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UNITED STATES GENERAL ACCOUNTING OFFICE
WASHINGTON, D.C. 20548

RESOURCES, COMMUNITY, AND ECONOMIC DEVELOPMENT DIVISION

FEBRUARY 28, 1983

B-209897

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The Honorable Donald P. Hodel
The Secretary of Energy

Dear Mr. Secretary:

Subject: Changes in the Bonneville Power Administration's Billing Practices Could Reduce Interest Costs and Improve Cash Flow (GAO/RCED-83-64)

A review of electricity billing practices revealed that if the Bonneville Power Administration (BPA) changed its customer billing processes, more than $3.2 million in interest expenses could be avoided annually. These savings could be obtained by

--billing utility customers promptly ($1.8 million);

--negotiating contract changes requiring California utility customers to pay monthly, rather than quarterly ($1.4 million); and

--requiring Federal agency customers to pay interest on late payments ($60,000).

These interest expense savings would result from less short-term borrowing by BPA since monies due would be received more quickly and on a regular monthly basis.

Several earlier audits, both from within and outside BPA, have pointed out this opportunity to save some interest expenses. The most recent audit of this subject is being done by the Department of Energy's (DOE) Inspector General and includes a review of customer billing practices as part of an overall examination of cash management practices at power-marketing administrations. During our review, the DOE study was still in draft form, and BPA questioned the practicality of some of the draft recommendations. Because of BPA's questions, part of our evaluation was to determine the nature of BPA's objections to the DOE report and to ascertain actions planned to improve the timeliness of billings.

OBJECTIVES, SCOPE, AND METHODOLOGY

Our audit approach during this assignment included (1) interviewing BPA officials responsible for billing, computer programming, and remote metering to determine customer usage; (2) reviewing policies, procedures, studies, and proposals pertaining

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to BPA's electric customer billings; and (3) reviewing electric customer contracts and records. In addition, we reviewed related reports by the BPA internal audit staff; Coopers and Lybrand, Incorporated (the public accounting firm certifying BPA's financial statements); and the Department of Energy's Inspector General. The DOE study differs from this effort in that it reviews cash management practices at the various power-marketing agencies, whereas, we only reviewed the timeliness in billings at BPA. We discussed these reports with those responsible for the reviews.

To determine the amount of interest which could have been saved through changes in BPA's billing practices, we used BPA's fiscal year 1982 electric power billing amounts, the average time it takes to issue electricity customer billing, and the rate of interest BPA paid for most short-term U.S. Treasury loans, currently at 10.65 percent.

In considering how expeditiously BPA should issue its power bills, we reviewed BPA's governing legislation (16 U.S.C. 832) and Federal regulations regarding billing procedures, and obtained a description of the billing practices at the Tennessee Valley Authority. We also reviewed other applicable laws and regulations addressing the charging of interest to Federal agencies that are late in making payments. We performed our review in accordance with generally accepted government audit standards.

BACKGROUND

BPA's responsibilities include marketing electric power generated primarily from Federal hydroelectric plants of the Army Corps of Engineers and the Department of the Interior's Bureau of Reclamation. This power is marketed under the authority of the Bonneville Project Act (16 U.S.C. 832f), which requires recovery of system costs through power rates charged to customers. In 1974, the Federal Columbia River Transmission Systems Act (16 U.S.C. 838) placed BPA on a self-financing basis and gave it authority to borrow from the U.S. Treasury. As a result, BPA, and ultimately its ratepayers, bears the interest costs associated with self-financing, as well as the costs of generating and transmitting power.

In calendar year 1981, BPA sold 82 billion kilowatt-hours of electric power to 161 utilities for $718 million. Within the region, 116 publicly owned utilities paid 47 percent of the total revenue, 8 privately owned utilities paid 12 percent, 6 Federal agencies paid 1 percent, and 16 industries served directly by BPA paid 29 percent. The remaining 11 percent of the revenue was collected for power sold to 15 utilities outside the region.

Federal law and regulation directs BPA to use sound business principles and to promptly bill its customers. Section 5 of the Flood Control Act of 1944 (16 U.S.C. 825s) provides that Federal power be marketed "* * * at the lowest possible rates to consumers consistent with sound business principles * * *." The faster power bills are issued and collected, the less interest cost BPA incurs, thereby lowering rates. The Department of Treasury Fiscal Requirements Manual (section 8020.10) requires that if the estimated value of the services being billed is $50,000 or more, and an invoice cannot be sent within 1 day after the billing office is advised that the service was provided, the agency should issue a partial bill for at least 75 percent of the value.

While a 1-day criterion may be reasonable when billing for goods and services whose value is known in advance, it is more difficult to promptly bill most customers for the sale of electricity, since usage varies monthly and can only be determined by meter readings. We discussed the 1-day billing criterion with a Treasury official familiar with this provision. The official stated that this requirement was not prepared specifically for the electric industry. In fact, the official continued, this Treasury requirement is intended to only provide general criterion for each Federal agency to use when developing a billing standard. This Treasury requirement, the official concluded, is not a specific criterion that each Federal agency must adopt and adhere to.

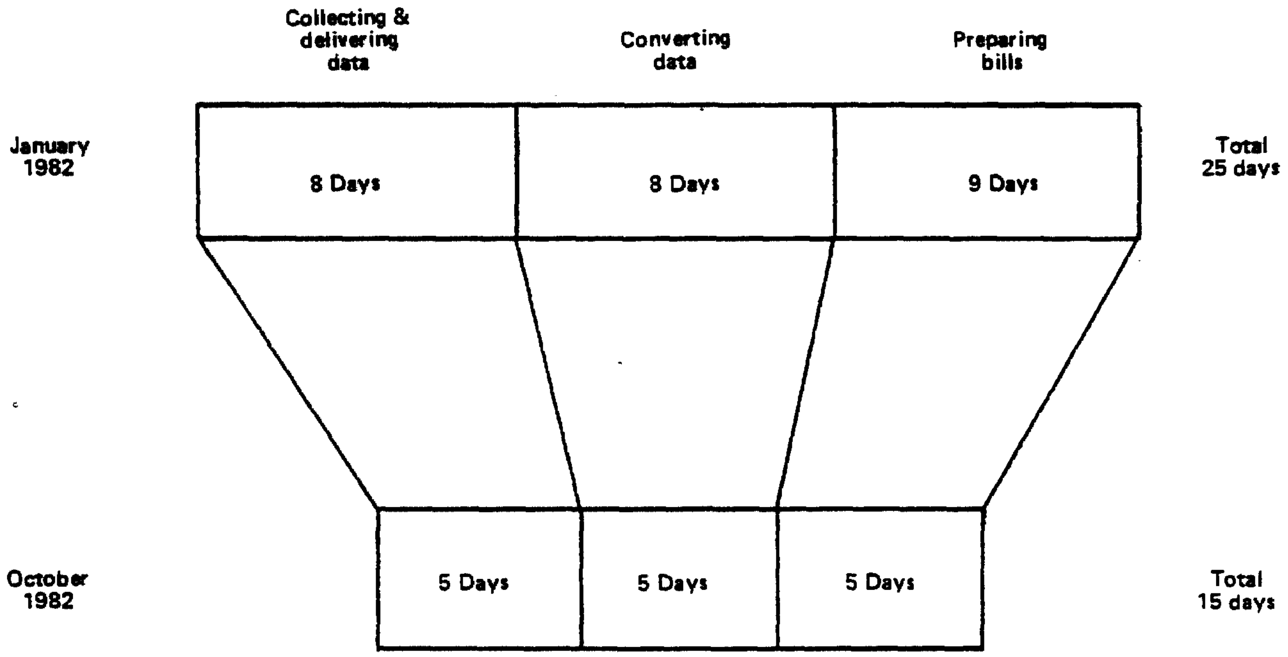
We wanted a better idea of what time frame might be considered reasonable for BPA's electric billings. Since the Tennessee Valley Authority (TVA) has electric-billing functions similar to BPA's, we asked TVA officials about its billing practices. According to an official of TVA, which also supplies wholesale electricity to utilities, TVA is able to issue bills 1 week after reading the meters. When we discussed this TVA practice with BPA officials, we were told that 5 to 7 days is a realistic time period for issuing power bills.

Billing for electricity sales at BPA is the responsibility of the Revenue and Statistics Branch of the Office of Power and Resources Management. During calendar year 1981, this branch billed about 16 percent of its customers, representing 47 percent of the revenue, within 5 days after the close of the monthly billing period. These billings for directly served industries, private utilities, and two public utilities are primarily based on actual usage but include an estimate of the power used in the last 5 days of the period. Because the electricity used in these cases is scheduled in advance, the bills are rather easy to estimate.

The monthly bills for the remaining customers (public utilities, cooperatives, municipalities, and Federal agencies' customers) are based on actual usage and, therefore, take considerably longer. The average processing time for these customers' bills in January 1982 was 25 days. The time was divided about equally among (1) collecting and delivering the customers' electric usage from meters at various locations, (2) converting the meter information into usable form for billing, and (3) preparing the bill.

Between January and October 1982, the billing office reduced the average processing time from 25 to 15 days by establishing priorities and time goals for these customers' bills. Some of the larger bills are now being completed in about 10 days. The following chart illustrates the progress made in the 10-month period, January through October 1982.

AVERAGE DAYS PER MONTH TO PROCESS
PUBLIC UTILITIES, COOPERATIVES, MUNICIPALITIES, AND FEDERAL AGENCY
CUSTOMERS BILLS



Source: GAO Extrapolation

PROMPT BILLING COULD SAVE $1.8 MILLION

In fiscal year 1982, BPA could have saved about $1.8 million in interest costs 1/ if public utilities, cooperatives, municipalities, and Federal agency customers were billed 5 days after the end of the billing period. For the future, BPA could save $179,000 in interest 2/ for each additional day the average billing process is shortened. In addition, even greater savings could be acheived for each additional day the billing process is shortened as shown in the chart on the next page.

BPA has plans to reduce the time taken to bill customers by automating meter readings and bill preparation. These automated systems could reduce the time it takes to collect the meter data, to convert those data, and to prepare a bill, from 15 to 5 days for each billing period.

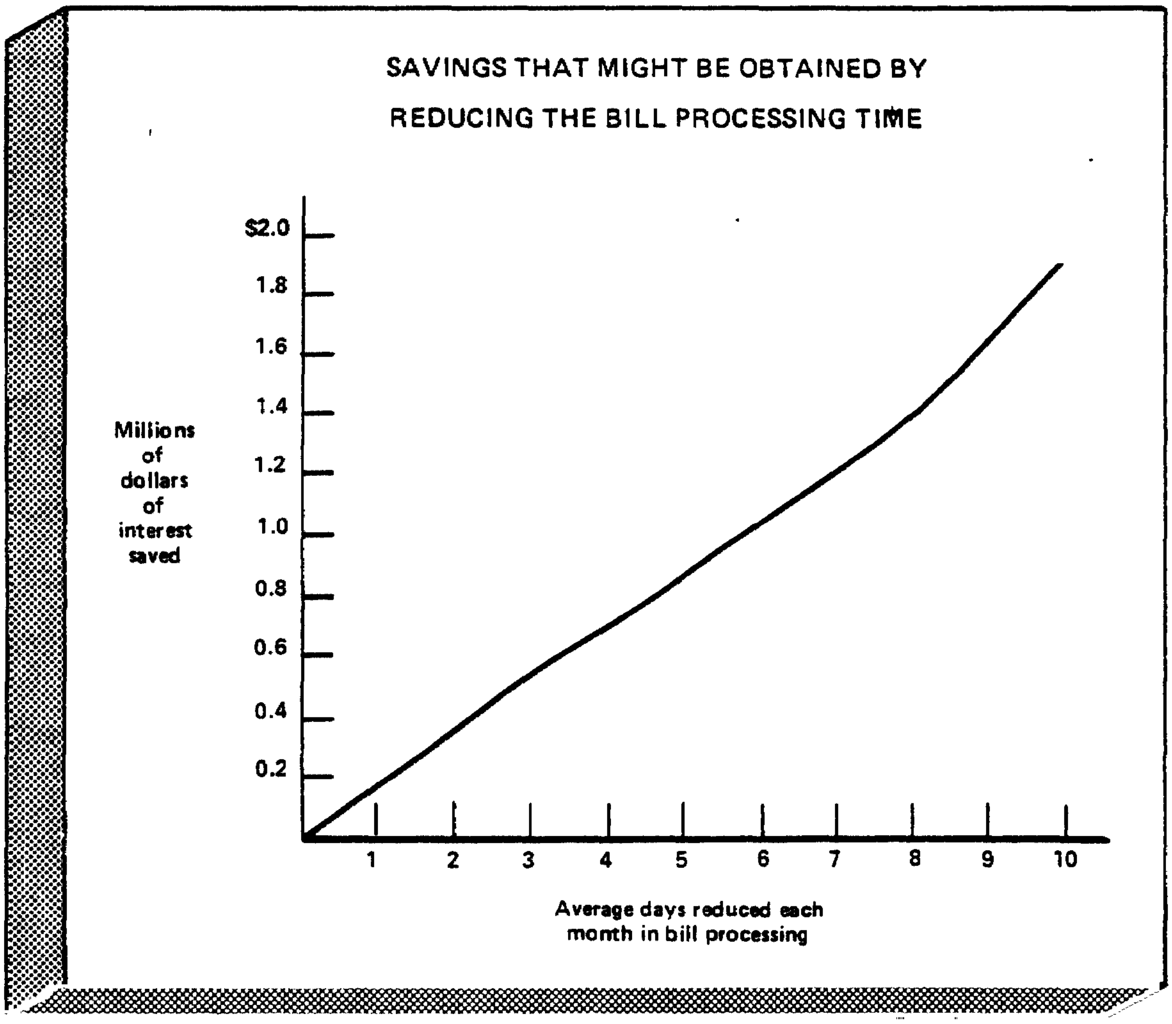
Automating the meter reading process will eliminate the current time of 5 days to collect and deliver information to the billing office. This involves installing new digital meters which will collect the usage data, on an hourly basis, and make them instantly available to the billers at the central office. BPA is planning for the first 60 meters to be installed by July 1983 and for installation of the balance of another 440 meters to be completed about July 1987.

The automated bill-preparing system will reduce, from 10 to 5 days, the time needed to convert the meter data into a useable form and prepare the bill. Theoretically, a biller 3/ will be able to compile the bills by working at a computer terminal. All the data will be entered by the automated meters, the billers, or the sections that supply the data. The biller will be able to recall and analyze the data and compile the bill by processing the data through a series of computer programs. The program to read the information from the 60 remote meters being installed is also expected to be ready by July 1983.

1/This interest calculation is based on fiscal year 1982 billings of $392 million for this class of customers, reduced billing time (shortening the process to 5 days), and an applied interest rate of 10.65 percent.

2/This daily interest is based on estimated billings for 1982 at an annual interest rate of 10.65 percent, calculated on a daily basis.

3/A biller is a BPA employee who is responsible for the billings sent to customers that are based on the customers' determined electric use.



Source: GAO Extrapolation

Although they offer considerable future savings, total automation of the billing system is still several years from completion. Installation of the first 60 meters has already been delayed by 1 year. According to the automated meter project coordinator, since the schedule for meter installation is based on the availability of BPA personnel, the meters could be installed faster if BPA budgeted additional funds for contractor personnel to make the installation.

In a January 20, 1981, memo, the project coordinator for the new meters analyzed the costs and benefits of the proposed system. Although he identified 10 benefits of this system (such as additional data available to schedule electricity demand and, for another, the replacement of old meters), only the benefit of interest savings from shortening the billing process was quantified. Even with this limited analysis, the study showed a positive benefit/cost ration of 1.08 to 1. BPA officials told us they are updating the benefits and costs associated with installation of the meters by 1985. This latest analysis is scheduled for completion in March 1983.

As a result of our discussions with BPA personnel, the automated bill preparation system will be ready 1 year sooner than anticipated. Before our review, BPA had assigned two programmers to work part time on this system, and they had set a system completion target date of April 1985. Since our review and subsequent comments on the benefits of accelerated completion, BPA changed its plans and has placed four programmers to work on the system full time in order to have the first phase of the system operational by February 1984. Since the four programmers were already working on developing a billing related program, no additional costs are associated with their transfer to help accelerate completion of the automated billing system. BPA officials stated that their current efforts to rapidly automate the billing system are beneficial because only a statistical and rate data program will be delayed while about 44 percent of the billing meters will be operational by September 1984.

Another option for expediting the billing, should the automated system not be installed by February 1984, is for BPA to examine the potential of sending partial or estimated bills. The billing section could use historical data to estimate the previous month's power usage for billing purposes and send an estimated bill after the close of the period. Later, when the actual data are available, BPA could compute the exact amounts due and make an adjustment on the next month's estimated bill. We calculate that estimating bills results in the same benefit as rendering a bill in 7.5 days after the period. Specifically, estimating bills for 75 percent of the value, 1 day after the period and billing for the remaining 25 percent the next month, plus or minus an adjustment for the previous months estimate, produces the same benefits as billing for 100 percent of the value, 7.5 days after the period.

BPA management cited several potential problems with estimating bills. BPA officials stated that results of its limited test of estimating bills found that they are difficult to prepare accurately. The BPA internal test of estimating procedures showed that the estimated value only met a Treasury criterion of being between 75 and 100 percent of the actual value about 50 percent of the time. A BPA official stated that several methods of estimating were used. Therefore, depending on the method of estimating employed, some estimated bills could be greater than the actual bill. As a result of overestimating, some of BPA's customers may have difficulty in paying since collections from their customers might be less than the amount billed by BPA. Finally, setting up the estimating procedures would require the use of programmers' time. This would take programmers away from the automated billing project.

We agree that estimating billings would, in some cases, be difficult and may even be costly. However, should BPA find that installation of the automated billing system not materialize as planned, it should examine the potential benefits that estimating may yield where its application is practicable. For example, while BPA found that it could only meet the Treasury-estimating criterion 50 percent of the time, this procedure would still increase monies to BPA on a monthly basis and help reduce short-term borrowing, thus saving some interest expense. Regarding BPA's second concern, most estimated billings would not be greater than the actual amount that should be billed. We believe this because the method used to estimate bills should be one that is based on prior testing to reduce the chance of overbilling. However, should overbilling occur and customers make overpayments, BPA could pay interest on overpayment amounts, thus compensating customers that pay more than necessary. Finally, we do not suggest that BPA take programmers away from the automated metering project to perform the estimated billing function. What we do suggest is that BPA complete the first phase of automation by February 1984 and expedite efforts to have the automated billing process fully operational before July 1987. If this can not be achieved, then BPA should consider estimating the bills, to the extent practicable, as a means to expedite customers payments. Monies received under estimated billings would be received quicker, thus reducing short-term borrowing and lessening paying of interest expenses on borrowings.

REQUIRING MONTHLY BILLING WOULD SAVE $1.4 MILLION

BPA could have saved $1.4 million in fiscal year 1982 1/ if California utilities paid for their energy purchases monthly rather than quarterly.

Quarterly billing for California utilities originated in September 1968, 1 year after BPA and the utilities signed 20-year

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1/This rate is based on $96 million worth of billing for a quarter (averaging $32 million per month), the average of all quarterly billings to the California utilities for fiscal year 1982, and granting credit of $64 million for 2 months and $32 million for 1 month at an annual rate of 16.85 percent, which is the rate that BPA was charged by the U.S. Treasury at that time.

contracts for surplus energy. At that time, BPA both supplied and bought surplus electrical energy. The original surplus energy contracts required monthly payments. However, BPA was not self-financed; thus, whenever it purchased energy from California utilities, it would have to request a supplemental appropriation to pay the bill. To reduce supplemental appropriations, BPA initiated a contract amendment which took advantage of the projection that, within any 3-month period, the California utilities would purchase more power from BPA than they would sell to BPA. Therefore, the amendment established quarterly Surplus Energy Exchange accounts to offset power purchases and sales.

During the early contract days, BPA did not foresee the future impact this agreement would have. Quarterly receipts were much lower than today's, and the interest rate in 1968 was only 3 percent. Since then, BPA's surplus sales to California utilities have increased significantly, while BPA's interest rates for borrowing have risen to a rate of 10.65 percent. To compensate for the changed conditions, BPA officials asked the four utilities to voluntarily pay on a monthly basis; however, they have refused.

Negotiating new provisions when the contracts expire in 1987 is the easiest way to solve this problem. However, since BPA could save an additional $7 million between now and 1987, we believe BPA should initiate negotiations for contract changes at the first opportunity. Such an opportunity may likely occur soon, since BPA has additional electric power that the California utilities want. This situation may require current contract modifications in order for BPA to guarantee the California utilities additional power.

PROMPT PAYMENT BY FEDERAL AGENCIES COULD SAVE $60,000

BPA could save $60,000 annually in interest 1/ if Federal agency customers were required to pay their bills promptly or were charged interest on late payments. According to the head of BPA's collection unit, most Federal agencies required to pay monthly have paid 10 to 30 days late. BPA provided $16 million worth of power to seven Federal agencies in calendar year 1981, as well as about $5 million worth of service (such as computer time) to more than 15 Federal agencies.

Since BPA is now a self-financing agency, all its costs are charged to its ratepayers. Therefore, late payment by Federal agencies, which causes BPA to borrow and pay interest, is costly to BPA ratepayers. In effect, BPA is subsidizing other Federal

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1/This amount is based on the interest paid on borrowing $570,000 (the billed amount) at an interest rate of 10.65 percent annually.

agency operations that do not pay their electricity bills promptly. Consequently, BPA incurs interest expenses that should be incurred by other Federal agencies.

BPA can charge Federal agencies interest. The Department of Energy Accounting Practices and Procedures Handbook states that transactions with other Federal agencies impact the Department's cash position; therefore, cash management concepts should be used, including collecting interest for late payments. The Prompt Payment Act of 1982 (31 U.S.C. 1801) requires Federal agencies to pay promptly or pay interest. While the law does not require Federal agencies to pay interest to other Federal agencies for late payments, the concept underlying this law emphasizes the importance of prompt payment to settle Federal obligations.

Alternatively, BPA could increase prompt payment by using Treasury's Simplified Intergovernmental Billings and Collections System (System). This System permits direct entries to be made to the Treasury accounts of Federal agencies that deal with each other. For example, rather than going through the process of sending a bill and waiting for an agency to make a payment, the Treasury would make offsetting accounting entries to the appropriate agency's accounts. This process has the potential to expedite the payment process, thereby reducing the need for (1) imposing interest charges to Federal agencies for late payments and (2) incurring short-term loans to provide needed cash that should be provided by customers' prompt payments.

Prior to our review, BPA recognized a similiar interest savings possibility with the Western Area Power Administration (Western) which transfers funds to BPA only at the end of the fiscal year. BPA negotiated with Western and submitted a contract amendment on November 16, 1982, for interest charges in lieu of monthly payments. The interest will be computed monthly and based on BPA's short-term borrowing rate from the U.S. Treasury. Even though not formally accepted at the time, in September 1982, Western voluntarily paid BPA $615,000 in interest in lieu of monthly payments for the period January through October 1982. We commend BPA for negotiating a contract amendment which compensates BPA for Western's yearly settlement.

While BPA's contracts with the six other Federal agencies allow it to charge interest for late payment, the Wholesale Power Rate Schedule (which specifies rates and payment practices) excludes interest or penalty charges for late payments by Federal agencies. Although BPA can change this schedule during the rate-setting process, it has not taken action to do so even though these agencies continue to pay their electricity and service bills 10 to 30 days late. For example, as of September 30, 1982, these agencies had delinquent accounts of over $500,000. BPA could save $166 a day, or $60,000 a year, if these Federal agencies paid promptly.

CONCLUSIONS

BPA could reduce its interest expense and increase its cash flow more than $3.2 million annually by

--billing utility customers promptly ($1.8 million),

--negotiating contract changes requiring California utility customers to pay monthly rather than quarterly ($1.4 million), and

--requiring Federal agency customers to pay interest on late payments ($60,000).

BPA already is planning to install an automated system which should get utility customers' bills out in an average of 5 to 7 days after the end of the billing period. We commend BPA for promptly taking corrective action by assigning staff to get the computer programs completed by February 1984, 1 year earlier than anticipated. This automated system will gradually replace the current system as new programs are completed and additional meters installed. However, the automated system will not be fully operational until July 1987, when all 500 meters are operating. The additional meters may be brought on line much sooner if BPA shifts its priorities or increases its budget for this project.

RECOMMENDATIONS TO THE SECRETARY OF ENERGY

In order to expedite customer billings which will quicken the receipt of cash, and thus reduce the need for short-term borrowing, we recommend that you direct BPA to place a higher priority on the billing function and complete the first phase of automated billing system by February 1984, as planned, and expedite efforts to have the automated billing process fully operational before July 1987. However, if the automated billing system is not expedited, you should direct BPA, to the extent practicable, to estimate and bill those customers whose bills cannot be processed on an actual basis within 7 days.

Further, since BPA has successfully negotiated a contract amendment with Western for interest payments in lieu of monthly payments, we recommend that you direct BPA to review existing contracts with the California utilities and at the first identified opportunity require the four California utilities to pay monthly or pay an interest charge similar to that now being paid by Western.

Finally, because some Federal agencies continue to pay late, we recommend that you direct BPA to use the Treasury's Simiplified Inter-Governmental Billings and Collections System in order to receive payments promptly, or change the Wholesale Power Rate Schedule during the next rate-setting process and bill the Federal agencies interest for late payments in the same manner that BPA charges other utilities interest.

AGENCY COMMENTS AND OUR EVALUATION

Copies of this report were provided to the Department of Energy for comment. The Department's written response (see encl. I.) includes three issues that DOE wants to point out to us that will be considered by BPA management in managing the revenue processes. First, DOE notes that billing cycle improvements do not always improve the cash flow to the U.S. Treasury. While cash flow effects on the Treasury are not specifically addressed in this report, such activity would improve the cash flow of BPA. It may also benefit the Treasury because it would reduce their borrowing level.

Secondly, DOE states that the possible costs involved to estimate billings may reduce the savings pointed out in the report. In our recommendation, we first call on the Department to give the highest priority to automating the metering and billing process. Then, should the automated billing system not become operational as planned (first phase by February 1984 and fully operational on or before July 1987) and it is cost beneficial, BPA should estimate and bill those customers whose bills cannot be processed on an actual basis within 7 days.

Finally, DOE has recognized that current contracts between BPA and the California utilities have tipped in favor of the California utilities and that this condition should be considered before attempting to negotiate existing contract modifications. DOE believes, however, existing contract provisions may also contain some advantages for BPA that have not been considered which could offset the California utilities advantages. In any event, both BPA and the California utilities must recognize that conditions since 1968 have significantly changed and necessitate more equitable contract arrangements. For this reason, we believe BPA should undertake a review of existing contracts and include a determination of all advantages and disadvantages for both parties, and therefore, have appropriately modified our recommendation.

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As you know, 31 U.S.C. 720 requires the head of a Federal agency to submit a written statement on actions taken on our recommendations to the House Committee on Government Operations and Senate Committee on Governmental Affairs not later than 60 days after the date of the report and to the House and Senate Committees on Appropriations with the agency's first request for appropriations made more than 60 days after the date of the report.

We would appreciate receiving a copy of your statement when it is provided to the congressional committees and being informed of any action taken on our recommendations.

We are sending copies of this report to the above mentioned committees and to the Director, Office of Management and Budget.

Sincerely yours,

J. Dexter Peach
Director

Enclosure

ENCLOSURE I

Department of Energy
Washington, D.C. 20585

FEB 8 1983

Mr. J. Dexter Peach
Director, Resources, Community and
Economic Development Division
U.S. General Accounting Office
Washington, DC 20548

Dear Mr. Peach:

The Department of Energy (DOE) appreciates the opportunity to review and comment on GAO's draft report entitled "Changes in the Bonneville Power Administration's Billing Practices Could Reduce Interest Costs and Improve Cash Flow (GAO/RCED-83-64)."

We would like to point out some issues we wish noted and which will also be considered by Bonneville Power Administration (BPA) management in managing the revenue process. First, billing cycle improvements do not always improve cash flow to the U.S. Treasury. About 80 percent of the non-estimated billings are automatically net billed pursuant to contract. While BPA prepares a total bill, each customer sends the money directly to the net billed thermal project pursuant to BPA instructions and contract requirements. Thus, the cash flow advantage does not go to the U.S. Treasury. Second, the possible savings from reduced power billing time are not offset in the report by the costs incurred to achieve the savings. Preliminary data compiled by BPA on the estimating process for preference customers demonstrates substantial costs associated with compiling data, projecting electricity usage, updating energy use predictors, providing field verification of critical indicators and double computation. These costs will significantly affect the economic evaluation of estimated billing. Third, while the California contracts implementing quarterly billing have tipped in favor of the California utilities, BPA would need to offer consideration equal to the discounted present value of that advantage for the utilities to agree to contract modifications. If a settlement were agreed to, no advantage would accrue to BPA since all future advantages to the utilities were recognized and discounted.

The Department of Energy appreciates the opportunity to comment on this draft report. We would particularly like to thank the GAO field staff, Bob Higgins and Ann Walker, for their excellent cooperation and the quality of their report.

Sincerely,

Martha O. Hesse
Assistant Secretary for
Management and Administration