

Data Release and Accessibility
RRI Energy, Inc. Comments on
CAISO Phase I Issue Paper: Transmission Constraints
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RRI appreciates the opportunity to offer the following comments on the Phase I Issue Paper and information published by the CAISO regarding the definition, classification, management and transparency of transmission constraints.

- 1) The CAISO should publish all available data on unmodeled constraints and active constraints including limits before market models are run, and binding constraints, contingencies and shadow prices reflected in market model results, subject to:
 - a. Screening to exclude sensitive or proprietary data
 - b. Sequencing and prioritization of work to design and complete system changes to publish data that is
 - i. of highest value to market participants, and
 - ii. relatively easier for the CAISO to produce
- 2) Terminology used to describe the status of each element of the network should be defined and consistently used, and the list of interfaces, branch groups, nomograms, and any other elements and constraints should make clear the relationship between what's published regarding the Full Network Model, and what's published regarding market results.
- 3) Screening of data that is sensitive or proprietary should:
 - a. Be based on objective, public criteria, including, for example, the use of the designations applied to limit availability of CAISO operating procedures, such as:
 - i. "Market Sensitive"
 - ii. "Proprietary" and
 - iii. "Security Restricted"
 - b. Criteria used to screen data should be consistently used across all systems and processes.
- 4) Data should be published as soon as it is available, unless there is a specific, objective basis for delaying its publication according to the criteria discussed in 3) above.
- 5) The CAISO should provide all necessary information (transmission outages, constraints, contingencies, etc.) relative to a power flow model - Ideally that model should be the CRR FNM, but as long as the CAISO provides a mapping to a power flow model (e.g., the CAISO's EMS/DA power flow model), participants can apply a physical equivalence based mapping mechanism to cross-reference into the CRR FNM models.

- 6) In defining criteria for publishing information, the CAISO should begin with the principle that it should at least match the transparency provided by other ISO/RTOs, restricting information from that level of service only with good cause based on the criteria in 1) above. The following examples of information published by other ISO/RTOs illustrate what the CAISO should make available.
- a. With a signed confidentiality form, an employee of a market participant can obtain access to all ERCOT Remedial Action Plans, Region Mitigation Plans, and active procedures. (In contrast, even after signing the CRR FNM NDA with CAISO, a market participant cannot get access to every Transmission Operating Procedure as some are classified sensitive or restricted.)
 - b. PJM publishes hour by hour operational limits of nomograms and branch groups, and PJM identifies the specific constraint for which a generator is being committed (although control actions PJM takes with respect to that constraint are not published).
 - i. For example, PJM publishes a list of interfaces (including reactive and stability limited) that is updated regularly. The branches included in each interface are all defined relative to the PJM FTR network model (functionally equivalent to the CAISO CRR FNM). See: <http://www.pjm.com/markets-and-operations/ftr/~-/media/markets-ops/ftr/network-model-annual/annual-pjm-interface-definitions-limits.ashx>
 - ii. Hour by hour operational limits of interfaces are published by PJM for all flow constraints that are not limited by simple thermal limitations. Additionally, spreadsheets providing historical transfer limits and flows are available for several years.
 - iii. Weather dependent branch ratings (normal, emergency, load dump) for facilities (lines and transformers) under PJM's monitoring and control are published and updated by PJM on a regular basis. All equipment defined in this branch ratings file follow well-established naming convention that can be mapped to PJM's FTR power flow model. And from there market participants can develop a physical equivalence based mapping mechanism to cross-reference into internal models built from NERC MMWG power flow cases. See: http://oasis.pjm.com/doc/PJM_Line_Ratings.txt
- 7) Regarding data published by the CAISO, many queries return no data, and error messages are often difficult to interpret, and don't explain the nature of the limitation. In such cases, the following message appears:

The information you requested is not available. Possible Reasons

The data you requested has not been published. Refer to the Publication Schedule for standard publication times. Please try your request again after the market has closed.

There have been many changes to the California ISO OASIS data. You may have requested data that is not available for the date requested.

This missing data can be found on the CAISO OASIS web site, "Transmission" tab, report "Current Transmission Usage", by "Transmission Interface ID"

Example of missing data:

SCIT_BG
SDGEIMP_BG
SDGE_CFEIMP_BG
SDGE_PCT_IMP_BG
Serrano_OrangCty_BG
SouthLugo_RV_BG
NSONGS_BG
SSONGS_NG

- 8) For all unmodeled constraints, the CAISO should make clear how they are managed, and each event in which a constraint is relaxed should be transparent.
- 9) Detailed criteria for determining transmission reliability margins and other "biasing" should be published.