

PROBLEMS WITH ZONAL ENERGY PRICING AND RELIABILITY DEADBAND
INADVERTENT INTERCHANGE PAYBACK TASKFORCE
BUSINESS PRACTICES SUBCOMMITTEE, NORTH AMERICAN ENERGY STANDARDS BOARD

PROBLEMS WITH A REGION-WIDE ZONAL ENERGY PRICE FOR INADVERTENT, AND WITH PRICING FOR FREQUENCY IMPACT ONLY INADVERTENT THAT VIOLATES CPS1

1. *Argument against charging within a region a region-wide zonal price for the energy component of Inadvertent Interchange, when multiple Balancing Authorities in the region have very different prices. Only paying or charging a control area its native price avoids over or underscheduling based on energy price.*

Using a region-wide zonal price within a region with big price differences between BAs incents the low-price BAs to underschedule generation to receive the zonal price above their local price, and it incents high-price BAs to underschedule demand to pay the zonal price below their local price. Demand is not necessarily underscheduled by the same amount as generation is underscheduled. So, any pricing of energy that incents deliberate under or overscheduling unnecessarily increases real-time delivery risk on the interconnection, which can unfairly penalize consumers when no resources are available.

2. *Argument against pricing for frequency impact only the Inadvertent Interchange that violates NERC's CPS1 limit on average control error. Not pricing for frequency impact also the Inadvertent Interchange that is within the CPS1 limit allows everyone to drift toward the edge of the allowable performance range. It makes governor response go uncompensated and thereby get reduced, making a given amount of aggregate scheduling error have an ever bigger impact on frequency. [The steady decline in governor response in the North American interconnections since deregulation has been documented in a draft white paper of NERC's Resources Subcommittee.] As a result average frequency error continues drifting toward its CPS1 limit. Instead of having no tendency, Interconnected system performance winds up ever pushing against the CPS1 average frequency-error limit. That makes CPS1 much less proactive as individual violations become more likely to trigger system violations. That is why all the Inadvertent Interchange, that puts a single Balancing Authority in a position of tipping the entire interconnection, should bear the marginal cost of that Balancing Authority's becoming CPS1 compliant.*