

The City and County of San Francisco (CCSF) Comments on Key Technical Questions on Energy Division Proposed Scenarios for Use in 2012 LTPP (R.12-03-014)

1. Are there any technical errors in the proposed scenarios, scenario tool, or 33% RPS Calculator? For any alleged errors, please be very specific in your comments including the location of the error and the correct value, including the source for the revised value. If appropriate, please provide a revised spreadsheet showing any corrected values.

CCSF is concerned that the 33% RPS calculator fails to include the overall costs for each of the proposed scenarios. This concern is described further in response to question 6.

CCSF is also concerned that, in the latest version of the 33% RPS calculator that was posted on September 4, 2012 (RPSCalculator_2007_v3_20120823 or the "Latest Calculator"), Out-of-State (OOS) renewables are constrained in a manner that has not been explained or justified. The Latest Calculator allows for a category of "Out-of-State RECs" only for the following four states/zones (*u - SupplyCurve_byBundle* tab): Arizona, Nevada C, the Northwest and Alberta. However, last year's 33% RPS calculator (RPSCalculator_2007_v15_forCAISO) allowed the "Out-of-State RECs" category (w/ zero transmission cost) along with option of "New Tx - Segment 1" for several other states/zones including New Mexico, Montana, Colorado, Wyoming, etc. See Tables 1 and 2 in Attachment 1. The Latest Calculator shows resource bundles from some of the additional states/zones, but indicates that these require additional new transmission, and hence does not select them because of the added cost.¹ The Energy Division (ED) has not explained why the resource bundles from these zones cannot be accommodated on the existing transmission.

2. Staff has assumed a resource with no current COD estimate in the Energy Commission's list of siting cases (http://www.energy.ca.gov/sitingcases/ALL_PROJECTS.XLS), but meeting other criteria, would be online by 2017. Is this a reasonable assumption? If not, please provide a year and justification.

The ED has included too many resources as "Discounted Core" in the Latest Calculator, rendering the LTPP scenario exercise largely meaningless. Discounted Core resources are assumed to be very certain and are not tested for cost and environmental impacts, the whole purpose of the LTPP scenario exercise. As a result of the change in the "Discounted Core" criteria, 26.2 TWh (95%) of the entire 27.5 TWh Renewable Net Short amount is comprised of "Discounted Core" resources and these resources are then included and considered built and operational across all scenarios. In its question, the ED does not define what "other criteria" it used to identify resources. In any event, the ED's assumptions about which resources should be classified as Discounted Core resources are not reasonable, and largely negate the usefulness of evaluating alternative resource portfolios alongside each other.

In the two earlier versions of the 33% RPS calculator, the "Discounted Core" included only Core 4 resources – those with a signed IOU PPA and all necessary permits. The Latest Calculator includes Core 1 resources as Discounted Core resources. The definition given by the ED for Core 1 resources is new/re-powered projects with PPAs signed and approved/**under review** by CPUC and major permits (Conditional Use Permit/Application for Certification) **also deemed data adequate as of August 2012 PDSRs.** It is unreasonable to assume that projects that either do not have a PPA approved by the CPUC, or have not obtained major permits have a high degree of certainty.

¹ The *j - GenericProjData* tab, shows that none of the projects belonging to these states (NM, WY, MT, etc.) are eligible for Out-of-State RECs. Why is this so and why were the generic projects in NM with Resource IDs *E3_005*, *E3_016*, *E3_017*, *E3_027*, and *E3_028* eligible for Out-of-State RECs in the last year's calculator, but not in the latest calculator?

Moreover, as a practical matter, using the Core 4 definition would have allowed for only 20,083 GWh of Discounted Core generation, whereas using Core 1 allows for 26,353 GWh of Discounted Core generation, or most of the Renewable Net Short of 27.5TWh. This means that a very small amount of renewable resources are actually tested or selected based on a given RPS criterion under these proposed 2012 LTPP scenarios. See Table 3 in Attachment 1. CCSF therefore urges the ED to use only the Core 4 resources as the Discounted Core resources.

Furthermore, CCSF strongly supports the ED's proposal to include only transmission projects that have been approved by both the California Independent System Operator (CAISO) **and** CPUC and are expected to be online within the planning period. During the August 24th workshop, some parties made suggestions to relax this criterion. Such relaxation would increase the transmission additions that would escape cost and environmental review and is strongly opposed by the CCSF.

6. Please provide a prioritization of Staff's proposed scenarios and portfolios, and briefly (Not more than 1 page) explain the rationale for this prioritization.

Include a Cost-Constrained Scenario in the Scenario Matrix:

- Cost is a key parameter to be considered in any LTPP scenario assessment. It is startling that no cost-constrained (least cost) scenario has been presented, nor have the cost estimates for each scenario been provided. The fundamental purpose for developing the 2012 LTPP scenarios is "What mix of infrastructure minimizes cost to customers over the planning horizon?"²
- In response to a question at the workshop, ED staff indicated that they checked the overall cost associated with a cost-constrained scenario and found it to be comparable to the total cost of remaining scenarios. The ED thus dropped the cost-constrained scenario in the interest of limiting the number of scenarios. This response is problematic for a number of reasons. First and foremost, given the importance of cost, stakeholders are entitled to transparent information on the costs of each scenario, and the results of running a cost-constrained scenario. CCSF has identified concerns that skew the outcomes of the scenarios that were presented, and might identify similar concerns with a cost-constrained scenario. This concern is exacerbated by the failure of the ED to provide transparent and easily discernable information on the total cost of the scenarios it did run.
- An accurately-developed cost-constrained scenario would likely provide a different "realistic" mix of renewable generation than what is captured in the remaining scenarios. For example, the past 33% RPS calculators have shown that the cost-constrained scenarios typically have higher OOS generation than the remaining scenarios.

Make a "Cost-constrained" scenario the Base Case: No other scenario addresses as directly the primary problem statement for developing the 2012 LTPP scenarios, identifying the mix of infrastructure that minimizes cost to customers over the planning horizon. Until recently, the ED recommended a Cost-constrained scenario as the most appropriate Base Case for the CAISO annual transmission plan(s) (ED letters to CAISO recommending most appropriate Base Case dated June 2011 and March 2012). The ED has not presented any convincing rationale for the change to using the "Commercial Interest" scenario as the Base Case.

Drop the "No New DSM" Scenario: As indicated by several Parties during the August 24th workshop, this scenario, which assumes no new Incremental EE, PV or CHP by 2022, is unrealistic. If the ED wants to include this unrealistic extreme scenario, it should also include extreme scenarios that assume high levels of Incremental EE, PV and CHP.

² Source: Section VI in *Energy Division Proposed Scenarios for use in 12-03-014*, August 2012.

ATTACHMENT 1**Table 1: OOS Zones with and without Selected RPS Resources in the August 2012 Version**

Type ID	Origin Zone	Resource Type	Selected?
6	Arizona	Out-of-State RECs	Yes
6	Nevada C	Out-of-State RECs	Yes
6	Alberta	Out-of-State RECs	Yes
6	Northwest	Out-of-State RECs	Yes
1	Nevada C	New Tx - Segment 1	No
1	Baja	New Tx - Segment 1	No
1	Arizona	New Tx - Segment 1	No
1	Wyoming	New Tx - Segment 1	No
1	New Mexico	New Tx - Segment 1	No
1	Montana	New Tx - Segment 1	No
1	Utah-Southern Idaho	New Tx - Segment 1	No
1	British Columbia	New Tx - Segment 1	No
1	Nevada N	New Tx - Segment 1	No
1	Northwest	New Tx - Segment 1	No

Table 2: OOS Zones with and without Selected RPS Resources in the June 2011 Version

Type ID	Origin Zone	Resource Type	Selected?
6	British Columbia	Out-of-State RECs	Yes
6	Montana	Out-of-State RECs	Yes
6	Wyoming	Out-of-State RECs	Yes
6	Utah-Southern Idaho	Out-of-State RECs	Yes
6	New Mexico	Out-of-State RECs	Yes
6	Colorado	Out-of-State RECs	Yes
6	Northwest	Out-of-State RECs	Yes
6	Arizona	Out-of-State RECs	Yes
6	Alberta	Out-of-State RECs	Yes
6	Nevada C	Out-of-State RECs	Yes
1	Baja	New Tx - Segment 1	No
1	Nevada N	New Tx - Segment 1	No
1	Wyoming	New Tx - Segment 1	No
1	New Mexico	New Tx - Segment 1	No
1	Arizona	New Tx - Segment 1	No
1	Nevada C	New Tx - Segment 1	No
1	Montana	New Tx - Segment 1	No
1	Utah-Southern Idaho	New Tx - Segment 1	No
1	British Columbia	New Tx - Segment 1	No
1	Northwest	New Tx - Segment 1	No

Table 3: A Comparison of Amount of Discounted Core Generation Under Two Definitions for the Commercial Interest Scenario

Discounted Core Type	Discounted Core Generation (GWh)		
	In-State	Out-of-State	Total
Core 1	21,925	4,328	26,253
Core 4	16,021	4,062	20,083