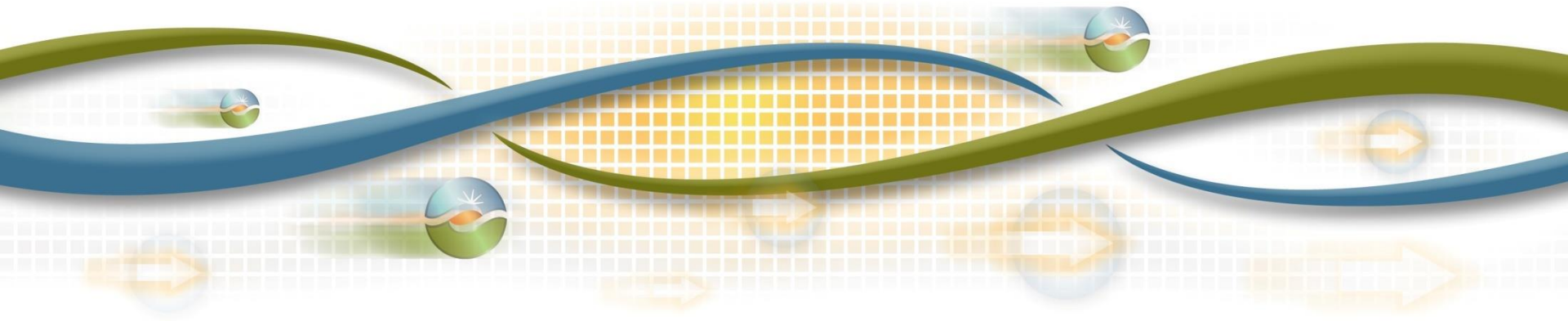




# Generator Interconnection Driven Network Upgrade Cost Recovery

## *Draft Final Proposal*

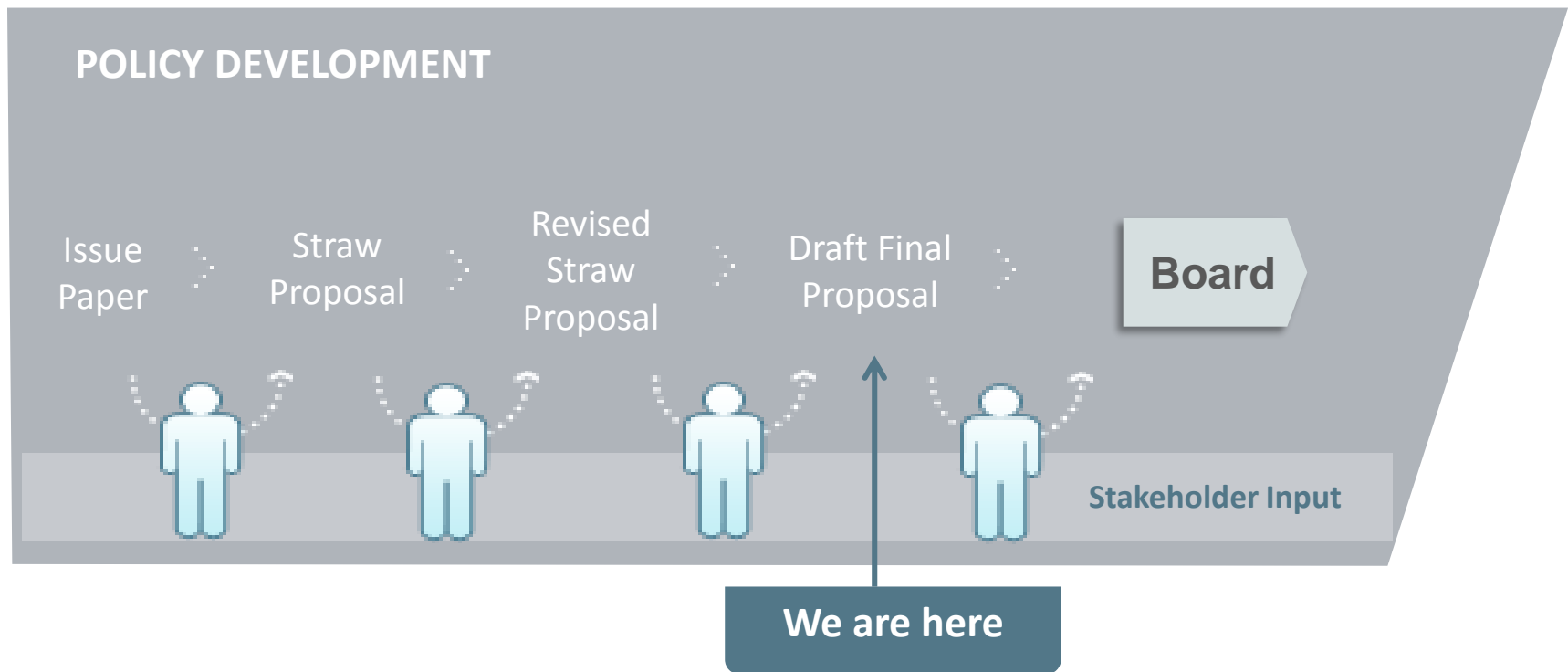
Stakeholder web conference  
February 13, 2017  
1:00 PM – 3:00 PM (Pacific Time)



# Agenda

<b>Time</b>	<b>Agenda Item</b>	<b>Speaker</b>
1:00-1:10	Introduction, Stakeholder Process	Kim Perez
1:10-2:50	Draft Final Proposal Discussion	Steve Ruddy Bill Weaver Bob Emmert
2:50-3:00	Next Steps	Kim Perez

# ISO Stakeholder Initiative Process



# Stakeholder process schedule

Step	Date	Event
Draft Issue Paper Straw Proposal	August 1, 2016	Post issue paper
	August 8, 2016	Stakeholder web conference
	August 19, 2016	Stakeholder comments due
Revised Straw Proposal	September 6, 2016	Post revised straw proposal
	September 13, 2016	Stakeholder web conference
	September 20, 2016	Stakeholder comments due
Second Revised Straw Proposal	November 21, 2016	Post draft final proposal
	December 5, 2016	Stakeholder web conference
	December 16, 2016	Stakeholder comments due
Draft Final Proposal	February 6, 2017	Post draft final proposal
	February 13, 2017	Stakeholder web conference
	February 22, 2017	Stakeholder comments due
Board Approval	March 15-16, 2017	Board of Governors meeting

## Issue - Generator interconnection triggered low-voltage network upgrade cost recovery

- ISO Tariff requires PTOs to reimburse interconnection customers for reliability and local deliverability network upgrades.
- PTOs include these costs in their rate base as either local low-voltage (LV) below 200 kV or regional high-voltage (HV) 200 kV and above, to be collected via LV and HV transmission access charges (TAC).
- LV TAC is local to that PTO only. HV TAC is a system-wide rate applied across the entire ISO.
- LV network upgrades thus can have a large impact on small PTO's low-voltage/local TAC, such as VEA.

## The ISO's Second Revised Straw Proposal proposed two options:

- LV generator-driven upgrades go to HV TAC for PTOs:
  - With relatively small gross load
  - In resource rich areas for RPS purposes
  - That are not under an RPS requirement
- Option A requires Board and FERC approval for each small PTO designation
- Option B would allow management to make small PTO designations
- Costs would go to LV TAC where the generation is being built to serve load within that PTO's service area in some manner.

# Draft Final Proposal

- The ISO proposes to move forward with Option A, with slight modifications, that addresses VEA and similarly situated small PTOs on a case-by-case basis.
- Cost of network upgrades to serve generation on the PTO's low voltage system will be put into the PTO's high-voltage transmission revenue requirement.
  - Unless the generation is being built to serve load within that PTO's service area in some manner.

## Draft Final Proposal (Continued)

- The draft final proposal utilizes the three principles that will be applied to each unique PTO, with some modification to the first criterion.
- A PTO must meet all three principles to be considered.
- Upon successfully applying the principles to a PTO, ISO management would present its recommendation for approval to the ISO Board and, if approved by the Board, to FERC
- Once approved, a PTO must continue to meet all three principles, and certify to that effect annually to the ISO to continue to receive the alternative TAC rate treatment.



## Draft Final Proposal (Continued)

- If the PTO's situation changes such that it fails to meet any one of the three principles, it would no longer qualify for the alternative TAC rate treatment.

At that time:

- any low-voltage network costs stemming from new generator interconnections would be applied to the PTO's low-voltage TAC rates.
- any as-yet unrecovered low-voltage costs, e.g. undepreciated value, associated with previously-approved interconnections, would be applied to the PTO's low-voltage TAC rates.

# Draft Final Proposal - Principles

1. Relatively very small PTO in relation to other load-serving PTOs with load service territories where the PTO's filed annual gross load is 2,000,000 MWh or less, which currently is approximately 2.2% of the largest PTO's filed annual gross load.
  - A threshold of 2,000,000 MWh was selected as appropriate to address the current situation. This is reduced from the original Option A proposal of 5%, however this will allow VEA to increase its load by more than to 3 times before crossing the threshold.
  - A fixed annual gross load provides certainty versus using a percentage of the largest PTO's filed gross load which can change over time.

## Draft Final Proposal - Principles (Continued)

2. The small PTO is in a resource rich area that is leading to elevated generator regional procurement interest within the area.
3. The small PTO is not under a Renewable Portfolio Standard (RPS) requirement, or if under an RPS requirement, does not need additional generation to meet that requirement.

# Next Steps

Request stakeholder comments by COB February 22nd

Be sure to use comments template provided

Submit to comments mailbox:  
[initiativecomments@caiso.com](mailto:initiativecomments@caiso.com)

Thank you!

# Comparison of PTO LV TAC rate impacts of low-voltage network upgrade costs

Estimated LV TAC Amount (\$/MWh and % increase) vs LV NW Upgrade Costs								
	VEA		PG&E		SCE		SDGE	
\$0	\$6.26	(0.00%)	\$7.32	(0.00%)	\$0.44	(0.00%)	\$14.35	(0.00%)
\$5,000,000	\$7.44	(18.75%)	\$7.33	(0.10%)	\$0.45	(1.59%)	\$14.38	(0.21%)
\$10,000,000	\$8.61	(37.50%)	\$7.33	(0.19%)	\$0.46	(3.18%)	\$14.41	(0.43%)
\$15,000,000	\$9.79	(56.25%)	\$7.34	(0.29%)	\$0.47	(4.77%)	\$14.44	(0.64%)
\$20,000,000	\$10.96	(75.00%)	\$7.35	(0.38%)	\$0.47	(6.36%)	\$14.47	(0.86%)
\$25,000,000	\$12.14	(93.75%)	\$7.36	(0.48%)	\$0.48	(7.95%)	\$14.50	(1.07%)

This table illustrates the approximate increase in each PTOs LV TAC for LV NW upgrade costs on their respective systems under the current cost allocation methodology.

# Comparison of PTO total TAC rate impacts of low-voltage network upgrade costs

Estimated Total TAC (HV + LV) Increase (\$/MWh and % increase) vs NW Upgrade Costs								
	VEA		PG&E		SCE		SDGE	
<b>\$0</b>	\$16.94	(0.00%)	\$18.00	(0.00%)	\$11.12	(0.00%)	\$25.03	(0.00%)
<b>\$5,000,000</b>	\$18.12	(6.93%)	\$18.01	(0.04%)	\$11.13	(0.06%)	\$25.06	(0.12%)
<b>\$10,000,000</b>	\$19.29	(13.86%)	\$18.01	(0.08%)	\$11.14	(0.13%)	\$25.09	(0.25%)
<b>\$15,000,000</b>	\$20.46	(20.80%)	\$18.02	(0.12%)	\$11.14	(0.19%)	\$25.12	(0.37%)
<b>\$20,000,000</b>	\$21.64	(27.73%)	\$18.03	(0.16%)	\$11.15	(0.25%)	\$25.15	(0.49%)
<b>\$25,000,000</b>	\$22.81	(34.66%)	\$18.03	(0.19%)	\$11.16	(0.32%)	\$25.18	(0.61%)

This table illustrates the approximate increase in each PTOs total TAC for LV NW upgrade costs on their respective systems under the current cost allocation methodology.

# Comparison of PTO total TAC rate impacts of network upgrade costs

Estimated Total TAC (HV + LV) Increase (\$/MWh and % increase) vs Network Upgrade costs								
	VEA		PG&E		SCE		SDGE	
<b>\$0</b>	\$16.94	(0.00%)	\$18.00	(0.00%)	\$11.12	(0.00%)	\$25.03	(0.00%)
<b>\$5,000,000</b>	\$16.94	(0.02%)	\$18.00	(0.02%)	\$11.13	(0.03%)	\$25.03	(0.01%)
<b>\$10,000,000</b>	\$16.95	(0.04%)	\$18.01	(0.03%)	\$11.13	(0.06%)	\$25.04	(0.02%)
<b>\$15,000,000</b>	\$16.95	(0.05%)	\$18.01	(0.05%)	\$11.13	(0.08%)	\$25.04	(0.04%)
<b>\$20,000,000</b>	\$16.95	(0.07%)	\$18.01	(0.07%)	\$11.14	(0.11%)	\$25.04	(0.05%)
<b>\$25,000,000</b>	\$16.96	(0.09%)	\$18.01	(0.09%)	\$11.14	(0.14%)	\$25.04	(0.06%)

This table illustrates the approximate increase in each PTOs total TAC for LV NW upgrade costs in their respective systems if shared among all PTOs through the HV TAC.