BAMx Comments on the CAISO Conceptual Statewide Transmission Plan 2012/2013 Update for 2013/14 Transmission Planning Cycle

The Bay Area Municipal Transmission group (BAMx)[1] appreciates the opportunity to comment on the CAISO Conceptual Statewide Transmission Plan Update (Conceptual Plan). The comments and questions below address the revised Conceptual Plan update posted by the CAISO on November 1, 2013.

The Conceptual Plan describes its purpose as follows: "to ensure the simultaneous feasibility of the ISO's Comprehensive Transmission Plan and the transmission plans of other California BAAs, and coordinate planning with regional and sub-regional transmission planning processes and entities, including interconnected BAAs." However, the Conceptual Plan contains very little information regarding how adding the projects supplied by the other balancing areas affect the CAISO plan. This may be very difficult, but information on these projects should be collected and some observations should be made on any potential impacts. At a minimum, the CAISO should include as background material in an Appendix, the original communication provided by the balancing areas implementing these projects that provide the basis for Tables 1 and 2.

The CAISO notes that the California Transmission Planning Group (CTPG) has been inactive while entities concentrate their resources on FERC Order 1000 compliance. It is understood that whatever occurs in the future with respect to a Statewide transmission plan will be determined jointly with the stakeholders, but it would appropriate to share the current CAISO position on this issue given the developments to date with respect to Order 1000.

Apparent Inconsistencies between CAISO Conceptual Plan and CPUC Renewable Portfolios/Scenarios Need to be Explained

We have several questions on the ***Table 2 – Summary of ISO Transmission Projects*** included in the Conceptual Plan Update. We would like to understand the definitions of some of the terminology used in the Table. For example, please clarify what the CAISO is listing in its Column labeled "Renewable Deliverability Potential." We understand that the amount of renewable generation that can be reliably added in an area is different from what might be called "Deliverable" under the CAISO's deliverability assessment methodology however it is not clear which concept is being applied to the MW numbers represented in the columns of Table 2—Summary of ISO Transmission Projects.

In Table A below, we have provided a comparison between the level of "Renewable Deliverability Potential" in several CREZs (areas) associated with key transmission projects listed in Table 2 of this report to the "MW of Available Capacity on Existing Transmission/No Upgrades/Segment size" levels identified in the CPUC's 33% RPS calculator used to develop the renewable resource portfolios modeled in the CAISO 2013-14 transmission planning cycle. BAMx believes that CAISO should add to the stakeholder understanding of the contents of the

[1] BAMx consists of Alameda Municipal Power, City of Palo Alto Utilities, and City of Santa Clara, Silicon Valley Power.

Conceptual Plan by reconciling these two sets of renewable deliverability potential amounts. The CAISO should also provide an explanation to the stakeholders regarding why and how these amounts differ. We understand that the numbers used in the calculator are provided by the CAISO.

If the renewable potential amounts indicated in the Conceptual Plan are in fact the updated amounts, then please state this explicitly. For this case, we would expect that this updated information would be modeled in future editions of the CPUC's 33% RPS calculator. In other words, are the "xxx" amounts in the plan supposed to be equivalent to the "yyy" amounts in the calculator? If so, the Plan should note these differences and explain them. Below is a description of the differences found by BAMx in its review of the Conceptual Plan.

1. **Coolwater – Jasper - Lugo 230 kV line:** Currently CPUC's 33% RPS calculator assumes that 700MW of renewable capacity can be accommodated in the Kramer CREZ with the addition of the Coolwater – Jasper - Lugo 230 kV line, whereas the Conceptual Plan indicates that amount to be 600MW.
2. **EITP (Eldorado - Ivanpah 115 to 230 kV conversion):** The Conceptual Plan identifies that 1,400MW of renewable potential in the Mountain Pass CREZ, whereas the 33% RPS calculator assumes that amount to be 1,317MW.
3. **Colorado-River-Valley/Red Bluff and West of Devers:** The combined renewable deliverability potential assumed in the Conceptual plan is 4,700MW, whereas the CPUC 33% RPS calculator assumes that amount to be only 2,400MW in the Riverside East CREZ. The CPUC 33% RPS calculator assumes that the incremental renewable capacity associated with West of Devers (WoD) as a standalone project is 1,000MW. Please identify how much renewable potential in the Riverside East CREZ is associated exclusively with the WoD or explain why this cannot be accomplished. If the WoD allows expansion of the renewable deliverability potential in any other CREZ, please identify the corresponding amount separately in Table 2.
4. **Tehachapi Renewable Transmission Project (TRTP):** The renewable deliverable potential of 5,500MW in the Conceptual Plan matches the amount indicated in the CPUC 33% RPS calculator. However, stakeholders in the CAISO Deliverability Methodology informational sessions were informed by the CAISO that the application of deliverability assessment methodology (DAM) results in the deliverability of nearly 7,200MW of generating capacity in the Tehachapi CREZ with the addition for TRTP. If the renewable deliverability potential calculations for all the CREZs in Table 2 are based on DAM, we would expect that the Tehachapi CREZ to reflect the 7,200MW amount.
5. **South of Contra Costa reconductoring:** The Conceptual Plan identifies that the South of Contra Costa reconductoring project adds 300MW of renewable potential in the Solano CREZ, whereas the 33% RPS calculator assumes that amount to be only 200MW.
6. **New projects not captured in the CPUC 33% RPS Calculator:** Some transmission projects were approved in the 2012-13 TPP, which were not assumed in the CPUC 33% RPS calculator.

- **Sycamore – Penasquitos 230 kV Line:** Please confirm/clarify whether this project, by itself, adds 1,825MW of renewable delivery potential in the San Diego area.
- **Warnerville-Bellota 230 kV line reconductoring:** Does this project by itself incrementally add 1,500MW of renewable deliverability potential in the Westlands CREZ, or does the 1,500MW amount also assumes both **Wilson-Le Grand 115 kV line reconductoring project** (1,500MW) and **Borden - Gregg 230 kV line reconductoring** (800MW) become operational? In other words, are all three projects needed to provide 1,500MW of renewable deliverability potential in the Westlands area or do they cumulatively provide 3,800 MW of renewable deliverability potential? Please explain.

Table A below summarizes BAMx's comparisons, showing the differences between the CAISO Conception Plan, Table 2 and the CPUC 33% RPS Calculator.

Table A: A Comparison of Renewable Potential Assumptions: CAISO Conceptual Plan vs. CPUC 33% RPS Calculator

Transmission	Served CREZs	Renewable Deliverability Potential (MW)	
		CAISO Conceptual Plan Table 2*	CPUC 33% RPS Calculator (*g - TxInputs* tab)**
Coolwater – Jasper - Lugo 230 kV	Kramer/San Bernardino-Lucern	600	700
EITP (Eldorado - Ivanpah 115 to 230 kV conversion)	Mountain Pass	1,400	1,317
Eldorado - Lugo 500 kV line loop-in to the new Pisgah 500 kV substation and Pisgah - Lugo 230kV to 500 kV conversion	Pisgah, Mountain Pass	1,750	1,475
New Colorado River and Red Bluff 500 kV substation, PVD 1 loop-in to Colorado River and Red Bluff, and second Colorado River- Red Bluff - Devers -Valley 500 kV line	Riverside East, Palm Springs	4,700	2,400
West of Devers 230 kV reconductoring			
Tehachapi Renewable Transmission Project and Whirlwind #2 and #3 500/230 kV transformers	Tehachapi, Fairmont	5,500	5,500
Build two new substations and loop Morro Bay - Midway #1 and #2 230 kV lines into them. Reconductor from Second station to Midway both circuits.	Carrizo South, Santa Barbara	900	900
South of Contra Costa reconductoring	Solano	300	200
Borden - Gregg 230 kV line reconductoring	Westlands	800	-

Transmission	Served CREZs	Renewable Deliverability Potential (MW)	
		CAISO Conceptual Plan Table 2*	CPUC 33% RPS Calculator (*g - TxInputs* tab)**
West of Mirage (Path 42)***	Imperial	700	1,000
West of Miguel Upgrades	Imperial	700	-
Warnerville-Bellota 230 kV line reconductoring	Westlands	1,500	-
Wilson-Le Grand 115 kV line reconductoring	Westlands	1,500	-
Sycamore – Penasquitos 230 kV Line	San Diego	1,825	-
Lugo – Eldorado 500 kV line re-route	Westlands	-	-
Lugo – Eldorado 500 kV series cap and terminal equipment upgrade	Westlands	-	-

* Source: CAISO Conceptual Statewide Transmission Plan 2012/2013 Update for 2013/14 Transmission Planning Cycle, Dated November 1, 2013

** Source: CPUC 33% RPS Calculator dated December 12, 2012 used to develop renewable portfolios modeled in the CAISO 2013-14 Transmission Planning Cycle.

*** Path 42 and West of Devers combined per the CPUC 33% RPS Calculator.

GIP-Driven Projects Should Not be Included in a Conceptual Plan without an Appropriate Reassessment Under the CAISO Transmission Planning Process

The CAISO has asked the stakeholders for comments and to recommend modifications to the plan as it pertains to projects within the ISO BAA, including alternative transmission and non-transmission elements, potential interstate transmission lines and proposals for access to resources located in areas not identified in the plan. We agree with the CAISO's assessment that it would be inappropriate to include additional projects that have not received CAISO approval in the Conceptual Plan. We also question the CAISO inclusion of certain Generation Interconnection Project (GIP)-driven transmission projects such as, the Pisgah-Lugo 500kV project, the Coolwater-Lugo 230kV project, the Borden-Gregg 230kV project and the West of Devers Project, which do not have CPUC approval at this time. Note that BAMx made these comments previously during the development of the 2012-13 transmission plan. As part of the GIDAP cluster study process, the CAISO performs reassessment studies, which evaluate the need for the Network Upgrades identified in previous interconnection studies. Similarly, the CAISO needs to reevaluate the need for the GIP-driven transmission projects that were identified to meet 33% RPS goal in the previous transmission planning cycles (but do not have either the CAISO Board or the CPUC approval) in the current planning cycle. BAMx urges the CAISO to reconsider its decision to include the GIP-driven transmission among the elements of the 2013-2014 CAISO Transmission Plan and the 2013-14 Statewide Conceptual Plan supporting renewable energy goals.

If you have any questions concerning these comments, please contact Barry Flynn (888-634-7516 and brflynn@flynnrci.com) or Pushkar Wagle (888-634-3339 and pushkarwagle@flynnrci.com).