

# **Congestion Reduction Proposal**

## **Motion Before Management Committee on 01/10/2002**

### ***Background***

This proposal has been in discussion and development within the BIC, MSWG and/or the Congestion Reduction Task Force with NYISO Staff input and concurrence since April 2001. It was approved by BIC on 11/15/2001. The overall aim of this proposal was to reallocate Congestion Rent Shortfall cost sharing among TOs to:

- 1) Provide stronger incentives for TOs to reduce congestion caused by transmission outages.
- 2) Focus outage congestion cost responsibility more closely on the TO capable of affecting the outage.
- 3) Correct inequities in existing market rules that misdirect penalties and weaken incentives for TOs to reduce congestion caused by outages.

It is not directed towards changing: (a) Rate Schedule 1; (b) the rights associated with grandfathered and auctioned TCCs; or (c) full funding of TCCs.

### ***Motion***

Resolved, that the Management Committee:

- 1) Approve the Congestion Reduction Proposal attached below (dated 10/19/2001) as approved by the BIC on 11/15/2001.
- 2) Direct the NYISO Staff to work with the Market Structure Working Group to develop Tariff language to be filed with the FERC with sufficient lead-time to allow a ruling and implementation of the proposal prior to the Spring 2002 TCC Auction or as soon thereafter as possible.

# **Approved by BIC on November 15, 2001**

## **Overview**

### **Proposed Market Rule Changes Pertaining to Congestion Reduction**

- Developed in 3 meetings of the Congestion Reduction Task Force; proposal recommended by MSWG on 10/23 for action by BIC.
- Reallocate Congestion Rent Shortfall cost sharing among TOs
- No changes made to Schedule 1 Uplift
- Applies to “significant transmission facility outages” (i.e., those resulting in Congestion Rent Shortfall of \$250 K or more)
- Uses “Outage TCCs” and “Counter-Flow TCCs”
  - Counter-Flow TCC – TO pays for Congestion Rent Shortfall caused by its outage
  - Outage TCC – reserved for TO from TCC Auction Residual Revenue (if revenue exists) to provide incentive to reduce congestion and offset risk of Counter-Flow TCC if the TO forecasts it before the TCC Auction
  - Mechanisms similar to Counter-Flow TCC and Outage TCC already exist but since they are dispersed among TOs, they are less (or even not) effective in providing incentives to reduce congestion
- Intent of Market Rule Changes
  - Focus cost responsibility more closely on the TO capable of affecting a significant transmission facility outage’s impact on congestion (thereby providing a fairer more effective incentive to reduce congestion when economical)
  - Continue to provide some offset against the associated risk.

## Summary of Proposed Congestion Reduction Market Rules

(For details on proposed market rules, see pages 2 – 8. For existing market rules, see pages 9 – 13.)

#	Item	Summary Description
1	<b>Scope and Objective</b>	Concentrating on “significant transmission facility outages”, improve the existing congestion penalty/reward structure to provide a more effective incentive to TOs to reduce congestion when economical.
2	<b>Proposal Overview</b>	Reallocate Congestion Rent Shortfall cost sharing among TOs using “Outage TCCs” and “Counter-Flow TCCs” to focus cost responsibility more closely on the TO capable of affecting a significant transmission facility outage’s impact on congestion, while also continuing to provide some offset against associated risk.
3	<b>Definitions</b>	<p><b>Significant Transmission Facility Outage</b> - Any full or partial outage (deration) that is forecast to have and/or actually has an impact on Congestion Rent Shortfall during a six month TCC auction period of \$250,000 or greater.</p> <p><b>Forecast Outage</b> – planned transmission facility outage submitted to the NYISO as a total duration prior to the affected TCC Auction period.</p> <p><b>Scheduled Outage</b> – planned transmission facility outage submitted to the NYISO for specific dates for use in SCUC and determination of Day-Ahead Congestion Rents.</p>
4	<b>Forecast of Significant Outages</b>	TO can submit forecast of significant transmission facility outage (with sufficient lead time) prior to the TCC auction. The outage would be submitted as a duration in full day increments (specific dates are not needed at that time) for that upcoming TCC auction period (nominally 6 months). The Congestion Rent Shortfall expected to result, and a justification for the outage would also need to be submitted with the forecast.
5	<b>Verification of Significant Outage Forecast</b>	The validity of a forecast outage may be subject to review by SOAS and approval by the Operating Committee. If the Operating Committee does not concur, the TO will not be eligible for an Outage TCC, but also will not be subject to a Counter-Flow TCC for the forecast level of Congestion Rent Shortfall.
6	<b>Creation of Outage TCCs</b>	If a TO forecasts a “verified” significant transmission facility outage, an “ <b>Outage TCC</b> ” would be created so a portion of TCC Auction Residual Revenue (presuming this revenue exists for the affected interface(s)) would be <i>reserved</i> for that TO. Based upon actual performance and actual congestion experienced, the TO could receive up to 100% of the revenue from the sale of that Outage TCC.
7	<b>Assignment of Counter-Flow TCCs</b>	When a TO schedules an actual significant transmission facility outage, it will be assigned a Counter-Flow TCC during that outage (in full day increments but not necessarily continuous days). The “counter-flow” would represent a TCC opposite to the prevailing direction of TCCs sold in the auction. Counter-Flow TCCs will be allocated to a TO for <b>all</b> significant outages (with the exception as noted in Item 5 above) regardless of whether or not the outages were submitted as a forecast prior to the TCC Auction (and regardless of whether or not the TO was assigned an Outage TCC for the outage).
8	<b>Outage TCC Revenue Allocation</b>	Outage TCC revenue will be allocated to a TO such that it receives a <b>minimum</b> of 25% of the allocated Outage TCC Auction revenue, <b>plus the lower of:</b> (a) 75% of the allocated Outage TCC Auction revenue, <b>or</b> (b) net positive Congestion Rent Shortfall incurred by the Counter-Flow TCC associated with that outage (a negative Congestion Rent Shortfall would count as zero for the purposes of allocating Outage TCC revenue). Unused Outage TCC revenue would be allocated back to TOs on the same basis that TCC Auction Residual Revenue was originally allocated.
9	<b>Other Congestion Rent Shortfall</b>	For significant transmission facility outages, the existing Congestion Rent Shortfall Cost allocation would be eliminated and superceded by the above changes. Other Shortfall charges from “non-significant “ outages or other causes would be allocated to TOs using the same method currently used to allocate Congestion Rent Shortfalls.
10	<b>Schedule Changes</b>	Changes to outage schedules can be made prior to the affected SCUC run in accordance with all other applicable NYISO rules and procedures.
11	<b>Potential Market Abuse</b>	Besides the verification measures alluded to in Item 5 above, additional measures employed by the MMU may be needed to address the concern that a TO may over-forecast outages intentionally in a way to maximize revenue.

# Strawman Proposal for Market Rules Pertaining to Congestion Reduction Incentives, Disincentives and Performance Penalties (Approved by BIC 11/15/2001)

- 1) **Scope and Objective** – Generally concentrating on “significant transmission facility outages” (as defined below), the objective of this proposal is to improve the existing congestion penalty/reward structure to provide a more effective incentive to TOs to reduce congestion when economical with the stipulations so that: (a) incremental costs associated with additional congestion reduction are more closely allocated to those that benefit and those responsible for cost causations; and (b) performance penalties are fairly balanced against any incentives.
- 2) **Proposal Overview** – These rule changes propose to reallocate Congestion Rent Shortfall cost sharing among TOs using “Outage TCCs” and “Counter-Flow TCCs” for significant transmission facility outages. The specific intent of these changes is to: (a) focus cost responsibility more closely on the TO capable of affecting a significant transmission facility outage’s impact on congestion (thereby providing a more effective incentive to reduce congestion when economical); and (b) continue to provide some offset against the associated risk.

## 3) Definitions

- a) **Significant Transmission Facility Outage** – A transmission facility outage (including a deration which is essentially a partial outage) that is forecast to have and/or actually has a “significant” impact on Congestion Rent Shortfall. The definition of “significant” impact could be subsequently adjusted, but initially would be any full or partial outage forecast to have or actually have an impact on Congestion Rent Shortfall during a six month TCC auction period of **\$250,000** or greater.

**Example:** Assume an outage of Line #101 that is forecast to last 10 days will reduce the capability on Interface X-Y by 500 MW during a time when congestion from X to Y is forecast to average \$3/MWh. This would increase Congestion Rent Shortfall by \$360,000 = (10 days x 24 hrs/day x 500 MW x \$3/MWh). Since this outage exceeds the \$250,000 minimum impact, it would be classified as a *significant transmission facility outage*.

**Comment:** *Theoretically all transmission outages should be included in this proposal. The \$250,000 threshold is an attempt to capture most of the Congestion Rent Shortfall caused by transmission outages without creating an unreasonable increase in the administrative/technical burden that would otherwise be needed to accommodate all outages.*

- b) **Forecast Outage** – A planned transmission facility outage that is submitted to

the NYISO as a total duration prior to the affected TCC Auction period

- c) **Scheduled Outage** – A planned transmission facility outage that is submitted to the NYISO for specific dates for use in SCUC and determination of Day-Ahead Congestion Rents.
- 4) **Forecast of Significant Outages** – A TO that anticipates a significant transmission facility outage on a facility that it is responsible for operating and maintaining can submit a forecast of that planned outage to the NYISO. The forecast would be due with sufficient lead time prior to the TCC auction, and would be submitted as a duration in full day increments for that upcoming TCC auction period (nominally 6 months). The total outage would not necessarily need to be continuous nor would the dates need to be scheduled specifically then. Only the expected total *duration* for the outage over the TCC auction period, the estimated Congestion Rent Shortfall expected to result, and a justification for the outage would need to be submitted at that time.

**Example:** For the upcoming Summer Capability Period, the TO that operates and maintains Line #101 forecasts that line will be out-of-service for 42 days, and will incur an estimated \$550,000 in Congestion Rent Shortfall; it therefore is forecast as a “significant transmission facility outage”.

- 5) **Verification of Significant Outage Forecast** – At the time a forecast for a Significant Transmission Facility Outage is submitted, it will be posted on the NYISO web-site along with backup documentation from the TO to support:
  - a) The need for the work
  - b) The need for the outage
  - c) The need for the duration of the outage
  - d) The expected level of Congestion Rent Shortfall (based upon the expected duration of the outage).

Prior to the start of the applicable TCC Auction period, a Market Participant may challenge the validity of a forecast outage. In this case, the System Operating Advisory Subcommittee (SOAS) will review the proposed outage and offer recommendations to the Operating Committee with respect to Items a, b and c above and their adherence to good utility practice. Likewise, the NYISO Staff will provide its recommendation to the Operating Committee regarding the reasonableness of Item d above. In the course of this review and discussion, the TO will have an opportunity to revise its forecast.

If the Operating Committee concurs with the validity of the forecast (or if no challenge is made to the forecast), the TO will be eligible for an Outage TCC and subject to a counter-flow TCC (as both described below).

If the Operating Committee does not concur, the TO will not be eligible for an Outage TCC, but also will not be subject to a Counter-Flow TCC for the forecast level of Congestion Rent Shortfall. Under these circumstances, if the TO ultimately takes the forecast outage, that outage will be treated as a “non-significant” outage to the extent that the actual resulting Congestion Rent Shortfall is less than the forecast level (i.e., Congestion Rent Shortfall costs will be allocated in accordance with Item 9 below). It will, however, be subject to a Counter-Flow TCC for actual Congestion Rent Shortfall associated with that outage that exceeds the forecast amount.

- 6) **Creation of Outage TCCs** – An “Outage TCC” is a mechanism used to provide: (a) an incentive for a TO to reduce or avoid congestion that could result from a planned outage; and (b) some offset against a TO’s risk of incurring Congestion Rent Shortfall resulting from that planned outage.

***Comment:*** *A mechanism similar to an Outage TCC already exists under current market rules to somewhat offset the risk of Congestion Rent Shortfall resulting from a planned outage. However (as explained further in Item 3 below under Existing Market Rules), it is more dispersed and therefore less effective in offsetting the risk.*

An Outage TCC is intended to focus more closely on the TO that is capable of affecting the outage’s impact on congestion. Thus, if a TO forecasts a “verified” significant outage on its transmission facility, an “**Outage TCC**” would be created such that a portion of TCC Auction Residual Revenue would be **reserved** for that TO. Based upon actual performance and actual congestion experienced, the TO could receive up to 100% of the revenue from the sale of that Outage TCC. No decrease in grandfathered TCCs or transmission rights would take place. Also, in contrast to the existing rules pertaining to forecast significant outages, no derates would be made to the capability available in the TCC auction.

The Outage TCC would be modeled bus-to-bus from the Point-of-Injection to the Point-of-Withdrawal using the electrically closest appropriate Generator buses. The direction of the outage TCC would be the same as the prevailing flow of TCCs sold in the auction. The amount of the Outage TCC (as necessary to maintain simultaneous feasibility with the outage modeled) would be determined in one of several ways:

- a) **Direct Interface Impact** – For cases in which a significant transmission facility outage is forecast that has a direct impact on an interface’s rating, an Outage TCC would be created such that the TO would receive *up to* 100% of TCC Auction Residual Revenue in an amount equal to the interfaces’s capability decrease (on a levelized basis) determined for the outage. In some instances, this may involve TCCs on more than one interface. Any remaining TCC Auction Residual Revenue would be allocated as usual.

**Example:** Assume that an outage of Line #101 results in a capability decrease of 300 MW on Interface X-Y. If a TO forecasts the Line #101 to be out for 6 weeks, the TO would receive *up to* 100% of TCC Auction Residual Revenue associated with a 69 MW “Outage TCC” from X to Y. The 69 MW is 300 MW levelized over 6 months:  $69 \text{ MW} = (6 \text{ weeks}/26 \text{ weeks}) \times 300 \text{ MW}$ .

- b) **Indirect or Less Obvious Interface Impact** – For cases in which a forecast outage of a transmission facility has an indirect or less obvious impact on a specific interface’s rating (i.e., the impact of the outage varies based upon the actual TCCs being bid in the TCC Auction), an Outage TCC would be created such that the TO would receive *up to* 100% of TCC Auction Residual Revenue in an amount equal to the interfaces’s capability decrease as determined in the TCC auction using the levelized decrease in the facility’s capability. As above, this may involve TCCs on more than one interface; and any remaining TCC Auction Residual Revenue would be allocated as usual.

**Example:** Assume that the outage of Line #101 – with a thermal rating of 100 MW – does not have a direct or obvious impact on the capability of an interface. If a TO forecasts the Line #101 to be out for 6 weeks, the rating of Line #101 will be reduced by a levelized amount of 23 MW =  $(6 \text{ weeks}/26 \text{ weeks}) \times 100 \text{ MW}$  for the OPF model used in the 6 month TCC Auction. This, in turn, will be used to determine how the outage would affect an interface’s capability based upon the actual TCCs bid in the TCC Auction.

Further assume that the outage of Line #101 (with a levelized rating reduction of 23 MW) results in a capability decrease on Interface X-Y of 50 MW based upon the specific TCC auction held. In this case, the TO would receive *up to* 100% of TCC Auction Residual Revenue associated with a 50 MW “Outage TCC” from X to Y.

- c) **Insufficient TCC Auction Residual Revenue Available** – For cases in which an interface is heavily subscribed with existing transmission commitments, insufficient or even zero TCC Auction Residual Revenue may be generated by that interface. Under these circumstances, an Outage TCC associated with a significant outage would be created using the methods of Items 6a or 6b above, but proportionately reduced to account for the insufficient TCC Auction Residual Revenue. In the extreme case in which no TCC Auction Residual Revenue is generated by that interface, no Outage TCC would be created.

- 7) **Assignment of Counter-Flow TCCs** – When a TO actually schedules a significant transmission facility outage, it will be assigned a Counter-Flow TCC during that outage (in full day increments but not necessarily continuous days). The “counter-flow” would represent a TCC opposite to the prevailing direction of TCCs sold in the auction as necessary to maintain simultaneous feasibility with the outage modeled.

Counter-Flow TCCs will be allocated to a TO for **all** significant transmission facility outages (with the exception as noted in Item 5 above) regardless of whether or not the outages were submitted as a forecast prior to the TCC Auction (and regardless of whether or not the TO was assigned an Outage TCC for the outage). The amount for the Counter-Flow TCC would be calculated in the same way as for Outage TCCs (Items 6a or 6b above), with the exception that the amounts **would not be levelized** (i.e., the full capability decrease would be used for each day of the scheduled outage).

**Example:** Assume a TO plans a six week outage on Line #101 which will reduce the capability of Interface X-Y by 300 MW. It submits a six-week planned outage on Line #101 from March 1 through March 14 and from April 1 through April 28. If prevailing flows on the Interface were from X to Y, the TO would receive a 300 MW TCC from Y to X during the period of the scheduled outage. Then, the outage would be modeled in SCUC as scheduled, and anytime during that period that Day-Ahead congestion occurred from X to Y, the TO would be charged for 300 MW of Congestion Rent.

**Comment:** *The assigned Counter-Flow TCC would provide an incentive to: (a) minimize total outage time on a scheduled outage, and/or (b) schedule outages during times of zero or very low anticipated congestion. Either would help reduce overall congestion. Alternately, the Counter-Flow TCC would provide a disincentive to: (a) extend outage times, and/or (b) schedule outages during times of high anticipated congestion.*

**Comment:** *A mechanism similar to a Counter-Flow TCC already exists under current market rules to allocate Congestion Rent Shortfall costs. However (as explained further in Item 2 below under Existing Market Rules), it is more dispersed and therefore less effective in providing an incentive to a specific TO to reduce congestion resulting from a planned outage.*

- 8) **Outage TCC Revenue Allocation** – Outage TCC revenue will be allocated to a TO such that it receives a **minimum** of 25% of the allocated Outage TCC Auction revenue, **plus the lower of:** (a) 75% of the allocated Outage TCC Auction revenue, **or** (b) net positive Congestion Rent incurred by the Counter-Flow TCC associated with that outage (i.e., a net negative Congestion Rent incurred by a Counter-Flow TCC would be set to zero for the purposes of allocating Outage TCC Revenue). Unused Outage TCC revenue would be allocated back to TOs on the same basis that TCC Auction Residual Revenue was originally allocated.



The minimum payment stated above could be subsequently adjusted, but initially would be set at 25%. The 75% component above is intended to vary with the minimum payment so that the sum of the two would equal 100% (e.g., 100% - 25% = 75%).

**Comment:** *If the minimum payment above were to be set at 0%, the TO would be less prone to expend extra resources once it was assured that the Congestion Rent from its Counter-Flow TCC was less than its forecast Congestion Rent Shortfall associated with that outage.*

*On the other hand, if the minimum payment were to be set equal to 100% (i.e., it receives its full forecast Congestion Rent Shortfall even if no actual congestion occurs), the TO would have less disincentive to submit a forecast outage for which little or no actual congestion results in comparison with the forecast.*

*Therefore, the Outage TCC combined with a Counter-Flow TCC is an attempt to balance: (a) the need to provide some incentive to reduce actual congestion compared to scheduled congestion; and (b) the need not to provide excessive incentive to over-schedule an outage compared to the actual outage.*

Based on a TO's outage forecast and actual congestion reduction performance associated with a significant transmission facility outage, the TO's net revenue could increase, stay the same or decrease as follows:

- a) **Net Revenue Gain** – Due to an more effective job in reducing congestion that otherwise would have been caused by an outage, the TO could gain net revenue because the additional revenue allocated from the Outage TCC exceeds the Congestion Rent charge from the outage's Counter-Flow TCC.
- b) **Net Revenue Break-Even** – Due to a meager yet relatively adequate job of congestion reduction during a planned outage, a TO could break-even in net revenue because the Congestion Rent charge from the outage's Counter-Flow TCC exactly equals 100% of the Outage TCC Auction revenue allocated for the forecast outage.
- c) **Net Revenue Loss** – Due to an ineffective job in reducing congestion during a planned outage, the TO could lose net revenue because the Congestion Rent charge from the outage's Counter-Flow TCC exceeds 100% of the Outage TCC Auction revenue allocated for the forecast outage. This could also occur if a TO under-forecasts or simply does not forecast a significant transmission facility outage prior to the TCC Auction, but then actually incurs the outage.

**Example:** As set forth in the table below, assume a TO forecasts a significant transmission facility outage lasting 6 weeks resulting in a capability decrease on

Interface X-Y of 300 MW (which equals 69 MW levelized over a 6 month TCC Auction period) in Cases a, b, and c below, but does not forecast the outage in Case c'.

Further assume that the forecast outage generates a 69 MW Outage TCC for Cases a, b and c such that the TO is "eligible" to receive up to \$900,000 (i.e., from \$225,000 = 25% x \$900,000 up to the full \$900,000) in TCC Auction revenue from that Outage TCC.

Lastly assume that the TO actually schedules outages in Cases a, b, c and c' thereby receiving Counter-Flow TCCs such that Congestion Rent Shortfall associated with the outages is \$100,000, \$900,000, \$1,200,000, and \$1,200,000 respectively. The resulting net revenue would be as follows:

<b>Example: Congestion Reduction Impact on TO Net Revenue</b>				
Case and Outcome	Maximum Outage TCC Revenue Available	Counter-Flow TCC Congestion Rent	Actual Outage TCC Revenue Allocated	Net Change in Revenue
<b>Case a.</b> Net Revenue Gain	\$900 K	\$100 K	\$325 K*	+\$225 K
<b>Case b.</b> Net Revenue Break-Even	\$900 K	\$900 K	\$900 K	\$0
<b>Case c.</b> Net Revenue Loss	\$900 K	\$1,200 K	\$900 K	-\$300 K
<b>Case c'.</b> Net Revenue Loss (No Outage TCC)	None	\$1,200 K	\$0	-\$1,200 K

\* Note: Case a. has unused Outage TCC revenue of \$575 K = (\$900 K - \$325 K) which would be allocated back to TOs on the same basis that TCC Auction Residual Revenue was originally allocated.

***Comment:*** *The possible payout from an Outage TCC helps to counteract the potential downside of a Counter-Flow TCC without impinging on the incentive to reduce congestion. Thus, the combination of an Outage TCC with a Counter-Flow TCC provides some measure of revenue neutrality compared to the existing market rules (which mute the downside somewhat).*

***Comment:*** *The proposed market rules focus responsibility for any significant outage more closely on the TO that schedules the outage and has some control over that outage. As alluded to above, the Outage TCC helps to offset the risk*

*associated with the tighter responsibility resulting from the assigned Counter-Flow TCC; and therefore buffers the downside somewhat also. It encourages a TO to plan and forecast outages on a longer term basis, and offers some revenue protection for TOs that need to schedule significant outages (i.e., it provides less incentive for a TO to avoid needed outages).*

- 9) **Other Congestion Rent Shortfall** – For significant transmission facility outages, the existing Congestion Rent Shortfall Cost allocation method would be eliminated and superceded by the above changes. Other Congestion Rent Shortfall charges that originate from “non-significant “ outages or from other causes would be allocated to TOs using the same method as is currently used to allocate Congestion Rent Shortfalls (TCC Auction Residual Revenues used in the calculation will be those that are computed as if no significant transmission facility outages took place).
- 10) **Schedule Changes** – Changes to significant outage schedules can be made prior to an SCUC run in accordance with all other applicable NYISO rules and procedures.
- 11) **Potential Market Abuse** – Besides the verification measures identified in Item 5 above, additional measures may be needed to address the concern that a TO may over-forecast outages intentionally in a way to maximize revenue.

# Existing Market Rules Pertaining to Congestion Reduction Incentives, Disincentives and Performance Penalties

- 1) **Congestion Rent Shortfall** – TCCs across an interface can be sold up to a feasible “all-lines-in” level. The TCCs provide the right to collect Day-Ahead Congestion Rents. With “all-lines-in”, these rents are funded by Transmission Usage Charges (TUCs) paid by Transmission Customers. However, if a transmission facility outage reduces the capability of the interface, the amount available from TUCs may not be sufficient to cover the Congestion Rents due TCC holders. This difference results in a Congestion Rent Shortfall that is made up by an assessment to TOs so that the TCCs are “fully funded”.
- 2) **Existing Congestion Rent Shortfall Cost Allocation** – A Congestion Rent Shortfall that results from the outage of any transmission facility operated and maintained by an individual TO is allocated to **all** TOs based upon each of their individual shares of TCC Auction Residual Revenue.

The TCC Auction Residual Revenue allocated to each TO is not proportional to each TO’s total ownership of transmission facilities and/or their expected contribution to overall Congestion Rent Shortfall. The allocated share specifically excludes any TO TCC auction revenue from the sale of ETCNL (Existing Transmission Commitments as of 1/97 for Native Load Customers of TOs) TCCs and grandfathered Residual TCCs. It also excludes grandfathered transmission rights (TSAs) and grandfathered TCCs held by other Market Participants that were previously sold by TOs.

Therefore, existing market rules allocate the costs for Congestion Rent Shortfall using a method that is not commensurate with cost causation).

***Comment:*** *The existing method for distribution of Congestion Rent Shortfall costs weakens incentives for TOs to reduce congestion because:*

- a) *It spreads responsibility for the outage of a specific facility owned and operated by one TO among all TOs that receive TCC Auction Residual Revenue (although this serves to diversify risk, it also serves to diminish the incentive to reduce congestion for the TO directly responsible for operation)*
- b) *TOs that operate and maintain facilities on an interface receiving a relatively small proportion of TCC Auction Residual Revenue are allocated a proportionately smaller portion of Excess Congestion Rent Deficiency costs, and therefore have less incentive to reduce congestion.*

*Consequently, the existing Congestion Rent Shortfall cost allocation market rules present two problems: (a) a TO that owns and operates transmission facilities on*

*a certain interface may have little or no incentive to improve availability on that interface; and (b) a TO that neither owns nor operates facilities on that interface may be allocated a large share of Congestion Rent Shortfall costs associated with outages impacting that interface.*

3) **Existing Allowances for Significant Outages** – For purposes of TCC auctions and for Congestion Rent Shortfall computations, some allowance is currently made (albeit somewhat coarse) for significant outages as follows:

a) A 3 month, 1 day or longer forecast outage is modeled as a 6month outage in the TCC auction, thereby decreasing the amount of TCCs offered in the TCC Auction. This results in reduced TCC Auction Residual Revenue for the TO that scheduled the outage, and it also reduces exposure to TOs for Congestion Rent Shortfall charges when the line is out. And it increases expected Congestion Rent Surplus payments to other TOs when the line is not out even though it was modeled as being out of service for the full six months.

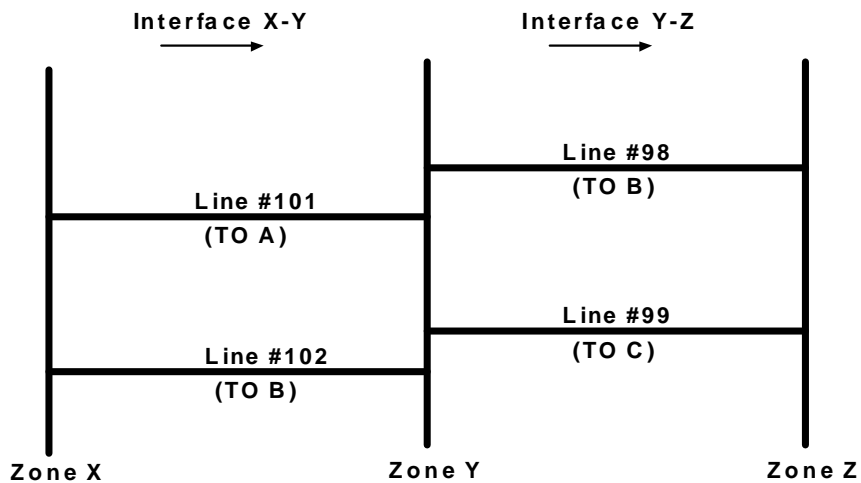
**Comment:** *This procedure reduces downside risk for a TO undertaking a major outage, but offers a muted incentive to reduce congestion once the outage is modeled.*

b) A 2 month, 29 day or shorter forecast outage is modeled as no outage in the TCC auction, thereby not changing the amount of TCCs offered in the TCC Auction. This results in no change in TCC Auction Residual Revenue or in Congestion Rent Surplus payments to TOs. However, it increases exposure to TOs for Congestion Rent Shortfall charges when the line is out.

**Comment:** *This method disperses the exposure to Congestion Rent Shortfalls over several TOs, and also offers a muted incentive to reduce congestion resulting from the outage.*

4) Example of Existing Market Rules Pertaining to Congestion Rent Shortfall

<b>Example of Congestion Rent Shortfall Cost Allocation Under Existing Market Rules</b>					
	(1) ETCNL TCC Auction Revenue (\$M)	(2) TCC Auction Residual Revenue (\$M)	(3) Total TCC Auction Revenue (\$M)	(4) Share of Total NYCA Congestion Rent Shortfall (%)	(5) Congestion Rent Shortfall for Line #99 Outage \$M
TO "A"	0	20	20	66.7%	2.0
TO "B"	10	10	20	33.3%	1.0
TO "C"	<u>20</u>	<u>0</u>	<u>20</u>	<u>0.0%</u>	<u>0.0</u>
TOTAL	30	30	60	100.0%	3.0
<b>Notes:</b>					
Line #99 is 100% owned by TO "C"					
Line #99 outage results in Congestion Rent Shortfall of \$3.0 Million					
Col. 4 = (Col 2) / (Total of Col. 2)					
Col. 5 = Col. 4 x \$3.0 M					



This example illustrates that existing market rules (pertaining to Congestion Rent Shortfall cost allocation) can result in TO "A" (which has no ownership of lines on Interface Y-Z) being charged a significant portion of the congestion shortfall costs resulting from an outage of the Line #99. Alternately, TO "C", which operates and maintains Line #99 may be charged a very small portion or even none of those costs.

**5) Historical Congestion Rent**

The table below indicates actual Net Excess Congestion Rent experienced (a negative values signifies a payment owed by the TO)

<b>Actual Net Excess Congestion Rent</b>			
Net Excess Cong Rent = Cong Rent Surplus - Cong Rent Shortfall (a negative amount represents a payment owed by TO)			
	<b>NM \$Million</b>	<b>NM's Share</b>	<b>NY Total \$Million</b>
Sep 2000	\$2.3	42%	\$5.4
Oct 2000	\$3.8	42%	\$9.0
Nov 2000	\$0.7	38%	\$1.9
Dec 2000	(\$0.2)	38%	(\$0.4)
Jan 2001	(\$2.5)	38%	(\$6.5)
Feb 2001	(\$0.6)	38%	(\$1.7)
Mar 2001	(\$2.4)	38%	(\$6.4)
Apr 2001	(\$3.1)	38%	(\$8.0)
May 2001	(\$2.2)	46%	(\$4.9)
Jun 2001	(\$2.9)	46%	(\$6.4)
Jul 2001	(\$1.8)	34%	(\$5.3)
Aug 2001	(\$1.2)	34%	(\$3.4)
<b>TOTAL</b>	<b>(\$10.2)</b>	<b>--</b>	<b>(\$26.8)</b>

Notes:  
 (1) Although Net Excess Congestion Rent is shown, the accurate representation of congestion that occurred due to facility outages would be Congestion Rent Shortfall only (which is not available), particularly since the Excess Congestion Rent Surplus has been decreasing through time.  
 (2) NM's share for May and June 2001 were incorrect; NY Total for those months is correct, but NM allocation is incorrect and will need to be re-billed.

**6) Actual Congestion Across Central-East for 2001 YTD (as of 08/29/2001)**

- a) Average congestion across Central-East for all hours was \$2.55/MWh.
- b) Total time congestion across Central-East was greater than \$10/MWh was 466 hours (this average was \$19.05/MWh).
- c) Total time Central-East had planned outages was 264 hours (average congestion across Central-East during these 264 hours was \$2.86/MWh).
- d) Within that 264 hrs of planned outages, total time congestion across Central-East was greater than \$10/MWh was 91 hours (this average was \$12.17/MWh).