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San Francisco PUC Comments on AB1110 Implementation

Dear Sir/Madam:

Attached are the comments of the San Francisco Public Utilities Commission (SFPUC) for the above docket (AB1110 Implementation).

Additional submitted attachment is included below.

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DOCKET: 16-OIR-05 (AB1110 Implementation Rulemaking)

Comments of the San Francisco Public Utilities Commission (SFPUC) to the Scoping Questions for Implementation of Assembly Bill (AB)1110 at the February 21, 2017 Staff Pre-Rulemaking Workshop

Dear Sir/Madam:

The SFPUC strongly supports the reporting of the greenhouse gas (GHG) intensity of the electric energy used to serve California's electric customers and provides the following responses to the questions raised at the February 21, 2017 Workshop.

Response to Questions

The SFPUC will be subject to AB1110's reporting guidelines both as a publicly-owned utility (POU) and as a community choice aggregator (CCA) through San Francisco's CleanPowerSF program.

As a POU, the SFPUC supports the comments submitted by the California Municipal Utilities Association except the SFPUC believes that renewable generation should be counted when the associated Renewable Energy Credit (REC) is retired.

As a CCA, the SFPUC supports the comments submitted by CalCCA which represents the interests of California's CCAs in the legislature and before regulatory agencies such as the CEC.

Common themes of these comments are that:

- Renewable Energy Credits (RECs) should be credited toward calculating a Load Serving Entity's GHG intensity for the year in which they are retired (CalCCA);
- Portfolio Content Category 3 ("Bucket 3") RECs should be credited toward calculating a Load Serving Entity's (LSE's) GHG intensity and reported based on the renewable energy resource that created the REC (CMUA and CalCCA);
- The GHG-intensity of Portfolio Content Category 2 ("Bucket 2") RECs should be calculated based on the associated renewable energy resource (CMUA and CalCCA); and
- The GHG-intensity assigned by the California Air Resources Board (CARB) for energy from unspecified sources is a reasonable proxy for calculating GHG emissions (CMUA and CalCCA).

Response to Question #1 (POU GHG Intensity Adjustment)

Of specific concern, and we believe unique to the SFPUC, is AB1110's requirement that the CEC:

> Shall establish guidelines for adjustments to a greenhouse gas emissions intensity factor for a reporting year for any local publicly owned electric utility demonstrating generation of quantities of electricity in previous years in excess of its total retail sales and wholesale sales from specified sources that do not emit any greenhouse gases...[1]

San Francisco worked with Assemblymember Ting's office to develop this legislative language. As noted in the letter to Assemblymember Ting from San Francisco Mayor Ed Lee (Ting-Lee letter);

> Most years, San Francisco's electric generation is large enough to allow the SFPUC to sell a significant portion of Hetch Hetchy GHG-free hydroelectricity as "unspecified power" on the California energy markets. In fact, since 1998, we have provided 3 million megawatt hours of surplus zero-GHG energy to the grid as unspecified power, a GHG-reducing contribution equivalent to taking every car in San Francisco off the road for six months. However, if AB1110 is implemented as currently written, the SFPUC would be barred from including these significant contributions to the California power grid in its emission factor calculation. Instead, the standard that would be established by AB1110 would exclude the reporting of sales of this surplus California-based GHG-free power.[2]

[1] Public Utilities Code Section 398.4(k)(2)(D)
[2] Letter to Hon. Assembly Member Phil Ting from San Francisco Mayor Ed Lee, March 28, 2016, p. 1

As background, it should be noted that the SFPUC is the only California utility that has zero-GHG generation greater than 100% of its retail sales, primarily from its Hetch Hetchy system but also from numerous solar photovoltaic (PV) installations within the San Francisco area. In a normal hydro year, the SFPUC generates about 1.6 million Megawatt hours (MWh) of zero-GHG electric energy. After meeting its own retail needs (about 1 million MWh/year) as well as making specified sales of Hetch Hetchy energy to the Modesto and Turlock Irrigation Districts (as required under the federal Raker Act), the SFPUC still has an additional 300,000 MWh to 400,000 MWh of zero-GHG energy that must be sold.

Due to a variety of operational and legal requirements,[3] the SFPUC is often unable to sell this zero-GHG power as a specified sale, and instead must sell it into the wholesale markets as an "unspecified sale." This creates a mismatch in GHG accounting. Even though the SFPUC is providing zero-GHG power to the grid, the purchaser of the power must report it as an unspecified sale, with an assumed GHG-intensity of 931 lb./MWh,[4] thus overstating California's GHG emissions.

The purpose of the above legislative language was to address the mismatch in GHG accounting by allowing the SFPUC to receive credit for this surplus zero-GHG energy provided to the grid during wet years and apply it to the SFPUC's GHG emissions profile during dry years. As noted in the Ting-Lee letter:

> To address this problem, the SFPUC has offered suggested amendments that would allow San Francisco to receive credit for providing this 100 percent clean power to California's electric grid. This would be accomplished by allowing the limited carry-over of credits for excess GHG-free electric generation during those years when output is low due to below average Hetch Hetchy generation.[5]

Working with Assemblymember Ting's office, legislative language was added to address the SFPUC's concerns.

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[3] For example, under state law, the SFPUC must operate its Hetch Hetchy system on a "water first" basis, while under the federal Raker Act the SFPUC is subject to both allocation formulas and restrictions on the resale of electric power. The combined effect of these requirements limits the ability of the SFPUC to develop the sale of "specified" energy products in the marketplace.

[4] Based on the California Air Resources Board assignment of 0.428 metric tons of GHG per MWh of unspecified power.

[5] Letter to Hon. Assembly Member Phil Ting from San Francisco Mayor Ed Lee, March 28, 2016, p.1- 2.

In order to implement the legislative requirement of this provision of AB1110, four issues need to be addressed.

Eligible Quantities of Surplus Zero-GHG Energy Need to be Calculated According to the Statutory Direction Given in AB1110

Question #1 (POU GHG Intensity Adjustment) of the Workshop Notice asks:

> What quantities of electricity have been generated in previous years stakeholders believe would qualify for the adjustment?[6]

This question can be directly answered by reference to the actual legislative text of AB1110. AB1110 clearly states the calculation methodology as the "generation of quantities of electricity in previous years in excess of its total retail sales and wholesale sales from specified sources that do not emit any greenhouse gases."

This can be numerically represented by the following formula; with illustrative numbers provided as:

1	Generation from "sources that do not emit any greenhouse gases", minus	1,600,000 MWh
2	"Total Retail Sales", minus	1,000,000 MWh
3	"Wholesale sales from "specified [zero-GHG] sources" equals	300,000 MWh
4	Amount eligible for carry-over	300,000 MWh

AB1110 does not provide for any further restrictions in the calculation of the amount of excess carry-over.

The Roll-over Period for Excess Zero-GHG Generation Should be Between Seven and Twenty Years, Consistent with the CEC's Treatment of Similar Legislative Requirements

AB1110 requires that surplus zero-GHG generation be rolled over for use in future years but doesn't specify the length of this roll-over period. As variations in hydroelectric generation is the main reason for variations in the SFPUC's zero-GHG generation, the roll-over period should be long enough to reflect this variation.

[6] Staff Pre-Rulemaking Workshop on Updates to the Power Source Disclosure Regulations, February 21, 2017, p. 4.

Fortunately, the CEC has already addressed this issue in implementing previous legislative mandates, adopting a period of seven to twenty years to reflect variations in hydroelectric output.

In implementing the legislative requirements of Senate Bill(SB)X1-2 (Stats. 2011, 1st Ex. Sess., Ch. 1), the CEC adopted a seven-year averaging period for the SFPUC's qualifying hydroelectric generation for purposes of determining the SFPUC's eligibility for its alternative compliance obligation.[7] As the CEC noted:

> Staff selected a seven-year average, because it provides a sufficient amount of time to resolve any issues with dry years during which hydroelectric generation is low, and it is parallel with the calculation of retail sales for joint power authorities POUs under 399.30(i).[8]

In 2016, in response to the requirement of SB591 (Stats. 2013, Ch. 520) establishing an alternative RPS compliance obligation for the Merced Irrigation District, the CEC revisited this determination. As a result of SB591, the CEC not only adopted a 20-year averaging period for Merced's hydroelectric generation[9] but also changed the SFPUC's calculation for its alternative compliance obligation to twenty years.[10]

In reaching this conclusion;

> The Energy Commission determined that twenty years or the entire generating history of the hydroelectric generation facility was an appropriate averaging period to capture the fluctuations in production from the facility. This averaging period is consistent with the requirements in the Energy Commission's RPS Eligibility Guidebook for purposes of calculating incremental electricity generation from a hydroelectric generation facility…[11]

[7] CEC Enforcement Procedures for the RPS for Local Publicly-Owned Utilities, Section 3204(a)(7)(C) effective August, 2013 implementing the requirements of Public Utilities Code Section 399.30(j).
[8] Initial Statement of Reasons (ISOR) for Proposed Regulations Enforcement Procedures for the RPS for Local Publicly Owned Electric Utilities (Docket No. 11-RPS-01) March 1, 2012, p. 22.
[9] CEC Enforcement Procedures for the RPS for Local Publicly-Owned Utilities (Amended Regulations effective April 12, 2016) Section 3204(a)(10)(B).
[10] Compare the August, 2013 version of Section 3204(a)(7)(C) with the Amended Regulations: effective April 12, 2016.
[11] Initial Statement of Reasons (ISOR): Modification of Regulations Establishing Enforcement Procedures for the Renewables Portfolio Standard for Local Publicly-Owned Utilities (Docket No. 14-RPS-01, March 27, 2015, p. 8).

The 20-year averaging requirement for calculating incremental hydroelectric generation also was developed to comply with the legislative requirements of SB1247 (Stats. 2010, Ch. 488) and recently reconfirmed by the CEC with the adoption of the 9th Edition of the RPS Eligibility Guidebook in January 2017.[12]

Based on the above, a roll-over period of seven to twenty years could be justified. The SFPUC believes that a seven-year roll-over period (as initially adopted by the CEC) should be the minimum length adopted to meet the SFPUC's concerns.

The Calculation of Zero-GHG Energy Eligible for Roll-Over Must Start Prior to the First GHG Reporting Year

AB1110 requires that each "reporting year" include the "adjustments to a GHG-intensity factor" for a POU's "previous years" of surplus zero-GHG generation. Therefore, the first AB 1110 reporting year of 2019[13] must include surplus zero-GHG emissions that occurred prior to 2019.

Based on application of a seven-year roll-over period, for example, the initial roll-over period for the 2019 reporting year would include calendar years 2012 to 2018.

Once again, this approach is consistent with the time-lines adopted by the CEC to implement the statutory requirements of SBX1-2 and SB591. In implementing the seven-year and twenty-year averaging periods for determining eligibility for these RPS alternative compliance mechanisms, the CEC calculated the averaging period working backwards from the first compliance date. Thus, the SFPUC's initial seven-year average for determining its alternative compliance obligation for the 2014-2016 RPS compliance period was based on generation from calendar years 2007 through 2013.[14] This requirement included four years of data that occurred prior to the 2011 effective date of SBX1-2. In its recent modifications to the POU RPS compliance rules, requiring a 20-year reporting period, the SFPUC will soon be reporting its generation and retail sales data back to 1997, over fourteen years before the adoption of SBX1-2.[15]

[12] RPS Eligibility Guidebook, 9th Edition, Ch. 3E, p. 39 (January, 2017).
[13] Public Utilities Code 398.4(k)(2)(F).
[14] CEC Enforcement Procedures for the RPS for Local Publicly-Owned Utilities, Section 3204(a)(7)(C) effective August, 2013.
[15] CEC Enforcement Procedures for the RPS for Local Publicly-Owned Utilities, Section 3204(a)(7)(C) effective April 12, 2016. The SFPUC will be making this filing prior to the regulatory deadline of March 31, 2017.

Existing Reporting Mechanisms are Sufficient to Track Compliance with this Provision of AB1110

AB1110 provides that:

> Adjustments authorized by the guidelines established by the Energy Commission shall not permit excess generation procured in a single year to be counted more than once or to be resold to another retail supplier as a specified source.[16]

This requirement can easily be met based on existing information already required to be provided to the CEC by the SFPUC. As part of the SFPUC's yearly RPS compliance and Power Source Disclosure (PSD) filings, the CEC already has access to the SFPUC's retail sales, generation from its zero-GHG sources, and all specified sales. As part of these reporting requirements, the SFPUC will soon be submitting to the CEC retail sales and hydroelectric generation volumes for the past twenty years.[17]

Consistent with the PSD reporting requirements, the SFPUC also ensures that any wholesale sales that it makes are clearly identified as either specified or unspecified,[18] thus ensuring that the purchaser knows the PSD classification of the energy they are purchasing. Additionally, the SFPUC tracks all of its GHG-free generation (whether or not RPS-eligible) in WREGIS, providing an additional means of validation for identifying the appropriate amount of roll-over GHG-free generation.

Conclusion

The SFPUC appreciates the opportunity to comment on the AB1110 proposed regulations and looks forward to working with the CEC towards their implementation.

[16] Public Utilities Code Section 398.4(k)(2)(D).
[17] CEC Enforcement Procedures for the RPS for Local Publicly-Owned Utilities, Section 3204(a)(7)(C) effective August, 2013.
[18] This classification is already included in the standard Western Systems Power Pool (WSPP) contracts that are used for a significant portion of energy purchases in the WSPP service territory.

Please do not hesitate to contact us with any questions or requests for further information.

Sincerely,

/s/ James Hendry

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