



Long-term Capacity Auction (LTCA) Credit

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- Different proposals include voluntary and/or mandatory requirements for participation
- Different proposals include possibility of physical and/or financial participants
- May include locational products (different prices/volatility for each product)
 - RTO-wide, MAAC, EMAAC, SWMAAC
- LTCA results are financially binding
- Charges and credits settled during each delivery year
- Multi-year time commitment creates multi-year exposure

- All cleared LTCA positions automatically included in each applicable BRA
 - Cleared LTCA Buy Bids are represented in each applicable BRA as price-taker sell offers at cleared LTCA UCAP quantity
 - Cleared LTCA Sell Offers are represented in each applicable BRA as price-taker buy bids at cleared LTCA UCAP quantity
- Existence of LTCA does not change results for BRA
 - But for LTCA participants will have net commitments aggregated from both auctions

- When the LTCA is separate from the BRA:
 - Cleared LTCA Buy Bids are injected into the BRA and:
 - Charged for cleared LTCA UCAP quantity at the LTCA clearing price
 - Credited for cleared LTCA UCAP quantity at the BRA clearing price
 - Participant with physical load pays BRA prices for actual UCAP obligation
 - Net result of LTCA and BRA is to lock in LTCA price for that portion of participant's final UCAP obligation covered by the cleared LTCA buy bid quantity
 - Financial participant pays/receives difference between LTCA and BRA prices

- When the LTCA is separate from the BRA:
 - Cleared LTCA Sell Offers are injected into the BRA and:
 - Credited for cleared LTCA UCAP quantity at the LTCA clearing price
 - Charged for cleared LTCA UCAP quantity at the BRA clearing price
 - Participant with physical supply is paid BRA prices for actual commitment
 - Net result of LTCA and BRA is to lock in LTCA price for that portion of participant's final UCAP commitment covered by the cleared LTCA sell offer quantity
 - Financial participant pays/receives difference between LTCA and BRA prices

- Exposure sources for membership
 - Financial participant
 - Difference between LTCA and BRA prices
 - Physical Load when BRA clears lower than LTCA
 - LSE is committed at higher LTCS price
 - If LSE loses load, difference in prices creates exposure since new load provider will pay only BRA price
 - Physical Supply when BRA clears higher than LTCA
 - Price to Loads includes lower price from LTCA
 - If supplier not available, may have insufficient funds to buy alternate supply
 - May end up with less reliability due to lower supply
- Exposures exist for each year of multi-year LTCA



Long-term Capacity Auction Credit Exposure Examples – Separate LTCA-BRA

Company	Long-term Capacity Auction				BRA Position (Automatic)				Net Exposure	
	Buy/Sell	Cleared MW	Clearing Price (\$/MW-day)	Charge (Credit) (\$/day)	Price-Taker Buy/Sell	Cleared MW	Clearing Price (\$/MW-day)	Charge (Credit) (\$/day)	Net Position (\$/Day)	Net Position (\$/year*)
IF BRA CLEARS HIGHER THAN LTCA										
A	Buy	1,000	100	100,000	Sell	1,000	150	(150,000)	(50,000)	(18,250,000)
B	Sell	1,000	100	(100,000)	Buy	1,000	150	150,000	50,000	18,250,000
IF BRA CLEARS LOWER THAN LTCA										
A	Buy	1,000	100	100,000	Sell	1,000	50	(50,000)	50,000	18,250,000
B	Sell	1,000	100	(100,000)	Buy	1,000	50	50,000	(50,000)	(18,250,000)

Historical RPM Base Residual Auction Clearing Prices													
	07/08	08/09	09/10	10/11	11/12	12/13	13/14	14/15	15/16	Avg	High	Low	σ
RTO	41	112	102	174	110	16	28	126	136	94	174	16	54
EMAAC	198	149	191	174	110	140	245	137	136	164	245	110	42
SWMAAC	189	210	237	174	110	16	28	126	136	136	237	16	76
MAAC	41	112	191	174	110	134	226	137	167	144	226	41	54

* Current LCTA proposals include terms between 3 and 10 years

Per-Year Price/Volume Exposures

LTCA-BRA Price Difference				
MW Exposed	\$10	\$20	\$50	\$100
100	\$365,000	\$730,000	\$1,825,000	\$3,650,000
200	\$730,000	\$1,460,000	\$3,650,000	\$7,300,000
500	\$1,825,000	\$3,650,000	\$9,125,000	\$18,250,000
1000	\$3,650,000	\$7,300,000	\$18,250,000	\$36,500,000