



Excess Behind the Meter Production: Straw Proposal

Stakeholder Web Conference
September 12, 2018
10 a.m. – 12 p.m. (PDT)

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Senior Infrastructure and Regulatory Policy Developer

Agenda

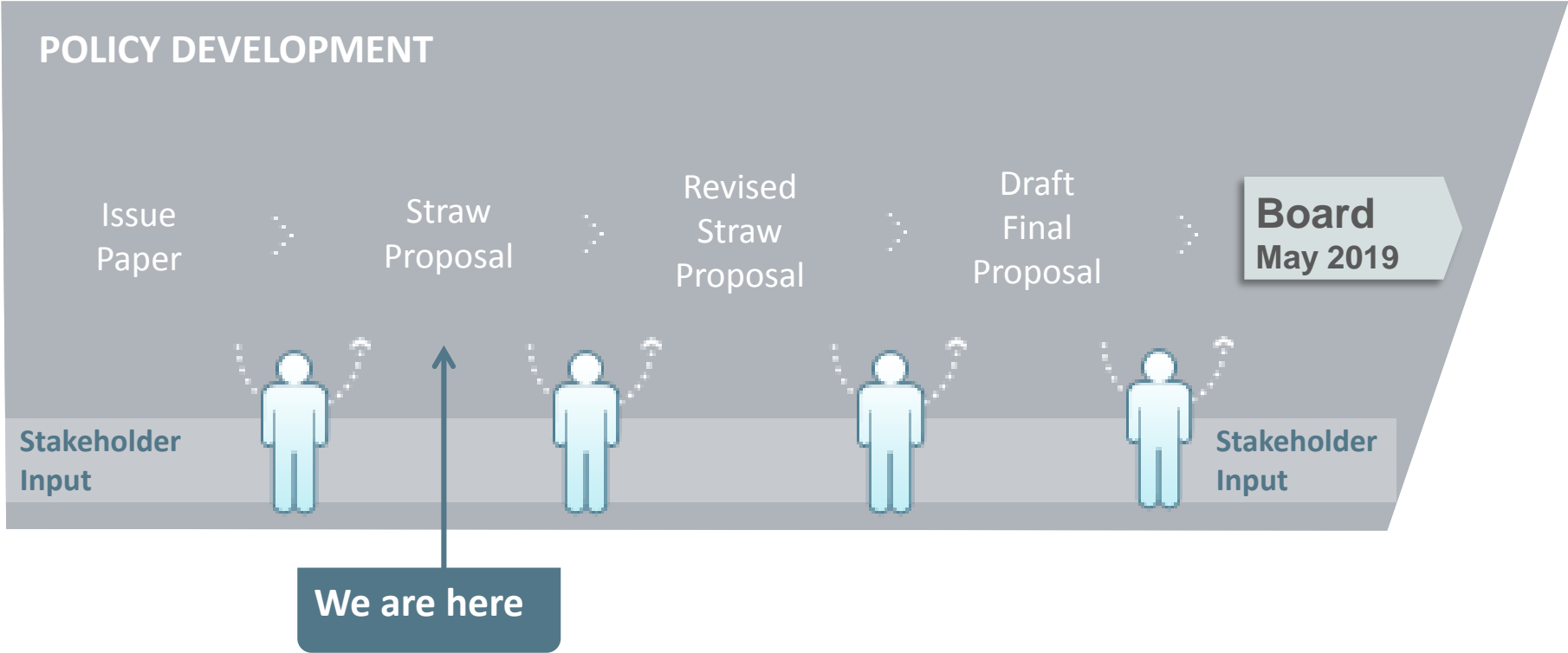
- Stakeholder process and timeline
- Excess BTM production example
- Goals for the initiative
 - Clarify tariff language for Gross Load
 - Create definition for excess BTM production
 - Specify how excess BTM production is reported
- Stakeholder feedback
- Next steps

STAKEHOLDER PROCESS AND TIMELINE

Kristina Osborne

Lead Stakeholder Engagement & Policy Specialist

Stakeholder Process



The ISO is targeting a proposal to the Board in May 2019.

Milestone	Date
Post Issue Paper	6/28/2018
Stakeholder Call	7/10/2018
Stakeholder Written Comments Due	7/18/2018
Post Straw Proposal	9/4/2018
Stakeholder Call	9/12/2018
Stakeholder Written Comments Due	9/26/2018
Revised Straw Proposal Posted	Mid-October 2018
Draft Final Proposal Posted	Mid-December 2018
Board of Governors Meeting	May 16-17, 2019

List of acronyms/abbreviations used in this presentation.

BTM	Behind the Meter
TAC	Transmission Access Charge
UDC	Utility Distribution Company
UFE	Unaccounted for Energy

STRAW PROPOSAL FOR EXCESS BTM PRODUCTION

Gabe Murtaugh

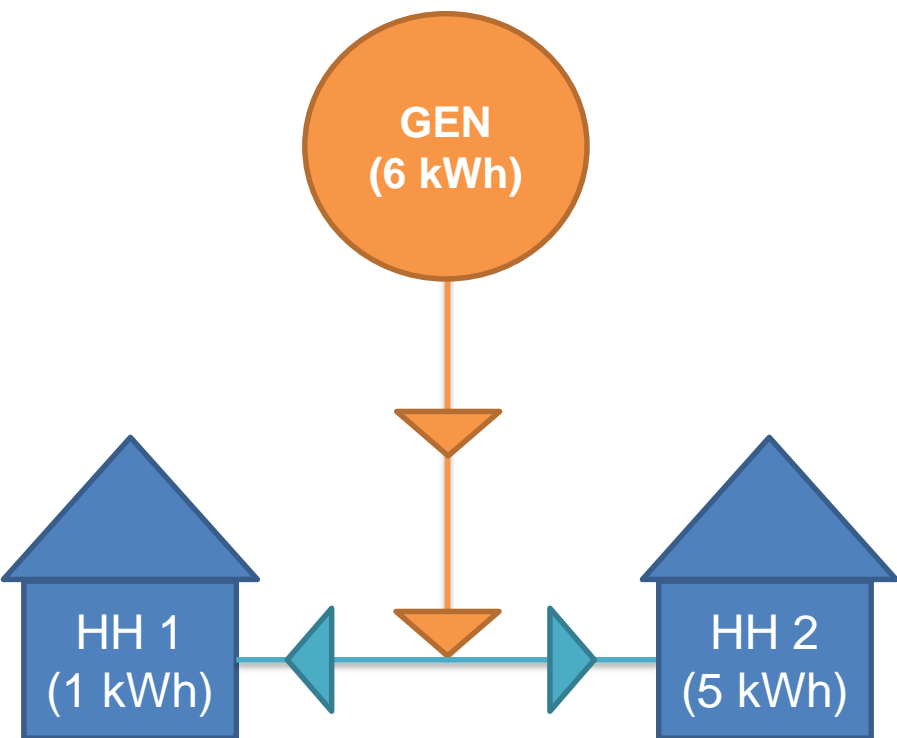
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Background and concepts for excess behind the meter production.

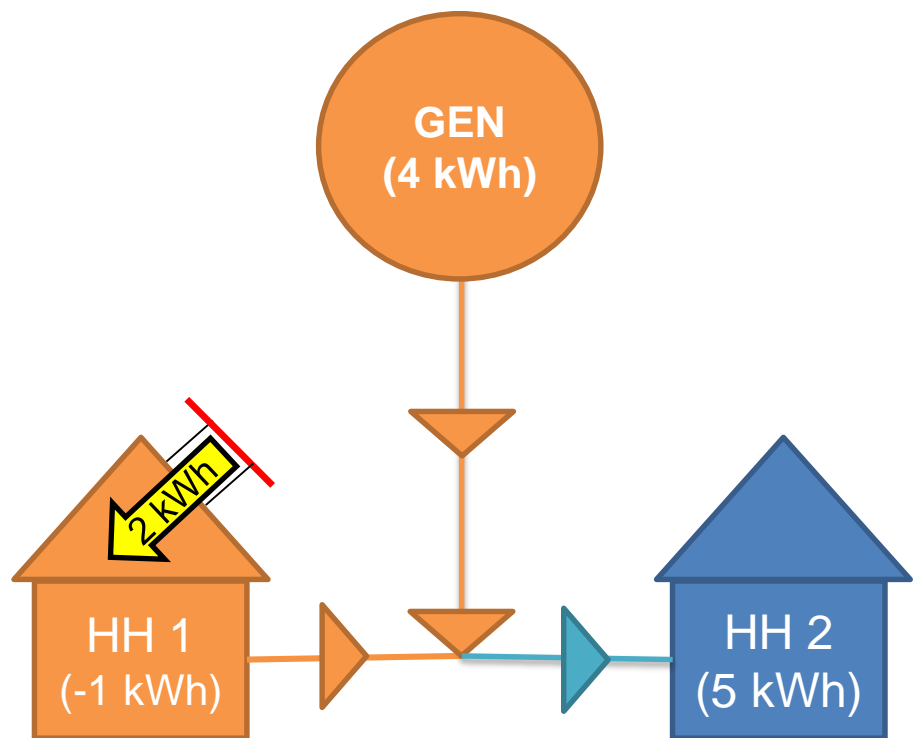
- Excess behind the meter production occurs when behind the meter generation exceeds a consumer's host load
- Non-utility scale solar (behind the meter solar) production is rapidly growing in California
- As growth continues, accounting for excess behind the meter production will become more important
- Excess BTM production is not applicable to energy currently generated and scheduled into the ISO
- Excess behind the meter production does not apply to certain entities with preexisting load calculation determined at a citygate

Example illustrating excess BTM production concepts

Without Rooftop Solar



With Rooftop Solar



Through this example we demonstrate three potential problems.

1. If only Gross Load is reported to the ISO, it could potentially be reported by either netting excess BTM production or without netting excess BTM production
2. There are settlement implications associated with different reporting methodologies
3. When only Gross Load is reported, the ISO has no insight into the quantity of excess BTM production

This initiative has three primary goals.

1. Ensure consistent reporting of Gross Load by clarifying the tariff definition
2. Create a clear tariff definition for Excess Behind The Meter Production
3. Specify how excess behind the meter production will be reported to the ISO and settled

Goal 1: Clarify the definition of Gross Load to ensure consistent reporting.

- Clarify the tariff definition of Gross Load to state that excess behind the meter production should not be netted from Gross Load
- New draft tariff language in the proposal, includes the following changes:
 - Removal of an initial clause stating that Gross Load is used for the purposes of calculating TAC
 - Clarification that Gross Load refers to a subset of Demand rather than Energy
 - Clarification of the list of kinds of load that are excluded from Gross Load

Updated tariff language.

~~For the purposes of calculating the transmission Access Charge, Gross Load is all Energy Demand~~ (adjusted for distribution losses) ~~delivered for the supply~~ of End-Use Customer Loads directly connected to the transmission facilities or directly connected to the Distribution System of a Utility Distribution Company or MSS Operator located in a PTO Service Territory. Gross Load includes Load served by Excess Behind the Meter Production. Gross Load ~~shall~~ excludes:

- (1) Load with respect to which the Wheeling Access Charge is payable;
- (2) Load that is exempt from the Access Charge pursuant to Section 4.1 of Appendix I; ~~and~~
- (3) ~~the portion of the~~ Load of an individual retail customer served by its own onsite Generating Unit or energy storage device, or as authorized by Section 218 of the California Public Utilities Code; of a Utility Distribution Company, Small Utility Distribution Company, or MSS Operator that is served by a Generating Unit that: (a) is located on the customer's site or provides service to the customer's site through arrangements as authorized by Section 218 of the California Public Utilities Code;
- (4**b**) Onsite Load served by ~~is~~ a qualifying small power production facility or qualifying cogeneration facility, as those terms are defined in the FERC's regulations implementing Section 201 of the Public Utility Regulatory Policies Act of 1978; and
- (5**e**) Load secureds by Standby Service from a Participating TO under terms approved by a Local Regulatory Authority or FERC, as applicable, or can be curtailed concurrently with an Outage of the Generating Unit serving the Load.

Gross Load forecasts consistent with filed Transmission Revenue Requirements will be provided by each Participating TO to the CAISO. For purposes of this definition, Generating Units, storage devices, and Loads will be considered onsite where they share, or are sub-metered behind, the same meter.

Goal 2: Create a clear tariff definition for excess behind the meter production.

- Specify that excess behind the meter production is “energy from an end-use customer in excess of its onsite demand”
- This definition is intended to represent the excess behind the meter figures that will be reported to the ISO
 - This will also specify that losses will not need to be applied to excess behind the meter values

Goal 3: Specify how excess behind the meter production will be reported to the ISO and settled.

- Excess behind the meter production will be subject to prices (similar to load) at the location where the values are reported
- Gross Load values will continue to be applied for the allocation of a number of charge codes (see Appendix A)
 - Allocation for these charge codes will not be based on excess behind the meter production
- The determination for unaccounted for energy (UFE) will be updated to account for excess behind the meter production

Stakeholder comments.

1. (CAC) the definition of “excess behind the meter production” should be more precise
2. (CAC) The ISO proposes to “clarify the tariff definition of Gross Load to state that excess BTM production should not be netted from Gross Load.” This would create a clear conflict with the treatment of industrial customers with behind the meter generation.
 - The ISO intends for excess behind the meter production to capture behind the meter generation in excess of host demand (as metered through channel 4 on most residential meters). This straw proposal also clarifies that energy generated and scheduled into the ISO as a resource would not be subject to any change proposed in this initiative.
3. (Glen Perez) not all Load in the ISO market is “reported” or submitted by the UDCs
4. (Glen Perez) Clarifying, maybe in the Metering BPM, of the practice of submittal of Load for the SC MEs needs to address

Stakeholder comments.

5. (Glen Perez) For CAISO MEs...there is no visibility into the excess BTM production, the Load value calculated and used for market settlements represents the netted Load value and not the Gross Load value discussed in this Issue Paper
 - Modifications will not apply to certain entities with preexisting arrangements, such as CAISO metered entities (MEs), including some Metered Sub-System (MSS) entities and publicly owned utility (POU) that have load figures calculated at a citygate
6. (CPUC) The costs associated with accounting for excess BTM production as generation or negative load were not discussed either in the Excess BTM Production Issue Paper or the Stakeholder Presentation
 - The ISO does not have visibility into the costs that reporting entities may incur for related system changes. Gross Load and excess behind the meter production should be reported from existing data that is available and collected from automated metering infrastructure (AMI) smart meters. We anticipate that some system changes for market participants and the ISO will be necessary to aggregate, submit, and apply settlement to these values.

Stakeholder comments.

7. (PG&E) differentiate the treatment of Load and Load meter values as they relate to (a) TAC charges, (b) Market Participant Load settlements, and (c) the Allocation of Settlement Uplift and Neutrality charges to Metered Load and/or Measured Demand
8. (PG&E) PG&E believes that clarifying the definition of “Gross Load” (as an objective of this initiative) should be limited to the application of the transmission access charge (TAC)
 - The definition of Gross Load will expressly include excess behind the meter production. As specified in this proposal, allocation for settlement charge codes will not change going forward.
9. (PG&E) clarify and elaborate on whether the correct term and stakeholder affected by this initiative should be the Load Serving Entities (LSE) as opposed to the Utility Distribution Companies (UDC)
10. (SDG&E) clarify what the LSEs are to report
 - Values should be reported to the ISO for Gross Load and for Excess Behind the Meter Production

Stakeholder comments.

11. (SDG&E) clarify how it proposes to treat distribution losses
 - Adjustment for losses will not need to be applied for excess behind the meter production values submitted to the ISO
12. (Six Cities) it would not be reasonable to impose requirements for extensive retrofitting of metering arrangements for existing BTM resources
 - These modifications will not apply to certain entities with preexisting arrangements for load calculation determined at the citygate

NEXT STEPS

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Please submit comments on the straw proposal and the call discussion to initiativecomments@caiso.com by close of business September 26, 2018.