

# VCEA Citizen's Advisory Committee Power Mix Discussion

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January 11, 2018

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# Overview

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- Power Mix Short Term vs Long Term
- Default Product (Light Green) vs Opt Up (Ultra Green)

# Power Mix Short Term

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- For 2018, all renewable procurement will be under short term contract
- Procurement Timing:
  - Late January/February – Pre-Launch Solicit for 100% of expected Renewables for 2018
  - By August – Post Launch Solicit for any 2018 makeup renewables needed for fewer Opt-Outs and known Opt-Ups.
- Procurement Objectives:
  - Target PCC-1 and PCC-2 volumes to achieve 42% renewable content
  - Achieve lowest cost
  - Not planning on targeting specific mix of technologies

# Power Mix LongTerm

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- CPUC decision D.12-06-038 requires VCEA to have at least 0.25% of load under long term contract in the current compliance period.
- SB 350 requires that beginning January 1, 2021, VCEA will have to have 65% of its RPS renewable procurement under long term contract of at least 10 years duration (initially around 22% of load)
- Will have more opportunity to target technologies in the long term renewables procurement
- Can incorporate other considerations from the Integrated Resource Planning Process into actual procurements.

# Default Product vs Opt Up Product

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- Different CCAs treat differently
- Some have the same renewable technology mix for default as for Opt Up...the result of using the same pool of renewables for Opt-Up in the same ratio.
- Some have different technology mixes, which may be a result of incremental procurement for Opt-Ups, or some other consideration.
- Pricing of Opt-Up product can drive mix (for instance all incremental renewable for Opt-Up can be PCC-2).
- We recommend being flexible on whether the mix for Opt-Up is the same (or not), primarily determined by cost of supply for opt-up.

# Default Product vs Opt Up Product



## PG&E – SCP Comparison



### Electric Power Generation Mix\*

Specific Purchases	Percent of Total Retail Sales (kWh)			
	PG&E	PG&E Solar Choice	Sonoma Clean Power	
			CleanStart	EverGreen
<b>Renewable</b>	<b>33%</b>	<b>100%</b>	<b>42%</b>	<b>100%</b>
• Biomass & Biowaste	4%	0%	0%	0%
• Geothermal	5%	0%	8%	100%
• Eligible hydroelectric	3%	0%	2%	0%
• Solar electric	13%	100%	0%	0%
• Wind	8%	0%	31%	0%
<b>Coal</b>	<b>0%</b>	<b>0%</b>	<b>0%</b>	<b>0%</b>
<b>Large Hydroelectric</b>	<b>12%</b>	<b>0%</b>	<b>49%</b>	<b>0%</b>
<b>Natural Gas</b>	<b>17%</b>	<b>0%</b>	<b>0%</b>	<b>0%</b>
<b>Nuclear</b>	<b>24%</b>	<b>0%</b>	<b>0%</b>	<b>0%</b>
<b>Other</b>	<b>0%</b>	<b>0%</b>	<b>0%</b>	<b>0%</b>
<b>Unspecified Sources of Power **</b>	<b>14%</b>	<b>0%</b>	<b>10%</b>	<b>0%</b>
<b>Total</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

\* As reported to the California Energy Commission's Power Source Disclosure Program. PG&E data is subject to an independent audit and verification that will not be completed until October 1, 2017. The figures above may not sum up to 100 percent due to rounding.

\*\*Unspecified sources of power refers to electricity that is not traceable to a specific generating facility, such as electricity traded through open market transactions. Unspecified sources of power are typically a mix of all resource types, and may include renewables.

# Default Product vs Opt Up Product



## PG&E – CPSF Comparison



### Electric Power Generation Mix\*

Specific Purchases	Percent of Total Retail Sales (kWh)			
	PG&E	PG&E Solar Choice	CleanPowerSF Green	CleanPowerSF SuperGreen
<b>Renewable</b>	<b>33%</b>	<b>100%</b>	<b>40%</b>	<b>100%</b>
• Biomass & Biowaste	4%	0%	0%	0%
• Geothermal	5%	0%	0%	0%
• Eligible hydroelectric	3%	0%	0%	0%
• Solar electric	13%	100%	0%	0%
• Wind	8%	0%	40%	100%
<b>Coal</b>	<b>0%</b>	<b>0%</b>	<b>0%</b>	<b>0%</b>
<b>Large Hydroelectric</b>	<b>12%</b>	<b>0%</b>	<b>38%</b>	<b>0%</b>
<b>Natural Gas</b>	<b>17%</b>	<b>0%</b>	<b>22%</b>	<b>0%</b>
<b>Nuclear</b>	<b>24%</b>	<b>0%</b>	<b>0%</b>	<b>0%</b>
<b>Other</b>	<b>0%</b>	<b>0%</b>	<b>0%</b>	<b>0%</b>
<b>Unspecified Sources of Power **</b>	<b>14%</b>	<b>0%</b>	<b>0%</b>	<b>0%</b>
<b>Total</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

\* As reported to the California Energy Commission's Power Source Disclosure Program excluding voluntary unbundled renewable energy credits. PG&E data is subject to an independent audit and verification that will not be completed until October 1, 2017. The figures above may not sum up to 100 percent due to rounding.

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