
**BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF UTAH**

IN THE MATTER OF THE APPLICATION OF)
PACIFICORP FOR AN INCREASE IN ITS) DOCKET NO. 01-035-01
RATES AND CHARGES)
)

**POST-HEARING BRIEF OF THE
UTAH ENERGY OFFICE**

**I. THE TELLUS STUDY PROVIDES A SOLID FOUNDATION FOR
COMMISSION ACTION ON DEMAND SIDE RESOURCES.**

Two years ago, in Docket No. 99-035-10, the Utah Energy Office (“UEO”) (formerly known as Office of Energy Resources and Planning (“OERP”) and the Land and Water Fund of the Rockies (“LAW Fund”) petitioned the Commission to change the method for funding PacifiCorp’s demand-side management (“DSM”) programs. The Division of Public Utilities (“DPU”), Utah Association of Energy (“UAE”), and Utah Industrial Energy Consumers (“UIEC”) raised objections to the Commission ordering such a change without adequate study and analysis. The OERP and LAW Fund then agreed with this concern. The Commission subsequently created the Energy Efficiency Advisory Group to study the issue in more detail. That Group issued its own report to the Commission recently.

Responsive to those concerns about adequate study and analysis, members of the Group commissioned a thorough study of achievable, cost-effective DSM potential in Utah (the “Tellus Study”). The Tellus project team was headed by Dr. David Nichols. The Energy Efficiency Advisory Group drew on the Study in its initial report to the Commission. PacifiCorp used the Study as a reference point in bringing forth the four new DSM tariffs recently approved by the

Commission. Finally, UEO witness Dr. Nichols used the Tellus Study as the primary basis of his testimony in the revenue requirements phase of the current PacifiCorp rate case.

The Tellus Study is a major, fully documented analysis of efficiency technologies and practices and the potential for accelerating their penetration among energy users, based on analysis of Utah's specific electricity using market segments. Dr. Nichols explained that the bulk of the work in the Tellus Study involved matching technology-based program concepts to the specific nature of Utah markets (TR. 597-598). The Study has commanded wide respect among parties in and out of the current proceeding. Virtually no party took issue with its specific facts or findings.¹ The Witness for the UAE and Nucor Steel, Dr. Richard Anderson, stated that as a former director of Utah's Energy Office, he recognizes the "effort and professionalism" behind the Tellus Study (TR. 659). He stated, "Dr. Nichols should be recognized as making a significant contribution" (TR. 660).

II. THE COMMISSION SHOULD DIRECT THE COMPANY TO BRING FORTH DSM PROGRAMS IN THE AREAS IDENTIFIED BY UEO'S WITNESSES.

The Company has brought forth four new DSM programs that were recently approved by the Commission. The Tellus Study identified several additional major opportunities for achieving electric supply savings cost-effectively. Moreover, the cost-effectiveness of the recommended programs are based on the long-run cost savings of avoiding additional supply-side investments in generation capacity, electric energy, and transmission and distribution. Nichols, Tr. (8/1/01), at p.525-526. The evaluation of the cost-effectiveness of the recommended programs is not contingent upon the dramatic increases in wholesale power prices over the past two years. We emphasized

¹While no DPU witness took issue with any fact or finding in the study, during cross examination the DPU attorney question whether the market penetration target for the evaporative cooling program – namely, impacting fifty percent of the situations where such systems would otherwise be replaced by central air conditioning systems – was realistic and achievable. Dr. Nichols conceded that, unlike other programs where market experience buttresses performance targets, the target for this innovative program is more judgmental. Dr. Nichols pointed out that the program is cost-effective at any level, and he explained that the market penetration target used is attainable in view of the large financial incentive proposed for this particular technology. (TR. 563.)

that these opportunities would contribute to reduction in summer peak demands. Dr. Nichols explained that for residential markets these opportunities are:

“[F]irst, efficient cooling based on promotion of evaporative cooling and high efficiency central air conditioning systems.

“Second, appliance recycling, by which...households give up older refrigerators and freezers that are energy hogs.

“And third, direct control of central air conditioners....(TR.529)

The residential efficient cool program designed by Dr. Nichols includes coordinated elements to encourage households and builders to retain or install evaporative cooling systems, which use a small fraction of the electricity of refrigerated central air conditioning (“CAC”) systems, in lieu of the latter; promotion of CACs that are significantly more efficient than current market levels, for those who do choose such systems in new or replacement applications; and the promotion and incenting of better installation practices for CAC, to save even more electricity through proper sizing and refrigerant charging.

The “appliance recycling” program designed by Dr. Nichols emulates a program design used very successfully in California and other jurisdictions. Simply put, the utility competitively hires a contractor who removes unwanted older units, which are much less efficient than the least efficient units available on the market today. A small bounty payment would be used to encourage participation by Utah households.

Direct loan control of CACs for in homes (and small business buildings) provides a technology and program mechanism whereby the utility can cycle CACs off for short periods of time in order to help meet summer peak demands. Such program are cost-effective even when used with the most efficient new CACs, because they reduce system peak demand during the brief times when it is most critical to do so, for both reliability and economic reasons. Evaluations of these programs around the country have proven their value.

Dr. Nichols explained that, for non-residential markets, the major opportunities that are untapped either by the four new Company DSM programs or other recent Company initiatives (such as the Energy Exchange) consist of (1) on-site combined heat and power, and (2) additional traditional firm load management (TR. 530, 531.)

CHP is a form of distributed generation, which represents an important potential new source of electricity for Utah’s economy. Utah legislative policy declares: “It is the policy of

this state to encourage the development of small power production and cogeneration facilities...” (Utah Code Ann. 54-12(1) – Small Power Production and Cogeneration). A program to conduct site-specific CHP feasibility studies and preferred financing for new CHP systems is needed to increase the market penetration of this technology from its current woefully low levels in Utah. CHP produces electricity and thermal energy on a combined basis that is far more efficient than the processes for producing them separately.

Finally, load management is a tested and proven electric industry strategy to reduce peak demands. The Company has proposed certain new demand response approaches that may occasionally reduce peak demands and/or high power costs. However, the Tellus Study pointed out that there is also a need for additional load management of a traditional form in the commercial and industrial sector. Traditional load management is not “quick fix” but rather more firm and long-term by design. It usually provides a rate credit to customers who agree to have load reduced when called upon by the utility, under specified conditions. Additional traditional load management would cost-effectively reduce the need for purchased capacity, purchased peak period energy, and new capacity.

Dr. Nichols’ DSM program proposals and the Tellus Study provide a solid basis for determined Commission action to require the Company to bring forth additional cost-effective DSM proposals in the near term. In its recent action on the Company’s four new DSM tariffs, the Commission encouraged parties, including PacifiCorp, “to investigate additional cost-effective DSM programs and bring them to the Commission for approval as soon as reasonable.” The record in this case establishes that the Commission can both reaffirm and expand upon that directive. In particular, the Commission should direct the Company to evaluate, develop, and propose the additional residential and non-residential DSM programs that were identified by UEO Witness Nichols, and are summarized above.

The Commission should establish a 30-day time-table for the submission of these additional DSM initiatives. The new Company DSM program proposals should be reviewed by the Energy Efficiency Advisory Group as soon as they are filed, and then acted upon as appropriate by the Commission.

III. CONCERNS ABOUT THE COMPANY’S CAPACITY TO DELIVER NEW DSM PROGRAMS SHOULD NOT DELAY THE COMMISSION’S ACTIONS.

The four new DSM programs recently approved by the Commission simply represent the extension into Utah of programs that the company has been involved with for years in Oregon. It should be well within the Company’s managerial capacity to design and implement the new programs recommended by UEO that are designed for Utah conditions. But if the Commission has any concerns about the Company’s capacity to do so, it can make use of the approach described by Dr. Nichols whereby DSM is achieved through third-party implementation. In this approach, the utility issues requests for proposals to conduct programs it wishes to roll out, the evaluates the competing proposals received from third parties. It contracts with the winning bidder and then monitors that vendor’s performance according to the terms of the contract. Dr. Nichols explained that “by making use of this mechanism the Company can roll out the programs I have proposed over a period of several months.” (TR. 533.)

IV. THE RAMPP PROCESS SHOULD NOT BE USED TO DELAY ACTION ON COST-EFFECTIVE DSM.

During the hearings several parties expressed interest in seeing demand-side resources treated similarly to supply-side resources. Supply-side resources that PacifiCorp procures are very weakly correlated with its RAMPP studies. RAMPP-5 was not even acknowledged by this Commission. To insist that DSM be limited to that identified in RAMPP would hobble the acquisition of demand side resources with a constraint that is simply not placed on supply-side resources by either the Company or the Commission.

RAMPP studies have a role. But several serious flaws in the RAMPP process, certainly as it relates to DSM, are identified in the record. Even if a RAMPP study is acknowledged, that fact has little bearing on whether a Company investment would be considered prudent by the Commission (Witness Hedman, TR. 433). The inputs to RAMPP are seriously out of date (Hedman, TR. 636, 637). RAMPP does not evaluate a key DSM option, namely, load management (Hedman, TR. 631.) RAMPP does not consider the value of electricity in the regional market to be a benefit of DSM (Witness Nichols, TR 600.)

In our opinion, there is a need for the Commission to consider a new integrated resource planning process (“IRP”) which is flexible, timely, and linked to the Company’s business strategies; which assesses DSM in an adequate and holistic way; and, finally, which aims to develop least-cost electricity services from the perspective of the ratepayers of Utah, and not some larger region. The Commission may or may not agree with this broader conclusion about IRP. However, one fact stands uncontested: there is far most cost-effective DSM available in Utah than the RAMPP studies can or do identify.

V. THE COMMISSION SHOULD ACT ON DSM IN THIS CASE TO HELP FURTHER UTAH’S RESOURCE POLICY OBJECTIVES.

On March 14, 2001, Governor Leavitt issued energy policy principles for his administration to implement. With regard to DSM, the Governor stated that “Utah will cultivate an ethic of conservation and energy efficiency,” and called for public policies that “will support sustained investments in cost effective demand side management and increased use of energy efficient technologies and services in Utah’s economy.” He also declared “energy prices in Utah will reflect the development and use of the state’s low cost resources.” UEO believes that the Tellus Study definitively demonstrates that DSM represents one of those low cost resources available to the Company in Utah.

In addition to its direct support of energy policy objectives, investments in DSM also have broader economic benefits to the state. Many reports have shown that investment in energy efficiency can have significant positive impacts on local per capita income, job creation, and total state income. For example, an economic analysis prepared by the OERP assessed the impact of a \$3 million investment in energy efficiency measures in state buildings. The analysis found that 107 new jobs were created and total earnings in Utah’s economy increased by \$2.6 million.

As Dr. Nichols explained, investments in DSM also produce environment benefits such as reductions in harmful air emissions. The Environmental benefits of energy efficiency are also acknowledged by the U.S. Environmental Protection Agency (“EPA”) in its regional haze rule, which explicitly recognizes energy efficiency as an air pollution control strategy to reduce visibility-causing emissions. Actions taken by this Commission to support DSM programs will

provide collateral air quality benefits and allow Utah's environmental regulators to include these measures as pollution control strategies in preparing Utah's State Implementation Plan under EPA's Regional Haze Rule (Witness Burks, TR. 673.) In addition, investments in DSM may reduce greenhouse gas emissions that have been linked to climate change.

Thus, there are clear benefits to the State's energy, economic, and environmental from pursuit of additional DSM. These benefits are additional to the strong net benefits from saved electricity supply costs, and they constitute additional reasons for the Commission to direct the Company to develop and file the additional programs recommended by the UEO.

VI. CONCLUSION

The record in this docket establishes a compelling case for additional cost-effective DSM opportunities in the Company's Utah service territory. The Utah Energy Office requests that the Commission order the Company to file proposed tariffs for implementing the DSM programs recommended by UEO that are not included as part of the Company's DSM tariff filings in Docket No. 01-035-T09. Specifically, the Company should be required to propose residential tariffs based on UEO's recommendations for efficient cooling and appliance recycling and non-residential tariffs for CHP and traditional load management. To reduce the risk of further exposure to potentially volatile wholesale power purchase costs, the Commission should direct the Company to file the proposed tariffs within 30 days of the Commission's final order in the revenue requirements phase of the proceeding. This should provide sufficient lead-time to ensure that the programs are thoroughly reviewed by the Energy Efficiency Advisory Group and implemented prior to the 2002 summer peak season.