

# Counter-Flow CRR and their impact on the CRR Auction Efficiency

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Presented by Daniel Cretu

# CDWR Analysis

## Case Study

Table 1 shown in the next slide includes actual CRR results:

- 2015 annual CRR allocation Season 1 (On-Peak, Off-Peak)
- January 2015 Tier 1 (On-Peak, Off-Peak)
- A "Normal" example during high CF-CRR

The examples present CDWR concern that excessive CF-CRR exacerbate the CRR Revenue Efficiency.

# Table 1. Excessive Amount of CF-CRR

CRR Allocation Event	Allocated Direct Flow (MW)	Allocated CF-CRR (MW)	Usefull CRR (MW)	Total Unusefull CRR added to the CAISO Market (MW)	Percent of added CRR vs unsefull CRR
2015 Season 1 CDWR Sink A On-Peak	31.918	31.831	0.087	63.662	73175%
2015 Season 1 CDWR Sink A Off-Peak	41.787	41.515	0.272	83.03	30526%
February 2015 Tier 1 Sink A On-Peak	14.548	14.531	0.017	29.062	170953%
February 2015 Tier 1 Sink A Off-Peak	17.432	17.403	0.029	34.806	120021%
2015 Season 2 CDWR Sink B	73.666	60.713	12.953	121.426	937%
CDWR Porposed Solution	100	50	50	100	200%

# Are Excessive Amounts of CF-CRR Beneficial?

- CRR Auction (In)Efficiency occurs when CAISO's grid conditions are different between the allocation and settlement
- DF and CF-CRR counter each other when allocated
- During the settlement process the DF-CRR and CF-CRR do not counter each other and impacts the CRR Auction Efficiency
- To fix this issue, CDWR recommends that a limit be placed on the DF/CF-CRR optimization software to avoid cases when useful CRR benefits to a MP are not outweighed by the respective MP's losses

Questions ???

[daniel.cretu@water.ca.gov](mailto:daniel.cretu@water.ca.gov)

(916) 201-7415

[daniel.slobodyanyuk@water.ca.gov](mailto:daniel.slobodyanyuk@water.ca.gov)

[alexander.katrechko@water.ca.gov](mailto:alexander.katrechko@water.ca.gov)