

In the Matter of the Implementation of an
Energy Conservation Program for Otter Tail
Power Company

ISSUE DATE: OCTOBER 13, 1987

DOCKET NO. E-017/M-87-235

ORDER APPROVING OTTER TAIL
POWER COMPANY'S CONSERVATION
IMPROVEMENT PROGRAM AND
REQUIRING INFORMATIONAL FILINGS

PROCEDURAL HISTORY

On May 7, 1987, pursuant to Minn. Rules, part 7840.0500, Otter Tail Power Company (Otter Tail or the Company) filed its Conservation Improvement Program (CIP) with the Minnesota Public Utilities Commission (Commission). Pursuant to Minn. Rules, part 7840.0800, notice of the filing was given to persons who participated in Otter Tail's last general rate case or who participated in its CIP case or utility renewable resource pilot program (URRPP) during the preceding two years.

The Department of Public Service (DPS) filed general comments relating to all utilities' CIP proposals on June 1, 1987 and comments specific to Otter Tail's proposal on June 9, 1987.

On June 12, 1987, the Commission issued its Order Regarding Filing Deficiencies and Requiring Additional Information, which required Otter Tail to provide certain information on or before July 6, 1987. On June 30, 1987, Otter Tail requested an extension of the time period to provide that information, indicating that it would be difficult for the Company to conduct its internal management review of the information because of vacations and the intervening holiday. On July 8, 1987, the Commission issued its Order Granting Extension, which established a new filing deadline of July 15, 1987. Otter Tail filed the required additional information on July 14, 1987.

On July 30, 1987, the DPS submitted comments on Otter Tail's July 14 filing. Earlier, on July 9, 1987, the Commission received a copy of a letter from the DPS to Otter Tail regarding working papers on cost-benefit analyses. On August 10, 1987, the

FINDINGS AND CONCLUSIONS

The Commission did not receive any requests for a contested case hearing on Otter Tail's filing. Therefore, the Commission will resolve this case on the basis of the written record before it.

OTTER TAIL'S PROPOSED PROJECTS

The first issue is whether the projects proposed by Otter Tail should be approved.

Otter Tail's proposed CIP consists of five on-going projects and four new projects. The five on-going projects are: (1) the Residential Demand Control (RDC) project, (2) the Radio Control-Water Heater project, (3) the Water Heater Jacket/Replacement project, (4) the Walk-through Audit project, and (5) the Individualized Energy Consultation (IEC) project. Each of these projects represents a continuation of a project proposed and approved last year. (See p. 2-5 of the Commission's August 11, 1986 Order Approving Otter Tail Power Company's Conservation Improvement Program and Requiring Information Filings.) The projects, including certain minor modifications for 1987-88, are also described in detail in the Company's filing of May 7, 1987.

Otter Tail's four proposed new projects are described below:

Water Heater Rebate project - In this project, Otter Tail would provide a cash incentive to purchasers of new, high-efficiency water heaters capable of storing sufficient water to meet household needs and permit Otter Tail to exercise peak load control of the units. The proposed rebate is \$.50/gallon for replacement water heaters and \$1.00/gallon for new installations. A household would receive a \$2.00/month credit on its bill for allowing Otter Tail to control the heating load. The proposed budget is \$32,162.

Residential Conservation Service (RCS) project - The RCS audit is an on-site audit of a dwelling. The RCS program was mandated by the National Energy Act of 1978. Otter Tail proposes to establish the program as a CIP project, which would allow continuation of the audit option past the expiration date of the national program. The proposed budget is \$44,055.

Commercial and Industrial Audit/Consultation project - In this project, Otter Tail would offer conservation audits to its large commercial and industrial customers. The audits would be conducted free of charge and concentrate on areas of energy utilization where the customer could save energy dollars. The proposed budget is \$26,022.

materials, and by installing water heater jackets and demand control equipment. Otter Tail would participate in activities in Lancaster, Red Lake Falls, and (jointly) Fertile/Erskine/Mentor/Winger. The proposed budget is \$16,595.

The Commission finds that all of the ongoing and new projects, as proposed, except the Water Heater Rebate project, are appropriate for inclusion in Otter Tail's 1987-88 program. The projects will directly provide or foster conservation that will be cost-effective to Otter Tail and to project participants and will be beneficial to society as a whole. Further, the projects will give special consideration to the needs of low-income and rental customers, as required by Minn. Stat. Section 216B.241 (1986). The Commission will approve each of these projects as proposed, subject to the conditions discussed below.

The Commission will not approve the Water Heater Rebate project as proposed. The proposed rebates are not tied to recognized efficiency standards. In addition, providing a greater rebate for new water heater installations than for replacements would tend to be promotional. As a result, the project as proposed would tend to be more of a marketing project than a conservation project.

The Commission finds that the Water Heater Rebate project can be approved if Otter Tail limits the rebate to \$.50/gallon for all units and ties the rebate to acceptable efficiency standards. Accordingly, the Commission will approve the project conditionally, with the reduced rebate, and order Otter Tail to work with the DPS to establish acceptable efficiency standards and submit a report for Commission approval by November 1, 1987. With the reduced rebate for new installations, the Commission will approve a budget for the Water Heater Rebate project of \$26,262.

Because Otter Tail's program substantially relies on energy audits, it is important that these audits lead to effective and efficient conservation actions. Therefore, the Commission will place certain requirements on Otter Tail's audit projects. First, a great deal of time and money is devoted to the training of auditors. As a result, the Commission will order Otter Tail to continue, and expand where possible, its practice of using a trained auditor in more than one project. Second, since audits do not by themselves achieve conservation, it is important that audits lead to conservation actions by customers receiving the audits. Therefore, the Commission will order Otter Tail to work with the DPS to ensure that audits include comprehensive recommendations for energy improvements. Finally, because Otter Tail has a variety of audit services, customers could have difficulty distinguishing between them. As a result, the Commission will order Otter Tail to design its promotional materials for the audits to clearly identify and differentiate between the Company's various audit services. The Commission will require Otter Tail to provide representative samples of its promotional materials to the Commission on or before January 15, 1988.

ADEQUACY OF OTTER TAIL'S PROGRAM

The second issue is whether the projects discussed above constitute an adequate program.

defining "significant investment." (See MPUC Docket No. G, E-999/R-85-847.) However, the Commission does not understand the Court's decision to prohibit consideration of applications by utilities for approval of conservation programs under the criteria set forth in the plain language of the statute while the rulemaking process takes place. To read the Court's remand otherwise would delay implementation of conservation programs that the Legislature has directed utilities to undertake. See Minn. Stat. Section 216B.241 (1986). In order to carry out the Legislature's directives concerning conservation programs by utilities, the Commission will proceed under its procedural rules currently in effect. It will apply the facts to the statutory law in evaluating programs set forth by utilities until such time as interpretive rules are adopted.

The Commission has evaluated the program as proposed by the Company and modified by the Commission according to the dictates of Minn. Stat. Section 216B.241 (1986). The Commission must ensure that a utility makes a significant investment in conservation. The Commission must recognize not only all cost-effective steps to achieve this goal but also the community resources available to aid conservation. In addition, the Commission must give special consideration to the persons, particularly low-income and rental customers, that can be helped by conservation programs. By giving consideration to all these factors, the Commission can determine that significant investments are being made on conservation improvements as required by Minn. Stat. Section 216B.241 (1986).

The Commission finds that the \$436,343 budget ordered by the Commission for Otter Tail's CIP program represents approximately .55 percent of the Company's 1986 total revenue from retail sales. Further, the Commission finds that this level of spending represents an investment by Otter Tail of approximately \$8.05 per Minnesota customer. The Commission recognizes that spending is but half of a cost-benefit analysis, the cost side. The other half, the benefit side, will be quantified when these projects have had sufficient time to produce results for evaluation. Based on the materials filed by the Company, the Commission estimates that Otter Tail's program will have more than 3,400 residential participants, of which more than 1,400 will be low-income or rental customers. The Commission also estimates that Otter Tail's program will serve 125 commercial customers.

In accordance with Minn. Stat. Section 216B.241 (1986), the Commission has also evaluated the program and the individual projects on the basis of cost-effectiveness. It is difficult to evaluate cost-effectiveness because the program should run for a period of time to produce data that can be analyzed. The Commission also notes that measuring cost and returns over periods of time needed for conservation to have its full effects will cause this evaluation to remain imprecise and judgmental.

The Commission concludes that the projects described above constitute an adequate program for Otter Tail, assuming that cost estimates, numbers of participants, and other assumptions are reasonably accurate. The projects constitute necessary and reasonable efforts by Otter Tail to carry out its CIP responsibility.

Participation Rates

Otter Tail's status reports on last year's projects raise some concern that expected participation rates may not be attained for

August 11, 1986 Order approving Otter Tail's 1986-87 program. Such information will help the Commission determine whether adjustments to the program are necessary.

The Commission also will require Otter Tail to provide additional information in next year's May 1 filing, in accordance with Minn. Rules, part 7840.0500, item L.

First, the Company's marketing efforts likely will have a significant effect on the success of its CIP projects. In order that those efforts may be analyzed by the Commission, Otter Tail will be required to include in next year's filing a detailed discussion of marketing efforts, difficulties, and successes for each of the projects the Company proposes to continue. This information would be especially important if the Company chose to continue a project with lagging participation rates.

Otter Tail indicated in its revised Conservation Plan of July 1987 that it currently is conducting surveys of end use inefficiencies. The results of these surveys could prove useful in deciding where to concentrate future conservation efforts. The Commission will order Otter Tail to include in next year's filing a report of survey results. If such a report cannot be completed by May 1, 1988, Otter Tail should include in its filing the expected date that such a report will be available to the Commission.

Finally, if current projects cannot be adjusted to produce acceptable results, the Commission will expect Otter Tail to consider and propose alternative projects for implementation next year. The Commission has conducted limited research into other projects which appear to have some potential for Otter Tail's service area. Otter Tail may, of course, also consider projects suggested by the DPS or the Company's personnel. General descriptions of the projects/areas which the Commission suggests are as follows:

Low-Income Projects - These would be projects or procedures designed to assist low-income customers in implementing cost-effective measures identified in the audits.

Commercial and Industrial Projects (C&I) - Since Commercial and Large Commercial customers account for more than half of Otter Tail's total sales, there might be opportunities for increasing the present number of C&I projects. Depending upon the type of commercial activity carried out in Otter Tail's service area, Otter Tail might consider the following possibilities: a cool storage air conditioning project, a heat storage technologies project, and motor and lighting efficiency improvement projects targeting C&I and farm customers.

Construction Conservation Project - Heat-loss standards would be developed for certain types of electrically-heated buildings. Otter Tail would work with builders, developers, building owners, realtors, and home buyers to examine their construction plans and recommend cost-effective improvements to increase the energy efficiency of the new buildings.

Compliance Reports

CIP Timing

Otter Tail indicated that the current timetable for proposing, considering, and conducting CIP projects causes the Company some difficulty, because Otter Tail does its planning on a calendar year basis. However, Otter Tail did not request a variance of Minn. Rules, part 7840.0500. Further, Otter Tail did not specify how a different timetable would assist the Company. Therefore, the Commission concludes that Otter Tail must continue to comply with the current schedule of filings and implementation times.

Cost-Effectiveness Tests

An area which has received considerable attention from CIP respondents is the type of methodology to use to determine cost-effectiveness. The Commission also has a keen interest in this area because of its responsibility to determine which costs and benefits are relevant in evaluating cost-effectiveness. The Commission encourages the DPS and Otter Tail to continue its discussions on this matter. Further, to ensure the availability of the information needed to evaluate cost-effectiveness, the Commission will order Otter Tail to clearly describe in its evaluations the methodologies and assumptions used by the Company for cost-benefit analysis. In addition, the Commission will require cost-effectiveness data, to the extent practicable, to be presented in tabular form, with footnotes or explanations included as necessary, so that the data may be easily read and understood by the Commission and other interested persons.

Timing of Evaluations

The Commission finds that the best evidence of project success or failure is data showing the level and cost of energy or demand savings from completed jobs. Actual savings data should be used in determining whether to continue projects when projects have been in effect for sufficient time to generate such data. Such data should be available for projects which have been in effect for more than one CIP year. Accordingly, for those on-going projects which Otter Tail proposes to continue next year, the Company will be ordered to conduct interim evaluations for the purpose of determining levels and costs of energy or demand savings. The Commission expects that Otter Tail also will provide a justification for proposing discontinuation of any existing projects.

In addition, the Commission currently does not have a complete list of evaluation reports which have been prepared by Otter Tail. Such a list would greatly assist the Commission and its staff in reviewing next year's filing. Accordingly, Otter Tail will be required to provide a list of completed evaluations in next year's filing. Where applicable, the list should indicate when the evaluation report was submitted to the Commission. To ensure that plans are made for final evaluation of all existing and proposed projects, the Commission also will require Otter Tail to provide in next year's filing an indication of when final evaluation reports will be submitted for discontinued, existing, and proposed CIP projects.

A total budget of \$436,343 is approved. The program shall include the following projects:

- a. a Residential Demand Control project;
 - b. a Radio Control-Water Heater project;
 - c. a Water Heater Jacket/Replacement project;
 - d. a Walk-Through Audit project;
 - e. an Individualized Energy Consultation project;
 - f. a Water Heater Rebate project;
 - g. a Residential Conservation Service project;
 - h. a Commercial and Industrial Audit/Consultation project; and
 - i. a Community Energy Grants project.
2. Otter Tail shall limit the rebate to \$.50/gallon for all water heaters, whether replacements or new installations, in the Water Heater Rebate project.
 3. Otter Tail shall work with the Department of Public Service to develop efficiency standards for use in the Water Heater Rebate project and, on or before November 1, 1987, submit those standards to the Commission for approval.
 4. On or before January 15, 1988, Otter Tail shall submit an interim status report for each project. The report shall contain, at a minimum, the following information:
 - a. the number of participants compared to projected participation levels;
 - b. dollar expenditures compared to the total projected budget;
 - c. the number of conservation improvements completed;
 - d. a discussion of unanticipated barriers to participation and strategies to remove such barriers; and
 - e. a discussion of any unforeseen project problems or project changes.
 5. Otter Tail shall design the promotional materials for its CIP projects to clearly identify and distinguish between its various audit services. Otter Tail shall provide representative samples of these materials to the Commission on or before January 15, 1988.
 6. Otter Tail shall work with the DPS to ensure that each of its audits includes comprehensive recommendations for cost-effective energy improvements.
 7. Otter Tail shall, to the greatest practicable extent, make efficient use of trained auditors by involving them in more than one project.
 8. Otter Tail shall not promote its dual-fuel heating system as part of the Walk-Through Audit project or any other CIP project.
 9. For each continuing project which will have been in effect for more than one year, Otter Tail

11. Otter Tail shall include in its next annual CIP filing a report of the results of the end-use surveys discussed on pages 30 and 40 of Otter Tail's July 1987 Conservation Plan or, if the results are unavailable, include the expected date on which such a report can be submitted to the Commission.
12. Otter Tail shall work with the DPS in identifying and considering possible new projects and possible changes to existing projects, as discussed herein, and shall submit a report on the results of that process with its next annual CIP filing.
13. Otter Tail shall include in its next annual CIP filing a list of topics of any evaluation reports it has completed, the submittal dates of such reports to the Commission (if applicable), and a list of expected completion dates for evaluation reports on discontinued, existing and proposed projects.
14. Otter Tail shall work with the DPS to resolve any methodological differences regarding cost-benefit analyses.
15. Otter Tail shall include in its evaluation reports a description of methodology and assumptions used for any cost-benefit analysis and shall present cost-benefit data in a clear, understandable form, as discussed herein.
16. Otter Tail shall file 13 copies of all documents required by this Order with the Commission. Otter Tail shall also provide one copy each to the DPS and any other person requesting one. The DPS and other interested persons will have 15 days to file comments on the Company's filings with the Commission.
17. To the extent practicable, customers participating in Otter Tail's CIP projects shall have a free choice of the device, method or material, and seller, installer, or contractor for the CIP improvement.
18. This Order shall become effective immediately.

BY ORDER OF THE COMMISSION

Mary Ellen Hennen
Executive Secretary