E-002/M-90-1159 ORDER APPROVING COST-EFFECTIVENESS, PERFORMANCE AND EVALUATION PLANS

BEFORE THE MINNESOTA PUBLIC UTILITIES COMMISSION

Don Storm	Chair
Cynthia A. Kitlinski	Commissioner
Dee Knaak	Commissioner
Norma McKanna	Commissioner
Darrel Peterson	Commissioner

In the Matter of the Proposal of Northern States Power Company's Electric Utility for a Demand-Side Management Incentive Mechanism

ISSUE DATE: January 3, 1992

DOCKET NO. E-002/M-90-1159

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PROCEDURAL HISTORY

On March 19, 1991, the Commission issued its ORDER APPROVING PROPOSAL AND REQUIRING FURTHER FILINGS in the above-captioned docket. In that Order the Commission approved an experimental demand-side management (DSM) incentive mechanism proposed by Northern States Power Company (NSP or the Company). The DSM proposal included the following elements:

1. The Company would continue to account for approved Conservation Improvement Program (CIP) load management and conservation projects through the existing cost recovery mechanism (the CIP debit account, or tracker);

2. Expenditures due to NSP's direct impact CIP projects (essentially, all projects except research and load management) would be capitalized and amortized over a five-year period;

3. The rate of return applied to the unamortized portion of the capitalized expenditures would include a 5% bonus return on equity, adjusted to consider tax effects;

4. Research and load management expenditures would continue to be expensed in the year incurred;

5. NSP would recover one-half of any interruptible rate discounts the Company offered which fell above levels built into the 1991 test year.

NSP's proposal did not contain a performance-basis mechanism which would link Company reward to a reduction in energy use or deferral or avoidance of capacity addition. Noting the importance of such a mechanism, the Commission required NSP to file a performance-basis mechanism to be integrated with the incentive mechanism approved in the Order. The performance-basis mechanism, along with a plan for evaluating the incentive program, were required within 90 days of the issuance of the March 19 Order.

NSP filed its proposed performance-basis mechanism and evaluation plan on June 23, 1991. On August 6, 1991, the Commission issued its ORDER DEFERRING CONSIDERATION OF PROPOSAL AND REQUIRING FURTHER FILINGS. In that Order the Commission deferred consideration of NSP's proposed plans until significant questions regarding the content and budget for NSP's 1991 CIP were answered. These answers would be provided in the anticipated decision of the Department of Public Service (the Department) approving or denying NSP's 1991 CIP proposal. In its August 6 Order the Commission also directed NSP to continue working with interested parties in developing cost-effectiveness criteria in the DSM proposal.

On August 13, 1991, the Department issued its decision approving NSP's 1991 CIP goals.

On October 15, 1991, the Commission issued its ORDER GRANTING TIME EXTENSION AND DECLINING TO GRANT 1991 DSM INCENTIVE WITHOUT PERFORMANCE-BASED REVIEW OF 1991 EXPENDITURES. In that Order the Commission granted the Company's request for a 30 day extension of time in which to file its revised performance-basis mechanism. The Commission also denied the Company's request that the DSM incentive, without a performance-basis mechanism, be applied to 1991 CIP expenditures.

On November 1, 1991, NSP filed a revised performance-basis mechanism and evaluation plan. Comments in support of the filings were submitted by the Department, the Residential Utilities Division of the Office of Attorney General (RUD-OAG), and Minnesotans for an Energy Efficient Economy (ME3).

The Commission met to consider the matter on December 10, 1991.

FINDINGS AND CONCLUSIONS

The Company's November 1 filing consisted of two main parts, a performance-basis mechanism for the DSM incentive program and an evaluation plan for the DSM incentive.

PERFORMANCE-BASIS MECHANISM

NSP used three categories of projects to measure performance in its DSM incentive program.

Category I Projects

The Company proposal

Category I projects are direct impact projects which directly lower the consumption of electricity. Category I projects include, among others, Lighting Efficiency and the programs supported by the Energy Financing Program.

NSP proposed a two-step threshold approach to Category I projects, based upon a cost-effectiveness test and then a performance test. First, the cost-effectiveness of Category I projects as a group would be measured on the basis of net avoided revenue requirements as shown in the CIP Utility Cost test. If the Category I project group achieved at least 50 percent of the estimated net avoided revenue requirements, the threshold would be reached and all Category I projects would be eligible for an incentive bonus contingent upon actual performance.

In the second step, Category I performance is measured on the basis of total kWh reduction as compared to total program goals. A mathematical formula determines the bonus return on equity (ROE) which would apply to Category I project performance:

ROE bonus = 0.1(Percent of kWh performance goal achieved) - 5

Under this formula, NSP would receive no bonus for a performance at 50 percent of goal, up to a maximum of a 5 percent bonus for a performance at 100 percent or more of goal. NSP would be subject to a possible penalty of 1 percent ROE for a performance at or below 40 percent of goal.

Commission analysis

The Commission finds that NSP's approach to Category I projects is a reasonable means of measuring cost-effectiveness and performance and integrating the measurements into the Company's DSM program. For direct impact projects, avoided revenue requirements provide a logical basis for measuring cost-effectiveness. Setting a cost-effectiveness threshold limits the possibility of the utility's "gold-plating" its DSM project choices.

Prior concerns regarding symmetry of rewards and penalties and limitation of risk have been addressed in NSP's proposal. The possible bonus return on equity is now partially mirrored by a possible penalty. NSP's potential liability has been capped at 1 percent, a limitation of risk which is appropriate in a pilot project.

The Commission approves NSP's proposed measurement of cost-effectiveness and performance of direct impact projects.

Category II Projects

The Company proposal

Category II projects are those projects which indirectly impact energy use through customer education. Examples of Category II projects are Conservation Education and Residential Audits, and Audit and Services for Low-Income Customers.

NSP proposed a two-step cost effectiveness/performance measurement for Category II projects. Because of the indirect effect of these projects, neither cost-effectiveness nor performance can be so clearly measured as with Category I projects.

Category II cost-effectiveness would be determined by setting goals for project participation and applying a weighted cost of participation. At year-end, actual participation for each project would be expressed as a percentage of goal. The project results would be summed, yielding a single, weighted participation percentage for Category II projects.

If the weighted participation cost-effectiveness threshold were reached, the projects would be eligible for a possible incentive bonus based on performance. The overall participation percentage would be used in the aforementioned mathematical formula to determine if an ROE bonus or penalty should be applied to the Category II projects.

Commission analysis

The Commission finds that Category II projects are a useful and even necessary means of channeling customer participation into Category I direct impact projects. As such, Category II projects are part of an effective DSM program and should be subject to potential reward or penalty.

Although cost-effectiveness and performance are more difficult to measure with indirect impact projects, the Company has provided a logical basis of measurement in its proposal. Weighted percentage of participation is a reasonable means of measuring both cost-effectiveness and performance of Category II projects.

The Commission disagrees, however, with the mechanics of NSP's weighting scheme. Through its cost per participant component, NSP's proposal places the most importance on the most expensive project, the Industrial DSM Audit project. The cost per participant in this project exceeds $10,000 and is nearly ten times greater than the next highest cost project, the Business Energy Audit. The Industrial Audit project therefore accounts for over 86 percent of the weight in the formula and could in itself make or break the ROE bonus for NSP.

The Commission finds that this weighting method places an inappropriate emphasis on the cost per participant for each Category II project. The Commission will modify NSP's proposal so that the weighting factor is the project's relative proportion of the total Category II budget. This revision will allow a more appropriate weighted participation percentage to form the basis of a cost-effectiveness threshold and if reached, a performance measurement. NSP did not object to the modification.

With this revision, the Commission finds that NSP's treatment of Category II projects is appropriate. A weighted participation measurement is an appropriate means of determining cost-effectiveness and performance for projects which cannot be measured by their direct impact on energy use. The Commission approves NSP's proposed measurement of cost-effectiveness and performance of indirect impact projects.

Category III Projects

Category III projects are research, development and administrative projects, plus non-capitalized portions of load management projects. In the DSM proposal approved in the March 19, 1991 Order, this category of project is expensed in the year incurred. NSP did not propose a change in this treatment. The Commission finds that this method continues to be appropriate and will approve expensing these items in the year incurred.

Timing and Treatment of Incentive Projects

NSP proposes that all future Category I and Category II projects be expensed in the year they are initially proposed and be given capitalization and incentive treatment in all subsequent years. For the year 1991 only, NSP proposes that CIP goals as approved on August 13, 1991 be used as the basis for 1991 incentive treatment. Alternative proposals approved for the full 1991 CIP year would be included at 20 percent of goal due to start-up delays. In 1992 and all subsequent years, all CIP filings with part-year goals would be expensed in the year for which they have part-year goals and would be subject to rate base incentive treatment thereafter. The Commission finds that the Company's proposed timing of incentive treatment is reasonable and appropriate.

NSP further proposes that CIP projects filed in August, 1990 for the 1991 CIP year should be eligible for full year 1991 incentive treatment, even though the incentive was not approved until March 19, 1991. No party objected to this treatment. The Commission finds that NSP's proposed treatment of its 1991 incentive projects is appropriate.

Although the DSM incentive mechanism was not approved until March, 1991, NSP had a long history of working with the

Commission, the Department and the RUD-OAG in developing the DSM plan. A financial incentives stipulation signed by the three parties was submitted as part of the 1989 rate case. When that case was denied, NSP resubmitted the stipulation for Commission approval. NSP, working with the state agencies and consumer groups, continued to develop and refine the DSM proposal according to Commission directives. The Commission therefore finds that NSP acted reasonably when it developed and expanded its 1991 CIP goals in the belief that its proposed incentive mechanism would be approved. The Commission will allow NSP's CIP projects incentive treatment for the entire year 1991.

PERFORMANCE EVALUATION PLAN

Pursuant to the Commission's March 19, 1991 Order NSP filed a performance evaluation of the DSM mechanism as part of its June 23, 1991 filing. In its August 6, 1991 Order, the Commission stated that it would consider the evaluation filing when the revised performance mechanism was considered.

NSP proposed evaluating its DSM program performance by tracking the annual kWh saved, expenditures on DSM, and percent of DSM goals achieved each year. The Company would compare annual figures in each category with a rolling average of the last three years' data in that category. The rolling average is meant to level out abnormal fluctuations in factors such as weather, over which NSP has no control. The results of the evaluation would be reported annually by April 1.

The Department generally supported NSP's performance evaluation plan. The Department noted, however, that DSM is a relatively new area and performance measurement of many projects will be difficult. For these reasons, the Department recommended that NSP be required to add an evaluation of its performance measurement methods. This added requirement would be filed annually along with the performance analysis of DSM methods.

The Commission agrees with the Department that a performance measurement evaluation will be a useful means of ensuring that NSP is continually monitoring and appraising its measurement methods. With the addition of this requirement, NSP's proposed performance evaluation plan should provide a useful tool for the continual process of developing and refining DSM methods.

CONCLUSION

NSP has submitted a reasoned, logical proposal for measuring and evaluating its DSM performance. This cost effectiveness/performance evaluation plan was developed with the assistance and cooperation of the Department, the RUD-OAG and interested consumer groups. The result is a workable model that will be a useful first step in a continuing process of developing and monitoring the DSM process. All commenting parties agree that the plan, while not perfect, is a sound, workable design that should be implemented. The Commission will so order.

ORDER

1. NSP's proposed cost-effectiveness and performance-basis mechanisms are approved, with the revision regarding weighting of Category II projects noted above.

2. NSP's proposed performance evaluation plan is approved, with the addition of an annual filing regarding a performance measurement evaluation.

3. This Order shall become effective immediately.

BY ORDER OF THE COMMISSION

Richard R. Lancaster
Executive Secretary

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