

**Summary of MEB's June 15, 2005 Presentation
on Seasonality in Costs and Loads**

On June 15, 2005, Maurice Brubaker made a presentation to explore “seasonality in costs and loads.”

The analysis began with a review of PacifiCorp’s monthly peaks and loads and how they have changed over the period 1994 through 2006. The presentation material demonstrated that, both on a Utah-state specific basis and a corporate-wide basis, summer peaks have grown significantly more than peaks in other months. Winter peaks have grown as well, but not nearly to the same extent. On a total company basis, over the period 1994 through 2006, summer peak loads have grown more than 25%, while winter peak loads have generally grown less than 12%.

Further analysis of PacifiCorp’s operating profiles indicates that there is a significant difference in the seasonality of load of the various customer classes. The loads of Schedules 8, 9 and 23 are fairly constant across seasons, while the loads of residential customers and Schedule 6 customers exhibit much greater variations, with peaks occurring in the summer, followed by lesser peaks in the winter. On an hourly basis, across the 24-hours of a day and across the seven days of the week, there is much less variation in load by large industrial customers than by other customers, particularly residential and small commercial customers whose demands exhibit large swings.

This pattern is especially significant in the summertime because there are enormous swings from nighttime loads to daytime peaks. An example presented was that on the summer maximum weekday, the daily peak load on this highest day exceeded the minimum load reached during the preceding evening by approximately 72%. In other words, a nighttime low of 1,000 megawatts would be followed the next afternoon by a demand of over 1,700 megawatts. These kinds of load swings must be accommodated by a combination of PacifiCorp’s high cost generators and purchased power.

Part of PacifiCorp's strategy of dealing with the "peakiness" and seasonality of its loads is to purchase 6x16 liquated damages products for the summer. This poses two problems. First, these products are typically purchased for an entire quarter. Thus, PacifiCorp has to forecast what it will need for the highest day, and purchase that amount of capacity for the entire summer period. As a result, there will be many days when PacifiCorp does not need all this capacity that it has purchased on a take-or-pay basis. The remedy is to sell this unneeded power off into the market at spot prices much lower than what PacifiCorp paid for it. These prices are low for the same reason PacifiCorp does not need the power – namely, that loads are not as high as during peak times and many suppliers have excess capacity. Thus, losses are typically incurred on this sale, adding further to the cost of serving this volatile load.

A similar phenomena exists with respect to the swing over the daily cycle. The 6x16's must be purchased to cover the absolute peak, but as the load pattern shows there are many hours on the shoulder periods even on high load days, where loads are not anywhere near that level – again requiring PacifiCorp to sell off these shoulders into the markets at spot prices that are much lower than the prices that PacifiCorp is paying for the power – further adding to the costs of serving this highly volatile load.

Mr. Brubaker did not present a specific cost allocation methodology but concluded his presentation by showing what he described as a "horizontal analysis" suggesting that consideration should be given to analyzing the kinds of resources that can be associated with the different class load patterns. For example, it may be that large, high load factor, customers are more appropriately served from base load resources, and classes with "peaking" load shapes are more appropriately served from cycling resources and purchased power. This type of analysis, whereby different load shapes would be "costed" using the set of resources most suitable for their load characteristics, may provide additional insights into costing approaches that will more accurately capture and reflect the impacts of seasonal and daily variations in load on PacifiCorp's cost of service.