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# -BEFORE THE PUBLIC SERVICE COMMISSION OF UTAH-

# \*88 JUN -3 P4:11

UTAH PUBLIC

In the Mather Company Speciation ) of UTAH POWER & LIGHT COMPANY and ) PC/UP&L MERGING CORP. (to be re- ) named PACIFICORP) for an Order Authorizing the Merger of Utah ) Power & Light Company and Pacificorp into PC/UP&L Merging Corp. ) and Authorizing the Issuance of Securities, Adoption of Tariffs, and Transfer of Certificates of ) Public Convenience and Necessity and Authorities in Connection ) Therewith.

Case No. 87-035-27

The Applicant PC/UP&L Merging Corp. and the Committee of Consumer Services, through their respective counsel, hereby submit the attached joint exhibit which summarizes the calculations of Net Power Cost Savings and differences in the assumptions utilized by their clients.

Respectfully submitted this 3rd day of June, 1988.

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Committee of

Consumer Services

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# JOINT EXHIBIT APPLICANTS' AND CCS' ESTIMATES OF 1988-1992 NET POWER COST SAVINGS FROM MERGER AND MAJOR SOURCES OF DIFFERENCES

Benefits (\$million)

|  | • •            | •         |
|--|----------------|-----------|
|  | <u>Total</u> 1 | Increment |
| APPLICANTS' REVISED BASE CASE <sup>2</sup> | 161.6          |           |
| A. CCS Modeling Assumptions                | 159.7          | -1.9      |
| B. CCS Purchased Power Assumptions         | 149.7          | -10.0     |
| C. CCS Thermal Assumptions                 | 126.3          | -23.4     |
| D. CCS Coal Price Assumptions              | 119.0          | -7.3      |
| CCS REVISED HIGH BASE CASE <sup>3</sup>    | 89.9           | -29.1     |
| E. High Case Off-System Sales Assumptions  |                |           |
| CCS REVISED LOW BASE CASE <sup>4</sup>     | 48.5           | -41.4     |
|  |                |           |

F. Low Case Off-System Sales Assumptions

1. Undiscounted sum of 1988-92 Net Power Cost savings.

2. Revised case from Dennis P. Steinberg rebuttal testimony, with additional assumptions as per 5/17/88 technical conference.

3. Revised case from Robert K. Weatherwax surrebuttal testimony, exhibit RKW-1, filed 5/26/88.

4. Revised case from Robert K. Weatherwax surrebuttal testimony, read into record 5/19/88.

#### A. MODELING ASSUMPTIONS

1. PP&L STAND ALONE (SA): <u>Intertie Capacity Available after Allocation to BPA</u>

APPLICANTS (APPL): Based on analysis of current line rating, effect of expected upgrades, and historical utilization factors.

SERA: Phase shifter reduces loop flow by 94 aMw beginning 1/1/89, DC line capacity increased by 594 aMw to reflect full DC Terminal Upgrade beginning 1/1/89.

2. Merged: PP&L ICP Secondary Sales

APPL: PP&L's share, 22.5% plus a portion of UP&L's 3.09% share, or 24.1% total. The remaining portion of UP&L's share is assumed occupied by the Utah division's Block 4 purchases from the Pacific division.

SERA: PP&L's share only, 22.5%.

#### B. PURCHASED POWER ASSUMPTIONS

1. UP&L SA: <u>UP&L Purchases from PP&L to Support UP&L's Nevada</u>
Summer Peak Sale

APPL: From UP&L Budget estimates.

SERA: Energy purchase opportunities from contract; amount used obtained as output of SERASYM simulation.

Note: Both the Applicants and SERA assume in the PP&L Stand-Alone and Merged cases the same respective quantities and values they have assumed in the Utah Stand-Alone case.

2. UP&L SA: Quantity of NW Block 1-4 Purchases

APPL: From UP&L Budget estimates.

SERA: From the output of SERASYM simulation.

Note: Both the Applicants and SERA assume in the PP&L Stand-Alone and Merged cases the same respective quantities they have assumed in the Utah Stand-Alone case.

## 3. Merged: Price of NW Block 4 purchases by UP&L

APPL: Assume Merged company can purchase Block 4 energy from Eastern sources at a lower price than that expected to be paid by UP&L operating on a stand-alone basis. This amounts to about a 5 mill/kwh reduction in Block 4 price in the Merged case. This price is based on PP&L's historic purchases from Eastern sources.

SERA: A 2.5 mill/kwh reduction in Block 4 price in the Merged case.

#### C. THERMAL ASSUMPTIONS

#### 1. UP&L SA: Plant Availability

APPL: From preliminary MAINPLAN results to set up PROMOD availabilities; Hunter and Huntington availabilities reduced 5% to reflect Automatic Generation Control.

SERA: Availability is equal to one minus the forced outage rate, where forced outage rates are obtained as inputs to MAINPLAN.

Note: Both the Applicants and SERA assume in the Merged case the same plant availabilities employed in the respective stand-alone cases.

# 2. UP&L SA: Displacements Limits for All Plants but Carbon

APPL: From UP&L minimum load estimates. Naughton displacement limit increased to reflect greater Secondary Sales coverage.

SERA: To minimum must run levels provided by MAINPLAN for all but the Carbon plant.

#### D. PRICE ASSUMPTIONS

#### 1. UP&L SA: Heat Rates

APPL: Average Heat Rates from UP&L Budget estimates.

SERA: Incremental Heat Rates at average operation based on SERASYM simulation.

## 2. Merged: Heat Rates

APPL: Incremental heat rates based on engineering estimates from power operations departments of both PP&L and UP&L.

SERA: Used ratio of incremental to average at level of average operation, such information obtained as an output from SERASYM simulation.

## 3. UP&L SA: Coal Prices for Dispatch

APPL: Plants are dispatched according to average coal prices which are obtained from UP&L Budget estimates.

SERA: Plants are dispatched according to incremental coal prices which are obtained from MAINPLAN.

# 4. PP&L SA: <u>Coal Prices for Dispatch of Bridger and Centralia</u> Plants

APPL: Dispatch is according to average coal prices based on existing contracts and price forecasts.

SERA: Dispatch is according to incremental coal prices. Incremental prices are obtained from the post-dispatch adjustments made in the Applicants' PD/MAC modeling runs.

# 5. Merged: <u>Coal Prices for Dispatch and Post-Dispatch In-</u> <u>cremental Adjustment</u>

APPL: Dispatch is according to the same average coal prices employed in the respective stand-alone cases. Incremental post-dispatch adjustments were made based upon plant generation differences in the merged versus stand-alone cases and based upon the information provided by existing contracts and forecasts of future incremental supplies.

SERA: Dispatch is according to the same incremental coal prices employed in the respective stand-alone cases.

#### E. HIGH CASE OFF-SYSTEM SALES

# 1. PP&L SA: Firm Displacement Sale/Purchase

APPL: Do not believe an Firm Displacement transaction as described by SERA can be consummated in the foreseeable future.

SERA: PP&L makes a Firm Displacement sale to California over the Pacific Northwest/Pacific Southwest Intertie backed by a Firm Displacement purchase from BPA. Markup on transaction is 7 - 10 mills/kwh.

# 2. Merged: Other Firm Sale

APPL: The Merged company is assumed to consummate a 200 Mw firm sale through Four Corners, for 100 Mw during 1988-92 with an additional 100 Mw during 1990-92. This assumption is based on discussions with buyers in the SW, at prices based on current firm sales to Southern Cal Edison.

SERA: The Merged company is assume to consummate a 200 Mw firm sale with 100 Mw going to Four Corners during 1988-92 with an additional 100 Mw going over the Pacific Intertie during 1990-92.

#### F. LOW CASE OFF-SYSTEM SALES

# 1. PP&L SA and Merged: Firm Sale

APPL: Same as in High Case - PP&L Stand-Alone is assumed unable to make a firm sale and the Merged company is assumed able to make a firm sale.

SERA: Neither PP&L Stand-Alone nor the Merged company is assumed to make a firm sale.