**Yankel CCS - 7**

**BEFORE THE PUBLIC SERVICE COMMISSION OF UTAH**

| | | |
|---|---|---|
| **In the Matter of the Application** | **:** | **Docket No. 01-035-01** |
| **of PacifiCorp for Approval of its** | **:** | **PREFILED DIRECT TESTIMONY OF** |
| **Proposed Electric Rate Schedules** | **:** | **ANTHONY J. YANKEL** |
| **and Electric Service Regulations** | **:** | **FOR THE COMMITTEE OF** |
| | **:** | **CONSUMER SERVICES** |

**Cost of Service and Spread of Rates**

**June 15, 2001**

**Q. PLEASE STATE YOUR NAME, ADDRESS, AND EMPLOYMENT.**

A. I am Anthony J. Yankel. I am President of Yankel and Associates, Inc. My address is 29814 Lake Road, Bay Village, Ohio, 44140.

**Q. HAVE YOU PREVIOUSLY FILED TESTIMONY REGARDING REVENUE REQUIREMENT ISSUES IN THIS CASE?**

A. Yes.

**Q. WHAT ISSUES DO YOU ADDRESS IN YOUR TESTIMONY?**

A. I address cost allocation and rate design issues relating to Rate Schedule 10, the Irrigation Class.

**Q. DO YOU HAVE ANY PRELIMINARY REMARKS BEFORE GETTING INTO THE SPECIFICS OF YOUR TESTIMONY?**

A. Yes. PacifiCorp's (the Company) cost-of-service study and rate spread proposal must be placed in a historical context. Most commissions base rate spread decisions, in part, upon gradualism. Gradualism is important not only from the perspective of avoiding rate shock, but also because it is recognized that individual cost-of-service studies may not accurately reflect true cost causation. A review of the recent history of cost-of-service study results for the Irrigation Class illustrates this lack of accuracy.

In the past, the Public Service Commission (Commission) has employed a 10% band around the jurisdictional rate of return such that those customer classes with rates of

return within +/- 10% of the jurisdictional average rate of return are deemed to have satisfactory performance.

In Docket 97-035-01 the Company recommended and the Commission adopted an equal percentage decrease for the Irrigation customers[1]. In Docket 99-035-10 the Company's cost-of-service study indicated that the Irrigation Class was providing an indexed rate of return of 0.95[2], well within the +/-10% band of reasonableness that is often employed. In that case the Commission found that the Irrigation customers should receive the same percentage increase as:

Residential schedule 1;
Mobile Homes schedule 25;
General Service schedule 23;
Security Lighting schedule 7;
Company-Owned Lighting schedule 11;
Customer-Owned Lighting schedule 12;
Traffic Signal schedule 12; and
Metered Outdoor Lighting schedule 12.

The Commission decided that some schedules were paying substantially more than the average rate of return and thus, were given a smaller increase than the above listed schedules.

In this case, however, the Company's cost-of-service study sets the indexed rate of return for the Irrigation customers at 0.30[3]. This is an extreme deviation from the jurisdictional average rate of return and an extreme departure from what has been

[1] See Order in Docket 97-035-01 pages 92 and 94.
[2] Exhibit UP&L_.2(DLT-2) in Docket 99-035-10

reported in the last two rate cases. This significant and abrupt variation should cause the Commission to question the validity of these results. My testimony will address the origin of this abrupt change in cost-of-service results and why the Commission should not rely upon it for the spreading of any rate change for the Irrigation Class.

**Q. WHAT IS YOUR SPECIFIC RATE SPREAD RECOMMENDATION FOR THE IRRIGATION CLASS?**

A. I recommend that the Irrigation customers be given the same percentage rate change as other major customer classes.

[3] Exhibit UP&L_(DLT-1) page 1 of 3 in Docket 01-035-01

## LOAD RESEARCH DATA FOR THE IRRIGATION CLASS

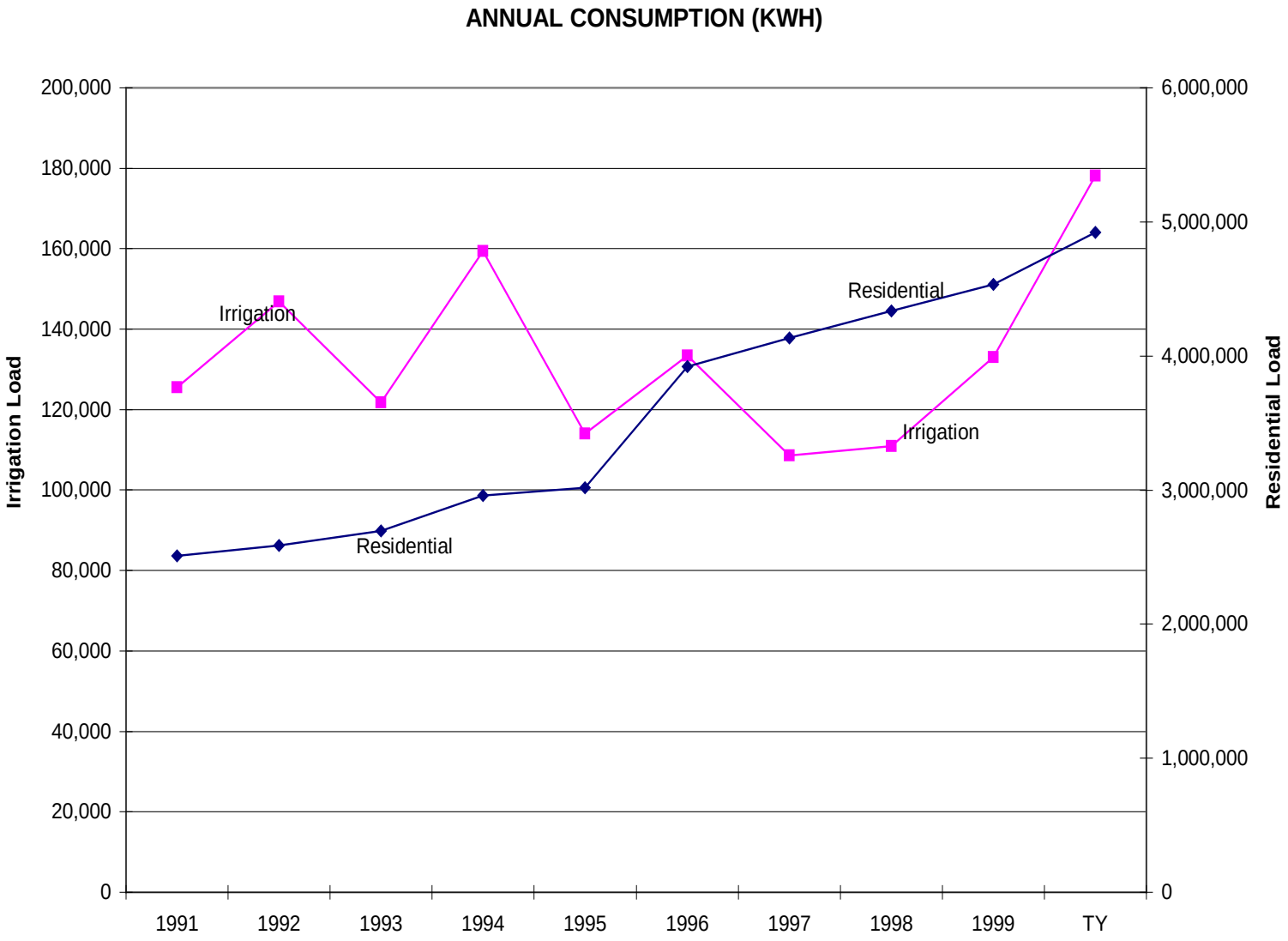
**Q. HAVE PROBLEMS WITH THE COMPANY'S LOAD RESEARCH DATA FOR THE IRRIGATION CUSTOMERS BEEN ADDRESSED IN PAST HEARINGS?**

A. Yes. As mentioned in past cases, and as discussed during past allocation taskforce meetings, the load research data for the Irrigation Class is extremely dated. The coincident peak data used in this filing for the Irrigation Class is based upon an average of data gathered between 1991 and 1993. The Company has recognized that this data is stale and has taken proactive steps prior to the 99-035-10 case to initiate a new load research sample for the Irrigation Class. It would be inappropriate to give a disproportionate rate change to the Irrigation Class when the load research data upon which such a change would rest is stale and is expected to be replaced.

**Q. WHY IS THE 1991-1993 DATA FROM THE COMPANY'S LOAD RESEARCH DATA INAPPROPRIATE TO BE USED FOR THE IRRIGATION CLASS IN THIS CASE?**

A. Unlike most other customer classes, the Irrigation load is characterized by cyclical variation from year-to-year. The Irrigation load is far more tied to summer temperatures, precipitation, and the overall agricultural economy than other customer classes. The following graph demonstrates that the residential load (like the commercial and industrial loads) has been steadily

growing over the last ten years, while the Irrigation load is more characterized by fluctuation than steady growth.




Although it may be appropriate to extrapolate load research data over short time periods for other customer classes, the demonstrated variation in annual Irrigation load renders the load research data taken in one timeframe for the Irrigation Class to be far less reflective of load in another timeframe.

**Q. WHY IS THE FACT THAT IRRIGATION LOAD VARIES SO WIDELY FROM YEAR TO YEAR A REASON FOR REJECTING LOAD RESEARCH DATA FROM ANOTHER TIME PERIOD?**

A. The problem with such variations is that in order to extrapolate the load research data the Company merely takes the load profile (relative hourly usage relationships) gathered from its sample and then increases or decreases each hourly load in proportion to the change in overall energy consumed. It does this under the assumption that the Irrigation load profile remains exactly the same (year after year) with consumption changing exactly the same percentage each hour.

**Q. IS THERE ANY WAY, OTHER THAN TO GATHER NEW LOAD RESEARCH DATA, TO DEMONSTRATE THAT THE LOAD PROFILE OF THE IRRIGATION CLASS DOES, IN FACT, CHANGE FROM YEAR TO YEAR?**

A. Yes. In developing its cost-of-service data, the Company uses not only load research data for the Irrigation Class, but also uses energy consumption data and billing demand data that comes from each Irrigation customer. Unlike the load research data, the energy usage and billing demand data is generally considered completely accurate.

If one assumes that the load each hour will follow the same load profile as occurred in a previous year, but will increase in direct proportion to the overall increase in total energy consumption, then the billing demand should increase in that same proportion. A comparison of the energy and billing demand data used in

the Company's cost-of-service studies in this case and the last general rate case is as follows:

| | 01-35-01 | 99-035-10 | % Change |
|---|---|---|---|
| Energy@Sales | 178,167 | 109,388 | 163% |
| Billing Demand | 94,730 | 78,127 | 121% |
| Extrapolated Peaks | 237,659 | 141,218 | 168% |

From this data, it can be seen that the increase in billing demand between the last two rate cases is not nearly as large as the increase in energy consumption. If the Irrigation billing demand has not increased in proportion to annual Irrigation energy used, then it can not be assumed that the same load profile is occurring between rate cases. Therefore, it can not be assumed that the demand each hour increased 163% as did the annual energy consumption.

**Q. ARE THERE OTHER WAYS TO EXTRAPOLATE LOAD RESEARCH DATA OTHER THAN TO INCREASE THE LOAD PROFILE DATA IN PROPORTION TO THE INCREASE IN TOTAL ENERGY CONSUMPTION?**

A. Yes. Another technique that is used to extrapolate load research data is to increase the load profile in proportion to the increase in billing demand as opposed to the increase in total energy consumption.

**Q. CAN YOU ESTIMATE THE IMPACT ON THE IRRIGATION CLASS OF USING BILLING DEMAND DATA TO EXTRAPOLATE THE LOAD RESEARCH DATA AS OPPOSED TO THE TOTAL ENERGY CONSUMED?**

A. Yes. Assuming that the increase in the peak demands is 121% (in proportion to the increase in billing demand) as opposed to 168% as was calculated by using the total energy consumption, then the extrapolated demand would be 72% (121 / 168 = 72%) of the amount used in the Company's cost-of-service study. Thus, the Company's extrapolated coincident peak demand values for the Irrigation Class would be reduced 28% and the resulting Allocation Factor 10 would be reduced 21% (28% x 75% = 21%) because it is 75% based upon peak demand and 25% on energy usage. The Company's extrapolated distribution peaks (Factor 20) for Irrigation Class would be reduced by the full 28%.

**Q. WHAT IS THE IMPACT UPON THE OVERALL COST OF SERVICE FOR THE IRRIGATION CLASS IF BILLING DEMAND WAS CHOSEN AS THE MEANS OF EXTRAPOLATING THESE DEMAND VALUES IN THIS CASE AS OPPOSED TO USING TOTAL ENERGY AS THE BASIS FOR EXTRAPOLATION?**

A. I have conducted a run of the cost-of-service study for this case and only reduced Factor 10 for the Irrigation Class by 21% and Factor 20 for the Irrigation Class by 28%. The resulting rate of return was 6.928%. This is significantly above the jurisdictional average rate of return of 5.055%. Using the Commission's band of +/- 10% of the jurisdictional average rate of return, the Irrigation Class is paying a rate

of return equal to 137% (6.928% / 5.055% = 137%) of the jurisdictional average. In other words, a rate decrease for the Irrigation Class would be in order.

**Q. ARE THERE OTHER PROBLEMS WITH THE AGE OF THE LOAD RESEARCH DATA FOR THE IRRIGATION CLASS?**

A. Yes. Over the last 10 years the number of Irrigators has doubled, but (other than fluctuation) there has been very little, if any, growth in the Irrigation load. Thus, the relative size of the Irrigators has been cut in half since the time that the Company gathered its load research data for Irrigators. The size of individual customers impacts stratum boundaries and the weight of each stratum used in the load research study.

**Q. DO YOU RECOMMEND USING BILLING DEMAND DATA FOR EXTRAPOLATING IRRIGATION LOAD IN THIS CASE AND THUS FOR COST OF SERVICE AND RATE SPREAD PURPOSES?**

A. No. My recommendation is that the Irrigation Class should receive the jurisdictional average rate change. The load research data being used for the Irrigation Class is not only stale, but also well beyond its usefulness. The base data itself needs to be replaced. The Company has stated it needs to develop new load research data for the Irrigation Class and was undertaking such an effort. Until new data is available, the Irrigation Class should be given the jurisdictional average rate change.

**Q. ARE THERE ANY OTHER REASONS FOR GIVING THE IRRIGATION CUSTOMERS THE JURISDICTIONAL AVERAGE RATE CHANGE IN THIS CASE?**

A. Yes. The Company's filing in this case reflects a large increase in net power costs that is predominantly tied to the sharp increase in wholesale prices. As a matter of fact, most of the rate increase requested by the Company is based upon the significant change in the level of net power costs. Testimony has been introduced by various parties that suggests that the increases in net power costs due to the increase in wholesale prices should not be picked up by the Utah jurisdictional customers. Additional testimony has been introduced showing that the Company's net power costs will substantially decrease as the Company begins to sell more into the wholesale market while buying less. Furthermore, no one knows how long these extremely high wholesale prices will continue.

All of this uncertainty has an impact upon class cost of service. Not all classes are impacted equally by a given percentage change in the cost of generation or purchase power. If the Commission is going to authorize power costs substantially less than those proposed by the Company, or if power costs are going to substantially drop in the future, then the relative cost of service for the various classes will change as a result. It would be inappropriate to markedly change a class' revenue level in this case (based upon abnormally high power costs), only to have a large reduction in cost of service in the near future as the Company's power costs are lowered.

**Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY ON REVENUE SPREAD ISSUES?**

A. Yes.