

PORTFOLIO & RATE RECOMMENDATION

Clean Energy Community Advisory Commission
September 17, 2018



AGENDA

- Background
 - PCIA challenges
 - Greenhouse Gas-free market and regulatory framework
 - Other CCA activity
- Proforma Assumptions
- Recommended Options & Alternatives
- Targeting Oct 30 Council Item
- Advisory Commission Discussion / Recommendation

SJCE OBJECTIVES

- At least one power mix option will have a rate equal to or less than PG&E's rates.
- At least one power mix option will have 10 percent or more renewables than PG&E.
- At least one power mix will be 100 percent renewable.
- The initial resource mix will include a proportion of renewable energy exceeding the RPS mandate.
- By 2021, SJCE's residents will have a base power mix that is 100 percent GHG free.
- SJCE will maintain, at minimum, low income programs at the same level as PG&E.
- After becoming established, SJCE will develop local programs including energy efficiency, demand response, distributed generation and renewable energy.
- SJCE will encourage distributed renewable generation in the local area through net energy metering; a "Feed-In Tariff"; and other creative, customer-focused programs.
- By 2030, the base offering will be at least 60 percent renewable.
- By 2030, San Jose will have 668MW of local renewables and by 2040, San Jose will be the world's first one GW solar city.
- By 2030, 60 percent of all passenger vehicles in the City will be electric.
- By 2020, 100 percent of new homes will be ZNE; by 2030, 25 percent of existing homes will be efficient, all-electric.
- SJCE' must identify the disadvantage communities it will serve, describe the impacts of its service on disadvantaged communities, and set forth plans to benefit these communities.

PCIA CHALLENGES

- Two Options under consideration
 1. Proposed Decision – Issued Aug 1 by the ALJ
 - preserves the status quo
 2. ADP – Issued Aug 15 by Commissioner Peterman
 - Increases PCIA by as much as 30%
 - ERRRA reduced rates 10%
 - Results in ~40% revenue change
- CCA's and elected officials are engaged / media campaign
- The CPUC currently plans to decide the issue on September 27.



GHG-FREE ENERGY MARKET

- Regulatory Issues

- Power content label – currently based on annual quantities but under discussion.
- CPUC – Clean Net Short assessment – does not provide GHG-free credit for PCC2 or PCC3, or for renewables/GHG-free that might cause other renewables to back down.
- RPS compliance period ends December 31, 2020 –

- Market Issues

- GHG-free energy market is new and being defined
- Commercial customers looking for Climate Registry Scope 2 & Green-e.
- Pacific Northwest Large Hydro Power – low cost, low GHG-emission system
- nuclear GHG-free power is available.
- Other CCAs launching or increasing their load include LA County, East Bay Clean Energy, CleanPowerSF; this will create additional tightness in the market.

2019 LOAD AND RENEWABLE SUPPLY

- Estimated Retail Load: 4,135,344 GWh
- State Requirements
 - 31% RPS (1,282,000 GWh)
 - At least 75% of 31% PCC1 (962,000 GWh)
 - No more than 15% of 31% PCC2 (192,000 GWh)
 - No more than 10% of 31% PCC3 (128,000 GWh)
- Solicitation requested amounts:
 - 2,067,000 GWh GHG-free (~50%)
 - 1,758,000 GWh PCC1 (~43%)
 - 310,800 GWh PCC2 (~7.5%)

PROFORMA/IRP ASSUMPTIONS

- Base Product Content:
 - Renewables 10% above RPS requirement
 - 75% PCC1, 15% PCC2 and 10% PCC3
 - 100% GHG free by 2021
- Average cost of power \$52.80/MWh = 5.28¢/kWh
- PCIA currently ~2.7¢/kWh
 - Alternate proposed decision increases this by as much as 30%, to ~3.5¢/kWh

PRODUCT CONTENT OPTIONS

- RPS amount:
 - 10% above RPS standard? (41%)
 - 10% above PG&E? (43% but will change from year to year and hard to target)
 - Nice round number (50%)
- RPS options:
 - PCC1 limited to required by law or larger proportion?
 - How much PCC2?
 - Any PCC3?
- GHG-free options
 - 100%
 - 95-97% (to take advantage of PNW hydro and potentially save on cost)
 - Any nuclear? Account for RA



PROJECTS COSTS OF PORTFOLIO OPTIONS

Costs reflected as premium over cost of energy

- RPS as required by law/no extra GHG-free: \$4.27/MWh
- 50% RPS (42.5% PCC1, 7.5% PCC2)/50% GHG-free (no PNW): \$10.4/MWh (~\$25M more than law requires scenario)
- 41% RPS (35% PCC1, 6% PCC2)/59% GHG-free (no PNW): \$9.5/MWh (~\$21M more than law requires scenario)
- 50% RPS (23% PCC1, 27%PCC2)/45% GHG-free (PNW prices)/5% system: \$6.3/MWh (~\$8M more than law requires scenario)
- 50% RPS (23% PCC1, 15% PCC2, 12% PCC3/45% GHG-free (PNW prices)/5% system; \$5.7/MWh (~\$6M more than law requires scenario)
- Illustrates significant extra cost of heavy reliance on PCC1 and benefit of PNW low GHG

SOLICITATION RESPONSES

- 85% of initial response mostly from PG&E
- Initial responses total RPS offered only 36% of load – additional offers since
- PCC1 primarily from one counterparty; about half at or below pro-forma assumption
- PCC2 bids all above pro-forma assumption
- GHG-free bids most from one counterparty and mostly range from at or above pro-forma assumption
- Pacific Northwest hydro did not bid because of regulatory issues – may be persuaded to offer now
- SJCE is short listing suppliers but also inviting additional offers

LONG-TERM CONTRACTS

- Solar prices very attractive even with some storage
 - Best prices Southern California and Arizona
 - Local \$10-20 premium depending on comparison and location
 - Altamont, Livermore, Byron, Fresno
- Wind expensive and scarce (particularly CA)



QUESTIONS?