

Bay Area Municipal Transmission Group's Comments on the CEC Staff's Proposed Method to Calculate the Amount of Renewable Generation Required to Comply with Policy Goals

March 18, 2011

The Bay Area Municipal Transmission Group¹ (BAMx) appreciates the opportunity to comment on the California Energy Commission's (CEC) decision to develop an updated forecast of what has been classified as a "renewable net short" and serves as an amount of additional renewable generation needed to comply with policy goals. These comments are based on the CEC Draft paper² as well as the related CEC workshop conducted on March 8, 2011. We hope that our comments will be incorporated in the CEC staff's updated modified renewable net short calculations.

BAMx Appreciates the CEC's Efforts

We applaud the CEC's decision to serve as the focal to develop a revised renewable "net short" amount. We believe it is the proper agency in the State government to accept the role for establishing a number for others to use in various studies, including important ones that determine future infrastructure needs. We believe the CEC Staff should be congratulated for their initial efforts described in their draft paper and in their presentations at the Workshop. We believe CEC Staff's comparison of past studies that developed and used renewable net short provides very valuable background on the issue. Second, the CEC draft adequately explains their proposed net short formula, the elements that enter into net short calculations and includes important references for underlying components. Third, the CEC draft recognizes the need to incorporate projected activities beyond those approved and funded (committed) as far as the Demand Reduction programs are concerned. Finally, the CEC staff has established the need for developing a range for the renewable net short rather than single point estimates. In the rest of this document, we provide comments on the definition of the renewable "net short" amount and some of the key variables underlying the renewable net short calculations.

Definition of the Renewable "Net Short" Amount

BAMx disagrees with a certain aspect of the definition of the renewable "net short" amount. The net effect of the current definition is to value utility (producer)-side renewables as three times the value of renewables on the customer-side. We believe this sends an improper signal to the utilities and other decision makers. Customer-side Distributed Generation (DG) estimates should

¹ BAMx consists of Alameda Municipal Power, City of Palo Alto Utilities, and the City of Santa Clara's Silicon Valley Power.

² CEC-200-2011-001-SD, March 2011.

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be equal in value when compared to the central station renewables, certainly more than one-third the amount.

However, BAMx understands the CEC is trying to track progress towards existing and likely future State legislation, so we appreciate the reasoning behind making the definitions consistent with the legislation. We do not expect the CEC to use this forum to affect the applicable legislation.

Demand Reduction Programs

Incremental Energy Efficiency

Given a range of incremental uncommitted Energy Efficiency (EE) estimates, we believe that the CEC has taken a reasonable first step in determining the high, medium and low estimates. It is absolutely unrealistic, as it was in the case of the past net short studies, to assume the uncommitted EE amounts to be zero. As the Publicly-owned Utility (POU) EE data becomes available, CEC should include those amounts. Until then, we find the placeholder POU EE estimates based on the POU load ratio share to be reasonable. The CEC staff has taken into account the retail electricity sales for the Load Serving Entities (LSEs) with annual retail sales less than 200GWh in their net short calculations. So it would be customary to also include placeholder estimates for these LSEs' demand reduction programs.

Incremental Distributed Generation Goals

BAMx believes that the CEC staff's incremental Distributed Generation (DG) estimate of 1.9TWh is on the low side. This is because the CEC staff has used a low 14.8% annual capacity factor based on the historical rooftop PV generation data³. Given the recent advancement in the PV technologies, we urge CEC to use a higher capacity factor representative of new future rooftop PV generation. Historical performance should not be used as a predictor of future performance in a rapidly changing technical environment.

We believe that the updated net short should incorporate Governor Brown's DG goal of 12,000 MW by 2020 as indicated in his Clean Energy Jobs Plan.⁴ So far the CEC staff has focused on the consumer-side DG in their net short calculations, which is consistent with current and expected future legislation. The remaining portion of the Governor's DG goal would be met by the producer-(or utility/supply) side DG. BAMx suggests that the CEC also takes the lead in developing these producer-side DG estimates. We understand that goes beyond the historical renewable net short calculation but we believe it is an important function that the CEC should assume as an extension to the currently defined scope. This has two advantages. First, the CEC

³ Source: CED 2010.

⁴ <http://www.jerrybrown.org/jobs-california%E2%80%99s-future>

staff has the required expertise in developing these estimates. Second, it is critically important that the combination of consumer-side and producer-side DG should reflect Governor Brown's goals. In other words, the planning entity that utilizes the CEC's renewable net short estimates should model producer-side DG in an amount that is consistent with the CEC's assumption of the consumer-side DG. Otherwise, Gov. Brown's DG goal would not be modeled accurately.

Incremental Combined Heat and Power

We have reviewed the underlying calculation used to develop the low, medium and high estimates of the new Combined Heat and Power (CHP) and find them to be reasonable.⁵ Most importantly, these estimates are consistent with Gov. Brown's goal for 6,500MW of new CHP development within next 20 years.

Existing Eligible Renewable Generation

Although using the **Installed Capacity** method to estimate existing renewable generation excludes facility-specific factors that may reduce generator output, we believe that this method may generate a more stable and better estimate than the **Historical Generation** method. The Historical Generation method is highly susceptible to the year-to-year weather conditions and other idiosyncrasies. We believe, especially for intermittent resources, that the Installed Capacity method would likely project more realistic generation than their historical performance. We think the CEC should use the Installed Capacity method to model the generation of existing facilities (that were on-line prior to the most current full –year QFER 2009) in their “Medium Net Short” estimate. Furthermore, currently the “Low (illustrative) Net Short” estimate assumes the annual generation of the renewable facilities under construction with renewable COD 12/1/2010 to 12/31/2011 to be zero, which is unrealistic. We suggest that the CEC staff assume the same amount that is assumed under the remaining two estimates, i.e., 4.6TWh in the modified “Low” net short estimate.

Net Short Applications

We encourage the CEC to continue their active involvement in the integrated renewable generation and transmission planning process. This effort should be a high priority activity for the CEC, as it will likely continue to be a major driver of large investments in infrastructure. BAMx believes that the CEC is best suited to develop a range of forecasts of net short that cater to specific needs of the transmission planning entities such as the CAISO and the California Transmission Planning Group (CTPG). For instance, CTPG in their 2011 Work plan have indicated that they would collaborate with the CEC on using the updated net short estimates and underlying assumptions in their 2011 planning cycle. This would be an important step in

⁵ Based on the *ICF Combined Heat and Power Market Assessment Report*, October 2009.

minimizing the risk of stranded or underutilized transmission infrastructure. And the CEC should consider developing adjusted forecasts, consistent with the base forecast that is appropriate for utilization in the other forums. For instance, the adjustments the CEC Staff has made for losses are not necessarily appropriate for representing resources and loads in load flow cases. So it does make sense for the method and assumptions for a renewable net short estimate for specific uses to vary depending on the type of study.

Thank you for the opportunity to comment and we look forward to continued public stakeholder participation.

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