

LONG-TERM TCC ALLOCATION EXAMPLES
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Market Structures Working Group

Suppose that the ETCNL assigned to load in Zone X was as shown in Table 1. Most of the ETCNL is defined to sink at the load zone, however, some is defined to load buses within the load zone. The ETCNL is defined to particular buses within the load zone because this ETCNL would not be feasible if defined to the load zone as a whole due to load pocket constraints within the load zone.

Table 1
Unprorated ETCNL

1100	A to Zone X
800	B to Zone X
50	B to Bus C
150	B to Bus D

A simultaneous feasibility testing using summer ratings would be applied to this ETCNL to determine the quantity that would be defined as auction allocation rights (AARs). For the example, we assume that 1,100 A to Zone X and 800 B to Zone X AARs satisfy the simultaneous feasibility test. Since no AARs would be defined for ETCNL sinking at load buses, the ETCNL used to derive AARs entitlements would be as shown in Table 2.¹

Table 2
Feasible Zonal ETCNL Summer Ratings

1100	A to Zone X
800	B to Zone X

¹ The example assumes that 50% of the load in Zone X is within load pocket E, 12.5% within load pocket C, and 37.5% within load pocket D.

The example assumes that in the spring 2008 auction, 50% of the available transmission system will be used to support the sale of six-month TCCs and the remaining 50% will be used to support the sale of annual TCCs. 90% of the ETCNL available to support the sale of TCCs in the annual auction rounds would be allocated as AAR and eligible for conversion into long-term TCCs. Thus, 495 MW of A to Zone X AARs and 360 MW of B to Zone X AARs would be eligible for conversion to long-term TCCs as shown in Table 3.

Table 3
Derivation of Total AARs

	Total ETCNL	ETCNL Supporting Annual TCC	Available as AAR
A to Zone X	1100	550	495
B to Zone X	800	400	360

In the example, LSEs Blue and Red each serve 10% of the load within Zone X. LSE Blue chooses to exercise its right to convert its AARs into long-term TCCs. Since only whole MW AARs can be converted into TCCs, each LSE would be eligible to convert 49 A to Zone X and 36 B to Zone X AARs into TCCs. In the example, we assume that Blue LSE chooses to convert its AARs into TCCs while Red LSE does not.

Since LSE Blue opted to convert its AARs into TCCs, these converted AARs would be modeled as fixed injections and withdrawals in the spring 2008 auction, leaving the remaining capacity to support the sale of additional TCCs.

Table 4 portrays the assumed source/sink prices in the spring 2008 six-month TCC auction. C1, D1 and E1 are generation buses within pockets C, D and E.

Table 4
Auction Source/Sink Prices
Six-Month Rounds

		Price
A	West	0
F	Central	250
B	East	1750
C1	C Pocket	5500
D1	D Pocket	4750
E1	E Pocket	9750
X	Zone	7343.75

Table 5 portrays the number of TCCs sold between each source and sink in the six-month rounds of the auction, TCC prices and the total auction revenues. The price of each TCC is the difference between the sink price and the source price.

Table 5
Auction Revenues
Six-Month Rounds

	MW	Sink Price	Source Price	Price	Revenues
A-F	100	250	0	250	25000
A-X	550	7343.75	0	7343.75	4039063
B-X	400	7343.75	1750	5593.75	2237500
B-C	31.25	5500	1750	3750	117187.5
B-D	68.75	4750	1750	3000	206250
					6625000

Table 6 portrays the assumed source/sink prices in the spring 2008 annual TCC rounds.

Table 6
Auction Source/Sink Prices
Annual Rounds

		Price
A	West	0
F	Central	250
B	East	2750
C1	C Pocket	7525
D1	D Pocket	6750
E1	E Pocket	12250
X	Zone	9596.875

Table 7 portrays the number of TCCs sold between each source and sink in the annual rounds of the spring auction, TCC prices and the total auction revenues.

Table 7
Annual Auction Revenues

	MW	Sink Price	Source Price	Price	Revenues
A-F	100	250	0	250	25000
A-X	501	9596.875	0	9596.875	4808034
B-X	364	9596.875	2750	6846.875	2492263
B-C	31.25	7525	2750	4775	149218.8
B-D	68.75	6750	2750	4000	275000
					7749516

In addition to the payments for TCCs purchased in the auction, the NYISO would collect payments for the allocated long-term TCCs based on the prices in the annual TCC round as shown in Table 8.²

Table 8
Charges for Allocated TCCs

	MW	Sink Price	Source Price	TCC Price	Revenues
A-X	49	9596.875	0	9596.875	470246.9
B-X	36	9596.875	2750	6846.875	246487.5
Total					716734.4

ETCNL would be valued in the six-month rounds as in any other auction as illustrated in Table 9. Auction revenues would be more than sufficient to fully fund payments to feasible ETCNL.

Table 9
Six-Month Auction Revenue and ETCNL Values

ETCNL	Payment	Quantity	Value
A to Zone X	7343.75	550	4039063
B to Zone X	5593.75	400	2237500
B to Bus C	3750	25	93750
B to Bus D	3000	75	225000
ETCNL Payments			6595313
Six-month auction revenues			6625000
Residual six-month auction			29687.5

² Allocated TCCs would be priced in the first one year round the auction, the same round in which ETCNL would be valued, maintaining revenue adequacy for the auction.

ETCNL would also be valued in the annual round, but payments to ETCNL holders would be funded both by auction revenues and payments for allocated TCCs as shown in Table 10. Auction revenues and payments for allocated TCCs would be sufficient to fully fund payments to feasible ETCNL.

Table 10
Annual Auction Revenues and ETCNL Values

ETCNL	Payment	Quantity	Value
A to Zone X	9596.875	550	5278281
B to Zone X	6846.875	400	2738750
B to Bus C	4775	25	119375
B to Bus D	4000	75	300000
ETCNL Payments			8436406
Annual auction revenues			7749516
Payments for allocated TCCs			716734.4
Residual annual auction			29843.75