California ISO

**Stakeholder Comments Template**

## Excess Behind the Meter Production: Draft Final Proposal

This template has been created for submission of stakeholder comments on the Excess Behind the Meter Production: Draft Final Proposal that was published on December 12, 2019.The presentation and all related information for this initiative may be found on the initiative webpage at: http://www.caiso.com/informed/Pages/StakeholderProcesses/ExcessBehindTheMeterProduction.aspx.

| Submitted by | Organization | Date Submitted |
|---|---|---|
| *Steve Shoemaker 415 696 7330* | *The Public Advocates Office* | *January 16, 2019* |

Upon completion, please submit this template it to initiativecomments@caiso.com by the end of day **January 16, 2019.**

**Please provide your organization's comments on the following issues and questions:**

1) **Gross Load tariff definition clarification**

Please state your organization's position on the Gross Load tariff definition clarification as described within the Draft Final Proposal: (Support / Support with Caveat / Oppose)

If you replied supports with caveats or opposes, please further explain your position and include examples:

The Public Advocates Office has no comments on this issue at this time.

2) **Excess Behind the Meter Production tariff definition**

Please state your organization's position on the Excess Behind the Meter Production tariff definition, as described in the Draft Final Proposal: (Support / Support with Caveat / Oppose)

If you replied supports with caveats or opposes, please further explain your position and include examples:

The Public Advocates Office has no comments on this issue at this time.

3) **Excess behind-the-meter production reporting and settlements**

Please state your organization's position on the Excess Behind the Meter Production reporting and settlements, including the proposal to update the current Unaccounted-for-Energy (UFE) determination, as described in the Draft Final Proposal: (Support / Support with Caveat / Oppose)

If you support with caveat or oppose, please further explain your position and include examples:

The Public Advocates Office has no comments on this issue at this time.

4) **Unaccounted-for-Energy (UFE) determination**

Please state your organization's position on the Excess Behind the Meter Production determination for UFE, as described in the Draft Final Proposal: (Support / Support with Caveat / Oppose)

If you support with caveat or oppose, please further explain your position and include examples:

The Public Advocates Office has no comments on this issue at this time.

5) **Application of losses**

Please state your organization's position on the Excess Behind the Meter Production application of losses, as described in the Draft Final Proposal: (Support / Support with Caveat / Oppose)

If you support with caveat or oppose, please further explain your position and include examples:

The Public Advocates Office has no comments on this issue at this time.

**Additional comments**

Please offer any other feedback your organization would like to provide on the Excess Behind the Meter Production: Draft Final Proposal.

**Certain Entities Should Not be Exempt From the Proposed Excess Behind-The-Meter (BTM) Reporting Standards.**

The California Independent System Operator's (CAISO) Draft Final Proposal exempts certain entities (mostly publically-owned utilities) from the requirement to report excess BTM production to the CAISO, and allows them to report Gross Load net of excess BTM production.[1] The Draft Final Proposal states that these entities are exempt because they "have metering arrangements negotiated before the ISO's inception,"[2] and that the CAISO does not "have jurisdiction to require retail metering changes."[3] The Draft Final Proposal does not provide detail as to the structure of these metering arrangements and the degree to which they can be altered to ensure compliance with the CAISO's new requirement. This means that the exempt entities are able to submit load figures that are net of excess BTM production to the CAISO, and the remaining entities (such as the investor-owned utilities, or IOUs) cannot. This leads to a cost shift from exempt to non-exempt entities in charges that depend on load, particularly the high-voltage transmission access charge (TAC).

The Public Advocates Office expressed concern regarding the application of different standards for calculating net load in our November 26, 2018 comments.[4] Our comments on the Revised Straw Proposal described methods the CAISO can use to ensure that exempt entities report excess BTM production and do not subtract it from gross load. These solutions do not involve new metering infrastructure and they include: 1) requiring that exempt entities track new BTM production, 2) requiring entities to track production from larger BTM systems with sophisticated metering, and 3) requiring entities to estimate their excess BTM production through a process similar to the one described below.[5] These comments on the Draft Final Proposal reiterate those concerns and present an estimate of the cost shift from exempt to non-exempt entities due to excess BTM production from residential solar PV systems.

**The Public Advocates Office's Cost Shift Estimate from Exempt to Non-Exempt Entities Should Be Addressed.**

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[1] *Excess Behind-the-Meter Production: Draft Final Proposal.* December 12, 2018. California Independent System Operator Corporation, pp. 5 and 11.

[2] *Excess Behind-the-Meter Production: Draft Final Proposal.* December 12, 2018. California Independent System Operator Corporation. Retrieved from http://www.caiso.com/Documents/DraftFinalProposal-ExcessBehind-MeterProduction.pdf.

[3] *Excess Behind-the-Meter Production: Draft Final Proposal.* December 12, 2018. California Independent System Operator Corporation. Retrieved from http://www.caiso.com/Documents/DraftFinalProposal-ExcessBehind-MeterProduction.pdf.

[4] *Comments on the Excess Behind-the-Meter Production Revised Straw Proposal.* November 26, 2018. Public Advocates Office. Retrieved from http://www.caiso.com/Documents/PAOComments-ExcessBehind-MeterProduction-RevisedStrawProposal.pdf

[5] *Comments on the Excess Behind-the-Meter Production Revised Straw Proposal.* November 26, 2018. Public Advocates Office. Retrieved from http://www.caiso.com/Documents/PAOComments-ExcessBehind-MeterProduction-RevisedStrawProposal.pdf.

CAISO staff stated in the Revised Straw Proposal that only 13% of load will be exempt from the proposed gross load reporting requirements, implying that any resulting cost shift would be *di minimis.* Based on the information that has been provided to stakeholders thus far, the Six Cities – Anaheim, Azusa, Banning, Colton, Pasadena, and Riverside - would be exempt from the excess BTM production data reporting requirement. Because these entities also file for transmission revenue requirement recovery (over $80 million cumulatively in the January 2019 filing with the CAISO[6]), the Public Advocates Office used the following methodology to determine how the proposed reporting exemption would affect allocation of the high voltage TAC.

a) As shown in Figure 1, the Public Advocates Office created a daily net load curve to represent the average residential net load of a typical residence with solar in the Six Cities' region (all these cities are in close proximity in southern California). To determine the average load for a residence in the Six Cities region, the Public Advocates Office started with Southern California Edison Company's (SCE) baseline consumption figure for Region 10,[7] as that represents SCE's informed electrical consumption estimate (used in determining customers' monthly bills) for homes in a region that is either adjacent to or encompasses the Six Cities. That baseline figure was multiplied by 1.5 because baselines represent the minimum usage needed to satisfy a substantial portion of the needs of an average customer in a given area, rather than a typical load.[8] That average residential load was distributed throughout an average summer and winter day using the U.S. Department of Energy's Residential Energy Consumption database, which provides details about when consumers in a certain area use electricity.[9] The production from an average-sized residential solar photovoltaic (PV) system in the region was estimated using the California Distributed Generation Statistics (CDGS) database[10] and the National Renewable Energy Lab's PV Watts tool.[11] These were all combined to create a daily net load curve for a typical solar residence in the Six Cities' region.

[6] January 1, 2019 TAC Rates. Updated January 7, 2019. California Independent System Operator. Retrieved from http://www.caiso.com/Documents/HighVoltageAccessChargeRatesEffectiveJan01_2019_RevisedJan01_2019.pdf

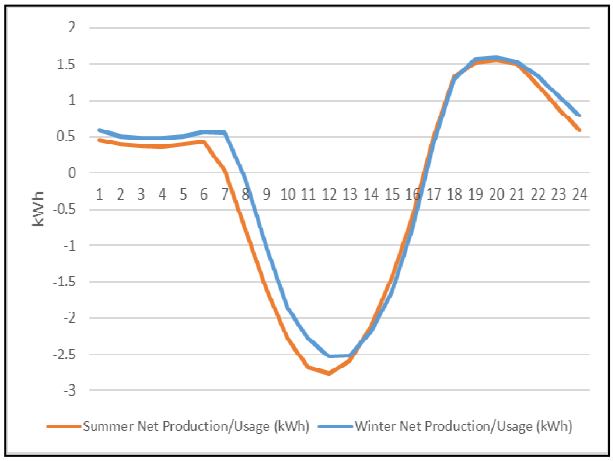
[7] Baseline Service Allocation – Region 10. Southern California Edison. Retrieved from https://www1.sce.com/NR/sc3/tm2/pdf/ce07-12.pdf.

[8] Understanding how rates are set. Pacific Gas and Electric. Retrieved from https://www.pge.com/en_US/residential/rate-plans/how-rates-work/learn-how-rates-are-set/learn-how-rates-are-set.page

[9] Residential Energy Consumption Survey. 2013. Energy Information Administration. Accessed via Open EI Database. Retrieved from https://openei.org/datasets/dataset/commercial-and-residential-hourly-load-profiles-for-all-tmy3-locations-in-the-united-states.

[10] California Distributed Generation Statistics Database. Updated October 31, 2018. Retrieved from https://www.californiadgstats.ca.gov/downloads/.

[11] PV Watts Calculator. National Renewable Energy Lab. Retrieved from https://pvwatts.nrel.gov/.




Six Cities Solar Home Net Load by Hour
Typical Summer Usage: 24.3 kWh/day
Typical Winter Usage: 16.2 kWh/day
Average PV System Size: 5.65 kW Direct Current

*Figure 1 – Net load curve for a residence with solar PV in the Six Cities region*

b) The net load curve above was used to calculate the annual average export from a typical solar residence in the Six Cities' region. The annual average solar residence export figure was multiplied by the total number of interconnected solar PV systems in the Six Cities region (retrieved from the CDGS database) to determine the city's excess BTM production. That production was added to the load figures in the January 1, 2019 TAC calculations[12] to determine what the Six Cities region would pay if excess BTM production was not subtracted from load (this assumes excess BTM production is currently being netted).

   Using this methodology, the Public Advocates Office estimates a $350,000 annual cost shift from the Six Cities to the IOUs (SCE, Pacific Gas and Electric Company, and San Diego Gas & Electric Company).[13] The Public Advocates Office offers this estimate to help stakeholders assess the impact of the exemptions in the draft final proposal. This cost shift surpasses $1 million over three years and is likely to increase with the implementation of California's 2019 Building Energy Efficiency Standards that require solar on all new homes.[14]

In summary, many exempt entities are filing for transmission revenue requirement recovery and socializing these transmission costs to all ratepayers in the CAISO's balancing authority area. It is critical that, to the extent feasible, the load figures that make up the basis of that allocation are

[12] January 1, 2019 TAC Rates. Updated January 7, 2019. California Independent System Operator. Retrieved from http://www.caiso.com/Documents/HighVoltageAccessChargeRatesEffectiveJan01_2019_RevisedJan01_2019.pdf.

[13] There is insufficient publicly available data to perform a complete assessment of the cost shift that results from not accounting for the BTM production in the Six Cities. The CDGS database only shows the total number of interconnected PV systems in the Six Cities, and these calculations assume they are all residential. Many of them are, of course, commercial and industrial solar facilities with higher annual exports. The calculations also assume that the IOUs' loads are steady while altering the Six Cities load to account for excess BTM production. In reality, the IOUs' loads may also change once this initiative's rule changes go into effect and IOUs begin to track excess BTM production. A more accurate estimate should be made by the CAISO or the exempt entities themselves using more granular data.

[14] Residential Building Energy Efficiency Standards. California Energy Commission. 2019. Retrieved from https://www.energy.ca.gov/title24/2019standards/documents/2018_Title_24_2019_Residential_Standards.pdf.

consistently calculated. The Public Advocates Office's November 26, 2018 comments on the revised straw proposal described several ways to protect against netting excess BTM production that do not involve expensive metering solutions.[15] The CAISO should consider these or other means of ensuring that TAC allocation does not suffer from avoidable inconsistencies. At minimum, the CAISO should require that new BTM solar developments in the exempt entities' service areas comply with the CAISO's new proposed gross load reporting requirement.

[15] *Comments on the Excess Behind-the-Meter Production Revised Straw Proposal.* November 26, 2018. Public Advocates Office. Retrieved from http://www.caiso.com/Documents/PAOComments-ExcessBehind-MeterProduction-RevisedStrawProposal.pdf.