved CRC Program measures with the deficiencies noted above were lower than the percentages we found in the C&RD Program. However, further efficiencies appear possible. For example, in the CRC Program Bonneville's most recent data from the year 2000 showed that approximately 14 percent of approved measures may still be reimbursed at levels above the measures' cost, and approximately 16 percent still had benefit/cost ratios of less than 1.0.

These conditions still existed because, prior to selecting measures for the CRC Program, Bonneville did not examine all the measures for reimbursement levels above the cost of the measures or for benefit/cost ratios of less than 1.0. A contributing factor was that Bonneville did not have up-to-date cost data for its measures to use in such examinations. Therefore, we suggest that Bonneville update its data and reevaluate CRC measures to ensure that reimbursement levels are reasonable and measures are cost-effective.

### Improved Oversight

Although Bonneville plans to increase its oversight and data validation in the CRC Program, we identified areas for improvement. In the C&RD Program, Bonneville relied on Certified Public Accountants hired by the customer or state auditors to examine the basis the customer used to support its claimed energy savings and credit amount, and to attest that the customer had policies, procedures, and an accounting system in place to support its program. In the CRC Program Bonneville plans to replace its reliance on outside attestations with making an annual visit to participating customers. The visit will include reviewing customer cost and energy savings data for accuracy, thereby increasing oversight and data validation. While this is commendable, we found that Bonneville was not yet adequately prepared to take this action. For example, Bonneville planned to assign responsibility for implementing the increased oversight to staff already occupied with conducting oversight on a different conservation program. Even though a Bonneville official stated the increased oversight will double the staff's workload, Bonneville had no specific plan for how the

staff could adequately accommodate the additional CRC work with existing resources, such as employing a risk-based strategy for conducting the site visits. Additionally, Bonneville lacked guidelines for its planned data validation, such as a statistical sampling approach to ensure accuracy. Therefore, we suggest that Bonneville prepare and implement a risk-based CRC Program oversight plan, including a statistical sampling approach to achieve its data validation goal. This would provide Bonneville with increased assurance that customers are achieving their stated conservation savings and spending their conservation rate credits appropriately.

### SCOPE AND METHODOLOGY

The audit was performed from March to September 2006. The scope of the audit included the 2002 through 2006 C&RD Program and the 2007 through 2009 CRC program. To accomplish this audit, we reviewed and analyzed the conservation measures used in the C&RD program and measures approved for the CRC program. Further, we reviewed related laws, regulations, policies and procedures, and interviewed personnel responsible for Bonneville's Conservation Programs.

We conducted the audit in accordance with generally accepted Government auditing standards for performance audits and included tests of internal controls and compliance with laws and regulations to the extent necessary to satisfy the audit objective. Because our review was limited, it would not necessarily have disclosed all internal control deficiencies that may have existed at the time of our audit. We assessed the Department of Energy's compliance with the Government Performance and Results Act of 1993 and found that Bonneville had established performance measures intended to ensure that it is achieving its conservation goals cost-effectively. Due to Bonneville's reliance on attestations from Certified Public Accountants and state auditors hired by the customer for data validation and oversight, we did not conduct reliability assessments on the computer processed data.

An exit conference was held with officials from the Bonneville Power Administration on September 11, 2006.

We appreciate the cooperation of your staff during our review. Because no formal recommendations are being made in this report, a formal response is not required.



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cc: Deputy Secretary  
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