

Methodology for Determining Capacity Benefit Margin for Replacement Reserves and Transmission Uses Other than Energy Delivery

For Replacement Reserves SMUD will reserve transmission import capability up to its projected reserve requirement for replacement reserves. The replacement reserves are for restoring operating reserves following a generator contingency generally confined to the time period extending beyond the current scheduling hour.

For Uses Other Than Energy Delivery SMUD will reserve transmission for contracted ancillary services.

Methodology for Determining Transmission Reliability Margin for Load Forecast Uncertainty Reserves

For Load Forecast Uncertainty SMUD will use the following methodology to estimate the Load Forecast Uncertainty between the Day-Ahead horizon and the actual load.

Historical load data is used as the basis of calculating to what degree the Day-Ahead forecast differs from what was actually required. The previous two years and current year-to-date load data is used in the determination of Load Forecast Uncertainty (LFU) reserves. Each year's historical data was escalated to the period under evaluation. As an example, 2003 actual and Day-Ahead data is escalated by 2.5% each year to bring it into 2006. The 2.5% annual escalation factor represents SMUD load growth over the last 4 years.

Once the data is escalated into the current time period the difference between each hour's Day-Ahead forecast and Actual load is calculated. This calculation is then summarized into the maximum variation for both under and over forecasted load. The following Graph illustrates what the daily LFU would be for June 2006 with a repeat of June 2003. Positive loads represent over-forecasts where actual loads are lower than Day-Ahead forecasts.

