Implementation of Demand Response Items in 5th Power Plan Action Plan

Discussion points for Power Committee meeting November 16. 2004

The Draft Power Plan recommends developing 500 MW of demand response over the next five years. To accomplish that goal, the Action Plan includes 7 points related to demand response:

1. Expand and refine existing programs
2. Develop cost-effectiveness methodology for demand response
3. Incorporate DR in utilities' IRPs
4. Evaluate costs and benefits of improved metering and communications
5. Monitor cost and benefits of emerging DR technologies
6. Explore ways to make price mechanisms more acceptable
7. Transmission grid operators should consider DR on an equivalent basis with generation for ancillary services

Council staff can pursue some of these objectives independently (e.g. points 4 and 5), but several of them will require the combined effort of a number of interested parties in the region. Our preliminary thinking is that Council staff will compile an updated inventory of regional utilities' demand response programs. Based on this inventory, we propose to conduct one or more workshops with participants from regional utilities, regulators and other interested parties, with the goal of understanding what obstacles could prevent us from accomplishing more demand response, where the greatest potential for more demand response lies, and what cooperative effort is necessary to move ahead. We need the benefit of the experience regional utilities have accumulated and the benefit of all participants' views of lessons learned and where to go next.

We have already identified two significant areas of work:

1. The region doesn't have a settled method for determining cost-effectiveness for demand response. The general principle is that demand response should be acquired if it is less expensive to the power system than serving the incremental load. However, the estimation of the avoided cost of serving incremental load is difficult anywhere, and particularly difficult in our region, where hydroelectricity is a very significant but no longer growing part of our supply, where we have large transmission links with regions whose loads peak in different seasons than ours, where the output of our hydroelectric system is variable across seasons and across years, and where different parts of the region rely on the competitive electricity market to varying extents.
2. The Action Plan recommended that regional parties explore ways to make price mechanisms more acceptable. Price mechanisms, in theory, offer considerable potential to reach more customers and reduce transactions costs, among other advantages compared to buyback programs. Many in the region, however, have expressed concern that price mechanisms may impose unacceptable costs on customers. It is worth a serious effort to see if price mechanisms could be designed that would relieve those concerns.

Staff's thinking on how to move these issues along is in the early stages, and we'd benefit from the Power Committee's thoughts on these issues.