

The Land and Water Fund of the Rockies

December 6, 2002

Jean Jewell, Commission Secretary
Idaho Public Utilities Commission
Box 83720
Boise, ID 83720

RECEIVED
FILED
2002 DEC -6 PM 3:21
IDAHO PUBLIC
UTILITIES COMMISSION

RE: Docket IPC-E-02-12, Idaho Power Residential Time of Use Study
NW Energy Coalition and LAW Fund Comments

Dear Ms. Jewell:

Please accept the following comments of the NW Energy Coalition and the Land and Water Fund of the Rockies for the Commission's review in the above-referenced matter.

The NW Energy Coalition is a multi-state association of energy efficiency, clean energy, environmental, and other public interest organizations engaged in promoting a clean, reliable, and economic energy future for the Pacific Northwest. Our members include numerous organizations and individuals within the State of Idaho. The Land and Water Fund of the Rockies works across the Intermountain West to reduce the environmental impacts of electricity production.

NWEC has been intimately involved in the pilot time-of-use (TOU) rates program operated by Puget Sound Energy (PSE), and is a member of the collaborative established to evaluate that program. We are concerned with the prospect of another time-of-use program being initiated in the Pacific Northwest without adequate economic and environmental analysis. Our concern with TOU programs include the following:

- 1) TOU programs are not a substitute for energy efficiency programs, but may divert utility, consumer, and regulator attention away from cost-effective efficiency programs.
- 2) The data collected to date in the PSE program suggests that the cost of the TOU program is approximately ten times the economic benefit.
- 3) We are concerned that the environmental impacts of TOU pricing and associated load shifting may be adverse.
- 4) Alternative programs such as critical period pricing and energy efficiency can provide deeper benefits.

Idaho Office
P.O. Box 1612
Boise, ID 83701
208-342-7024
Fax: 208-342-8286
E-mail: lawfund@rmci.net

Colorado Office
2260 Baseline Road, Suite 200
Boulder, CO 80302
303-444-1188
Fax: 303-786-8054
E-mail: landwater@lawfund.org

Utah Office
1473 South 1100 East, Suite F
Salt Lake City, UT 84105
801-487-9911
Fax: 801-486-4233
E-mail: utah@lawfund.org

w w w . l a w f u n d . o r g

TOU Programs are Not A Substitute for Efficiency Programs

In the first year of its TOU program, PSE promoted load shifting as an alternative to energy efficiency and other programs to reduce total electricity consumption. Experience shows that when customers invest in energy efficiency, everyone wins. The consumer sees a lower bill, the utility has a more stable load, the service territory a healthier economy, and the environment suffers less from energy production. TOU load shifting does not produce equivalent benefits. Our principal concern here is that excessive attention to time of use pricing may divert the attention of the utility, its customers, and its regulators away from cost-effective energy efficiency programs that produce durable economic and environmental benefits.

PSE Program Has High Costs Relative To Benefits

NWEC has been engaged in the PSE Time-Of-Use pilot program as intervenors in recently completed rate proceeding, and as members of both the least cost planning technical advisory committee and the TOU evaluation collaborative.

In reaching a settlement in the recent rate proceeding (WUTC Docket UE-011570), PSE agreed to several changes in its program. First, participants were to be assessed a \$1.00/month additional charge, to cover approximately 80% of the incremental meter reading and data handling costs of the program. Second, the Company agreed to provide quarterly reports to customers, informing them of their savings or additional costs from the program. Third, it agreed to discontinue any representation of environmental benefits of the program until the evaluation collaborative completes its work. Finally, it agreed to automatically transfer all customers to the standard inverted rate schedule in September 2003 if they are not achieving economic savings on the TOU rate.

The parties to the rate proceeding did NOT challenge the costs of the automated meter reading (AMR) system that facilitates the TOU program. We were only addressing the incremental costs of the TOU program over and above the cost of the AMR system. We would note that for Idaho Power, both of these would be incremental costs, so the cost threshold would be much higher than for PSE.

The first of the required quarterly reports was released in October. It showed that 94% of customers were not able to save enough with TOU to offset the \$1.00 incremental meter reading charge. We note that the actual cost of the TOU program is \$1.26/month per customer, but the parties to the rate case settlement agreed to subsidize participants by having the balance taken from other sources.

Preliminary information developed by the TOU evaluation collaborative makes it pretty clear that the economics of the TOU program are doubtful. We agreed to have a multi-stage evaluation process, so that if the program is clearly not meeting cost-effectiveness tests, the expenditure on evaluation will be limited.

In mid November, PSE submitted a request to the Utilities and Transportation Commission to end the pilot-program nine months prior to the original pilot completion date. The UTC approved the request.

Environmental Impacts are Potentially Adverse

One of our principal concerns with TOU is that load shifting may actually have adverse environmental impacts. It is generally recognized that the incremental resource during on-peak periods in the western grid is natural gas. It is less generally realized that during off-peak periods, the incremental resource is often coal. This is one of the principal reasons that off-peak prices are lower – coal has a lower variable running cost than gas.

Typical coal plants have annual availability factors in the range of 80% - 90%, and annual capacity factors in the range of 65% - 75%.

One possible result of TOU pricing, if it is effective at shifting loads from on-peak periods to off-peak periods, may be an increase in the amount of coal-fired generation in the west. Since coal generation produces 2 – 3 times as much CO₂ as gas generation, as well as emitting much larger amounts of oxides of nitrogen (NO_x), sulfur dioxide (SO_x), particulates, mercury, and other pollutants, a shift from gas to coal carries significant environmental consequences.

The PSE evaluation collaborative will be examining the environmental effects of load shifting, as will the Northwest Power Planning Council. Until these studies are completed, we are very concerned about the potential adverse environmental effects of load shifting -- particularly if there is broader application of TOU pricing among Northwest utilities.

Critical Period Pricing Is a Useful Alternative

On a hydro-based grid, the economic value of load shifting is very modest. Data presented in the PSE rate proceeding, from the Aurora analysis model, suggested that the on-peak / off-peak power cost differential was about a half-cent per kwh over the next five years. This is not the type of differential that justifies TOU pricing.

There are, however, a few hours per year when the differential gets much larger. At these times, creative pricing may help to contain market price spikes, and this may be beneficial to consumers and utilities. Examining options for critical peak pricing may be useful, as suggested by the Idaho Power consultant report.

Perhaps more important, however, is the experience we have had with droughts. In a drought, the value of power soars not just during peak hours, but during all hours. In a hydro-based grid, developing a strategy to help reduce loads during droughts would seem to be much more important than TOU pricing. BPA is currently working on a long-term drought-response strategy, and this may also be a worthwhile endeavor for the IPUC and for Idaho Power and Avista Utilities, both of which are highly hydro-dependent.

Energy Efficiency Programs Produce Peak Load Mitigation

The Northwest has properly focused on energy loads, not peak demand, for many decades, and for that reason has not historically measured the peak load impacts of our energy efficiency programs. The Northwest Power Planning Council's Regional Technical Forum has recently done a significant amount of research on the peak demand impacts of efficiency, and the results are very instructive.

Investments in residential weatherization can produce up to 5 kilowatts of peak load reduction for each average kilowatt of energy load saved. These savings benefit generation, transmission, and distribution capacity requirements. This research was relied on by the parties to PSE's recent rate case to support approximately doubling the maximum payment made by the utility for residential weatherization.

Similarly, investments in new construction energy efficiency, industrial motors, and other measures produce significant peak load savings. Simply put, efficiency provides double benefits – both peak AND energy, while TOU programs typically benefit only one aspect of the equation.

Conclusion and Recommendations

NWEC and the LAW Fund recognize that they have largely favored exploration of TOU strategies in recent proceedings before this Commission. However, the recent experience with PSE's failed TOU effort has been highly instructive.

We recommend that the Commission defer any further consideration of TOU pricing for Idaho Power's residential customers until the economic and environmental impacts are better understood. Industrial and large commercial customers may enjoy economies of scale that would create more financial benefits to those customers under TOU rates; however we hesitate to support such programs until more information is available on the environmental consequences of load shifting. We do encourage the Commission and Idaho Power to explore a critical peak pricing strategy as one response tool for drought and high energy cost periods.

The PSE evaluation collaborative will produce a final report that should be instructive in this regard. In any event, more detailed environmental analysis is needed before consideration of TOU should be pursued. We believe that a focus on energy efficiency will produce very meaningful peak load reduction for the utilities, lower bills for consumers, and beneficial environmental impacts.



(for) Nancy Hirsh, Policy Director
NW Energy Coalition



William M. Eddie, Idaho Office Director
Land and Water Fund of the Rockies