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Office of Audit Services

Audit Report

Bonneville Power Administration's Acquisition of Transmission-Related Materials and Equipment

DOE/IG-0824

September 2009



Department of Energy
Washington, DC 20585

September 29, 2009

MEMORANDUM FOR THE ADMINISTRATOR, BONNEVILLE POWER
ADMINISTRATION

FROM: *Gregory H. Friedman*
Gregory H. Friedman
Inspector General

SUBJECT: INFORMATION: Audit Report on "Bonneville Power
Administration's Acquisition of Transmission-Related
Materials and Equipment"

BACKGROUND

Bonneville Power Administration (Bonneville) is responsible for marketing, selling and transmitting power produced from the Federal Columbia River Power System. Bonneville manages a significant transmission infrastructure, including about 15,000 miles of transmission lines and 300 substations in eight states. To fulfill its mission, Bonneville acquires transmission-related materials and equipment including transformers, circuit breakers, and steel and wood poles. From October 2002 through May 2008, Bonneville made approximately 5,200 transmission-related acquisitions totaling over \$162 million. Bonneville acquired these materials through various types of contracts, including fixed price contracts and indefinite delivery/indefinite quantity contracts.

Bonneville established controls designed to help ensure that its acquisitions were "best buys" and that the procurement strategy was in its best interest. Specifically, Bonneville required officials to: (1) evaluate contract awards to determine whether they represented best buys; (2) review expiring contracts to determine if extensions were in Bonneville's best interest; and, (3) forecast needs to facilitate economic procurement decisions. Under Bonneville's operating procedures, these determinations were to be made by evaluating factors including total cost, technical features, quality and adaptability, and vendor past performance. Because of the significant value of its acquisitions, we initiated this audit to determine whether Bonneville's acquisition program met its goals and objectives.

RESULTS OF AUDIT

Bonneville had not always effectively implemented controls for ensuring that transmission-related acquisitions were best buys and in its best interest. Specifically, of the 86 acquisitions, valued at nearly \$90 million, that we reviewed, Bonneville had not:

- Performed the required best buy analyses to support 29 acquisitions valued at about \$7.5 million. For 15 of these acquisitions totaling \$2.9 million, information was available to establish the difference between the actual award price and the

lowest price available. In these cases, Bonneville paid \$1 million more than the lowest price available;

- Extended the performance period of two expired, indefinite delivery/indefinite quantity contracts without evaluating whether the contracts continued to be in its best interest. Bonneville made purchases amounting to approximately \$3.6 million during the extended performance period under these contracts. Because the evaluation was not performed as required, we were unable to determine whether purchases were the best buys available; and,
- Established controls to ensure that required forecasting was actually performed as part of its procurement process. We identified 45 acquisitions for high-impact items, such as transformers and circuit breakers, where support was not available to document that forecasts had been made and that users had adequately communicated their needs to procurement. Forecasting acquisition needs is significant because certain transmission-related materials and equipment, such as transformers, may have a delivery time of 18 months or longer; and in some cases, are critical to the continued operation of the electricity grid.

Bonneville had not taken timely action, and in some instances had taken no action, to correct previously identified weaknesses in its controls for ensuring that transmission-related acquisitions were best buys and in its best interest. A Fiscal Year 2006 review by Bonneville's Head of Contracting Activity (HCA) reported that Bonneville had not enforced requirements for program offices to ensure that acquisitions were always supported by complete "best buy" analyses and that acquisition forecasts were submitted as required. Bonneville had not ensured that these problems were addressed and did not, as recommended by the HCA, develop a standard format for documenting contract award decisions. Although Bonneville initiated action to enforce its acquisition forecast requirements in 2008, nearly two years after the problem was identified, a 2008 HCA report noted that Bonneville's involvement in advance planning remained inconsistent and inefficient. These conditions directly parallel those disclosed during our audit, factors which form the basis of this report.

Our review identified over \$11 million in transmission-related acquisitions that were awarded without assurance that the acquisitions were in Bonneville's best interest. Further, Bonneville is at risk of awarding future contracts without the assurance that they will provide the best value for ratepayers. As a result of Bonneville not always ensuring that best buy analyses were performed and procurement needs consistently forecasted, ratepayer dollars may not have been used in a cost effective manner.

We made several recommendations designed to help improve Bonneville's acquisition of transmission-related materials and equipment. The importance of implementing these recommendations will grow over time, given the increase in Bonneville's borrowing authority by \$3.25 billion for transmission expansion authorized under the American Recovery and Reinvestment Act of 2009.

MANAGEMENT REACTION

Bonneville officials generally agreed with the audit recommendations and stated that they had implemented necessary improvements. Management, however, did not fully agree with the findings of our report. Specifically, management disagreed with the potential dollar impact of the control weaknesses on ratepayers. Management also stated that procurement forecasting had been achieved through a continuous interactive process between contracting officers and clients. Further, management indicated that contracting officers strive to make best buy decisions on all procurements. While noting that contracting officers have flexibility in determining the required level of documentation, management agreed that better documentation of best buy analyses in award decisions was needed and committed to making further improvements.

Management's proposed actions are generally responsive to our recommendations. With respect to monetary impact, we acknowledge that Bonneville benefitted from the products acquired through the acquisitions discussed in this report. Our concern however, is that management cannot be assured that the \$11 million spent on those items was the best buy for Bonneville ratepayers.

Management's comments are included in their entirety in Appendix 3.

Attachment

cc: Deputy Secretary
Chief of Staff
Team Leader, Office of Internal Review, CF-1.2
Bonneville Power Administration Liaison Office
Audit Liaison, Bonneville Power Administration

**REPORT ON BONNEVILLE POWER ADMINISTRATION'S ACQUISITION
OF TRANSMISSION-RELATED MATERIALS AND EQUIPMENT**

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ACQUISITIONS OF TRANSMISSION-RELATED MATERIALS AND EQUIPMENT

Achieving a "Best Buy"

Bonneville had not always implemented controls for ensuring that transmission-related acquisitions were best buys and in its best interest. Specifically, of the 86 acquisitions totaling \$89.7 million that we reviewed, Bonneville had not:

- Performed the required best buy analyses to support 29 acquisitions valued at about \$7.5 million. For 15 of these acquisitions totaling \$2.9 million, there was sufficient information to determine the difference between the amount awarded and the lowest price available. In these cases, Bonneville paid \$1 million more than the lowest price available;
- Extended the performance period of two expired indefinite delivery/indefinite quantity contracts without evaluating, as required, whether the contracts continued to be in its best interest. In addition, Bonneville had not obtained the Head of Contracting Activity (HCA) required approval for extending two contracts. After the extensions, Bonneville purchased approximately \$3.6 million under these contracts. Because the evaluation was not performed, we were unable to determine what, if any, portion of the \$3.6 million was the best buy available; and,
- Established controls to ensure that forecasting was part of its procurement process. We identified 45 acquisitions of high-impact items, such as transformers and circuit breakers, where support was not available to document that forecasts had been made as required and that users had adequately communicated their needs to procurement.

Best Buy Analysis

Bonneville had not performed best buy analyses for 29 acquisitions valued at about \$7.5 million. Best buy analyses were not completed even though Bonneville procurement guidance required that for acquisitions of \$10,000 or more, best buy analyses, including evaluations of price, estimated cost and total cost, be completed and summarized prior to award in a Document of Award Decision.

Bonneville, for example, awarded two consecutive contracts to the same vendor without complete best buy analyses. Specifically, Bonneville awarded the first contract based on an engineering

preference for lighter weight and less awkward equipment. The decision documentation, however, did not explain the rationale for using the engineering preference as a critical determinant rather than other criteria including cost, as would have been provided in a best buy analysis. Rather, the contracting officer included a note in the procurement file stating that cost was not a major factor but did not explain the reasons cost was not a major factor. In fact, the unit cost of \$97.50 awarded was 67 percent higher than the alternate vendor's unit price. Bonneville subsequently made a second award to the same vendor based on the first contract's award decision and at the same unit price as the first contract. Under this award, Bonneville made three acquisitions, spending approximately \$991,000 more than the next lowest available price. Further, Bonneville made 12 acquisitions under two contracts with another vendor, spending approximately \$45,000 more than the next available lowest price.

Evaluation of Expired Contracts

Bonneville extended the performance period of two expired indefinite delivery/indefinite quantity contracts without evaluating whether the contracts continued to be in its best interest. Further, Bonneville had not requested in writing and obtained HCA approval for two contract extensions. Such approval was required by Bonneville procurement guidance because the contracts had been expired for three months or more prior to the extension. For example, Bonneville twice extended a contract for transformers with a maximum value of \$6.5 million that originally expired in May 2007 without an evaluation of whether the contractual arrangement continued to be in Bonneville's best interest. Between the date the contract was extended and the time of our review, Bonneville purchased approximately \$3.6 million under two of these contracts. Because the evaluation was not performed, we were unable to determine what, if any, portion of the \$3.6 million was the best buy available.

Forecasting the Need for Materials and Equipment

Bonneville had not established controls designed to help ensure that forecasting was actually performed as part of its procurement process to facilitate best buy analyses and to ensure that equipment was available when needed. Bonneville required the preparation of annual forecasts of procurement actions exceeding \$50,000. We identified 45 acquisitions for high-impact items, such as transformers and circuit breakers, where there was no documentation indicating forecasts had been made. Forecasting acquisition needs is significant because certain transmission-

related materials and equipment such as transformers may have a delivery time of 18 months or longer and in some cases, are critical to the continued operation of the grid.

**Corrective
Actions**

Bonneville had not taken timely action, and in some instances had taken no action, to correct previously identified weaknesses in its controls for ensuring that transmission-related acquisitions were in its best interest. Bonneville's HCA performs reviews and reports on the procurement function approximately every two years. In its Fiscal Year 2006 review, the HCA reported that acquisitions were not always supported by complete best buy analyses and that Bonneville had not enforced its requirements for program offices to submit acquisition forecasts. The HCA recommended that Bonneville take action to correct identified deficiencies in best buy analyses and to enforce requirements for acquisition forecasts.

Bonneville, however, had not identified the actions needed to address missing or inadequate best buy analyses. Bonneville also had not required the use of a standard format for documenting contract award decisions, even though the HCA had indicated in its 2006 review that this would help improve consistency and completeness. Further, Bonneville did not take action to enforce its forecasting requirements until late 2008 when it established additional procedures for obtaining two-year forecasts from program managers. Accordingly, the 2008 HCA report continued to note that Bonneville's Documents of Award Decision used to justify procurements did not always contain sufficient information to explain the rationale for actions to ensure best buys. The report also stated that Bonneville's involvement in advance procurement planning was inconsistent and inefficient.

Bonneville officials had begun an Enterprise Process Improvement Project initiative to address the findings in the 2006 HCA report. However, officials noted that implementation of the process would be lengthy and complex due to the interrelationships of the various functions being reviewed simultaneously.

**Effective Use of
Ratepayer Dollars**

As a result of Bonneville not always performing best buy analysis to support its acquisitions and ensuring that forecasting was part of its procurement process, ratepayer dollars may not have been used in a cost effective manner. Our review identified over \$11 million in transmission-related acquisitions that were awarded without

assurance that they were in Bonneville's best interest. Unless Bonneville addresses previously identified problems in its acquisition of transmission-related equipment, it is at risk of making future acquisitions that are not in its best interest.

RECOMMENDATIONS

To reduce the risk associated with transmission-related acquisitions, we recommend that the Bonneville Administrator direct responsible officials to:

1. Hold program officials and acquisition management accountable for the:
 - a. completion of best buy analyses;
 - b. evaluation of proposed extensions of expiring contracts; and,
 - c. preparation of acquisition forecasts.
2. Use a standard format for summarizing its award decision, including best buy analysis.

MANAGEMENT REACTION

Management generally agreed with the audit recommendations and noted that it had already implemented necessary improvements to address the findings of internal reviews and this audit. Bonneville cited a new Quality Review Checklist and enhanced Purchasing Operating Procedures as positive improvements it had undertaken in response to the audit report's first recommendation. Management also agreed with our recommendation regarding a standard format for its award decisions.

Management, however, did not fully agree with the findings of our report. Bonneville did not agree with the audit's conclusion regarding the potential impact on ratepayers. In management's view, Bonneville benefited from the acquisitions and had not misspent the entire dollar value of the procurement. Bonneville stated that contracting officers strive to make best buy decisions on all procurements. While noting that contracting officers have flexibility in determining the required level of documentation, management agreed that better documentation of best buy analyses in award decisions was needed and committed to making further improvements. In addition, management stated that procurement forecasting had been achieved through a continuous interactive process between contracting officers and clients.

**AUDITOR
COMMENTS**

Management's actions taken to date and its proposed actions are generally responsive to our recommendations. In the absence of documentation, management could not always determine that best buy decisions considered all relevant procurement criteria such as cost and technical needs, or that client needs were forecasted to facilitate the timely acquisition of materials. The audit noted that in our sample of 86 transactions, Bonneville made over \$11 million in transmission-related acquisitions without documenting the reasons why the acquisitions were best buys. While we agree with Bonneville that this does not mean that the entire amount was misspent, our concern is that management cannot be assured that the \$11 million spent on those acquisitions was the best buy for Bonneville ratepayers.

Appendix 1

OBJECTIVE The objective of this audit was to determine if Bonneville Power Administration's (Bonneville) acquisition program met its goals and objectives.

SCOPE The audit was performed between April 2008 and August 2009. Testing procedures were performed on transmission-related acquisition records maintained at Bonneville's Ross Complex located in Vancouver, Washington. The scope of the testing covered acquisitions from October 2002 through May 2008.

METHODOLOGY To accomplish the audit objective, we:

- Obtained and reviewed laws, regulations, policies, and procedures relevant to Bonneville's acquisition of transmission-related materials and equipment;
- Obtained and reviewed prior audit reports;
- Held discussions with officials from Bonneville's Headquarters and its Ross Complex;
- Gained an understanding of Bonneville's acquisition process for procuring transmission-related materials and equipment;
- Analyzed Bonneville's acquisition records from October 2002 through May 2008; and,
- Selected a judgmental sample of 86 transmission-related acquisitions and reviewed award documentation for compliance with requirements set forth in Bonneville's policies and procedures.

We conducted this performance audit in accordance with generally accepted Government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our finding and conclusions based on our audit objective. We believe that the evidence obtained provides a reasonable basis for our finding and conclusions based on our audit objective. The audit included tests of controls and compliance with laws and regulations 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.

Also, we considered the establishment of performance measures in accordance with the *Government Performance and Results Act of 1993* and concluded that specific performance measures concerning the acquisition of transmission-related materials and equipment at Bonneville did not exist. We relied on computer processed data to a limited degree and performed procedures to validate the reliability of the information as necessary to satisfy our audit objective. Our review indicated that the computer-generated data was generally accurate and could be relied upon.

We held an exit conference with Bonneville officials on September 10, 2009.

RELATED AUDIT REPORTS

- *Procurement Administration at Brookhaven National Laboratory* (CR-B-02-02, August 2002). The audit found that while Brookhaven National Laboratory (Brookhaven) had initiated certain improvements, it did not always properly administer procurements. Brookhaven had not provided adequate training for acquisition staff, implemented appropriate control measures, and effectively implemented an assessment and performance measurement program. As a consequence, neither the Department of Energy nor Brookhaven had full assurance that competition was adequate and that procurement awards provided the best value and were in the best interests of the government.

memorandum

DATE: July 31, 2009

REPLY TO
ATTN OF: BPA-NS

SUBJECT: Response to Draft Report on "Audit of Bonneville Power Administration's Acquisition of Transmission-Related Materials and Equipment"

to: George W. Collard, Assistant Inspector General for Performance Audits - IG-32

This is in response to the Inspector General's (IG) Draft Report on "Audit of Bonneville Power Administration's Acquisition of Transmission-Related Materials and Equipment" dated July 8, 2009.

We welcome the Inspector General's (IG) audit of our program and its decision to look more closely at our contracting process and how we document our buy decisions through the contracting process. The IG's review follows several internal reviews and a Supply Chain Enterprise-wide Process Improvement (EPIP) effort we initiated in 2006. We agree with the IG's recommendations and, with our parallel EPIP efforts, we have already implemented necessary improvements. Additional supporting information regarding BPA's response and how BPA has implemented the recommendations resides in the Technical Appendix and at: http://www.bpa.gov/corporate/About_BPA/audits/.

While we agree with the recommendations, we do not fully agree with the findings of the draft report. BPA Contracting Officers strive to make best buy decisions on all of their procurements; however, we acknowledge that some of our files do not adequately document those decisions. The Bonneville Purchasing Instructions (BPI) gives Contracting Officers authority to extend contracts if market analysis is completed and the Contracting Officer is assured that the best value for BPA is being achieved.

We specifically disagree with the dollar impact and the underlying conclusions that BPA ratepayers were financially harmed. Although a best buy analysis was not documented on all of these purchases, this does not mean that the whole dollar value of the procurement was misspent (\$12.3 M). However, we agree that consistent documentation of the best buy analysis by our Contracting Officers would have avoided this uncertainty. We are committed to improving in this area.

Additionally, BPA received the transmission equipment and material and used it to meet project and operations and maintenance requirements on our transmission system. BPA could not have procured the material from another source for zero dollars nor met its transmission-related requirements. The dollar levels described in the draft report should be substantially reduced in final report.

Best Buy Analysis

Improvement of documentation for purchase decisions had been previously identified. However, few, if any, contracts reviewed during the audit indicate that BPA did not make informed decisions of the best buy for the agency. We note and agree with the IG that some documentation supporting best buy decisions was not consistently maintained in formal files [BPI Part 12.8.2].

However, our Contracting Officers have procedural flexibility under the BPI to determine the level of required documentation based on the scope, history, size, and complexity of the proposed purchase [BPI Part 4.2.1]. Additionally, it is vital to the reliability of BPA's transmission system for BPA to consider engineering technical requirements as well as material costs. BPA's new Contract Quality Review Checklist and enhanced Purchasing Operating Procedures (POP) 08-07 require detailed analysis of BPA

purchasing decisions. We believe these improvements reflect BPA's EPIP findings and the IG's Best Buy recommendation (see appendix).

Expired Contracts

Different from the draft report, we determined that only one of the four contracts the IG noted as being extended without requesting approval from the HCA was extended outside the 90-day time frame allowed by the BPI. That agreement was tendered to the supplier who did not execute the extension within 90 days. The POP 05-01 Contract Expiration/Option Notices process is in place to address this issue (see appendix). The other contracts were extended using procedures in BPI Part 14 (see appendix).

Forecasting

BPA believes that effective forecasting is a best practice because it assists in both quantitative and qualitative determinations of material purchase requirements for BPA. BPA uses strong relationships between the Contracting Officers and their customers to monitor and assess future material needs. Additionally, BPA implemented a formal annual forecasting process in 2007 requiring the signature of a senior manager. This was accomplished through our internal EPIP effort as a result of a 2006 HCA review and recommendations (EPIP Forecasting Process C-6 /2007). The forecast received in early 2008 in response to the first call letter was weak but the subsequent forecast received in December 2008 was exceptional and we expect future forecasts to fully meet expectations as well (see appendix).

In conclusion, we agree with the report that BPA can improve the formal documentation of the analysis we perform. We also agree that when best buy decisions do not require the five steps, we will include this determination in our Document of Award Decision. BPA has implemented all of the other recommendations in the draft report.



Stephen J. Wright
Administrator and Chief Executive Officer

Attachment

cc:

T. Griffin - CF-1.2
D. Williams - CF-1.2

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