California ISO
Your Link to Power

California Independent
System Operator Corporation

Transfer of CRRs Associated with Load Migration

Stakeholder Meeting

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Market & Product Development

CRR Transfers for Load Migration

- **Foundational Issues**
- **Objectives and Principles**
- **Implementation Issues:**
  - What is transferred
  - Load metric
  - Data sources
  - Frequency of transfer
  - Mechanics of transfer
  - Credit requirements

MRTU Tariff Sec. 36.8.5.1.1 Requirement

- **An Load Serving Entity (LSE) that loses Load through migration must transfer a percentage of its allocated Seasonal CRRs to the LSE that gained the Load, or a financial equivalent, in a quantity proportionate to the percentage of Load lost through migration.**
  - Long Term CRR (LT CRR) filing applies the same requirement, but limits financial equivalent to the calendar year for which Seasonal CRRs have already been released.
  - CAISO now proposes to transfer both Seasonal and LT CRRs.
  - (Section is renumbered 36.8.5.2 in 1/29/07 LT CRR filing.)

Alternative Stakeholder Proposal

- **Alternative stakeholder proposal: Distinguish CRRs that are "ineligible" for transfer and allow load-losing LSE to transfer substitute MW of "eligible" CRRs.**
- **PG&E favors, AReM opposes.**
- **CPUC raises questions about details.**
- **CAISO generally does not favor changing existing provisions without strong stakeholder consensus, and without strong policy rationale.**

Objectives and Principles in Issues Paper

- **Initial discussions with stakeholders identified these candidates:**
  1. CRRs belong to the Load (consistent with filed MRTU tariff).
  2. A share of the actual CRR value should be transferred.
  3. The process should be fair to all LSEs.
  4. LSEs receiving CRRs need to qualify as CRR holders.
  5. LSE can desire retention of Long-Term (LT) CRRs that are still needed for their resource portfolios.
  6. There should be fair access by LSEs to recover lost CRRs.
  7. The CAISO should be responsible for tracking CRR migration.
  8. A percentage of load migration should have an equal % of CRR transfer.
  9. The process for transfer can't advantage or disadvantage either the losing or gaining LSE.
  10. The process should be supportive of new investment in generation (at least, not create disincentives).
  11. The solution must be practical and workable.

Implementation Issues: What Is Transferred?

- **Issues of transferring CRRs vs. financial equivalent:**
  - How is a financial equivalent implemented: cash payment vs. future settlements?
  - What if the receiving LSE is ineligible to hold CRRs?
  - Is there a default mechanism, & how is non-default chosen?
  - Can the mechanism apply to LT CRRs?
  - Is a financial equivalent that is executed by a transfer of future settlements equivalent to transferring actual CRRs, if the receiving LSE also gets the eligibility for renewing the CRR?
  - Does “transfer” require an actual change of CRR Holder, or could CAISO issue additional CRRs (counter-flow CRR assigned to load-losing LSE)?
- **Note: transfers can occur outside of SRS, but then the “holder of record” and its obligations do not change.**

To Implement, CAISO will Create New CRRs.

- **To load-gaining LSE: New obligation CRRs, as % of CRRs previously allocated to load-losing LSE**
  - Example: Allocate X MW to LSE-1, from PNode A to LAP-1
- **To load-losing LSE: New obligation CRRs, in reverse direction**
  - Example: Allocate X MW to LSE-2, from LAP-1 to PNode A
- **Offsetting CRRs mean no impact on Simultaneous Feasibility Test (SFT).**

CAISO's Proposal Simplifies Implementation.

- **Award of new CRRs means transfer of future settlements – so no need for financial equivalent.**
- **Transferred CRRs eligible for renewal in Priority Nomination Tier by load-gaining LSE**
  - Load-losing LSE's counter-flow CRRs subtract from its original eligibility.
- **Award of new CRRs means load-losing LSE does not need to currently hold original CRRs.**
  - See subsequent slides for credit issues.

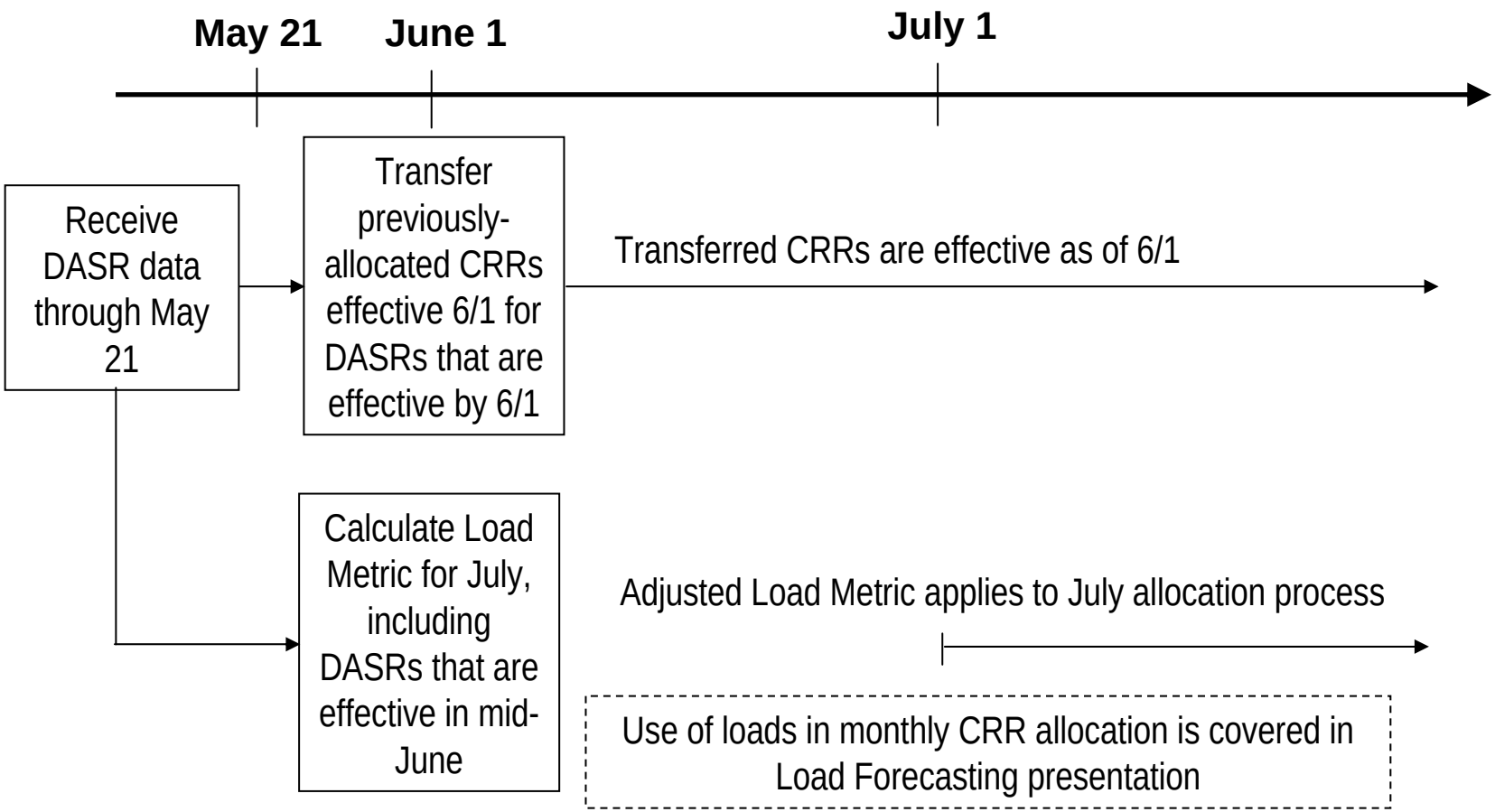
Load Metric Reflects Customer Size.

- **For small customers, Utility Distribution Company (UDC) will determine standard kW/customer, for UDC's coincident peak hours by Season and Time-Of-Use period.**
  - Residential, small & medium commercial, agricultural, small/medium industrial
  - Data cover multiple peak hours.
  - CAISO tracks customer migration.
- **For large customers (industrial, > 1 MW), CAISO will track hourly loads for UDCs' peak hours.**

UDCs Send Daily Migration Data to CAISO, for Monthly CRR Transfers.

- **Data exchange becomes part of Direct Access Service Request (DASR) process.**
  - Minimum: customer ID information, original and new LSE, effective date of transfer, and most recent 12 months of billing data.
- **CAISO will calculate net monthly MW of migration between LSEs, to determine CRR transfers.**
  - CAISO will also track total net migration between LSEs during the previous 30 days, to calculate eligible quantities for monthly CRR allocation.

Monthly Tracking Process: Example



Data Might Become More Granular Over Time.

- **CAISO will consider moving toward tracking hourly loads for smaller customers with interval metering.**
- **CAISO will consider moving toward daily or weekly CRR transfer when data storage issues are resolved.**
  - Initially, CRRs are stored in CAISO's database with rounding to nearest 0.1 MW.

CRR Process Adjusts CRR Portfolios.

- **Step 1:**
  - Base of allocated CRRs held by load-losing LSE-1 =
    (CRRs originally allocated to LSE-1 through CAISO allocation processes)
    +
    (CRRs assigned to LSE-1 through previous months' load migration transfers)
- **Step 2:**
  - Percentage of CRRs to transfer from load-losing LSE-1 to load-gaining LSE-2 =
    (Sum of LSE-1's load that is transferred to LSE-2 during the month)
    /
    (LSE-1's eligible load in previous month's CRR allocation process)

CRR Transfer Is Proportional.

- **Step 3:**
  - CRRs allocated to load-gaining LSE-2 =
    (Base of allocated CRRs held by load-losing LSE-1)
    * (Percentage of CRRs to transfer from LSE-1 to LSE-2)
- **Step 4:**
  - Counterflow CRRs allocated to LSE-1 =
    -1 * (CRRs allocated to LSE-2)
    (i.e., equal amount of MW in the opposite direction)
- **Details are generally the same as a stakeholder proposal in 5/18/07 CRR Issues Paper.**

Credit Requirements Apply to Load-Gaining LSE.

- **Load-gaining LSE must qualify as a Candidate CRR Holder.**
- **CAISO will notify load-gaining LSE of its credit requirements.**
- **CAISO will hold the newly allocated CRRs until the load-gaining LSE satisfies its credit requirement.**
  - If the load-gaining LSE does not satisfy its credit requirement, the CAISO may place the allocated CRRs into the annual or monthly CRR auctions.

Credit Requirements Apply to Load-Losing LSE.

- **Impact on load-losing LSE's credit requirement:**
  - CAISO will need to "cancel" the credit requirements of the portion of CRRs for which the load-losing LSE receives counter-flow CRRs.
  - But counter-flow CRRs may increase the load-losing LSE's credit requirement.
- **Unresolved issues:**
  - Load-losing LSE will also need to maintain sufficient credit to cover the counter-flow CRR. In extreme cases (bankruptcy) an entity may be unable to do so.

For Comparison, What Do Other ISOs Do?

ISO	Load Migration Methodology
PJM Interconnection	PJM now uses Auction Revenue Rights (ARRs). Prior to ARRs, FTRs were allocated to LSEs. If an LSE lost load they would only have to reduce their FTR holding if the FTRs they held > Load. Load gaining LSE could go to PJM and request FTRs from one of their capacity resources, PJM would perform a separate SFT to see if the request was feasible. The counter flow approach was more inline with what FERC envisioned, PJM commissioned a new FTR System which contained options (counter flow approach no longer valid) and ARRs.
New York ISO	In NY, the LSEs can only get Transmission Congestion Contracts (TCCs) through the auction process. Auction revenue is given to the Transmission Owners to offset their Transmission Service Charge. Load migration was never an issue.
ISO-NE	Started with an FTR system with ARRs
Midwest ISO	Handle load migration with Pseudo ARRs