



# **Excess Behind the Meter Production: Straw Proposal**

**Stakeholder Web Conference**

**November 13, 2018**

10 a.m. – 12 p.m. (PDT)

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# Agenda

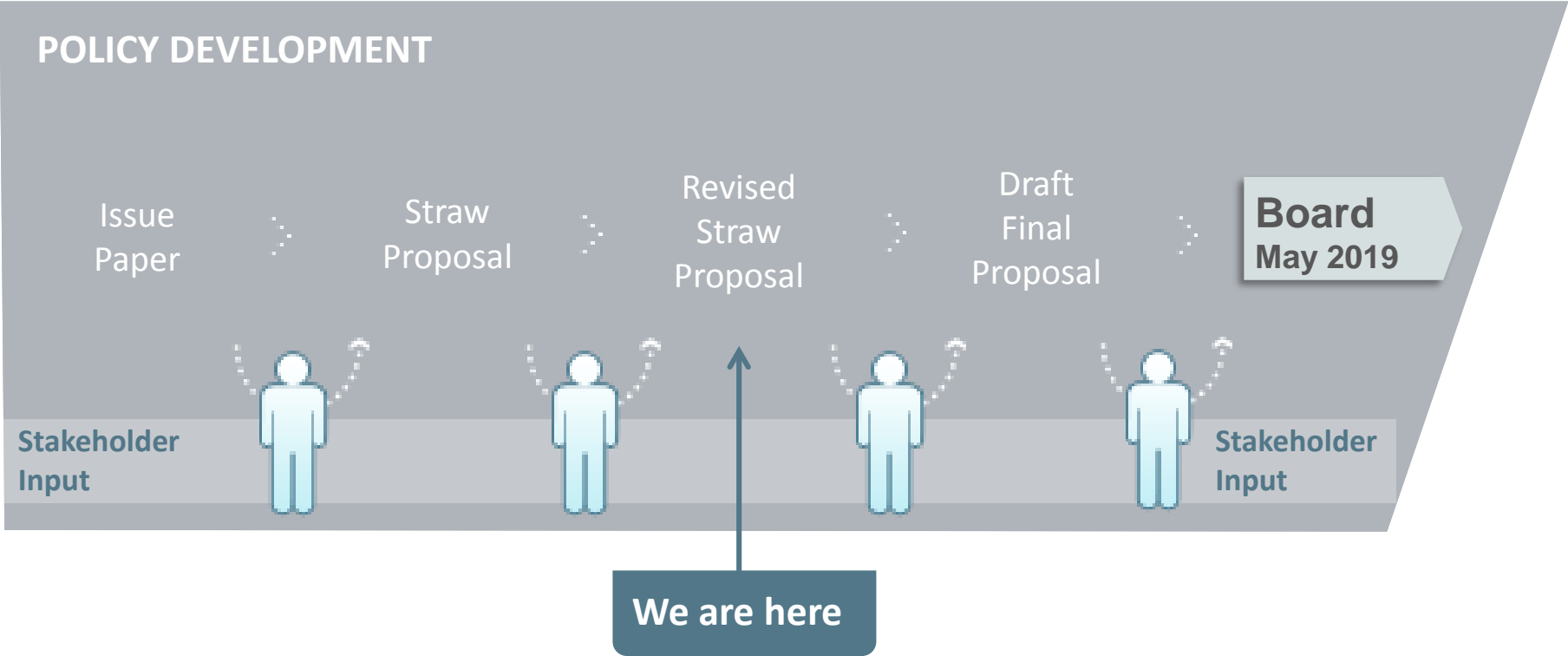
- Stakeholder process and timeline
- Excess BTM production example
- Goals for the initiative
  - Clarify tariff language for Gross Load
  - Create definition for excess BTM production
  - Specify how excess BTM production is reported
- Application of losses
- Additional details
- Next steps

# STAKEHOLDER PROCESS AND TIMELINE

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# Stakeholder Process



The ISO is targeting a proposal to the ISO 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	11/5/2018
Stakeholder Call	11/13/2018
Revised Straw Comments Due	11/27/2018
Draft Final Proposal Posted	12/17/2018
Draft Final Proposal Stakeholder Call	Q1 2019
Board of Governors Meeting	May 16-17, 2019

# List of acronyms/abbreviations used in this presentation.

BTM	Behind the Meter
CLAP	Custom Load Aggregation Point
DLAP	Default Load Aggregation Point
DCF	Distribution Compensation Factor
DLF	Distribution Loss Factor
SC	Scheduling Coordinator
TAC	Transmission Access Charge
T-DI	Transmission-Distribution Interface
UFE	Unaccounted for Energy

# REVISED STRAW FOR EXCESS BTM PRODUCTION

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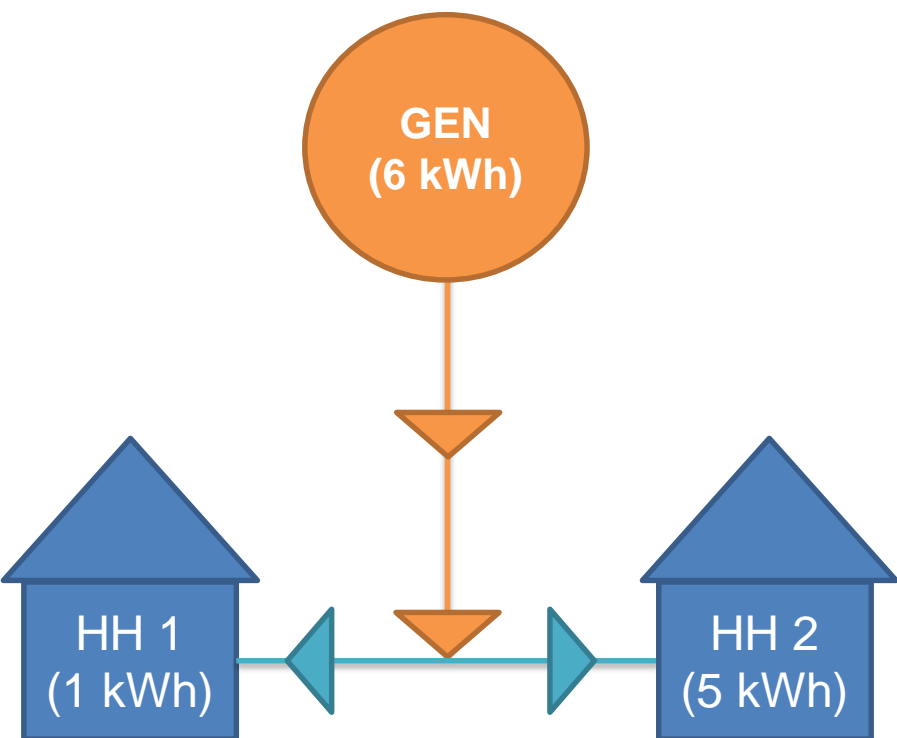
## Background and concepts for excess behind the meter production.

- 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

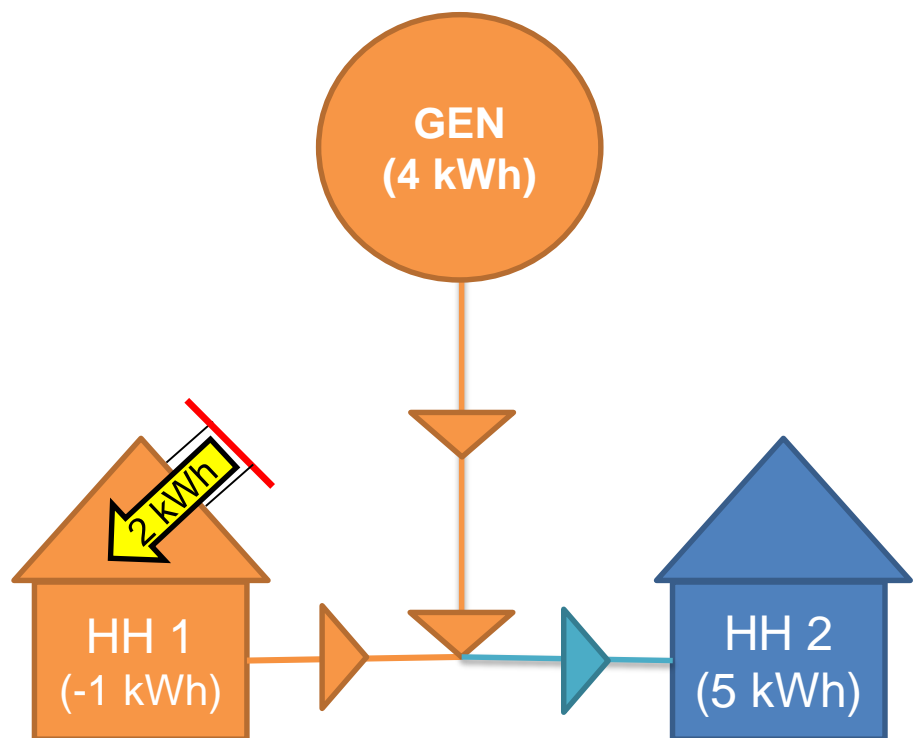


# Example illustrating excess BTM production concepts

## 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

## 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 be applied when reporting 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 reported on the same load Resource ID but distinguished by measurement type
  - Will be subject to prices at the location where values are reported (i.e. DLAP or CLAP)
- The determination for UFE will be updated to account for excess behind the meter production
- Gross Load values will be used for allocation of a number of charge codes (Appendix A)
  - Allocation for these charge codes will not include excess behind the meter production

## Charge codes will be allocated by Gross Load to reflect reliability services.

ID	Charge Code Name
372	High Voltage Access Charge Allocation
382	High Voltage Wheeling Allocation
383	Low Voltage Wheeling Allocation
591	Emissions Cost Recovery
1101	Black Start Capability Allocation
1302	Long Term Voltage Support Allocation
1303	Supplemental Reactive Energy Allocation
6090	Ancillary Service Upward Neutrality Allocation
6194	Spinning Reserve Obligation Settlement
6196	Spinning Reserve Neutrality Allocation
6294	Non-Spinning Reserve Obligation Settlement
6296	Non-Spinning Reserve Neutrality Allocation
6594	Regulation Up Obligation Settlement
6596	Regulation Up Neutrality Allocation
6694	Regulation Down Obligation Settlement
6696	Regulation Down Neutrality Allocation
7256	Regulation Up Mileage Allocation
7266	Regulation Down Mileage Allocation
7896	Monthly CPM Allocation

Losses will not be applied to excess behind the meter production for reporting purposes.

- Currently a distribution loss factor (DLF) may be applied to load figures to “gross up” when reported to the ISO
  - The objective of the DLF is to true up the quantity of energy coming from the T-D interface to retail meters
- DCFs also may be applied to generation
  - These DCFs are similar and used to match the amount of energy generated to the amount of energy injected into transmission grid

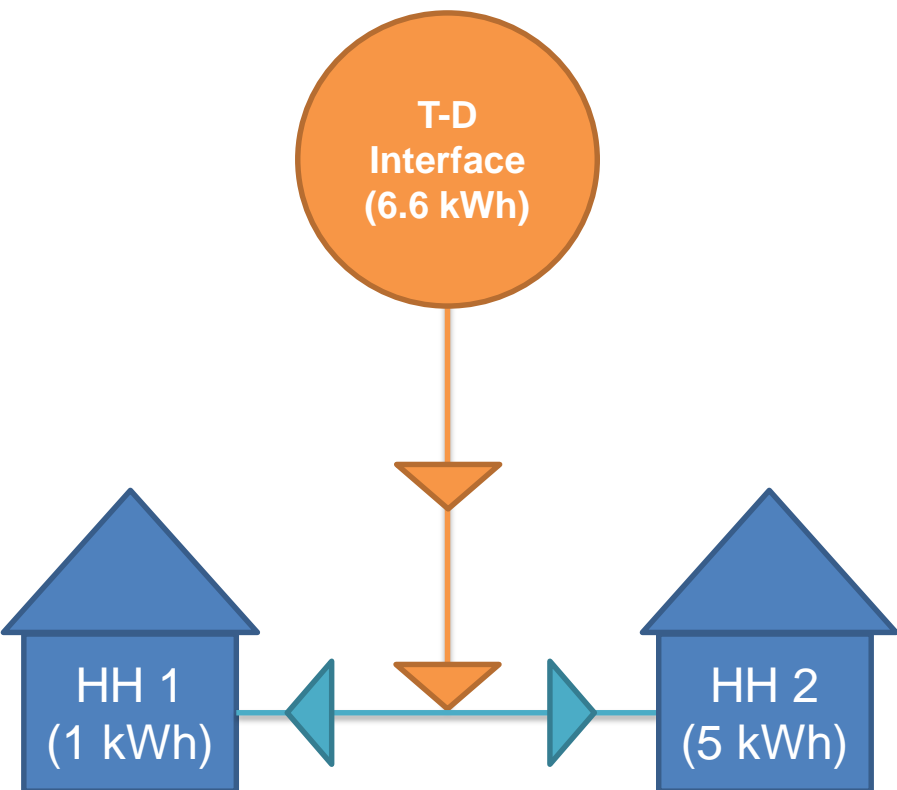


Excess behind the meter production will receive credit for offsetting losses.

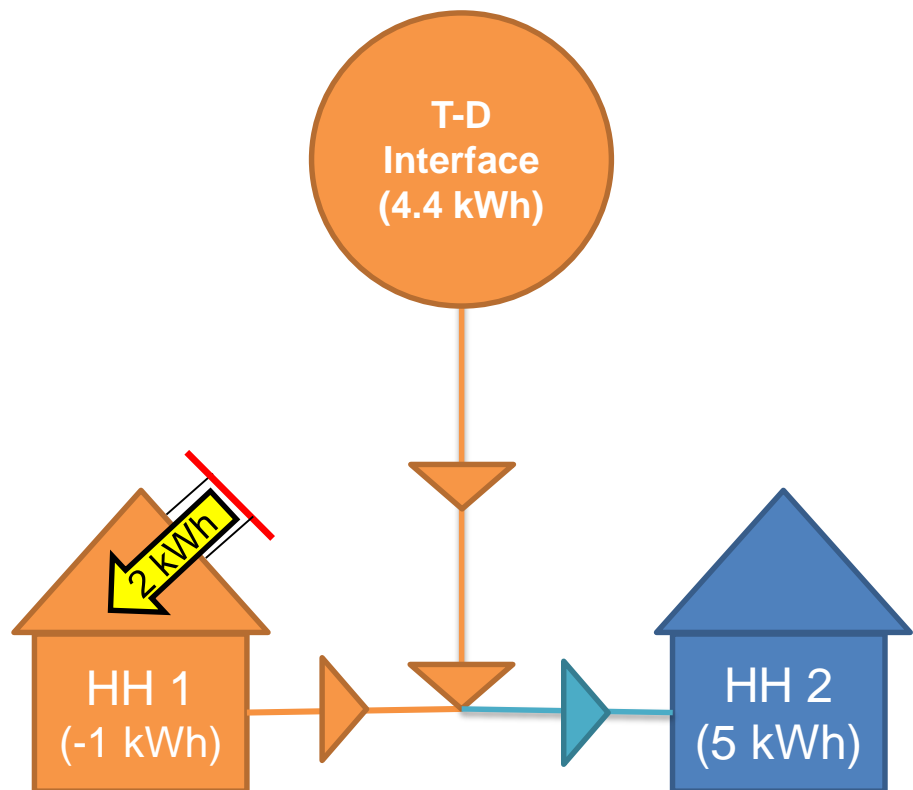
- Excess BTM production generally travels short distances and may not reach the bulk distribution system, and therefore losses are small
- At this time it does not seem appropriate to apply losses to this energy when reporting to the ISO
- However, excess BTM production may reduce the overall losses from the T-D interface to retail meters
  - This reduction in losses should be captured when SCs report load to the ISO

Excess behind the meter production offsets losses from the T-D interface to retail meters.

## Without Rooftop Solar



## With Rooftop Solar



Losses applied to load may be reduced from excess behind the meter production.

			Reported/observed value (kWhs)
Gross Load	[I]		5 kWh
Excess BTM Production	[J]		1 kWh
Distribution Loss Factor	[DLF]		.1
Losses from Gross Load	[K]	$[I] * [DLF]$	$5 \text{ kWh} * .1 = .5 \text{ kWh}$
Losses Avoided	[L]	$[J] * [DLF]$	$1 \text{ kWh} * .1 = .1 \text{ kWh}$
Gross Load with “Gross Up”	[M]	$[I] + [K] - [L]$	$5 \text{ kWh} + .5 \text{ kWh} - .1 \text{ kWh} = 5.4 \text{ kWh}$

Potential formula to “Gross Up” Gross Load =  
 $[ \text{Raw Gross Load} * (1 + \text{DLF}) ] - [ \text{EBTMP} * \text{DLF} ]$

## Additional feedback from stakeholder comments.

- The ISO will publish an aggregation of the excess behind the meter production data in a monthly performance report that will be posted every other month
- The ISO estimates that roughly 13 percent of the total ISO load will be excluded from this change
- Allocation for charge codes based on demand (load net of excess BTM production) will be capped at 0
  - The cap will apply when excess BTM production exceeds load

# NEXT STEPS

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