

#	CRR Study 2 Parameter	Section from CRR Study 2 Assumptions Document	CAISO Comments	Scenarios					
				Default based on CRR Study 2 Assumptions Document with a few modifications	Scenario 1	Scenario 2	Scenario 3	Scenario 4	Scenario 5
1	Objectives of CRR Study 2	1.1		Determine new CRR MW coverage based on nominations and financial hedge positions					
2	Study Period	2.1		2005	2006	2006	2006	2006	2006
3	Terms of CRRs to Study	2.2		one-year term @ 75% of network capacity and 12 individual true-ups of 1 month terms @ 100% network capacity (1/12)	12 one-month terms @ 75% of network capacity and 12 individual true-ups of 1 month terms @ 100% of network capacity (12/12)	12 one-month terms @ 75% of network capacity and 12 individual true-ups of 1 month terms @ 100% of network capacity (12/12)	12 one-month terms @ 75% of network capacity and 12 individual true-ups of 1 month terms @ 100% of network capacity (12/12)	12 one-month terms @ 75% of network capacity and 12 individual true-ups of 1 month terms @ 100% of network capacity (12/12)	12 one-month terms @ 75% of network capacity and 12 individual true-ups of 1 month terms @ 100% of network capacity (12/12)
4	Time-of-Use period	2.2		On-peak and Off-peak	On-peak and Off-peak	On-peak and Off-peak	On-peak and Off-peak	On-peak and Off-peak	On-peak and Off-peak
5	Full Network Model (FNM)	2.3	The CAISO will use a DC FNM and the FNM needs to be consistent with the Study period	DC model with open loop consistent with Study period based on a Transmission Planning model	DC model with open loop consistent with Study period based on a Transmission Planning model	DC model with open loop consistent with Study period based on a Transmission Planning model	DC model with open loop consistent with Study period based on a Transmission Planning model	DC model with open loop consistent with Study period based on a Transmission Planning model	DC model with open loop consistent with Study period based on a Transmission Planning model
6	Transmission Outages in the Full Network Model for monthly term CRR allocations	2.3.1		Model no outages and note in the final CRR Study 2 report that this may distort the MW amount of CRRs that can be allocated	Model historical planned outages that satisfies a proposed criteria, which will be based on CRR Stakeholder input (CAISO).	Model historical planned outages that satisfies a proposed criteria, which will be based on CRR Stakeholder input (CAISO).	Model historical planned outages that satisfies a proposed criteria, which will be based on CRR Stakeholder input (CAISO).	Model historical planned outages that satisfies a proposed criteria, which will be based on CRR Stakeholder input (CAISO).	Model historical planned outages that satisfies a proposed criteria, which will be based on CRR Stakeholder input (CAISO).
7	Operating Constraints	2.4	Investigation information to Stakeholders before running simulations	Same set as CRR Study 1 and potentially use additional constraints	Same set as CRR Study 1 and potentially use additional constraints	Same set as CRR Study 1 and potentially use additional constraints	Same set as CRR Study 1 and potentially use additional constraints	Same set as CRR Study 1 and potentially use additional constraints	Same set as CRR Study 1 and potentially use additional constraints
8	LSE and Converted Rights Sink Location (Standard Load Aggregation Points)	2.5		PG&E, SCE and SDGE	PG&E, SCE and SDGE	PG&E, SCE and SDGE	PG&E, SCE and SDGE	PG&E, SCE and SDGE	PG&E, SCE and SDGE
9	ETC Sink Location	2.7.1		At actual ETC sink location	At actual ETC sink location	Standard Load Aggregation Point of PG&E, SCE and SDGE	At actual ETC sink location	Standard Load Aggregation Point of PG&E, SCE and SDGE	At actual ETC sink location
10	Load Distribution Factors (LDFs)	2.5.1	Stakeholders need to know the availability of LDFs and their variation throughout the year	Attempt to be consistent with the terms of the CRRs. 1 set for annual and seasonal sets for the months	Stakeholders need to know the availability of LDFs and their variation throughout the year. 1 set for annual and seasonal sets for the months	Stakeholders need to know the availability of LDFs and their variation throughout the year. 1 set for annual and seasonal sets for the months	Stakeholders need to know the availability of LDFs and their variation throughout the year. 1 set for annual and seasonal sets for the months	Stakeholders need to know the availability of LDFs and their variation throughout the year. 1 set for annual and seasonal sets for the months	Stakeholders need to know the availability of LDFs and their variation throughout the year. 1 set for annual and seasonal sets for the months
11	CRR Types (CRR Structure)	2.6	The CAISO may not have the functionality to model Network Service Rights at the beginning of CRR Study 2	Point to Point	Point to Point	Point to Point	Point to Point	Point to Point	Point to Point
12	CRR Nomination Validation	2.7	Stakeholders need to see a draft version of the validation rules	Validations based on Department of Market Analysis procedures. Per the process being run by Lorenzo.	Validations based on Department of Market Analysis procedures. Per the process being run by Lorenzo.	Validations based on Department of Market Analysis procedures. Per the process being run by Lorenzo.	Validations based on Department of Market Analysis procedures. Per the process being run by Lorenzo.	Validations based on Department of Market Analysis procedures. Per the process being run by Lorenzo.	Validations based on Department of Market Analysis procedures. Per the process being run by Lorenzo.
13	CRR Nominations for ETCs	2.7.1		Submitted by PTOs	Submitted by SC for ETC with involvement of ETC rights holder (with certain exceptions I.e. Grizzly contract)	Submitted by SC for ETC with involvement of ETC rights holder (with certain exceptions I.e. Grizzly contract)	Submitted by SC for ETC with involvement of ETC rights holder (with certain exceptions I.e. Grizzly contract)	Submitted by SC for ETC with involvement of ETC rights holder (with certain exceptions I.e. Grizzly contract)	Reserve capacity for ETCs, assuming they will not be subject to congestion charges. This will impact parameters # 9, 14, 20 & 24. (LADWP)
14	Hedge Type for ETCs	2.7.1		Obligation	Obligation	Option	Option	Obligation	
15	Hedge Type for Converted Rights	2.7.2		Option	Option	Option	Option	Option	
16	Hedge Type for LSEs	2.7.3		Obligation	Obligation	Option	Obligation	Option	
17	Metered Sub-systems (MSS)	2.7.4 and Appendix A		Net Day-ahead energy settlement and net CRR allocation	Net or Gross, depending upon nomination, Day-ahead energy settlement and CRR allocation.	Net or Gross, depending upon nomination, Day-ahead energy settlement and CRR allocation.	Net or Gross, depending upon nomination, Day-ahead energy settlement and CRR allocation.	Net or Gross, depending upon nomination, Day-ahead energy settlement and CRR allocation.	Net or Gross, depending upon nomination, Day-ahead energy settlement and CRR allocation.
18	Merchant Transmission	2.7.5	CAISO to develop White Paper		Based on final White Paper	Based on final White Paper	Based on final White Paper	Based on final White Paper	Based on final White Paper
19	Non-ISO Transmission	2.8	ISO must model all transmission within the Control Area so that branch flows can be accurately determined (CAISO)	Reserve non-ISO transmission that is part of an operating constraint by reducing interface limits	Reserve non-ISO transmission that is part of an operating constraint by reducing interface limits	Reserve non-ISO transmission that is part of an operating constraint by using Source/Sink pairs with hedge type of "option"	Reserve non-ISO transmission that is part of an operating constraint by reducing interface limits	Reserve non-ISO transmission that is part of an operating constraint by using Source/Sink pairs with hedge type of "option"	

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20	Sequence of Optimization and Simultaneous Feasibility Test (SFT)	2.9		One optimization/SFT run for each CRR term with priorities given to the different CRR types of ETC, Converted-Rights and LSE	One optimization/SFT run for each CRR term	One optimization/SFT run for each CRR term	One optimization/SFT run for each CRR term	One optimization/SFT run for each CRR term	One optimization/SFT run for each CRR term
21	CRR Allocation Objective Function	2.9.2		Maximize MW (maximize proxy CRR value based on priorities (proxy bids))	Maximize MW (maximize proxy CRR value based on priorities (proxy bids))	Maximize MW (maximize proxy CRR value based on priorities (proxy bids))	Maximize MW (maximize proxy CRR value based on priorities (proxy bids))	Maximize MW (maximize proxy CRR value based on priorities (proxy bids))	Maximize MW (maximize proxy CRR value based on priorities (proxy bids))
22	Priorities and Proxy Bids with original objective function (max proxy value)	2.9		The different CRR types will be given the following priorities, ETCs-1st, Non-converted ETCs-2nd and LSEs-3rd. If NSRs are available, make this alternative available					
23	Break down of Large Aggregation Points for Allocation Purposes	2.9.3		Break down large aggregations into smaller aggregations (Surrogate Aggregations)	Break down large aggregations into smaller aggregations (Surrogate Aggregations)	Keep nominations at the larger aggregation points	Break down large aggregations into smaller aggregations (Surrogate Aggregations)	Keep nominations at the larger aggregation points	
24	LMP Calculations	3.2.2		Use same set of assumptions as LMP Study 3					
25	Developing Transaction Data	3.2.3		Work with market participants and/or use historical data					
26	Determining Yearly Financial Hedge Positions	3.2.4		costs with CRR revenue to determine financial hedge positions. Potentially scale down CRRs with CRR revenue surplus and re-run optimization/SFT					
27	Upper Bound Calculation	Appendix B	Needs to be consistent with CRR terms. Need to develop upper bound calculation for MSS net settlement and net CRR	Based on historical/forecasted peak load					
28	Prices used in CRR Settlements	3.2.4	These alternatives are not discussed in detail in CRR Study 2 Assumptions Document	Prices are based on Day-ahead allocation factors, i.e., the prices used in the Day-ahead energy settlements					
29	CRR MW levels used in Settlements	3.2.4	These alternatives are not discussed in detail in CRR Study 2 Assumptions Document	Use MW Levels from combining Surrogate Aggregation MW					
30	Trading Hub definition	2.7.3	These alternatives are not discussed in CRR Study 2 Assumptions Document	Trading Hubs will be NP15, ZP26 and SP15 and will be based on load takeout points					
31	Replace Trading Hub Sources with generator/import Sources	2.7.3		Work with market participants and/or use historical data to model CRRs from actual generator/import locations to the Sinks					
32	Modeling the results of an auction (e.g., generation/import to Trading Hub)		The proposed process is that after every allocation there will be an auction. The original study proposal did not include any modeling of CRRs that would be auctioned.						