

Cost/Benefit Tabulation Elements Being Considered for Summer 1999 Implementation

REDESIGN ELEMENT	COSTS / CONS	BENEFITS / PROS
Pre-Processor Rational Buyer	<ul style="list-style-type: none"> The ISO has experienced 166 hours (predominantly in July and August 1998) in which the cap was hit for a lower quality service when there were leftover bids for a higher quality service at prices less than the cap of \$250/MW. Additionally, there have been a number of hours in which lower quality A/S had a higher MCP than a higher quality A/S. 	<ul style="list-style-type: none"> Demand - No identifiable influence on ISO requirements for Ancillary Services. Supply - No identifiable influence on supplies (NONE) of A/S capacity. Efficiency - Moves the ISO auctions towards the outcomes that would occur under competitive and complete markets, and relieves an existing obstacle to efficient performance. The frequent occurrence last summer of irrational market outcomes indicates that this change is estimated to have an impact.
RegUp / RegDn Priced Separately	<ul style="list-style-type: none"> Excessive costs for Regulation result from a single price for both RegUp and RegDn capacity. For lack of separate prices for RegUp and RegDn, excessive costs to end-users have averaged approximately \$100,000 per day. 	<ul style="list-style-type: none"> Demand - No identifiable influence on ISO requirements for A/S capacity. Supply - No identifiable influence on supplies (NONE) of A/S capacity. Efficiency - Eliminates an existing and serious flaw in the procurement procedures for Regulation, and thus has an estimated immediate impact on the efficiency of the ISO's auctions for Regulation services.
Inter-SC Trades of A/S	<ul style="list-style-type: none"> The element of the A/S redesign will allow SCs the opportunity to preserve the firmness of imports that is presently lost during Inter-SC Trades. The amount of Operating Reserves unnecessarily procured for load served by SCs from Inter-SC trades has been estimated, on average, at a cost of \$200,000 per month. 	<ul style="list-style-type: none"> Demand - No identifiable influence on ISO requirements for Ancillary Services. Supply - Does not directly address any barriers to supplier participation) in the ISO A/S auctions. Efficiency - Facilitating bi-lateral trades will significantly improve the functioning of the A/S market by removing a barrier to trade. The ISO will then conduct a potentially smaller auction as the provider of last resort. Allows means by which SCs can preserve firmness of imports previously lost in inter-SC trades. Weighting for this aspect is reflected in adder for estimated MW reduction in Operating Reserves procured.
Repl. Reserves / Uninst	<ul style="list-style-type: none"> Last year, the ISO purchased energy out-of-market from adjacent Control 	<ul style="list-style-type: none"> Demand - By providing stronger incentives to bid capacity that is expected to be used for energy into the

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Deviations	<p>Areas due to scheduling shortfalls and the need to assure reliability.</p> <ul style="list-style-type: none"> • Much of the out-of-market energy was procured at prices at or near the \$250/MWh cap. • The cost of out-of-market energy from other Control Areas was spread to all SCs in proportion to their consumption of energy. • This A/S redesign element is intended to minimize and/or eliminate all such off-system purchases of out-of-market energy which represented in excess of \$30 million during the months of July and August of 1998. 	<p>BEEP stack, this redesign element should provide a reduction in the ISO's demand for Regulation. This demand shift is balanced, however, by potentially large increases in demand for Replacement Reserve capacity. Since the latter capacity will tend to have much lower prices than Regulation capacity, the net impact is estimated to be a reduction in total A/S demand.</p> <ul style="list-style-type: none"> • Supply - The design element offers incentives to generators to bid capacity that would otherwise have participated in Supplemental Energy, or have been used to generate uninstructed in real time, into the Replacement Reserve auction. However, since this shift in supply is accompanied by an increase in demand for replacement reserves, the net effect is estimated to be. • Efficiency - The design element clarifies to market participants the cost of underscheduling load. As it eliminates a cost-shifting opportunity, it offers an improvement in overall market efficiency. The large improvement in market efficiency may be counterbalanced in part by the creation of an incentive to overschedule. As such, the net effect of the proposal is estimated to be a improvement in market efficiency.
Automated BEEP	<ul style="list-style-type: none"> • Dispatch instructions are sent to SCs by telephone, and are not as consistent as would be the case with the automated issuance of instructions. The cumbersome use of telephone communications to issue dispatch instructions does not allow for the more complete use of BEEP resources for load following. As such, Regulating units provide a measurable share of this requirement. • Average daily cost for Regulation 	<ul style="list-style-type: none"> • Demand - Should significantly improve the ISO's ability to use Energy bids to follow load, thus reducing the ISO's requirement for Regulation. In addition, by increasing the certainty of call of infra-marginal BEEP capacity, BEEP automation will increase the incentives to submit bids, improving the quality of the BEEP stack and further reducing the requirements for Regulation. The combined impact of BEEP automation on A/S demand is estimated to be (HIGH3). • Supply - There is no separate impact of BEEP automation on A/S supplies. • Efficiency - The impact on overall efficiency is captured

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	<p>(including REPA) for the months of July and August 1998 was approximately \$2.1 million per day. If Regulation requirements were decreased by only 5 percent as a result of automated dispatch instructions, approximately \$100,000 per day of Regulation cost could be avoided reg up/greg down was \$100k too.</p>	<p>in the demand reduction discussion. Additionally, real-time prices should be less volatile due to the more complete and timely use of BEEP resources.</p>