Community Choice Energy (CCE) In Contra Costa County

County Board of Supervisors
January 17, 2017



Current Status in Contra Costa County

- Board of Supervisors authorized Technical Study on March 15, 2016. MRW & Associates selected.
- Study is a partnership between the County and the 14 cities not already served by MCE
- Presentations to city councils and community groups in January and early February
- County taking comments through January 31, 2017
- Study will be updated and finalized in February
- Final Technical Study will be presented to BOS and City Councils in March/April for decisions/direction

Scope of the Technical Study

- Analyze the electrical load of the 15 participating jurisdictions
- Compare projected rates for PG&E and a Contra Costa CCE program under 4 different CCE energy supply scenarios
- Assess the ability of CCE to lower greenhouse gas (GHG) emissions
- Identify sites for potential local solar development
- Evaluate potential impact of CCE on local economy
- Compare 3 Separate CCE program alternatives (Contra Costa only, MCE and East Bay Community Energy (EBCE)) to existing PG&E service.

BASIC UNDERLYING ASSUMPTIONS

Load Served

- Only jurisdictions not already in MCE and customers served by PG&E (i.e., excludes customers with a non-PG&E source of power)
- 2015 data from PG&E
- Growth rates from California Energy Commission

PG&E Rates

- From filings made at the California Public Utilities Commission (CPUC) (Long-Term Procurement Plan, Renewable Procurement Plan, Diablo Canyon Retirement Application, other filings that include costs of existing resources)
- Forwards-based forecasts of market power and natural gas prices

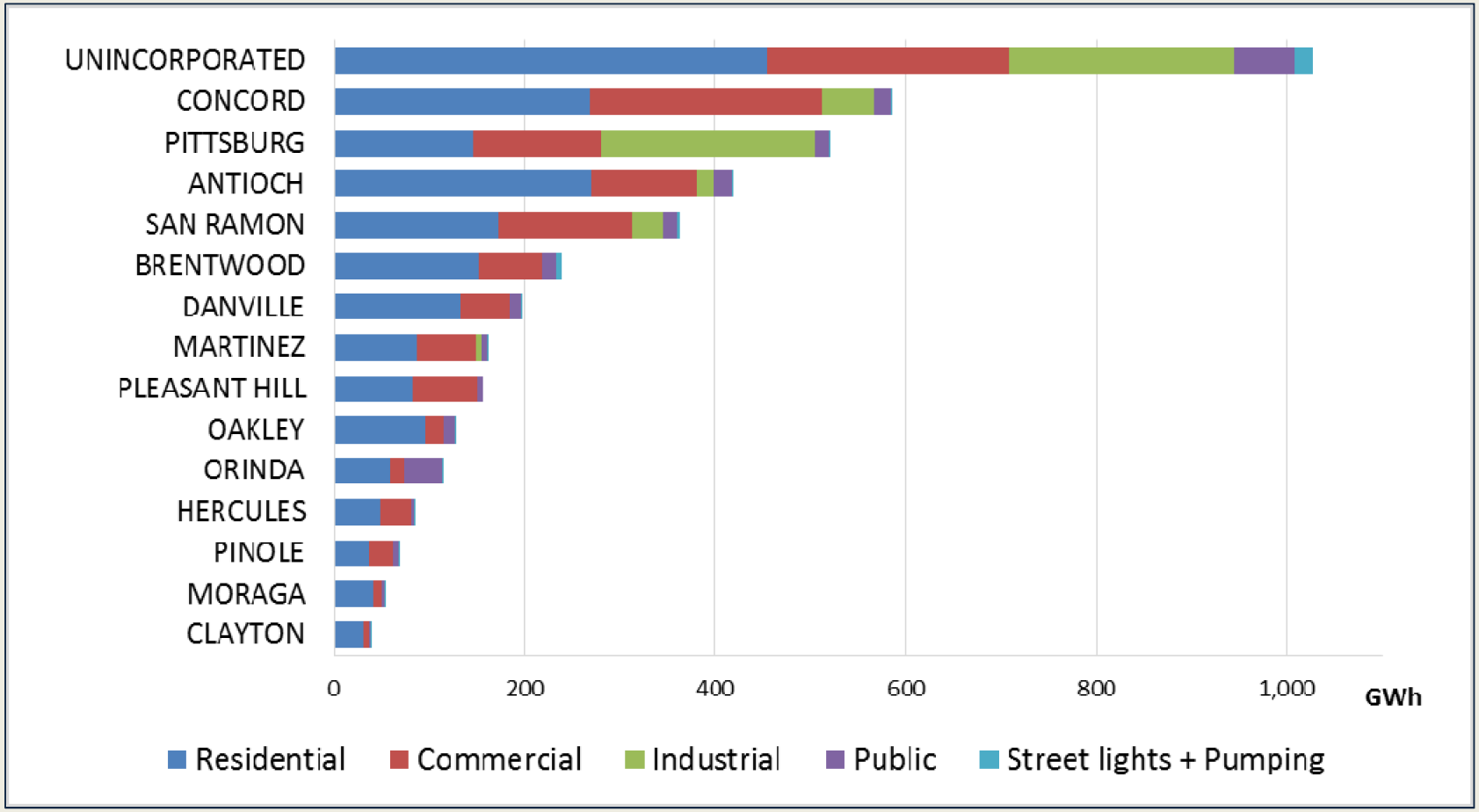
CCE Costs

- Same underlying market gas and power prices as above
- Renewable cost projections based on recent contracts signed with public agencies (e.g., City of Palo Alto)
- Administration costs based on existing CCEs

MAIN FINDINGS

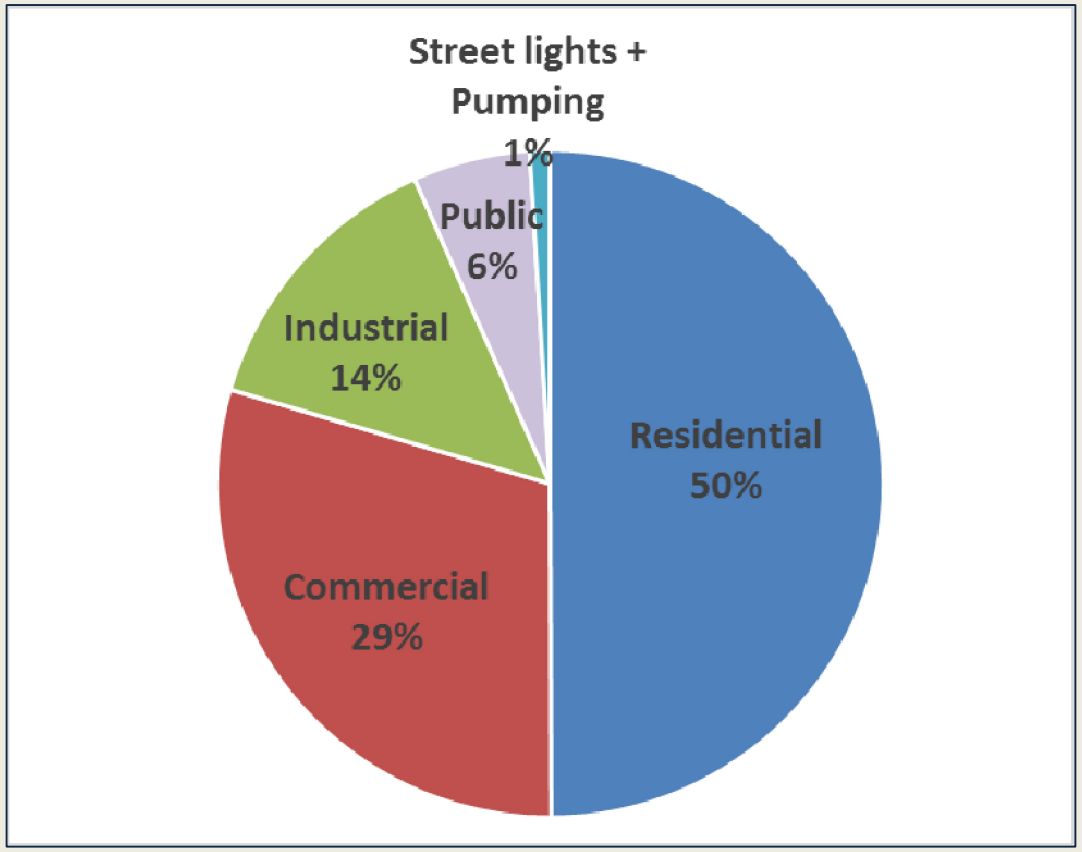
- Contra Costa County has several options for implementing a CCE program that could result in:
  - lower GHG emissions
  - increased local renewable energy generation
  - increased local job creation
- The electricity rates under various CCE scenarios would be similar or less than the PG&E rates.
- Enough technically feasible locations for renewable generation to meet a significant proportion of electricity demand (40% of these sites in Northern Waterfront).
- There are tradeoffs between forming a Contra Costa-only CCE versus joining existing/ongoing CCE efforts in neighboring counties

CONTRA COSTA LOAD*



Does not include the five Contra Costa cities already taking MCE service, or customers who have a non-PG&E source of power

PG&E'S 2015 BUNDLED LOAD BY RATE CLASS*



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THE FOUR SCENARIOS MODELED

Scenario	% Renewable at Start	% Renewable at 2030	% Renewable from Local Resources
1	33%	50%	0%
2	50%	80%	0%
3	33%	50%	50%
4	50%	80%	50%

Notes:

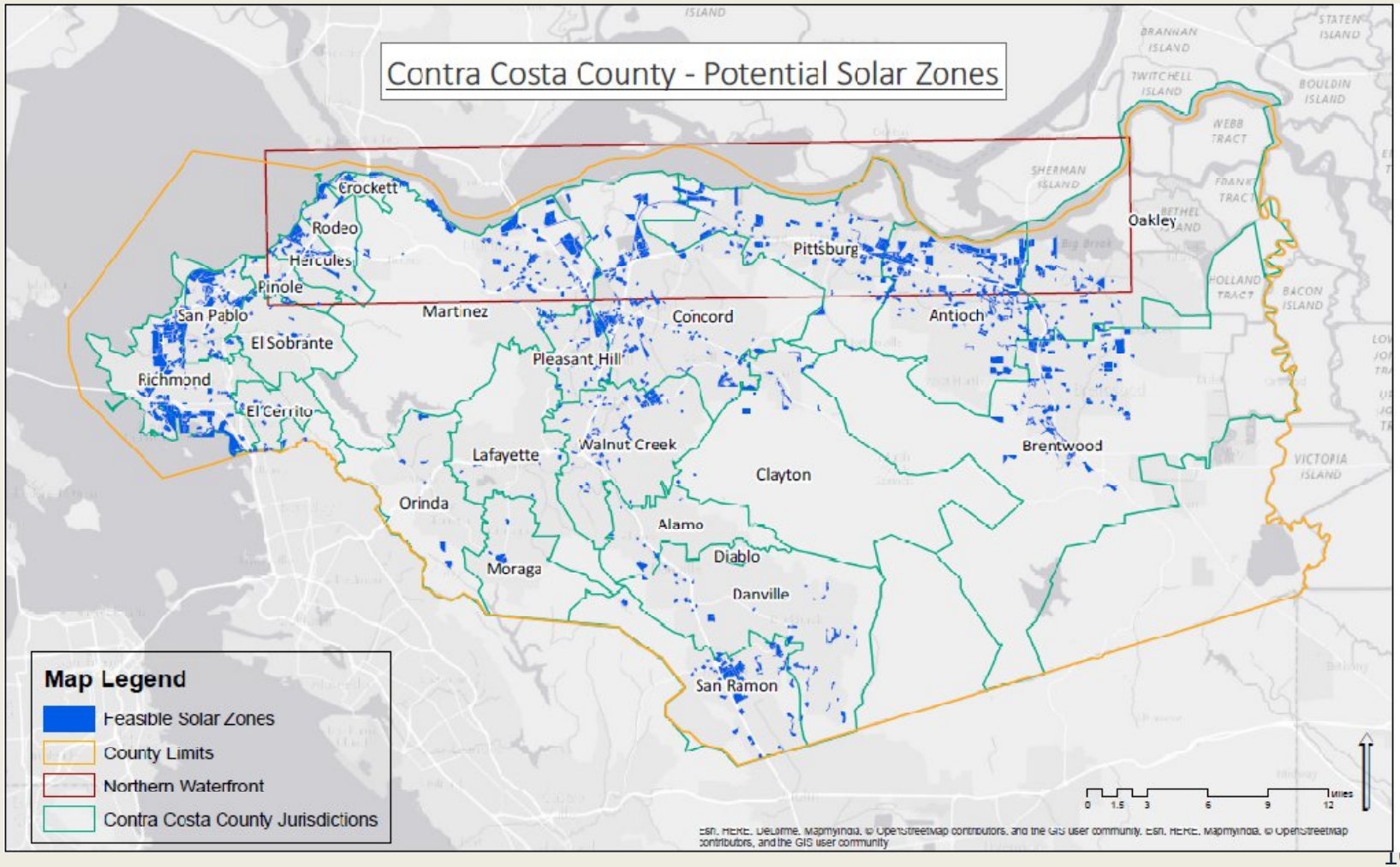
- Scenario 1 represents the lowest cost option, albeit with the least amount of renewables and least greenhouse gas (GHG) savings. Scenario 4 represents the scenario with the greatest amount of renewables (and local renewables) but at the highest cost. The other two scenarios fall in between 1 and 4.
- Customer-sited solar (rooftop) is incorporated in this analysis as a reduction to the CCE's load
- Customer-sited solar does not count towards meeting the State's Renewable Portfolio Standard (RPS) and is therefore not included in the renewable procurement in these scenarios.

AVERAGE BILL SAVINGS

Savings (%)	Scenario 1 (state mandated renewables)	Scenario 2 (accelerated renewables)	Scenario 3 (Scenario 1 with local renewables)	Scenario 4 (Scenario 2 with local renewables)
2018	up to 4%	up to 3%	up to 4%	up to 3%
2020	up to 6%	up to 5%	up to 5%	up to 4%
2030	10%	9%	7%	4%

- Potential rate savings in early years can vary depending upon assumptions about contributions to a reserve fund. For example, the newest CCE, Peninsula Clean Energy (PCE), is contributing to reserves while also offering a rate discount.
- CCE Board has broad discretion on ratemaking; it can direct funds to other programs (e.g., financial reserves, energy efficiency, rooftop solar, etc.) or to rate reductions.

POTENTIAL SITES FOR LOCAL SOLAR



CCE SUPPLY PORTFOLIOS AND GHG EMISSIONS

- PG&E already has a low-carbon supply portfolio
- CCEs can—and do—offer lower GHG emissions, but need more than just eligible renewables.

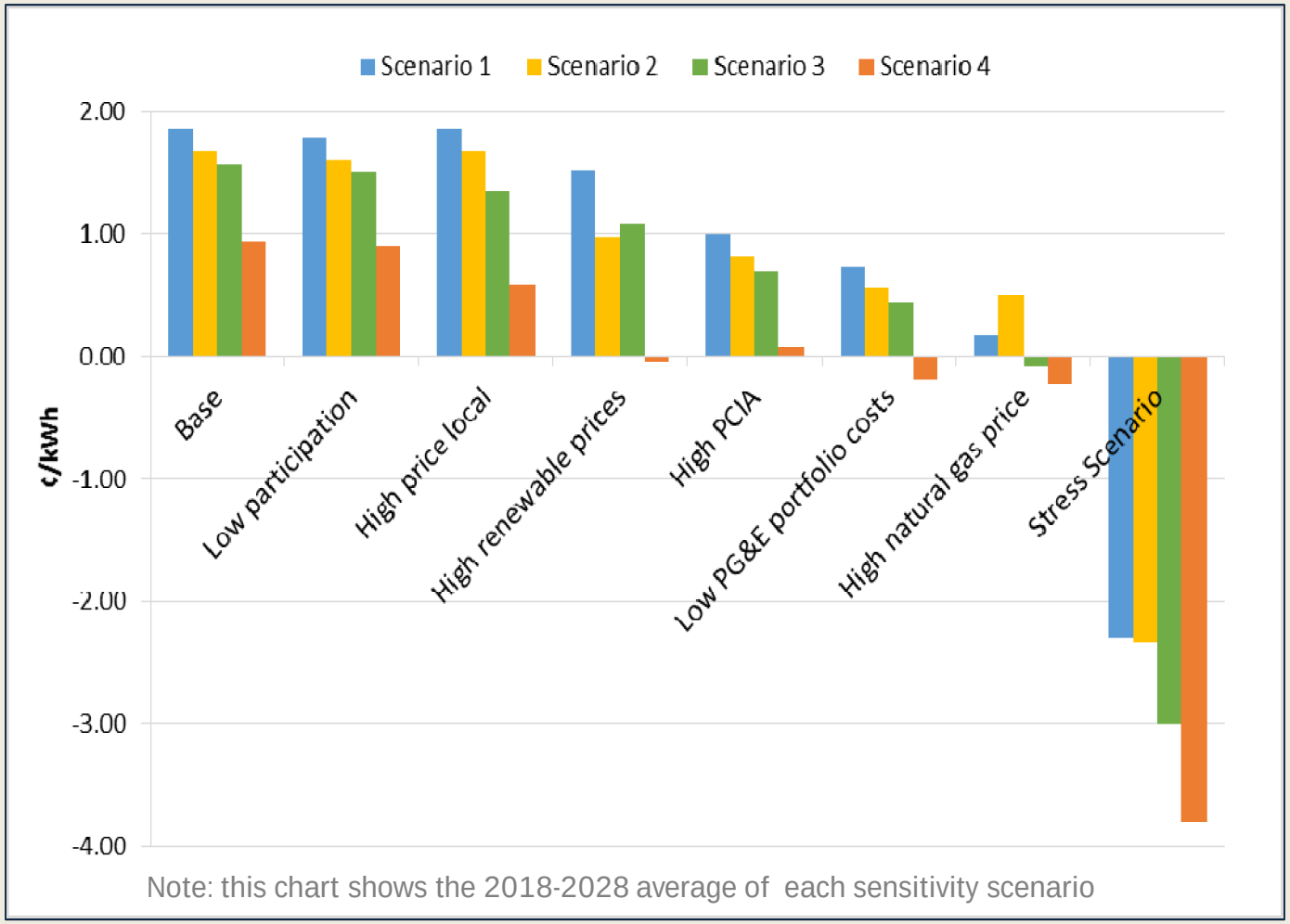
	PG&E 2015	MCE 2015
Eligible renewable	30%	56%
Large Hydro	6%*	12%
Nuclear	23%	0%
GHG-Free subtotal	59%	68%
Unspecified/Market	17%	25%
Natural Gas	25%	12%
Fossil subtotal	41%	32%

* The fraction of PG&E's power form large hydro was historically low due to drought

PRO FORMA SENSITIVITIES

Factor	Sensitivity Change
Low CCE Participation	Double Opt-Outs from 15% to 30%
High Price Local Renewable Generation	Local renewable prices 20% higher than base forecast
Increased cost of renewable power	10% higher through 2021, 20% higher in 2021 and 2022, and 30% higher after 2022
High PCIA (“exit fee”)	Retains the high PCIA expected in 2018 (2.4¢/kWh) through 2028
High Natural Gas Prices	US DOE High Gas Price Scenario, which is about 50% higher than the base case price
Low PG&E Rates	PG&E rates 10% lower than base forecast
Stress Scenario	Combined impact of high renewable costs, high PCIA, high gas price and low PG&E rates.

DIFFERENCE BETWEEN PG&E AND CCE CUSTOMER RATES



Note: this chart shows the 2018-2028 average of each sensitivity scenario

CCE LOCAL JOBS IMPACTS

- Jobs likely to be created from 2 factors:
  - Electricity Rate Savings
  - Construction and Operation of Renewable Energy Generating Facilities and CCE operations

- The 4 scenarios modeled in the Draft Study project 530 - 680 additional jobs annually within the County

JOBS RESULTING FROM RATE SAVINGS

- Residential Rate reduction shifts consumer spending to other activities across the local economy
- Shift in spending results in job creation in a broad range of economic sectors
- Rate savings would be modest, but widespread, with all electricity customers benefiting to some degree
- County's Commercial & Industrial customers reap "lower costs-of-doing business" which helps with added growth.

JOBS FROM NEW ENERGY FACILITIES

- Local job creation projected from construction and operation of new renewable energy facilities
- Most jobs for facilities built within the County would be held by County residents
- Smaller share of jobs for build-out in adjacent counties would be held by County residents
- Jobs impact would depend on policies adopted by the CCE program to encourage build-out

CONTRA COSTA CCE PROGRAM OPTIONS

Options include:

1. Form a new, stand-alone CCE for County and cities not already with MCE
2. Join MCE
3. Join EBCE (Alameda County)

There are pros and cons/trade-offs to each option

Key Factors Examined:

- ✓ Rates
- ✓ GHG Reduction Potential
- ✓ Local Control/Governance
- ✓ Local Economic Benefits
- ✓ Start-Up Costs
- ✓ Level of Effort
- ✓ Program Risks
- ✓ Timing

CONTRA COSTA CCE PROGRAM OPTIONS

Criterion	Form CCCo JPA	Join MCE	Join EBCE	Stay with PG&E
Rates	Likely lower	Likely Lower	Likely Lower	Base
GHG Reduction Potential	Some	Some	Some	Base
Local Control/ Governance	Most	Some	Some	None
Local Economic Benefits	Greatest	Some	Some	Minimal
Start Up Costs/Cost to Join	Low, but greater risk[1]	None[2]	Unknown, but likely to be none[2]	None
Level of Effort	Greatest	Minimal	Greater	None
Program Risks	Greatest	Minimal	Some	Base
Timing (earliest)	Mid-Late-2018	Late-2017	Mid-2018	N/A

1 Start-up funds provided by the County and funding cities are likely to be reimbursed by the JPA.
2. Costs already spent for consulting/technical study will likely not be reimbursed.

FORMING NEW CONTRA COSTA CCE (VS JOINING A REGIONAL CCE)

Benefits/Pros	Risks/Cons
Governance not shared with jurisdictions outside of County	Commitment of substantial County and City resources to establish a new CCE agency
Can form JPA, policies, and programs that fully reflect County interests and values	Higher risks due lack of experience; level of effort is high
Greatest potential for local economic development (due largely to a Contra Costa-only JPA)	Would need to establish programs, contractors, credit, etc.
Allows Contra Costa jurisdictions to formulate programs and initiatives that target low-income and environmental justice issues consistent with local values and priorities.	Longest timeline to begin enrolling customers; would not likely launch until late 2018 or early 2019
Any net revenues generated can be reinvested 100% into Contra Costa with complete decision making authority resting within Contra Costa jurisdictions.	Adding an additional CCE program could create customer confusion within the County

JOINING MCE (VS EBCE)

Benefits/Pros	Risks/Cons
5 other Contra Costa County communities have already joined MCE; Brand awareness exists in the County	May be less geographic identification compared to East Bay
Established, successful program with staff, credit capacity and programs in place	Because programs and policies are already in place, less input into their content and operation
Easiest transition/implementation	Due to more expensive legacy contracts, rates could be higher than EBCE
Likely will be able to enroll customers sooner than EBCE	

JOINING EBCE (VS MCE)

Benefits/Pros	Risks/Cons
Coming in on the “ground floor" — opportunity to influence JPA development, policy direction and program implementation	Will likely to take longer to enroll new communities/customers
May be greater geographic alignment (East Bay compared to Marin)	Path and cost (if any) to join is not yet clear; more will be known in February 2017
Fewer number of jurisdictions likely to be on Board of Directors	May be a small fish among some very large fishes (e.g. Oakland, Hayward)
EBCE working on a local development business plan with emphasis on local/union hire and local power production *in the East Bay*	Adding an additional CCE program could create customer confusion within the County

BOARD VOTING SHARES

	MCE	EBCE (Simple)	EBCE (Weighted)[1]
Contra Costa already in MCE[2]	14%	n/a	n/a
Contra Costa not yet in MCE[3]	47%	52%	34%
Contra Costa Total	61%	52%	34%
Non-Contra Costa Communities	38%	48%	66%
Largest Community (share)	CC Unincorp. (8.1%)	All equal	Oakland (16.4%)
Unincorporated CC County Share	8.1%	All equal	8.4%

1. Standard EBCE voting is based on simple, one community, one vote. A weighted vote occurs only if three communities request it, and can only reverse an affirmative vote.
2. El Cerrito, Lafayette, Richmond, San Pablo, and Walnut Creek.
3. Assumes that all non-MCE Contra Costa communities join the CCE with 15% opt-out.

REMAINING WITH PG&E

Benefits/Pros	Risks/Cons
Experienced provider	Higher GHG emissions; lower renewable content
Continuity- same firm provides all services	Less local renewable power generation
No action needed by City/County—status quo	Higher electricity rates than CCE rates under most scenarios
May be able to join a CCE at a later date (but perhaps at some cost)	No local control/local accountability
Individuals can remain on bundled PG&E service even if their community is a CCE member	No local input into policies and programs
	Less local economic development opportunity

CCE PROGRAM RISKS

Risk	Magnitude	Mitigation
Financial Risks to CCE Members	Low	Keep CCE JPA's financial obligations separate from jurisdiction's
Procurement-Related Risks (i.e., can't meet rate or GHG targets)	Medium-low	Enter into balanced portfolio of power contracts
Legislative and Regulatory Risks	High	Monitor and advocate at legislature and CPUC
PCIA ("Exit Fee") Uncertainty	High	Establish rate-stabilization fund to account for volatile PCIA
PCIA Policy Uncertainty	High	Monitor and advocate at legislature and CPUC
Availability/price of low-carbon resources	Medium	Enter into balanced portfolio of power contracts
Bonding Risk	Low	Monitor and advocate at CPUC

CONCLUSIONS (SO FAR)

- Likely able to meet or beat PG&E's retail rates.
- Can facilitate greater renewable generation in the County
- Can reduce GHGs, but need more than just increased RPS
- Can create 530 to 680 new jobs in County
- Trade-offs between different CCE options
  - Forming a stand-alone CCE: greatest control and local benefit potential, but greatest costs, risks and time to implement
  - Joining MCE: quickest, but less ability to shape program.
  - Joining EBCE: longer path than MCE, but with the opportunity to influence policies and formation
  - Joining MCE or EBCE can be delayed but it may result in an "entry fee" or higher PCIA.

Next Steps and Upcoming Meetings

- City Council Presentations:
  - Clayton – January 17
  - Martinez – January 18
  - San Ramon – January 24
  - Pleasant Hill – February 6
- Public Workshop – San Ramon Valley Region, January 26, 6:00 PM, Danville Veterans Building

Questions/Comments

Visit www.cccounty.us/cce to submit a comment on the Draft Technical Study and take the online survey.

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