

## Select Energy Proposal on Controllable Lines Relative to TCC Awards - DRAFT

The following is a proposal by Select Energy related to the LECG presentation made at the MSWG on 2-12-02.

First, we thank Scott Harvey for a fairly comprehensive presentation of the issues. This serves as a good starting point.

Select's position, detailed below, is applicable to both external as well as internal controlled lines. However, there are some considerations of the internals such that we will deal with them separately and likely later.

### External Controllable Lines

Before we have an RTO (of whatever scope), along with some simultaneous, combined market solution we have a situation of separately considered markets with prices determined in isolation of each other. After an RTO is formed there is no reason why the proposed approach cannot be continued.

This situation begs a remedy for controllable lines that treats them as load/generation pairs without any award of TCCs nor explicit increase of ATC. To a degree this proposal was contained in the comments on LECG's 1<sup>st</sup> presentation that was circulated last year. This position is based on the three items that LECG put in its current presentation:

- (1) Lack of any of these lines being a binding constraint,
- (2) Lack of any of these projects providing any recognized post-contingency benefits and
- (3) No scheduling by the ISO.

There may be Tariff issues however it is murky as to whether a load/gen pair model would violate the tariff as to the requirements to bid in at the Proxy Bus. TSC charges for selling out would have to be made specific to the location of exit rather than on a flow weighted basis. ISO staff comment here would be helpful.

The salient benefits for this are:

- The ISO does not have to account for its view of prices in another control area – there is no need of separate proxy prices for each controlled line.
- The ISO does not have to make a determination of flow in order to award TCCs (see additional comments on this below).
- The Participant with “rights” on such a facility will then be able to directly capture price differences between the involved markets with their bidding strategy that they use in the adjacent Control Areas. The

## Select Energy Proposal on Controllable Lines Relative to TCC Awards - DRAFT

actual schedule would be the lesser of the load or generation that was scheduled in the respective ISOs. The bidder would have to make appropriate hedges against schedules that did not match or would have to true up in real time. See the example at the end.

Some additional comments are important:

- The ISOs involved would need to model this as a load or generator available at both ends of the line (since it can flow, in theory, in either direction). This is necessary in any case to allow for appropriate system security modeling.
- In the sample models used by LECG (with the small impedance insertions, as an artifice to force a solution) and in the case where one would see post-contingency flow benefits, there is the issue of how the ISO models controlled lines. All PARs are currently modeled as open circuits in all scheduling horizons. What this means, most importantly for SCD, is that there is no recognition of any benefit that would accrue to post-contingency flow changes. Without such recognition in SCD (and in BME and SCUC) no TCC award should be considered as all three ISO scheduling programs are making generation scheduling changes that in turn affect prices without recognizing these other flows. To award TCCs in these circumstances is to give value for something not otherwise recognized in the pricing.

There is the issue of what is the expectation on those who operate controlled lines especially PARs. If PAR taps are not moved, there will in fact be flow changes post-contingency. If we are to continue non-recognition of this fact, then the operators need to take taps to maintain schedule, if at all possible. We need the ISO to comment on this point.

HVDC should be immune to this issue as an action would need to be taken to, in fact, get a flow change to occur. Also, while we can, for purposes of calculating controlled line benefits and related TCC awards, insert low impedance values for a controlled line, HVDC lines inherently look like an open circuit to the AC system and therefore result in asynchronous operation.

- There is also no explicit increase in transfer capability between the involved control areas. This is consistent with separating controlled lines from their AC brethren. Certainly transfers can be made over these controlled lines, thus effectively capturing increased transfer

## Select Energy Proposal on Controllable Lines Relative to TCC Awards - DRAFT

capability, but not as part of some multi-circuit interface.

### Business Concerns

There are issues other than the models and how we go about setting this up. At the least, parties that wish to schedule over merchant facilities in the proposed manner need to be cognizant of the other costs involved in such deals. These would include transmission service costs and any uplift charges and the fact that for at least some number of months, NE will not have a financially binding DA market to use as a hedging mechanism.

As an example, if we assumed for the moment that exports over the HVDC from NY were to be scheduled per normal NYISO procedures this would include making a dec bid at the NE PGB with the sink in Zone K. Presumably, one would pay ISONE out-service costs as well. Total costs would be something over \$3 plus energy on the NE side. (Note this is applicable until NE fires up their SMD – then congestion enters) The approach we are proposing would see a load extraction in southern CT paying for transmission service and relevant uplifts.

Parties to transactions over controlled lines would need to carefully examine exactly what their cost exposures are. In any case, that doesn't mean the proposed approach is not correct, it more likely means that we have institutionalized approaches that are not flexible enough.

### Internal Controlled Lines

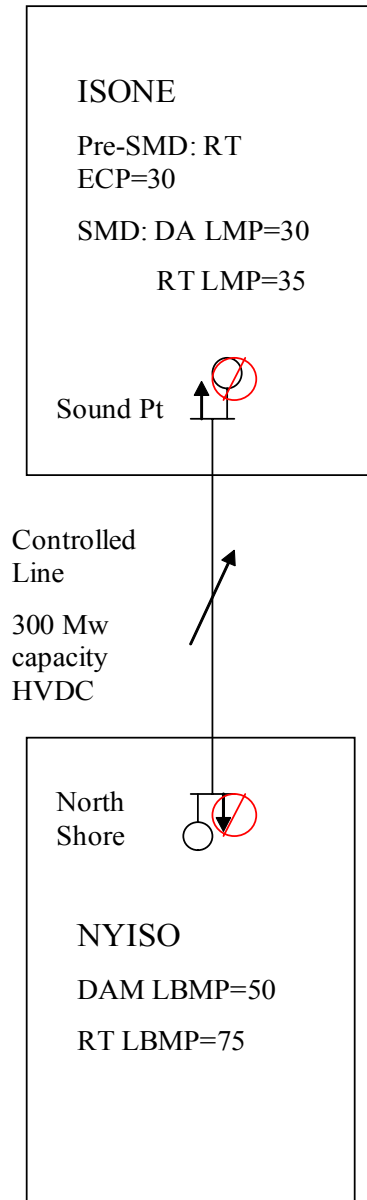
The situation is different for internal controlled circuits. There is a price determination for BOTH ends of these circuits performed by one ISO.

Roughly the same benefits accrue to this proposal as for the Externals except for the first item above regarding the need for proxy bus prices as such need would simply not exist.

Dealing with Internal circuits also raises issue of grandfathering, TCCs already sold etc. that would have to be reviewed before adopting the load/gen pair model for such lines. Having recognized that, each PAR (as yet, there are no internal HVDC lines) would need to be considered for its impact on reliability – this is particularly true in the NYC area. We would need to consider how to bid such lines to get the correct secure outcome – but simply allowing SCUC (or BME) to have coordinated load and gen bids should leave us with an optimal solution. In this case fixed load would be bid and zero bid generation.

# Select Energy Proposal on Controllable Lines Relative to TCC Awards - DRAFT

## Controlled Line: Load/Gen Pair Model



In this example, Participants with rights to schedule on the controlled line bid as follows to flow power from NE to NY:

Since they want to supply ICAP to NY, they bid into NY's DAM as a supplier at North Shore. Since they expect a fairly large price difference they zero bid and get accepted by NYISO for 300 Mws in the DAM at 50.

In NE, pre-SMD the bidder cannot hedge price via the ISO as there is no financial market provided by ISO-NE but can hedge via 3<sup>rd</sup> party supply or by bilateral arrangement and self-schedules. If they simply covered their NY position by scheduling load in NE equal to their NY DA supply schedule they would pay the RT ECP of 30 (however, if it turned out to be much higher this would be risky)

With SMD, the bidder could supply by load bids (at Sound Pt) to ISO-NE and create binding DA positions.

Since NY's DAM posts before NE's DAM would close, matching the Mw schedule would be easy.

Of course, the bidder could engage in SNTs out of NE or put in counter-flow transactions (as price takers) etc. If their load position becomes long in NE they sell it back at RT prices and the same can happen in NY with their supply position.