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**BEFORE THE PUBLIC UTILITY COMMISSION**

**OF OREGON**

UM 1003

In the Matter of Setting PACIFIC POWER AND )  
LIGHT's Service Quality Measure (SQM) Lines ) ORDER  
for 2002. )

**DISPOSITION: 2002 SERVICE QUALITY MEASURES GOAL AND REVENUE  
REQUIREMENT REDUCTION (PENALTY) LINES SET**

At its public meeting on December 18, 2001, the Commission adopted Pacific Power and Light and Staff's joint recommendation to set goal lines and penalty lines for 2002. Staff's recommendation report is attached as Appendix A and is incorporated by reference.

**ORDER**

IT IS ORDERED that the 2002 Service Quality Measures goal and penalty lines for Pacific Power and Light are set, as described in Appendix A.

Made, entered and effective \_\_\_\_\_.

BY THE COMMISSION:

\_\_\_\_\_  
**Becky L. Beier**  
Commission Secretary

A party may request rehearing or reconsideration of this order pursuant to ORS 756.561. A party may appeal this order to a court pursuant to ORS 756.580.

**PUBLIC UTILITY COMMISSION OF OREGON  
STAFF REPORT  
PUBLIC MEETING DATE: December 18, 2001**

**REGULAR**   X   **CONSENT**        **EFFECTIVE DATE**       January 1, 2002      

**DATE:** November 29, 2001

**TO:** Phil Nyegaard, through Jerry Murray, Vicki McLean, and Lee Sparling

**FROM:** Bob Sipler and Clark Jackson

**SUBJECT:** PACIFIC POWER AND LIGHT: (Docket No. UM 1003) Joint recommendation for the Commission to set Pacific Power and Light's (PP&L) Service Quality Measures (SQMs) performance lines for 2002, as required in UE 94 by OPUC Order 98-191 and as required in UM 918 by OPUC Order 99-616.

**STAFF RECOMMENDATION:**

Staff and PP&L jointly recommend that the Commission set the Service Quality Measures performance levels for 2002 at:

1. For C-1: the goal is .07 at-fault complaints/1000 customers  
the Penalty 1 line is .10 at-fault complaints/1000 customers  
the Penalty 2 line is .13 at-fault complaints/1000 customers
2. For R-1: the goal is 1.75 hours of service outage annually  
the Penalty 1 line is 2.25 hours of service outage annually  
the Penalty 2 line is 2.5 hours of service outage annually
3. For R-2: the goal is 1.4 sustained outage occurrences annually  
the Penalty 1 line is 1.6 sustained outage occurrences annually  
the Penalty 2 line is 1.8 sustained outage occurrences annually
4. For R-3: the goal is 7.5 momentary outages annually  
the Penalty 1 line is 10 momentary outages annually  
the Penalty 2 line is 12 momentary outages annually
5. For R-4: the goal is 85% restoration of service within 3 hours  
the Penalty 1 line is 80% restoration of service within 3 hours  
the Penalty 2 line is 75% restoration of service within 3 hours

ORDER NO. 01-1109

**DISCUSSION:**

The SQMs had their origins as monitoring tools related to safety and reliability monitoring by Staff. These tools were then modified to include a way to evaluate the effects of a decoupling program. As a part of PP&L's application for an "alternate form of regulation" (AFOR) in UE 94 the SQMs were developed into a format similar to the present agreement. Then, during the PP&L/ScottishPower merger (UM 918), another modification was stipulated. The stated purpose is "...to provide a mechanism to ensure service quality is maintained at current or improved levels subsequent to implementation of an alternate form of regulation ..." and "...to incorporate provisions of the ScottishPower merger...". Safety and Reliability Staff believes that the SQMs have proven to be an excellent regulatory tool since their first adoption in 1997.

There are nine separate measures included in PP&L's SQMs. Of these, five measures (C-1, R-1, R-2, R-3 & R-4) have three performance levels each set by the Commission on an annual basis. In addition, a fifth measure (S-1) has pre-set performance penalties in any cases where the Commission declares that a "Major Safety Violation" has occurred. The remaining three measures, (X-1, X-2, and X-3) are program-monitoring tools for various maintenance programs performed by PP&L on an ongoing basis. For these we monitor items such as annual accomplishments, budgets and expenditures, and staffing levels. Basic programs include vegetation management (tree trimming), line and substation inspection and repair programs, service reliability monitoring, and the metering program. The details of these requirements are found in Staff's "UE 94/ UM 918 Service Quality Measures" referred to in stipulation four adopted by the Commission in Docket UM 918. The SQM stipulation lists reporting requirements and a timeline, which includes this submission to the Commission so a determination can be made for the performance levels for the coming year.

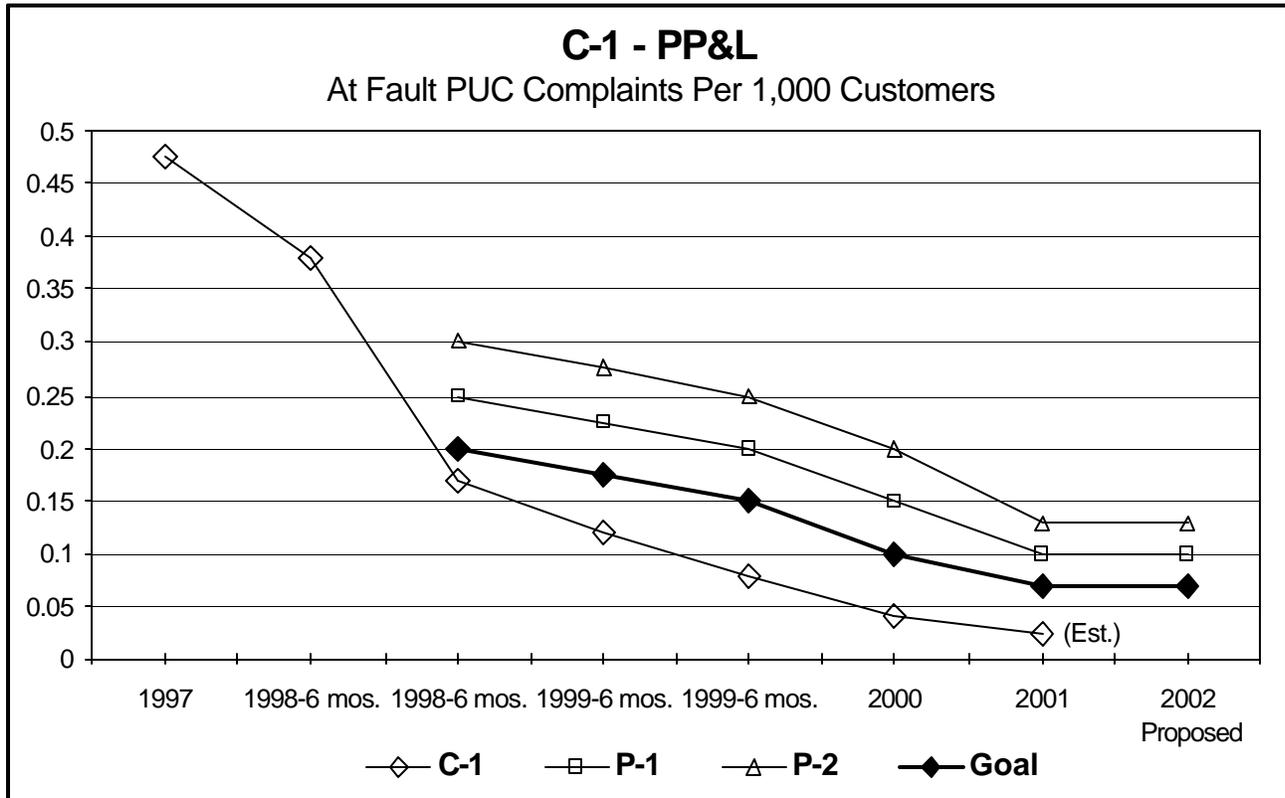
The Commission has a great deal of discretion as to how penalties will be paid should penalty lines be exceeded. The penalties would be revenue requirement reductions and could be returned to customers through rate reductions or other methods. The Commission can also recognize circumstances beyond the company's control and cap or adjust the amount. An additional provision of the SQM stipulation allows refunds with interest when certain programs have not been funded at historical levels and associated performance has not met the lines set by the Commission. The concept here is that customers have paid for services that they have not received and therefore should be reimbursed.

The first measure for which the Commission needs to set performance lines is C-1, or consumer at-fault complaint frequency. This is expressed as the number of PUC customer complaints where PP&L has been determined to be at-fault, having violated a tariff, rule or business practice standard, per 1000 customers, on an annual basis. PP&L has improved performance on this measure steadily since 1997. Commission comments after initiation of the SQMs were that PP&L performance on this measure should be comparable to other energy utilities in Oregon. This is in contrast to the reliability based measures, which must take into consideration many variables of system configuration and age, customer density, prevailing weather conditions, and terrain variables within the service territory. Performance in 2000 was very good, as it has been in 2001 to date. It is recommended that these lines for 2002 be:

- Goal - less than .07

- First penalty line (\$100,000) - .10
- Second penalty line (\$1,000,000) - .13

Actual PP&L performance is provided in the following graph:



The next four measures relate to service reliability.

When the SQMs were discussed with ScottishPower during the UM 918 merger, Staff, PP&L and ScottishPower all realized that there were special conditions ahead that would require communication and negotiation to keep this regulatory tool meaningful.

ScottishPower anticipated three changes that would occur over the first few years of its leadership. The first change was to work practices and system management methodology. Pertinent here was an emphasis on accuracy in outage reporting by operations personnel. Some outages were not being reported and others were reported with rough estimates of customers affected and inaccurate duration times. PP&L reports an increase in reported outage data of 51% due to this change. The second change was the incorporation of the Computer Aided Distribution Operations / PWeR Systems Performance Reporting tool or CADOPS/PROSPER (C/P) system gradually over the PP&L multi-state territory. This C/P system combines an electronic outage management system with a facility mapping and customer data system. Again, a significant gain in the accuracy of outage data is one of the results. For the areas that C/P has been put into operation, the company reports a 71% increase to

outage data. The third change will be to upgrade elements of the distribution lines to achieve improved reliability and operator control.

The problem is that the SQMs were based on the old reporting system. The new system would provide more accurate data that was virtually guaranteed to indicate deteriorating performance when in fact there was no change in what customers were actually experiencing. Other utilities have experienced this same false indication of deteriorating performance when they have incorporated better data collection methods. What this means is that a meaningful method of comparing the historical performance lines with the lines produced with more accurate data had to be devised. Only then could performance lines be set so customers continue to receive the same or improved reliability and so the company could avoid SQM penalties that it really didn't deserve.

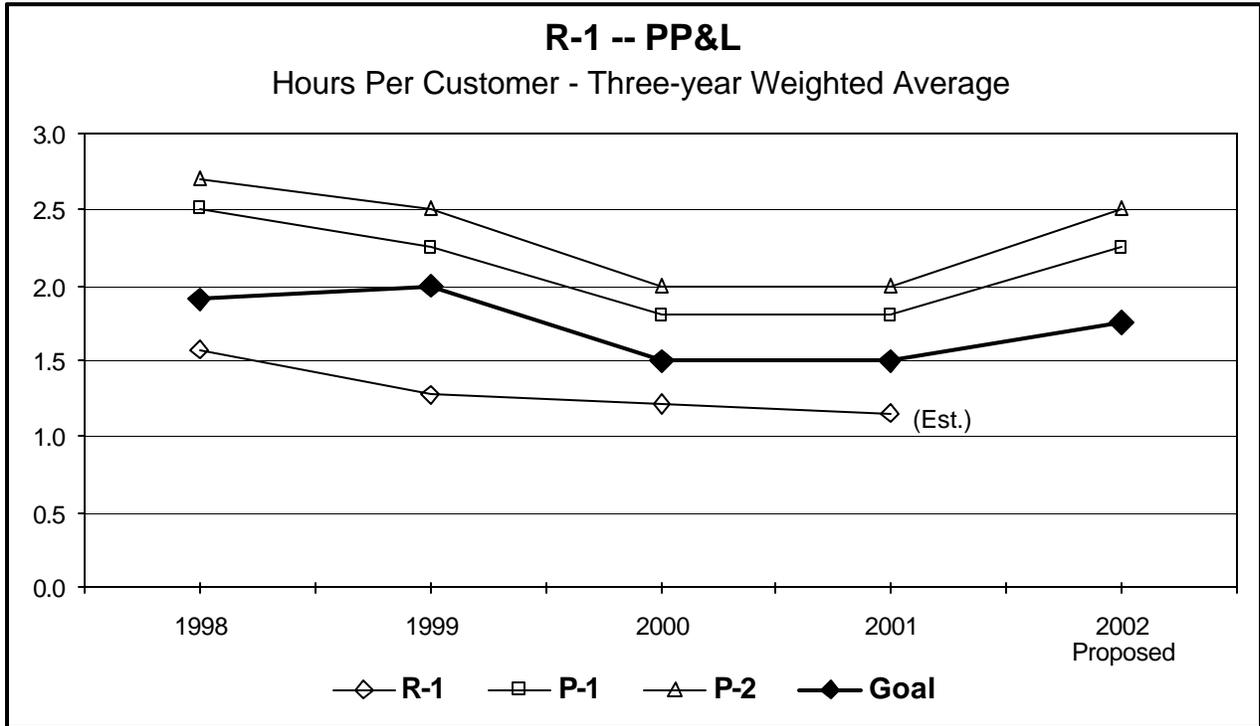
Added to this difficult challenge is a promised merger benefit of improved reliability by 2005 (10% improvement to customer outage durations and frequency, and 5% improvement in momentary outages). Quantifying this improved reliability compared to pre-merger reliability (and SQM levels) over a multi-year period, while many changes are simultaneously occurring is a difficult task, but one that PP&L seems to be making a good start on.

2002 will be a transition year, during which the C/P system will be put into operation in Oregon. Estimates of how data will be affected have been made based on C/P initiation in other states. When the Commission sets performance lines for 2003, it will be possible to base it on some actual Oregon data from the C/P system. Staff has reviewed PP&L's study of system change impacts and projections and recommends accepting their performance line recommendations for R-1, R-2, and R-3 for 2002. Future in-state data will provide a better basis for setting performance lines for 2003 and 2004. PP&L accepted Staff's recommended levels for R-4, which was based on both past performance and a merger commitment to provide at least 80% restoration of service within three hours starting in 2002.

The R-1 measure is an averaged customer interruption duration (annual time without power) that utilizes a three-year weighted averaging formula. This is similar to System Average Interruption Duration Index (SAIDI), calculated with the target year weighted at 50%, the previous year weighted at 30%, and the next previous year weighted at 20%. Certain "major events" can be excluded from these statistics when specific requirements have been met. The performance lines recommended for Commission adoption for 2002 are:

- Goal - 1.75 hours
- Penalty 1 line (\$100,000) - 2.25 hours
- Penalty 2 line (\$1,000,000) - 2.5 hours

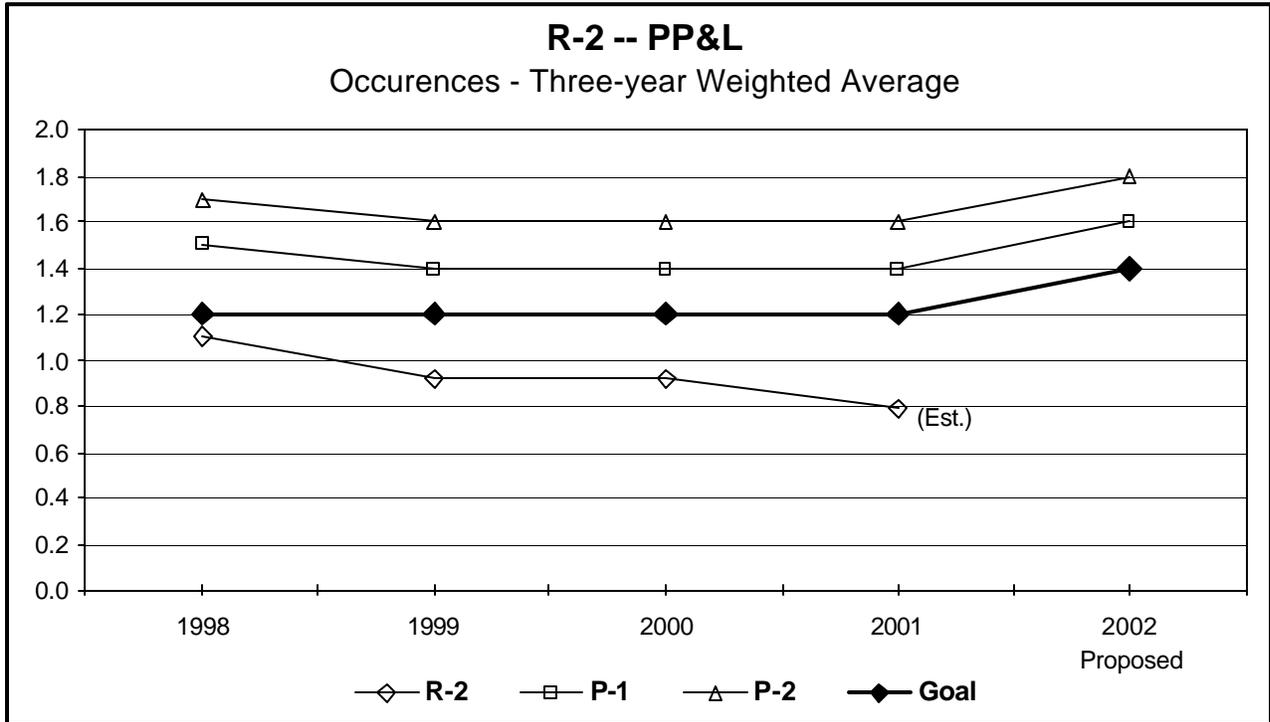
Actual PP&L performance for this measure is provided in the following graph:



The R-2 measure is an averaged customer interruption frequency (annual number of times service is interrupted for five minutes or more) that, like R-1, utilizes a weighted three-year formula. This is a three year weighted System Average Interruption Frequency Index (SAIFI), in essence. The performance lines recommended for Commission adoption for R-2 for 2002 are:

- Goal - 1.4 occurrences
- Penalty 1 line (\$100,000) - 1.6 occurrences
- Penalty 2 line (\$1,000,000) - 1.8 occurrences

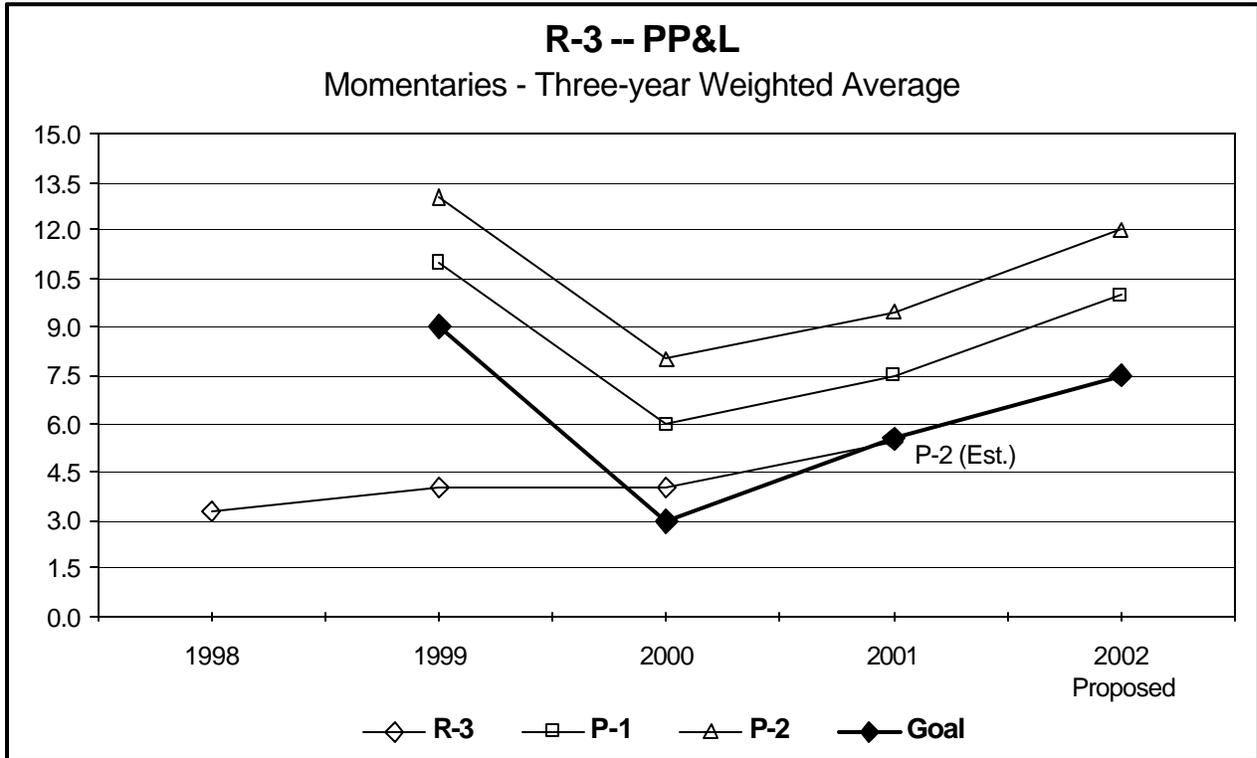
Actual PP&L performance for R-2 is provided in the following graph:



The R-3 (averaged customer momentary interruption frequency) measure has been phased in over the last few years. A trial run was performed for 1999, and the measure's first fully implemented year was 2000. Momentary outages are primarily the quick blinks that occur on an electrical system when automatic switches perform their protective function in response to a fault on the line. Staff and PP&L recommend R-3 lines be set for 2002 at:

- Goal – 7.5
- Penalty 1 line (\$100,000) - 10
- Penalty 2 line (\$1,000,000) - 12

PP&L performance for R-3 (some estimated and some actual) is reflected in the following graph:



The R-4 Service Restoration Indicator is the percent of customer sustained interruptions that have been restored within three hours of initiation. A two year trial run was to be performed in 2000 and 2001, and the measure's first fully implemented year will be 2002. ScottishPower's merger commitment was to achieve 80% restoration within three hours. Actual performance for 1999 was 88.2%, and 2000 performance was 88.6%. Staff and PP&L recommend R-4 lines be set for 2002 at:

- Goal – 85%
- Penalty 1 line (\$100,000) – 80%
- Penalty 2 line (\$1,000,000) – 75%

**PROPOSED COMMISSION MOTION:**

The Service Quality Measures performance lines for Pacific Power and Light for the year 2002 be set as follows:

1. For C-1: the goal is .07 at-fault complaints/1000 customers  
the Penalty 1 line is .10 at-fault complaints/1000 customers  
the Penalty 2 line is .13 at-fault complaints/1000 customers
2. For R-1: the goal is 1.75 hours of service outage annually  
the Penalty 1 line is 2.25 hours of service outage annually  
the Penalty 2 line is 2.5 hours of service outage annually
3. For R-2: the goal is 1.4 sustained outage occurrences annually  
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