# COMMENTS ON THE DICAPRIO MOTION

The DiCaprio motion is not clear enough. It is not a mere "clarification" of the John Power motion as claimed. It contains two new motions not included in the John Power motion, one of which actually contradicts the John Power motion not to include a frequency component. The DiCaprio motion goes on to argue that it's not necessary to develop a complete standard for settling Inadvertent Interchange because the current payback regime has not caused a "systemic" problem, as if to betray and justify the John Power motion for being incomplete. It makes contradictory justifications, on the one hand that Inadvertent Interchange settlement is a purely commercial issue and, on the other hand, that it is a reliability issue under control by the Reliability Authority. The DiCaprio motion boils down to an effort to deploy every conceivable argument to stop the NERC JIITF White Paper from being implemented by NAESB or NERC.

1. The DiCaprio motion contains a new motion to set the bandwidth. It would base a bandwidth setting on the increasingly-questioned old practice of time-error correction

- which NERC's Resources Subcommittee is in the process of determining whether it is an obsolete vestige in an era of direct-current clocks;
- which uses too gross an offset of plus-minus 20 mHz, which the motion proposes to use as a deadband. Howard Illian mathematically demonstrated to NERC's Resources Subcommittee how so large an offset results in worsening frequency performance. As a result the Western Interconnection explicitly adopted Howard Illian's recommendation of much smaller offsetting;
- which is socialistic for making all Control Areas correct for the error caused by a few; in this kind of time error correction a Control Area does not pay back its own Inadvertent;
- which is not used by the Western Interconnection, whose method of auto-time-error-correction as amended by Howard Illian uses no fixed deadband/offset, and was presented to the taskforce by Warren McReynolds three months before DiCaprio participation in the IIPTF.

2. The DiCaprio motion contains a new motion on how to set the energy price. It seeks to "create" local markets for energy rather than use "as-is" existing pricing of scheduled energy.

- It forces Control Areas to create "a spot market for Inadvertent energy" as warned against by Southern Company, by requiring Control Areas to propose a method of "hourly pricing" the energy component of Inadvertent Interchange for approval by FERC which has already "standardized" hourly pricing.
- It does accept the idea of charging/paying an area its own "local" price for energy which is more reasonable than the original rash DiCaprio proposal of charging/paying all areas the single "highest price" on the Interconnection.
- It ignores the simple alternative of having Control Areas outside of spot-markets use as their energy "price" the cost basis used in their Schedule 4 & 5 tariffs.
- It fails to address the over/under-collection that results from paying/charging a different "local" price to each area settling Inadvertent Interchange with another area.

3. The DiCaprio motion supports itself with the claim that the IIPTF was given a "purely commercial" mandate oblivious of reliability, which the motion itself proceeds to violate by proposing later consideration of frequency-impact "adders". The IIPTF was charged with developing a standard for settling Inadvertent Interchange by taking into account the NERC JIITF White Paper's recommendation of reflecting in pricing the reliability impact on frequency and congestion. If the IIPTF declines to address the NERC JIITF recommendation, it should make a motion asking the JIC to amend the charge and release the JIITF from including the impact of Inadvertent Interchange on frequency so that NERC can be free to consider it.

- Contrary to the DiCaprio claim, there's no bright line between pricing and reliability as Mr. DiCaprio's own employer is fond of reminding FERC in the slogan of "reliability-constrained economic-dispatch" that it has relentlessly used to discredit on economic grounds NERC's reliability practice of Transmission Loading Relief (TLR). To achieve compliance, reliability standards use economics in the form of financial penalties subject to FERC-determined "just and reasonable"-ness. Compliance is achieved also by giving rewards for doing the right thing. Therefore, a "price" can be a single means of rewarding good behavior and penalizing bad. Proper pricing of impact on reliability/frequency is therefore a job of compliance enforcement subject to FERC judgement of just and reasonable. Furthermore, regulators' preferred methods of compliance enforcement are those that "self-manage" through pricing, without the explicit intervention of the regulator, NERC in this case, each time a penalty or reward is to be attributed.

- The DiCaprio motion proceeds to contradict itself and the John Power motion by recommending review, after one year of implementation, of the "necessity of including penalty adders" to hourly energy prices--adders which could only reflect the negative impact on frequency! Furthermore, penalty adders are incomplete: penalty adders require reward adders (to affect positive impact on frequency) so that payments clear between those hurting frequency and their counterparties who are helping frequency. The huge costs to the nation's economy of the California market meltdown and the Blackout together demonstrate that the electric industry is not a laboratory to substitute for the development and field-testing of standards in advance of, not after, implementation.

4. The DiCaprio motion does not allow for compensation for providing "reserves", not just "energy", and causes uncompensated reserve to be increased.

- It addresses penalties, never rewards.
- In minimizing the need for Inadvertent Interchange settlement, it claims that entities providing reserves (which it misidentifies with "over" generating when it can also be "under" generating depending on the direction of frequency error) are "making a market-based as well as operational decision" to do so. In fact there is no market "price" paid by the Control Area causing the frequency error (attributed just to "under" generating and not also to "over" generating) compensating the Control Area providing the reserve which is otherwise left no alternative but to try to take the cost out of the hides of its own consumers!
- By confusing provision of reserve with "over" generating the DiCaprio logic muddles energy price with price for reserve which are two different prices as separate and distinct as the (capacity) price for an option contract and the "exercise price" (for energy) in an option contract. Reserve can be "backing down" energy and you are paid to provide that reserve although you are not paid for providing energy.
- By disallowing financial assessment for Inadvertent Interchange within a deadband (meaning no compliance enforcement of payback), and disregarding the impact of Inadvertent Interchange on frequency, it increases frequency volatility causing additional reserves to be needed that are not paid for by those causing the need.

5. The DiCaprio motion's justification has the following shortcomings. It

- mischaracterizes the proposals before the IIPTF in December. There were not three proposals, but two, one of which was the NERC JIITF White Paper. It then attacks this proposal as infringing on NERC's own authority when it is something NERC itself proposed!
- mischaracterizes the role of the Reliability Authority to include ultimate responsibility for Inadvertent accumulation and preventing ACE and frequency from drifting toward operating limits. The Reliability Authority's oversight does not include Inadvertent Interchange accumulation and does include preventing frequency from drifting toward extreme "safety" limits (against tripping protection relays), but not from drifting toward operating limits (consisting of a proposed Inadvertent settlement deadband or the Control Performance Standard).
- discusses metering issues already being addressed by NERC. It would have FERC interfere with NERC by imposing requirements for metering on Control Areas when properly pricing Inadvertent Interchange automatically gives Control Areas ample economic motivation to improve the quality of their metering to understand the transactions that are being paid for.
- dangerously (in my opinion) "discriminates" and compares credentials by suggesting that the opinions of "active participants" in markets and operations are different and "more reasoned" when I reckon he himself does not fall into that category in his staff job, and such people are a tiny subset of the "stakeholders" and experts in this industry that FERC, NERC, and NAESB tirelessly seek to enfranchise into policy-making. Indeed every end-consumer is a participant in the markets supplying the electricity while the smaller the set of elite "experts" market operations, policy decisions, and standards development are confined to, the worse they generally are. Moreover, the DiCaprio justification alleges that the NERC JIITF proposal, that it credits DiCaprio intervention for preventing the IIPTF from adopting in December, comes "from people not active in actual markets and actual operations" in contradiction to the NERC JIITF membership roster. The DiCaprio discrimination also dismisses Howard Illian's 30 years of operations experience and my own experience at the two most popular internet electricity trading platforms, at NERC operations subcommittees and taskforces for the past several years, as a professionally trained mathematical economist and applied statistician with a long list of articles and citations on the subject of electricity pricing all in top publications that cite only "experts", and as a participant in capital markets for over two decades. The DiCaprio discrimination does not even credit the "less-qualified" Howard and me for prompting great change to the initial DiCaprio proposal of December, namely abandonment of its following four originally proposed items (a) no payback whatsoever of inadvertent inside a deadband, (b) charging everyone the single highest price for energy on the Interconnection, (c) charging the negative of that energy price when over-frequency is outside a deadband, (d) rejecting any frequency adder whatsoever. The IIPTF cannot afford to discourage the contribution of participants' resources by comparisons of credentials.