

Inadvertent Interchange Payback Taskforce or Inadvertent Interchange Parking Taskforce?
and the Frequency Drift Crisis-4 comments
Business Practices Subcommittee, North American Energy Standards Board

1. *Inadvertent Interchange "Payback", not "Parking Lot". A payback authority is needed to close the parking lot and that authority may partly be Sarbanes-Oxley enforcement of accounting regularity (conceived expressly in remedy of Enron accounting which included economic manipulation of Inadvertent Interchange). A standard for any payback-in-kind requires an agent empowered by the Interconnection to enforce payback. As previously occurred in the Western Interconnection before it adopted auto-time-error-correction, Inadvertent Interchange is accumulating in the accounts of Control Areas on the Eastern Interconnection because NERC has no enforcement power. Now that NERC is on the verge of getting enforcement power, it has handed Inadvertent Interchange Payback to NAESB which doesn't seek enforcement authority. FERC has such enforcement authority and would have to empower an entity chosen by NAESB to act for the Interconnection.*

Without an agent enforcing payback, Inadvertent Interchange Payback is nothing more than an Inadvertent Interchange Parking permit. Inadvertent Interchange accumulation and payback are respectively effect of and contributor to an average-overfrequency drift crisis that has been festering in the Eastern Interconnection for several years. Control Areas are not paid to support ever growing overfrequency, or to correct time error, by taking inadvertent interchange which they are reluctant to pay back because, as frequency creeps ever upward, doing so is ever likely to hurt their control performance while hurting frequency. Paying it back only makes average frequency drift higher and requires taking more inadvertent that has to be paid back only to make frequency higher. Otherwise, Control Areas have been taking less inadvertent, as documented over the last several years, by providing less frequency-control support and this causes average frequency to drift even higher. This is robbing the Peter of good control performance to pay the Paul of economically fair control performance. This crisis is headed to the point of joint collapse of both reliability and commercial standards in the form of Payback and frequency control because they conflict with one another.

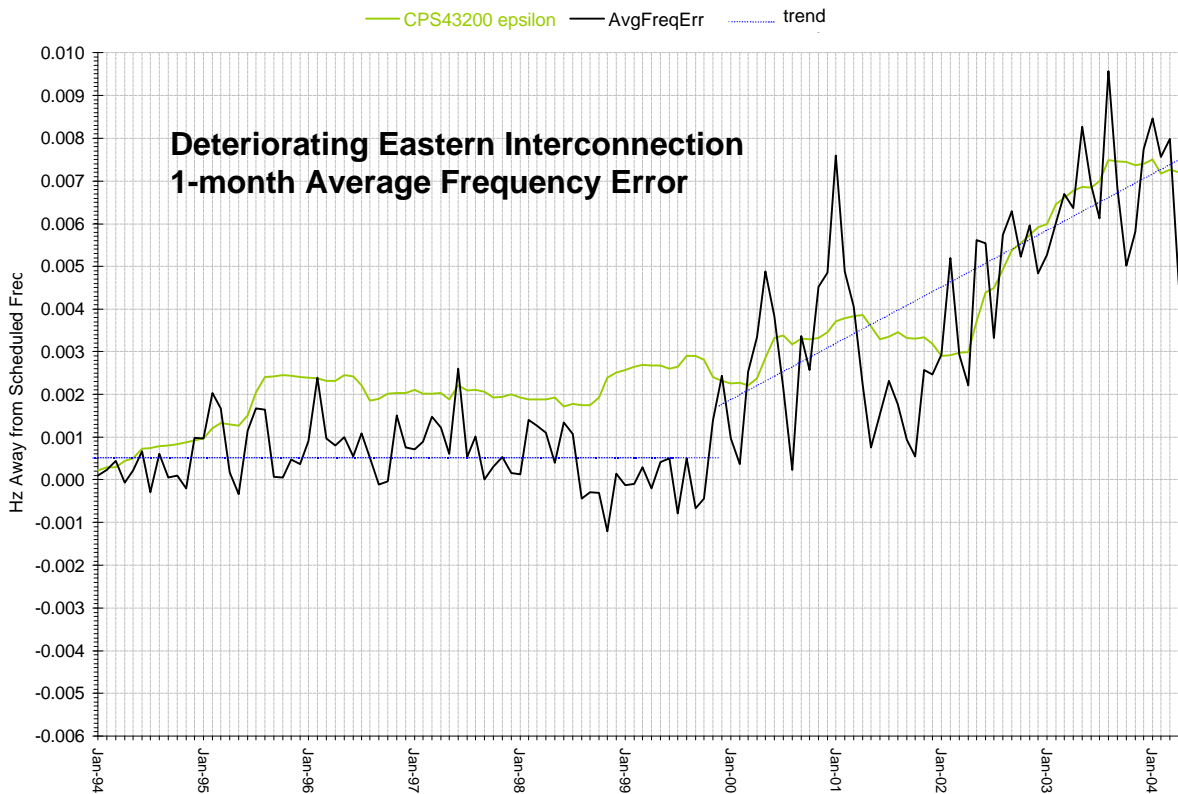
Inadvertent Interchange accumulation may violate Sarbanes-Oxley accounting regularity unless financially valued for cost or price and deducted from profit or cost, and this requirement would remove the apparent convenience payback-in-kind has for being non-financial. More Inadvertent Interchange accounting transparency provides some of the same form of a payback enforcement authority. A payback enforcement authority stops the Inadvertent Interchange from accumulating but does not correct the overfrequency drift which, while exacerbated by payback-in-kind, may be caused (a) by merchants' overgenerating in early morning hours for as little as -\$100 an hour for a few hours to avoid \$20 000-\$30 000 in start up costs and (b) by the asymmetry of payback-in-kind itself which, like energy-only pricing, rewards overfrequency by both rewarding the overgeneration that drives overfrequency and penalizing the overconsumption that counters overfrequency, while it penalizes underfrequency by both penalizing the overconsumption that drives underfrequency and rewarding the overgeneration that counters underfrequency.

2. *Only a Frequency Contribution Adder independent of the energy price or of payback-in-kind resolves the average-frequency-drift crisis. Payment of a Frequency Contribution Adder for Inadvertent Interchange offsets and eliminates much if not all of the Inadvertent Interchange needing to be paid, while charge of a Frequency Contribution Adder discourages the overgeneration starting the drift. Only a Frequency Contribution Adder eliminates the frequency drift.*

3. *Western Interconnection auto time-error correction set to collapse for mathematical inconsistency with NERC control performance accounting, not just because no payback enforcement authority. No payback enforcement authority exists on the Western Interconnection which may not be auditing performance, has voluntary standards without needing FERC enforcement power, and is already expecting enforcement problems due to merchant entities, while the Interconnection has had to negotiate with a member to suspend time-error-correction at times because of mathematical inconsistency with the summability of ACEs under NERC control performance accounting. Such exception and inconsistency, together with no enforcement authority and growing cost of compliance as over frequency drifts because of reduced governor response, will eventually break apart the auto-time-error-correction regime in the Western Interconnection, while FERC approval would have to surmount the mathematical inconsistency.*

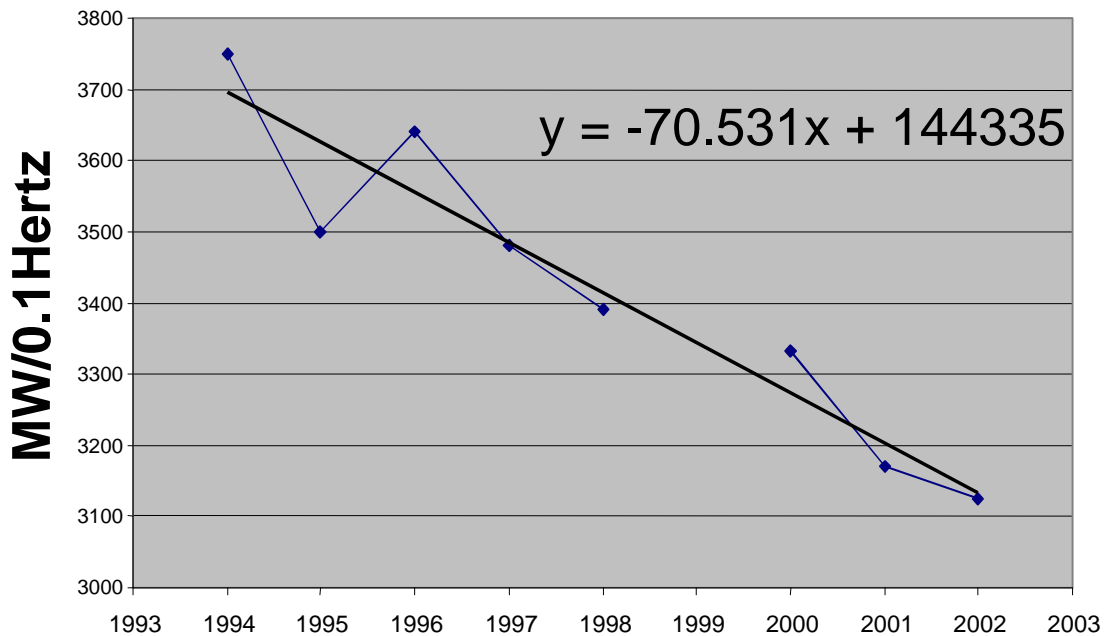
4. *Single-price pricing, or only enforced payback-in-kind, of Inadvertent Interchange will contribute to average frequency-drift crises and gaming of congestion. An Inadvertent Interchange price of 0 when there is overfrequency, and the highest or a superhigh scheduled energy price/cost for Inadvertent Interchange when there is underfrequency, may encourage overgeneration that causes overfrequency while there is currently an average over-frequency drift crisis. This incents Control Areas of price/cost less than half the Inadvertent Interchange price/cost to overgenerate all the time, even if they are not paid more than half the time, when frequency is high especially if they are otherwise congested off from neighbors from providing scheduled power. If high price/cost Control Areas are incented to overconsume even more all the time and pay a lower price on average by paying nothing some of the time, then underfrequency is encouraged. There is no way to fine tune a balance between overconsumption and overproduction with such single-price pricing: it will encourage either overfrequency drift, particularly dangerous during the current overfrequency crisis, or underfrequency drift. Even if there was, it opens a loophole around congestion big enough for a Control Area to drive a Mack truck through and constrain off other Control Areas' scheduled transactions.*

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Source: "Eastern Interconnection Average Frequency Error", NERC Resources Subcommittee
http://www.nerc.com/pub/sys/all_updl/oc/rs/freqerr.txt

Deteriorating Eastern Interconnection Frequency Response



Source: "Frequency Response Whitepaper", April 6, 2004, NERC Resources Subcommittee