

Clarifying Changes to Non-Commercial Capacity Trading Financial Assurance



NEPOOL Budget & Finance Subcommittee Meeting

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Presentation Outline

	Page(s)
Background	3 - 4
Proposed Changes	5 - 10
Example Calculations	11 - 19
Next Steps	20
Appendix 1: Proposed Redline Language	21
Acronyms Used in this Presentation	22

Background

- The ISO previously made changes to Non-Commercial Capacity (NCC) Financial Assurance (FA) in Docket #ER20-394, filed 11/15/19, accepted by FERC Order dated 01/03/20, effective 01/15/20
- The changes introduced a new component, NCC Trading FA, to the existing NCC FA requirement, to ensure that potential trading profits do not undermine incentives associated with delivering the NCC project
- After additional review, the ISO has determined that further adjustments to the NCC Trading FA calculation are needed in order to achieve the design principle of NCC Trading FA component



Background *(cont.)*

- The ISO presented proposed changes at the October 2020, January and March 2021 NEPOOL Budget & Finance Subcommittee meetings
- The proposal in this presentation takes into consideration the cumulative stakeholder feedback from the prior meetings and reflects the ISO's responses

Proposed Changes – General (RECAP)

- The ISO proposes to include the cash flow from any Annual Reconfiguration Transactions (ARTs) associated with NCC into the NCC Trading FA calculation
 - This change could increase or decrease the amount of NCC Trading FA
 - Losses on an ART can decrease the total profit associated with CSO transactions
 - Profits on an ART can increase the total profit associated with CSO transactions
 - The intention is to better align NCC Trading FA with the actual profit and loss from a NCC project
- Change the FA calculation of CSOB to be consistent with the proposed treatment for ARTs
 - Currently, the price used to calculate the NCC Trading FA for CSOB is the MRA price
 - The proposed change will better align NCC Trading FA with the actual profit and loss from a NCC project by using the CSOB price in the calculation only if certain conditions are met

Proposed Changes – Updates since March

- Change Price Case 1 for ART to set the transaction price to the lower of the ART price and the ARA price (See Slide 12)
- Change Price Case 1 for CSOB to set the transaction price to the lower of the CSOB price and the MRA price (See Slide 13)
- Clarified the language to more precisely define the side deals
 - Clarifying that the certification is regarding a specific ART or CSOB
 - Clarifying language regarding “approved transactions”
 - Previously certification was required for transaction other than those “approved by the ISO”
 - Language has been changed to “other than those settled by the ISO”

Proposed Changes – ART (RECAP)

- Before calculating the profit and loss from an ART transaction, the ISO will first make the following two adjustments to the ART transaction:
 - ART MW will be capped at NCC MW
 - To account for partial commercialization scenarios
 - The transaction price used for calculating ART NCC Trading FA will be one of three values discussed in later slides
- The resulting profit and loss from ARTs will be netted against profit and loss from CSO transactions (including the CSOBs). The NCC Trading FA will equal the net profit of the CSO transactions and the ART.
- To guard against side deals regarding the pricing of the ART that have the effect of lowering NCC Trading FA, the ISO will require participants who transact ARTs to certify that they have no such transactions. Depending on the certification, the ART price may be replaced (see next slide for details).
- For transactions between affiliates the transaction price will be mitigated to the lower of the FCA clearing price or the ART price to limit the FA impact

Proposed Changes - Three Price Cases for ARTs

1. If a participant does not certify that they have no other transaction regarding the pricing of the ART (other than those to be settled by the ISO) that have the effect of deflating the NCC Trading FA:
 - Use the lower of the ARA price and the ART price as the transaction price in the NCC Trading FA calculation
 - This ensures that the FA impact cannot be a credit
2. If a participant attests that they have **no** other transaction regarding the pricing of the ART (other than those to be settled by the ISO), and they transacted the ART with an affiliate:
 - Use the lower of the FCA clearing price and the ART price as the transaction price for the NCC Trading FA calculation
 - This price mitigation limits how high the ART price can be in the calculation for NCC Trading FA and therefore limits the FA impact
3. If a participant attests that they have no other transaction regarding the pricing of the ART (other than those to be settled by the ISO), and they did **not** transact the ART with an affiliate:
 - Use the ART price as the transaction price in the calculation for NCC Trading FA

Proposed Changes – CSOB (RECAP)

- To keep the treatment consistent between CSOBs and ARTs, and to be able to more precisely address the price replacement methodology that currently exists in the FAP for the CSOB transactions, the CSOB NCC Trading FA will be calculated in a similar manner
- The transaction price used for calculating CSOB NCC Trading FA will be one of three values as detailed in the next slide
 - MRA price
 - FCA clearing price
 - CSOB price
- The resulting profit and loss from CSOBs will be netted against profit and loss from CSO transactions. The NCC Trading FA will equal the net profit of the CSO, CSOB, and ART if applicable
- To guard against side deals regarding the pricing of the CSOB to deflate NCC Trading FA, the ISO will require participants who transact CSOBs to certify that they have no such transactions
- For transactions between affiliates, the transaction price will be mitigated to the lower of the FCA Clearing Price and the CSOB price to limit the FA impact



Proposed Changes - Three Price Cases for CSOBs

1. If a participant fails to certify that they have no other transaction with another party (other than those to be settled by the ISO) regarding the pricing of the CSOB that would deflate NCC Trading FA:
 - Use the lower of the MRA price and the CSOB price as the transaction price in the NCC Trading FA calculation
2. If a participant attests that they have **no** other transaction regarding the pricing of the CSOB (other than those to be settled by the ISO), and they transacted the CSOB with an affiliate:
 - Use the lower of the FCA clearing price and CSOB price as the transaction price for the NCC Trading FA calculation
3. If a participant attests that they have no other transaction regarding the pricing of the CSOB (other than those to be settled by the ISO), and they did **not** transact the CSOB with an affiliate:
 - Use the CSOB price as the transaction price in the calculation for NCC Trading FA

EXAMPLE CALCULATIONS

Example 1a – ART loss exceeds CSO trading profit, 0% CSO is commercial, Participant does not certify the absence of side transactions regarding this ART pricing

Inputs			Outputs		
Labels	Item	Value	Item	Formula	Value
A	FCA Price (\$/KW-mo)	\$4	CSO PL (\$)	$I=(A-B) \times C$	\$30
B	ARA Price (\$/KW-mo)	\$1	ART PL (\$)	$J=(B-F) \times E$	-\$40
C	CSO Shed (KW)	10	Modified CSO (KW)	$K=\text{MIN}(C,D)$	10
D	NCC MW (KW)	10	Modified CSO PL (\$)	$L=\text{MIN}(A-B) \times K$	\$30
E	ART MW (KW)	10	Modified ART MW (KW)	$M=\text{MIN}(D,E)$	10
F	ART Price (\$/KW-mo)	\$5	Modified ART Price (\$/KW)	$N=\text{if}(G="N", \text{MIN}(B,F), \text{if}(H="Y", (\text{MIN}(A,F), \text{else } F))$	\$1
G	Certification (Y/N)	N	Modified ART PL (\$)	$O=(B-N) \times M$	\$0
H	Affiliate (Y/N)	N	NET PL (\$)	$P = L+O$	\$30
			Trading FA (Current)	$Q=\text{MAX}(L,0)$	\$30
			Trading FA (Proposed)	$R=\text{MAX}(P,0)$	\$30

The **current design** would have collected \$30 in NCC Trading FA (i.e., CSO trading profit) and also would require \$40 to be paid at ART settlement.

The **proposed design** would collect the same amount of NCC Trading FA because the participant failed to certify that they had no side transactions regarding the ART pricing. Therefore, the proposed NCC Trading FA calculation does not credit their ART losses, in this case the result is the same as the current calculation.

Example 1b – Participant certifies no side transactions affecting this ART but transacts the ART with affiliate

Inputs			Outputs		
Labels	Item	Value	Item	Formula	Value
A	FCA Price (\$/KW-mo)	\$4	CSO PL (\$)	$I=(A-B) \times C$	\$30
B	ARA Price (\$/KW-mo)	\$1	ART PL (\$)	$J=(B-F) \times E$	-\$40
C	CSO Shed (KW)	10	Modified CSO (KW)	$K=\text{MIN}(C,D)$	10
D	NCC MW (KW)	10	Modified CSO PL (\$)	$L=\text{MIN}(A-B) \times K$	\$30
E	ART MW (KW)	10	Modified ART MW (KW)	$M=\text{MIN}(D,E)$	10
F	ART Price (\$/KW-mo)	\$5	Modified ART Price (\$/KW)	$N=\text{if}(G="N", \text{MIN}(B,F), \text{if}(H="Y", (\text{MIN}(A,F), \text{else } F))$	\$4
G	Certification (Y/N)	Y	Modified ART PL (\$)	$O=(B-N) \times M$	-\$30
H	Affiliate (Y/N)	Y	NET PL (\$)	$P = L+O$	\$0
			Trading FA (Current)	$Q=\text{MAX}(L,0)$	\$30
			Trading FA (Proposed)	$R=\text{MAX}(P,0)$	\$0

The **current design** would have collected \$30 in NCC Trading FA (i.e., CSO trading profit) and also would require \$40 to be paid at ART settlement.

In the **proposed design**, the ART price is adjusted downward because it is an affiliate transaction. Then, the net profit and loss is calculated using the modified ART price. The losses on the ART reduce the CSO profits and no NCC Trading FA is required.

Example 1c –Participant certifies no side transactions affecting this ART and is not transacting with an affiliate

Inputs			Outputs		
Labels	Item	Value	Item	Formula	Value
A	FCA Price (\$/KW-mo)	\$4	CSO PL (\$)	$I=(A-B) \times C$	\$30
B	ARA Price (\$/KW-mo)	\$1	ART PL (\$)	$J=(B-F) \times E$	-\$40
C	CSO Shed (KW)	10	Modified CSO (KW)	$K=\text{MIN}(C,D)$	10
D	NCC MW (KW)	10	Modified CSO PL (\$)	$L=\text{MIN}(A-B) \times K$	\$30
E	ART MW (KW)	10	Modified ART MW (KW)	$M=\text{MIN}(D,E)$	10
F	ART Price (\$/KW-mo)	\$5	Modified ART Price (\$/KW)	$N=\text{if}(G="N", \text{MIN}(B,F), \text{if}(H="Y", (\text{MIN}(A,F), \text{else } F))$	\$5
G	Certification (Y/N)	Y	Modified ART PL (\$)	$O=(B-N) \times M$	-\$40
H	Affiliate (Y/N)	N	NET PL (\$)	$P = L+O$	-\$10
			Trading FA (Current)	$Q=\text{MAX}(L,0)$	\$30
			Trading FA (Proposed)	$R=\text{MAX}(P,0)$	\$0

The **current design** would have collected \$30 in NCC Trading FA (i.e., CSO trading profit) and also would require \$40 to be paid at ART settlement.

The **proposed design** would not collect NCC Trading FA, as the net profit and loss is negative.

\$30 CSO trading profit (CSO PL)

\$40 ART loss (Modified ART PL)

The transaction price is not adjusted in the calculation because they did not transact with an affiliate

Example 2 – ART loss exceeds CSO trading profit, 80% CSO is commercial, participant certifies no unreported transactions regarding the ART, non-affiliate

Inputs			Outputs		
Labels	Item	Value	Item	Formula	Value
A	FCA Price (\$/KW-mo)	\$4	CSO PL (\$)	$I=(A-B) \times C$	\$30
B	ARA Price (\$/KW-mo)	\$1	ART PL (\$)	$J=(B-F) \times E$	-\$40
C	CSO Shed (KW)	10	Modified CSO (KW)	$K=\text{MIN}(C,D)$	2
D	NCC MW (KW)	2	Modified CSO PL (\$)	$L=\text{MIN}(A-B) \times K$	\$6
E	ART MW (KW)	10	Modified ART MW (KW)	$M=\text{MIN}(D,E)$	2
F	ART Price (\$/KW-mo)	\$5	Modifed ART Price (\$/KW)	$N=\text{if}(G="N", \text{MIN}(B,F), \text{if}(H="Y"(\text{MIN}(A,F), \text{else } F))$	\$5
G	Certification (Y/N)	Y	Modified ART PL (\$)	$O=(B-N) \times M$	-\$8
H	Affiliate (Y/N)	N	NET PL (\$)	$P = L+O$	-\$2
			Trading FA (Current)	$Q=\text{MAX}(L,0)$	\$6
			Trading FA (Proposed)	$R=\text{MAX}(P,0)$	\$0

The **current design** would have collected \$6 in NCC Trading FA (i.e., CSO trading profit) and also would require \$40 to be paid at ART settlement.

The **proposed design** would not collect NCC Trading FA, as the net profit and loss is negative.

\$6 CSO trading profit (Modified CSO PL)

\$8 ART loss (Modified ART PL)

The ART MW are reduced to the NCC MW

Example 3 – ART profit exceeds CSO trading loss, 0% CSO is commercial, Participant certifies no side transactions affecting the ART, non-affiliate

Inputs			Outputs		
Labels	Item	Value	Item	Formula	Value
A	FCA Price (\$/KW-mo)	\$4	CSO PL (\$)	$I=(A-B) \times C$	-\$20
B	ARA Price (\$/KW-mo)	\$5	ART PL (\$)	$J=(B-F) \times E$	\$40
C	CSO Shed (KW)	20	Modified CSO (KW)	$K=\text{MIN}(C,D)$	20
D	NCC MW (KW)	20	Modified CSO PL (\$)	$L=\text{MIN}(A-B) \times K$	-\$20
E	ART MW (KW)	20	Modified ART MW (KW)	$M=\text{MIN}(D,E)$	20
F	ART Price (\$/KW-mo)	\$3	Modified ART Price (\$/KW)	$N=\text{if}(G="N", \text{MIN}(B,F), \text{if}(H="Y"(\text{MIN}(A,F), \text{else } F))$	\$3
G	Certification (Y/N)	Y	Modified ART PL (\$)	$O=(B-N) \times M$	\$40
H	Affiliate (Y/N)	N	NET PL (\$)	$P = L+O$	\$20
			Trading FA (Current)	$Q=\text{MAX}(L,0)$	\$0
			Trading FA (Proposed)	$R=\text{MAX}(P,0)$	\$20

The **current design** would have collected \$0 in NCC Trading FA (i.e., CSO trading profit) and the participant would receive \$40 to be paid at ART settlement.

The **proposed design** would collect NCC Trading FA of \$20, as the net profit and loss is \$20.

- \$20 CSO trading loss (CSO PL)

\$40 ART profit (Modified ART PL)

Example 4 – ART profit exceeds CSO trading loss, 80% CSO is commercial, Participant certifies no side transaction, non-affiliate

Inputs			Outputs		
Labels	Item	Value	Item	Formula	Value
A	FCA Price (\$/KW-mo)	\$4	CSO PL (\$)	$I=(A-B) \times C$	-\$20
B	ARA Price (\$/KW-mo)	\$5	ART PL (\$)	$J=(B-F) \times E$	\$40
C	CSO Shed (KW)	20	Modified CSO (KW)	$K=\text{MIN}(C,D)$	4
D	NCC MW (KW)	4	Modified CSO PL (\$)	$L=\text{MIN}(A-B) \times K$	-\$4
E	ART MW (KW)	20	Modified ART MW (KW)	$M=\text{MIN}(D,E)$	4
F	ART Price (\$/KW-mo)	\$3	Modifed ART Price (\$/KW)	$N=\text{if}(G="N", \text{MIN}(B,F), \text{if}(H="Y"(\text{MIN}(A,F), \text{else } F))$	\$3
G	Certification (Y/N)	Y	Modified ART PL (\$)	$O=(B-N) \times M$	\$8
H	Affiliate (Y/N)	N	NET PL (\$)	$P = L+O$	\$4
			Trading FA (Current)	$Q=\text{MAX}(L,0)$	\$0
			Trading FA (Proposed)	$R=\text{MAX}(P,0)$	\$4

The **current design** would have collected \$0 in NCC Trading FA (i.e., CSO trading profit) and the participant would receive \$40 to be paid at ART settlement.

The **proposed design** would collect NCC Trading FA of \$4, as the net profit and loss is \$4.

-\$4 CSO trading loss (Modified CSO PL)

\$8 ART profit (Modified ART PL)

Example 5 – ART and CSO both profit, 0% CSO is commercial, Participant does not certify, and the ART price is lower than ARA price

Inputs			Outputs		
Labels	Item	Value	Item	Formula	Value
A	FCA Price (\$/KW-mo)	\$4	CSO PL (\$)	$I=(A-B) \times C$	\$30
B	ARA Price (\$/KW-mo)	\$1	ART PL (\$)	$J=(B-F) \times E$	\$5
C	CSO Shed (KW)	10	Modified CSO (KW)	$K=\text{MIN}(C,D)$	10
D	NCC MW (KW)	10	Modified CSO PL (\$)	$L=\text{MIN}(A-B) \times K$	\$30
E	ART MW (KW)	10	Modified ART MW (KW)	$M=\text{MIN}(D,E)$	10
F	ART Price (\$/KW-mo)	\$0.5	Modified ART Price (\$/KW)	$N=\text{if}(G="N", \text{MIN}(B,F), \text{if}(H="Y", (\text{MIN}(A,F)), \text{else } F))$	\$0.5
G	Certification (Y/N)	N	Modified ART PL (\$)	$O=(B-N) \times M$	\$5
H	Affiliate (Y/N)	N	NET PL (\$)	$P = L+O$	\$35
			Trading FA (Current)	$Q=\text{MAX}(L,0)$	\$30
			Trading FA (Proposed)	$R=\text{MAX}(P,0)$	\$35

The **current design** would have collected \$30 in NCC Trading FA (i.e., CSO trading profit) and the participant would receive \$5 at ART settlement.

The **proposed design** would collect the ART profit of \$5 as additional FA.

Example 6 – CSOB are treated the same as ARTs except that the relevant MRA price is used

Inputs			Outputs		
Labels	Item	Value	Item	Formula	Value
A	FCA Price (\$/KW-mo)	\$4	CSO PL (\$)	$I=(A-B) \times C$	\$30
B	MRA Price (\$/KW-mo)	\$1	CSOB PL (\$)	$J=(B-F) \times E$	-\$40
C	CSO Shed (KW)	10	Modified CSO (KW)	$K=\text{MIN}(C,D)$	10
D	NCC MW (KW)	10	Modified CSO PL (\$)	$L=\text{MIN}(A-B) \times K$	\$30
E	CSOB MW (KW)	10	Modified CSOB MW (KW)	$M=\text{MIN}(D,E)$	10
F	CSOB Price (\$/KW-mo)	\$5	Modified CSOB Price (\$/KW)	$N=\text{if}(G="N", \text{MIN}(B,F), \text{if}(H="Y"(\text{MIN}(A,F), \text{else } F)$	\$5
G	Certification (Y/N)	Y	Modified CSOB PL (\$)	$O=(B-N) \times M$	-\$40
H	Affiliate (Y/N)	N	NET PL (\$)	$P = L+O$	-\$10
			Trading FA (Current)	$Q=\text{MAX}(L,0)$	\$30
			Trading FA (Proposed)	$R=\text{MAX}(P,0)$	\$0

The **current design** would have collected \$30 in NCC Trading FA (i.e., CSO trading profit) and also would require \$40 to be paid at CSOB settlement.

The **proposed design** would collect NCC Trading FA of \$0, as the net profit and loss is negative.

Next Steps

- NEPOOL Participant Committee (NPC) vote – May 6
- File with FERC after NPC vote



Appendix 1 – Proposed Redline Language

Proposed redline language is provided in a separate file



Acronyms Used in this Presentation

- ARA – Annual Reconfiguration Auction
- ART – Annual Reconfiguration Transaction
- CSO – Capacity Supply Obligation
- CSOB – Capacity Supply Obligation Bilateral
- FA – Financial Assurance
- FCA – Forward Capacity Auction
- FERC – Federal Energy Regulation Commission
- MRA – Monthly Reconfiguration Auction
- NCC - Non-Commercial Capacity
- NPC – NEPOOL Participant Committee
- PL – Profit and Loss