Clean Coalition

CCA Programs and Rate Analysis

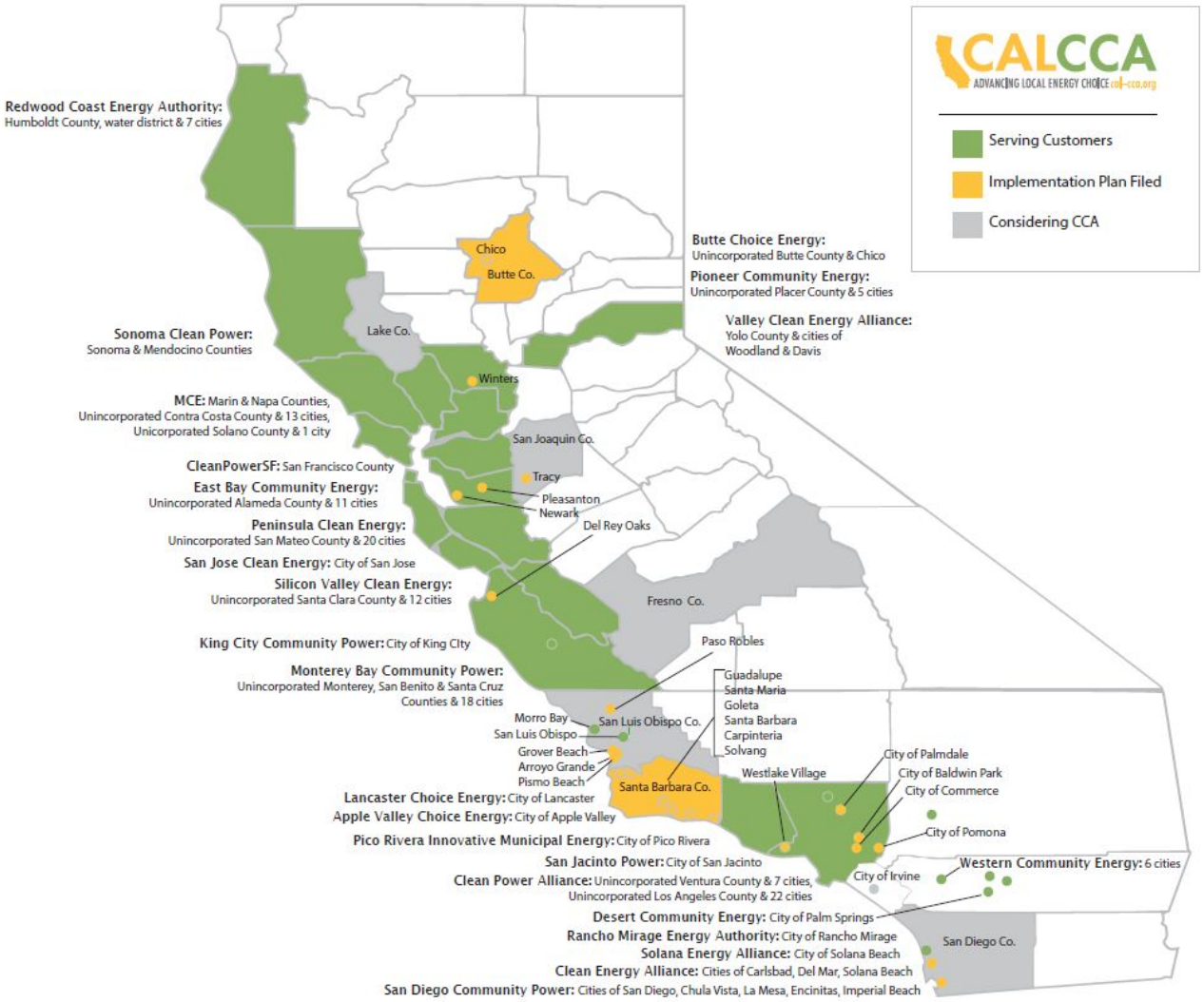
Max Andre

What is a CCA?

A Community Choice Aggregation (CCA) is an entity that provides renewable electricity alternatives to the local Investor-Owned Utility (IOU) like PG&E, SCE, and SDGE, and also provides other programs with incentives and rebates for electrification. As not-for-profit organizations, they focus on meeting climate action goals in their local communities.

Map of California CCAs

- Indicates CCA with at least 100,000 total customers



Note: map is as of 2021

CCA Programs

Overview of CCA Programs

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CCA	Solar & Storage Rebates	Solar Credits/Compensation Rates (NEM)	Water Heaters	EVs	DR Program App	Induction Cooking	E Bikes	Other
MCE	$20/month credit	$.0540/kWh	$1,500 (for contractors)	$3,500, Charging incentives	MCE Sync App	No	No	Flex Market Business DR Program, Free Energy Assessment (income-eligible)
Ava Community Energy	Coming soon	$.0340/kWh	$1,000 (for contractors) UNCLEAR	Charging incentives	Ava SmartHome Charging	Free (pilot program)	$1,500	Resilient Facilities, Habitat for Humanity Partnership
Clean Power SF (CPSF)	GoSolarSF	$.0893/kWh	$1,200	Charging incentives	EV Charge SF	No	$1,000	SuperGreen Saver
Sonoma Clean Power (SCP)	N/A	$.0440/kWh	$700	Charging incentives	GridSavvy	$500	No	Energy Savings Box, Home Energy Toolkits, Induction Cooking free tests
Clean Power Alliance	$750	$.01887/kWh	$0	Charging incentives	EV SmartCharge	No	No	CALeVIP, Energy Team
Peninsula Clean Energy (PCE)		retail rate + $.01/kWh	$2,500	$2,000	No	No	$1,000	$10,000 0% interest loan on home upgrade services
Central Coast Community Energy (3CE)	$500/kWh	$.033/kWh (PG&E), $.020/kWh (SCE)	$1,000	$2,000	OhmConnect	No	No	New Construction Electrification Program
San Diego Community Power (SDCP)	Yes, Solar Advantage	$.02201/kWh, FIT Program, SBP	No	Charging incentives	EV Flex Connect	No	No	Community Grant Program, Power 100 Champions for Businesses, Educational Section
San Jose Clean Energy (SJCE)	$125/kWh	$.0380375/kWh (NEM)	$2,000	Charging incentives	Peak Rewards	No	No	Multifamily EV Charger Program Incentives, SJ Cares Disadvantaged Program
Silicon Valley Clean Energy (SVCE)	?	$.03040/kWh	$2,000	$2,000 (income-eligible only)	GridShift	$750	No	Free Home Energy Analysis and Audit, DIY Toolkits
Orange County Power Authority (OCPA)	$1,000 Battery Rebate	$.01887/kWh	No	Free EV Charger	OhmConnect	No	No	OCPA Marketplace
Clean Energy Alliance (CEA)	Solar Plus - no upfront costs, Battery Bonus	$.06/kWh	No	No	PeakSmart (extreme DR), OhmConnect	No	No	

Link to spreadsheet

Solar and Storage Programs

- MCE's Solar Storage Credit: $20/month for exporting solar back to the grid during peak hours (battery must be <20%)
- CPSF's Solar Inverter Replacement Program: up to $3,000 in rebates for solar maintenance (income-eligible only)
- CEA's Solar Plus & Battery Bonus: solar+battery for "no up-front costs" (income-eligible only)

CCA	Solar & Storage Rebates
MCE	$20/month credit
Ava Community Energy	Coming soon
Clean Power SF	GoSolarSF
Sonoma Clean Power	N/A
Clean Power Alliance	$750
Peninsula Clean Energy (PCE)	No
Central Coast Community Energy (3CE)	$500/kWh
San Diego Community Power	Yes, Solar Advantage
San Jose Clean Energy	$125/kWh
Silicon Valley Clean Energy	No
Orange County Power Authority	$1,000 Battery Rebate
Clean Energy Alliance	Solar Plus - no upfront costs, Battery Bonus

Net surplus compensation (NEM) rates across the CCAs

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- With Net Energy Metering (NEM), customers with solar receive credits at the retail rate for their solar exports back to the grid
- At the end of the annual billing cycle, excess solar export credits can be paid out in cash or future credits
- Most CCAs offer slightly higher rates than the IOUs
- PCE offers $.01/kWh above the retail rate (~$.15/kWh), the highest by far of all CCAs

CCA	Solar Credits/Compensation Rates (NEM)
MCE	$.0540/kWh
Ava Community Energy	$.0340/kWh
Clean Power SF	$.0893/kWh
Sonoma Clean Power	$.0440/kWh
Clean Power Alliance	$.01887/kWh
Peninsula Clean Energy (PCE)	retail rate + $.01/kWh
Central Coast Community Energy (3CE)	$.033/kWh (PG&E), $.020/kWh (SCE)
San Diego Community Power	$.02201/kWh, FIT Program, SBP
San Jose Clean Energy	$.0380375/kWh (NEM)
Silicon Valley Clean Energy	$.03040/kWh
Orange County Power Authority	$.01887/kWh
Clean Energy Alliance	$.06/kWh

Heat pump water heaters

- Some CCAs offer incentives of up to $2,500 for all customers and $3,500 for income-eligible customers
- MCE and Ava offer rebates for contractors to discount prices for customers

CCA	Water Heaters
MCE	$1,500 (for contractors)
Ava Community Energy	$1,000 (for contractors) UNCLEAR
Clean Power SF	$1,200
Sonoma Clean Power	$700
Clean Power Allilance	$0
Peninsula Clean Energy (PCE)	$2,500
Central Coast Community Energy (3CE)	$1,000
San Diego Community Power	No
San Jose Clean Energy	$2,000
Silicon Valley Clean Energy	$2,000
Orange County Power Authority	No
Clean Energy Alliance	No

EVs and charging stations

- Almost every CCA offers EV or charging incentives
- EVs can be programmed to charge during off-peak hours, so they're often used in demand response programs and apps
- Some CCAs offer both new and used EV or hybrid incentives
- OCPA offers a free EV charger (level 2)

CCA	EVs
MCE	$3,500, Charging incentives
Ava Community Energy	Charging incentives
Clean Power SF	Charging incentives
Sonoma Clean Power	Charging incentives
Clean Power Alliance	Charging incentives
Peninsula Clean Energy (PCE)	$2,000
Central Coast Community Energy (3CE)	$2,000
San Diego Community Power	Charging incentives
San Jose Clean Energy	Charging incentives
Silicon Valley Clean Energy	$2,000 (income-eligible only)
Orange County Power Authority	Free EV Charger
Clean Energy Alliance	No

Demand response (DR) apps

- Most of California is partnered with OhmConnect, but other CCAs have their own DR apps
- Customers are incentivized to consume less energy during peak hours to manage the load on the grid
  - Some export energy from home batteries during peak hours as well
- CEA's PeakSmart: up to 30% cheaper energy throughout the year, but on PeakSmart Days (<18 days/year), energy costs these customers an extra $1.10/kWh (super expensive)

CCA	DR Program App
MCE	MCE Sync App
Ava Community Energy	Ava SmartHome Charging
Clean Power SF	EV Charge SF
Sonoma Clean Power	GridSavvy
Clean Power Allilance	EV SmartCharge
Peninsula Clean Energy (PCE)	No
Central Coast Community Energy (3CE)	OhmConnect
San Diego Community Power	EV Flex Connect
San Jose Clean Energy	Peak Rewards
Silicon Valley Clean Energy	GridShift
Orange County Power Authority	OhmConnect
Clean Energy Alliance	PeakSmart (extreme DR), OhmConnect

Induction cookware electrification

- Replaces gas stoves in homes
- Ava offers free induction cookware to income-eligible customers that allow Ava to study the effects of electrification on air quality in homes
- SCP offers a free induction cooktop checkout for customers to test-drive induction cookware for two weeks
- Most CCAs encourage switching to induction cooking even if they don't offer direct incentives

CCA	Induction Cooking
MCE	No
Ava Community Energy	Free (pilot program)
Clean Power SF	No
Sonoma Clean Power	$500
Clean Power Allilance	No
Peninsula Clean Energy (PCE)	No
Central Coast Community Energy (3CE)	No
San Diego Community Power	No
San Jose Clean Energy	No
Silicon Valley Clean Energy	$750
Orange County Power Authority	No
Clean Energy Alliance	No

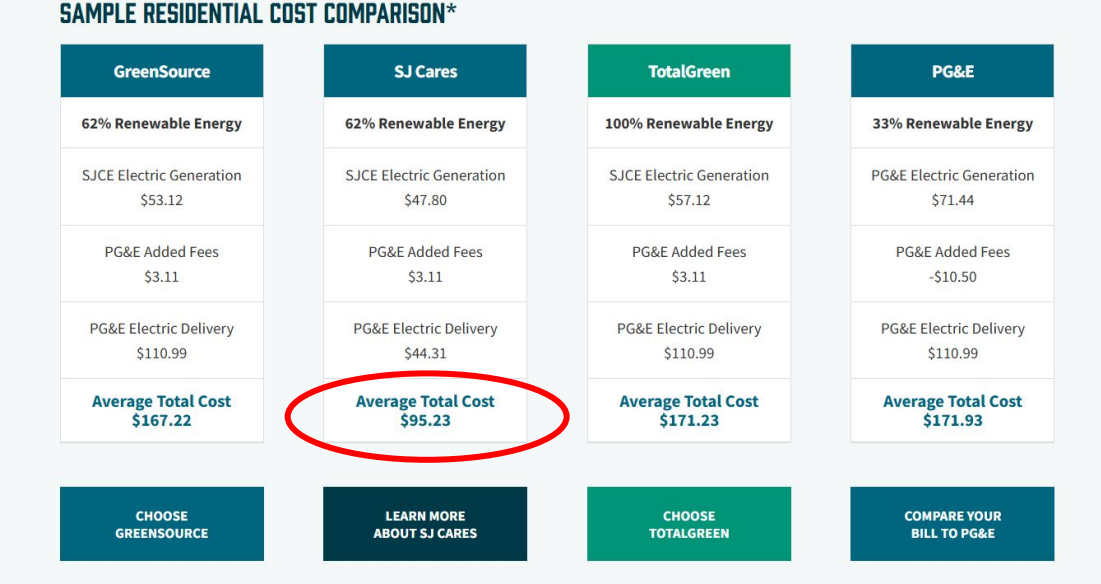
E-bikes

- While e-bike incentives are rather uncommon (most simply encourage e-bike use), some CCAs still provide incentives to green transportation
- E-bikes may vary in utility based on geographic location

CCA	E Bikes
MCE	No
Ava Community Energy	$1,500
Clean Power SF	$1,000
Sonoma Clean Power	No
Clean Power Allilance	No
Peninsula Clean Energy (PCE)	$1,000
Central Coast Community Energy (3CE)	No
San Diego Community Power	No
San Jose Clean Energy	No
Silicon Valley Clean Energy	No
Orange County Power Authority	No
Clean Energy Alliance	No

Income–eligible incentives

- SJCares - almost ½ price
- CPSF SuperGreen Saver
  - 20% discount on 100% renewable energy
- CARE/FERA rate plans offer discounted rates across all CCAs



SAMPLE RESIDENTIAL COST COMPARISON*

GreenSource	SJ Cares	TotalGreen	PG&E
62% Renewable Energy	62% Renewable Energy	100% Renewable Energy	33% Renewable Energy
SJCE Electric Generation $53.12	SJCE Electric Generation $47.80	SJCE Electric Generation $57.12	PG&E Electric Generation $71.44
PG&E Added Fees $3.11	PG&E Added Fees $3.11	PG&E Added Fees $3.11	PG&E Added Fees -$10.50
PG&E Electric Delivery $110.99	PG&E Electric Delivery $44.31	PG&E Electric Delivery $110.99	PG&E Electric Delivery $110.99
Average Total Cost $167.22	Average Total Cost $95.23	Average Total Cost $171.23	Average Total Cost $171.93
CHOOSE GREENSOURCE	LEARN MORE ABOUT SJ CARES	CHOOSE TOTALGREEN	COMPARE YOUR BILL TO PG&E

Other unique programs

- PCE's 0% interest loan for home upgrades up to $10,000
- DIY Energy Toolkits/boxes (SCP, SVCE)
- OCPA Marketplace: discounted online store for energy-saving products
- Free Home Energy Assessments (MCE's income-eligible customers only, CPA)
- SCP's free induction cooktop checkout
- Ava's partnership with Habitat for Humanity to electrify income-eligible customers
- SJCE's Multifamily EV Charger Assistance Program and CPA's CALeVIP to provide EV incentives to businesses especially in disadvantaged communities
- 3CE's New Construction Electrification Program to build new, all electric housing

Rate Analysis

Rate plan analysis of CCAs with the local IOU

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Sample Joint Rate Comparisons:

- Default Plans:
  - E-TOU C (PG&E)
  - TOU-D-PRIME (SCE)
  - TOUDR (SDGE)

E-TOU C*

Residential: E-TOU C	PG&E	MCE Light Green (61% Renewable)	MCE Deep Green (100% Renewable)
Generation Rate ($/kWh)	$0.17422	$0.14617	$0.15617
PG&E Delivery Rate ($/kWh)	$0.29030	$0.29030	$0.29030
PG&E PCIA/FF ($/kWh)	-$0.02327	$0.01178	$0.01178
Total Electricity Cost ($/kWh)	$0.44125	$0.44825	$0.45825
Average Monthly Bill ($)	**$193.08**	**$196.14**	**$200.52**

Monthly usage: 438 kWh
Rates are current as of April 1, 2025

TOU-D-PRIME	SCE	EPIC Power	EPIC Power 100
Generation Rate	$0.10993	$0.16036	$0.17036
SCE Delivery Rate	$0.24423	$0.23828	$0.23828
Surcharges	$0.00000	-$0.00974	-$0.00974
Total Costs	$0.35416	$0.38890	$0.39890
Average Monthly Bill ($)	$191.60	$210.39	$215.80

Monthly Usage: 541 kWh

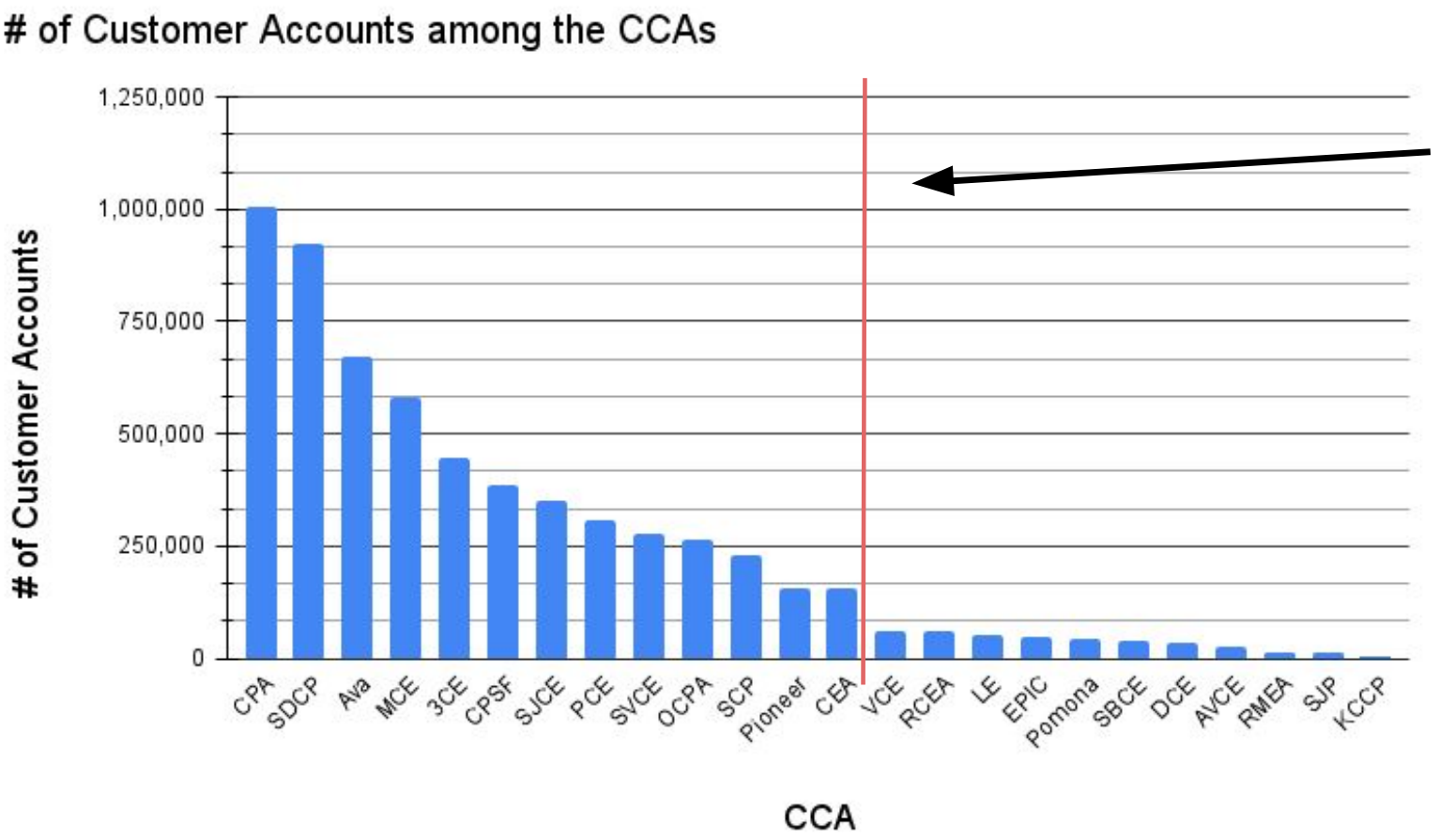
SCE rates are current as of June 1, 2025. EPIC rates are current as of June 1, 2025.

Time of Use – TOUDR-Residential

Residential: TOUDR	SDG&E 41.4% Renewable	SDCP PowerBase 47% Renewable	SDCP PowerOn 54% Renewable + 11.7% Carbon Free	SDCP Power100 100% Renewable
Generation Rate ($/kWh)	$0.14608	$0.15429	$0.15731	$0.16731
PCIA ($/kWh)	$0.00209	-$0.01364	-$0.01364	-$0.01364
SDG&E Delivery Rate ($/kWh)	$0.25204	$0.25202	$0.25202	$0.25202
Franchise Fees ($/%)	$0.00441	$0.00441	$0.00441	$0.00441
Total Electricity Cost ($/kWh)	$0.40464	$0.39708	$0.40010	$0.41010
Average Monthly Bill ($)	**$162.26**	**$159.23**	**$160.44**	**$164.45**

Average Monthly Usage: 401 kWh

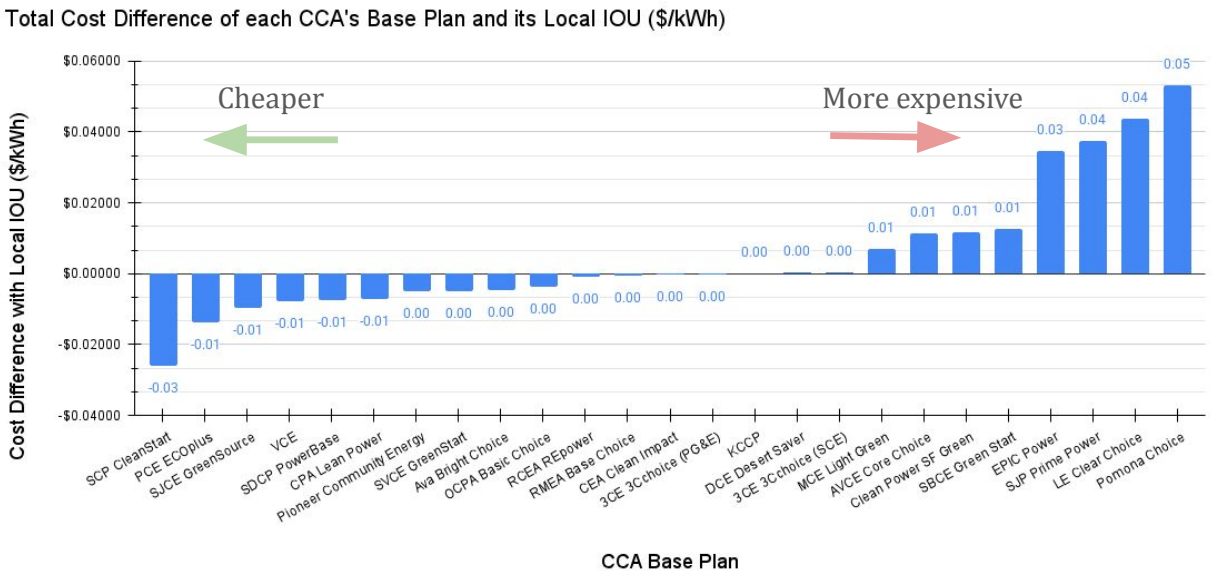
Some CCAs serve more customers than others



This separates the CCAs with at least 100,000 total customers.

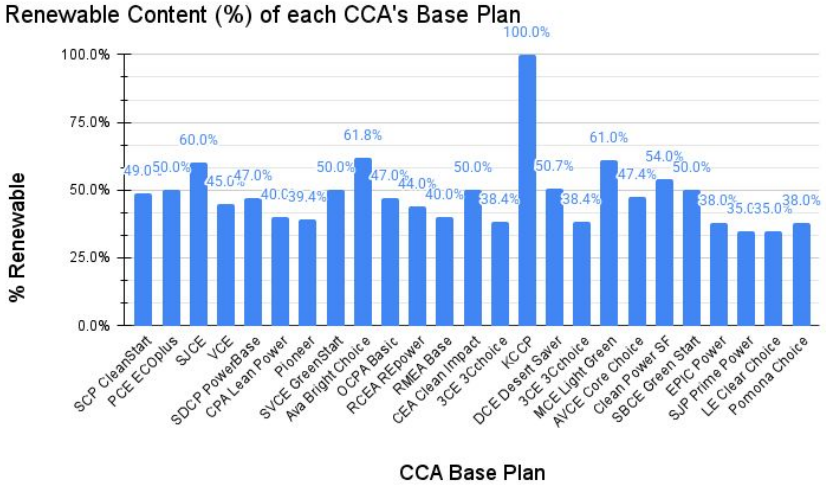
Total Base Plan Rates

How the CCAs' base plans compare in competition with their local IOU



Most CCA base plans are rather competitive with their local IOU.

Average total cost difference of all CCAs: <u>$.00483/kWh</u>



There is no clear relationship between % renewable and total cost difference of base plans

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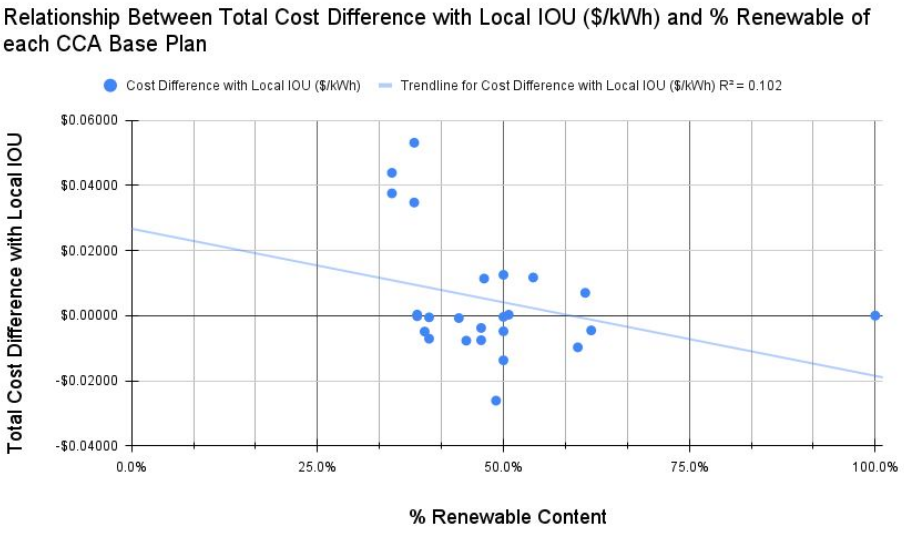

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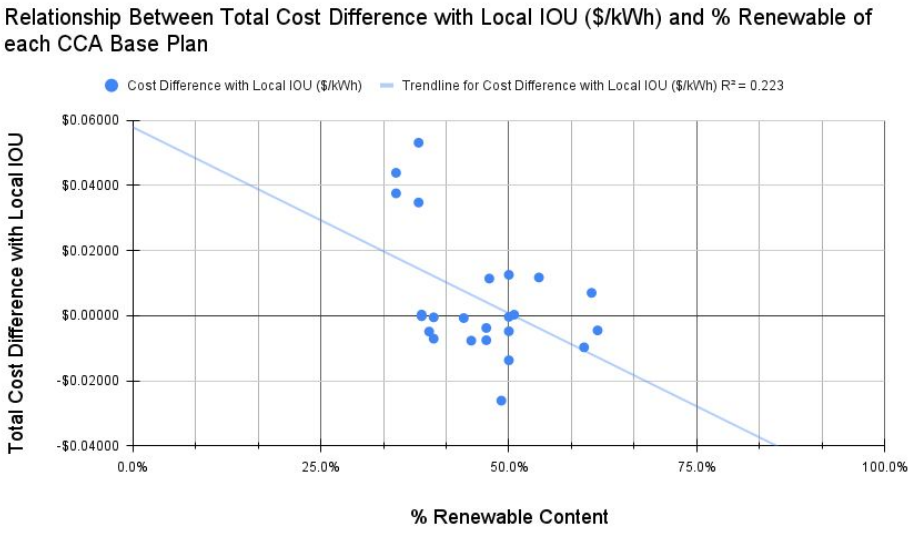

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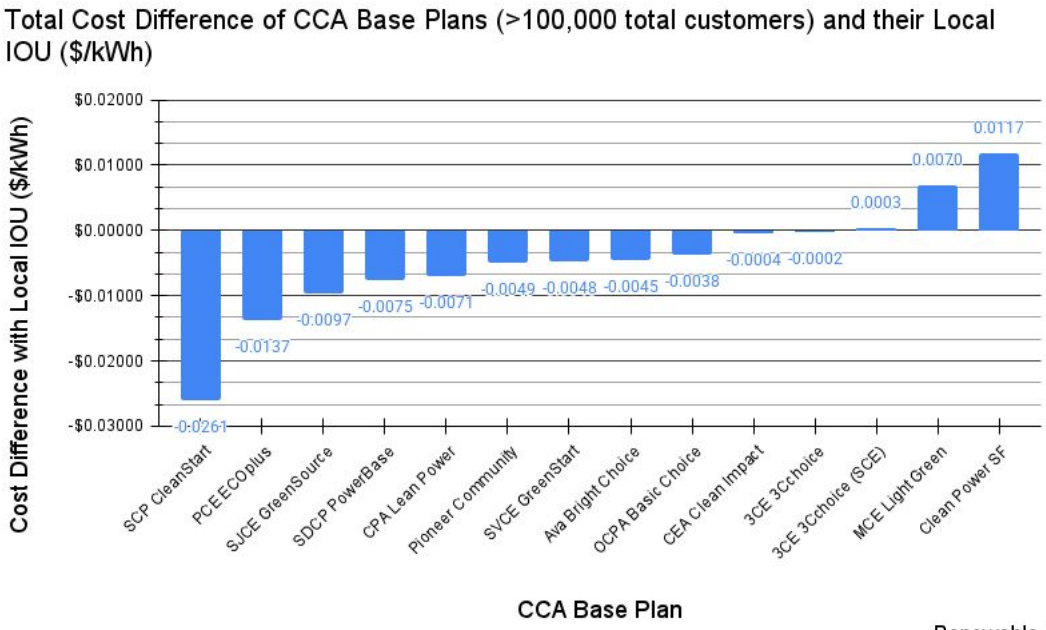
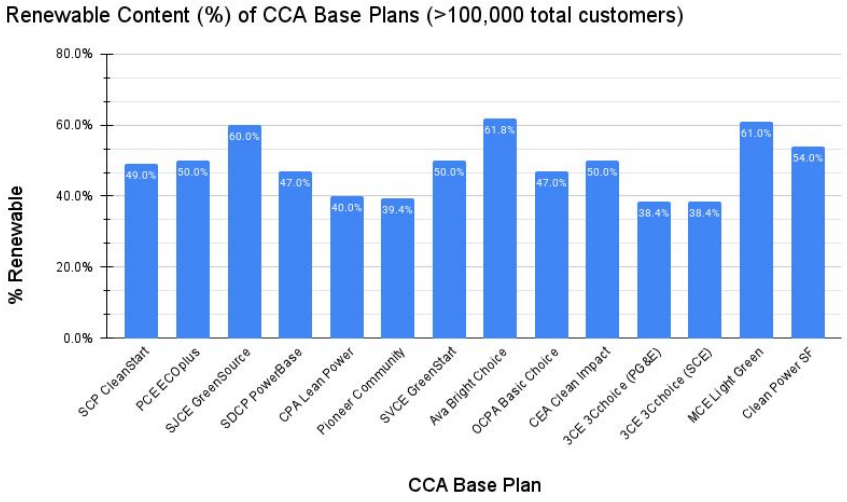
How the CCAs' base plans compare in competition with their local IOU (minimum 100,000 total customers)



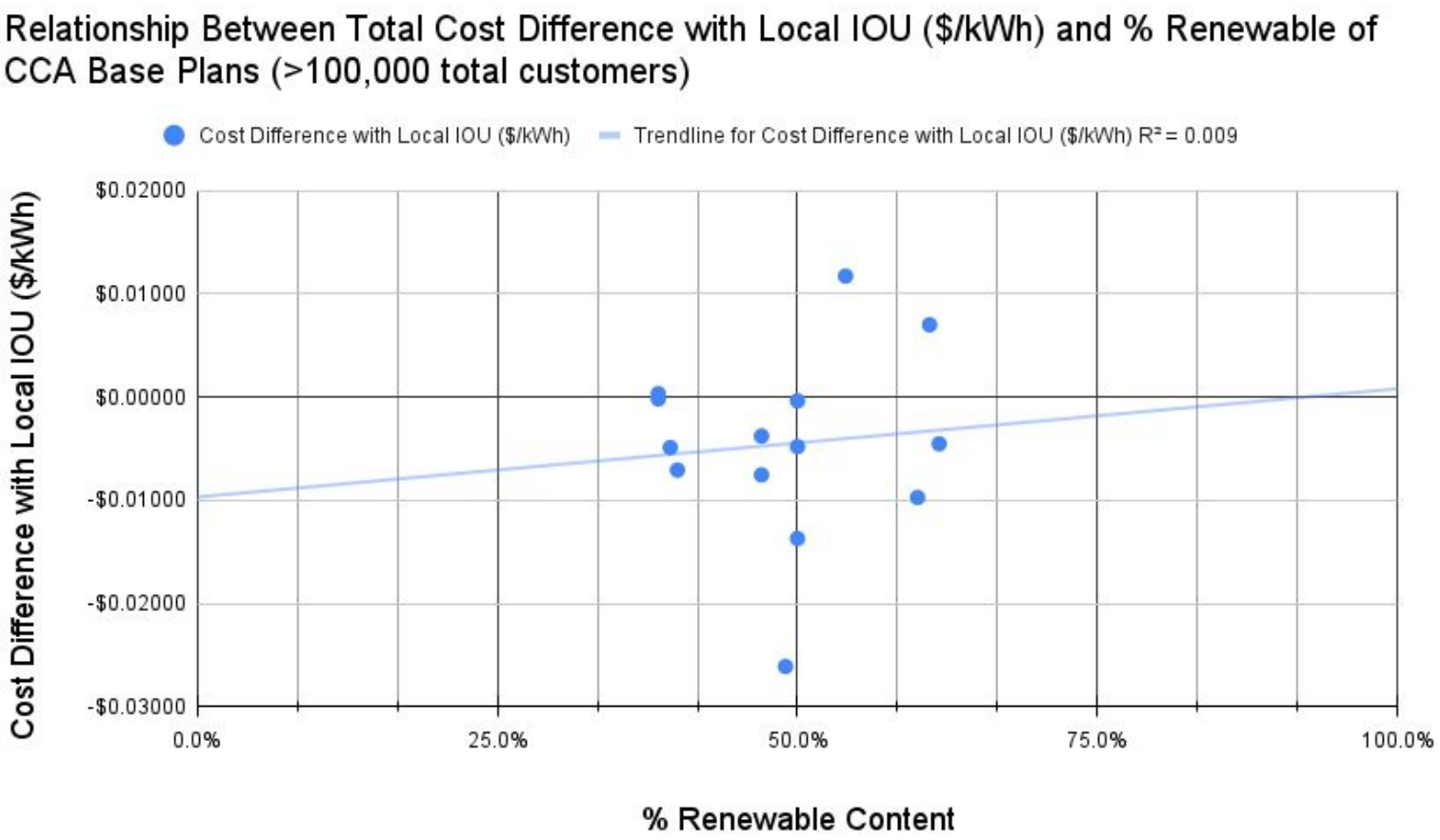


Larger-scale CCAs can keep rates more competitive with the IOU

Average total cost difference of CCAs with >100,000 total customers: <u>-$.000455/kWh</u>

The relationship between renewable content and cost difference of base plans (min. 100,000 total customers)

Clean Coalition



There is not a relationship between % renewable content and cost difference of CCA base plans (min. 100,000 total customers)

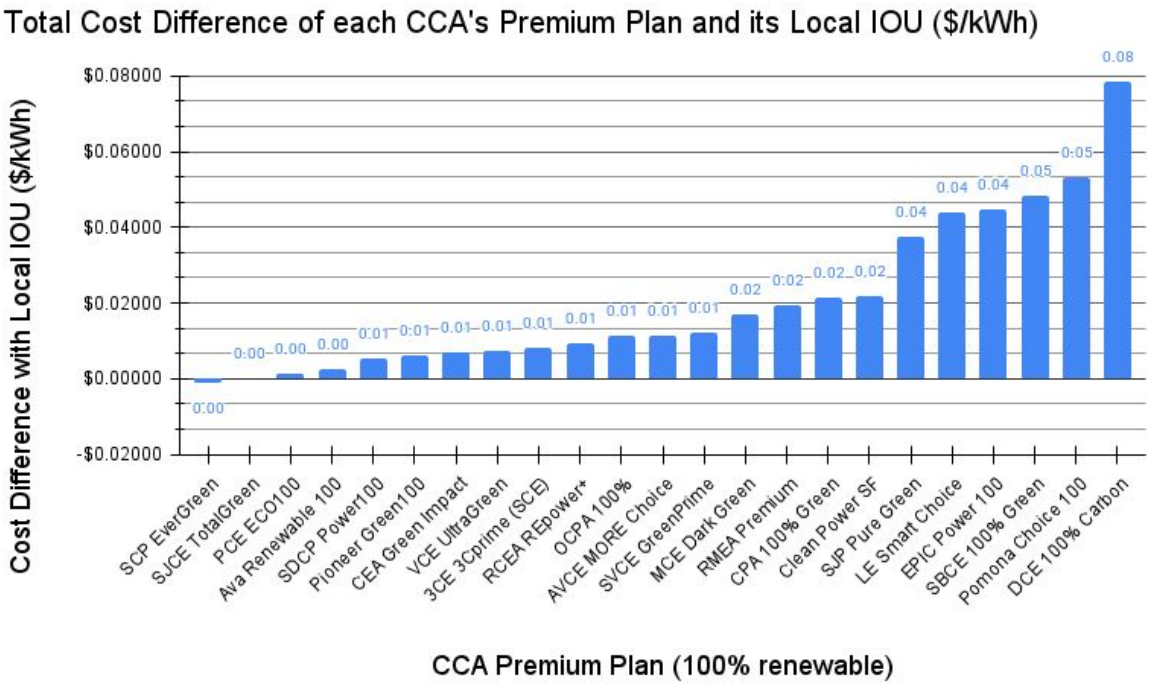
Theories why base plans with more renewable content aren't more expensive (min. 100,000 total customers)

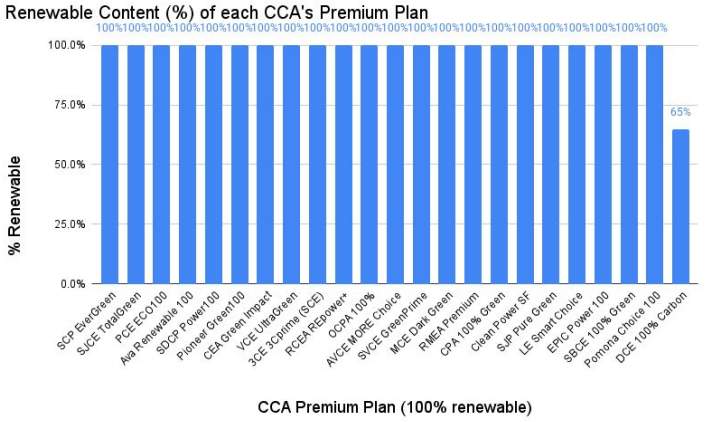
Clean Coalition

- Power Charge Indifference Adjustment (PCIA) fees/FF (locked in)
  - PCIA fees: fees incurred by IOUs from long-term electricity contracts for customers who converted to CCAs and no longer purchase electricity from the IOU
    - Vary by the CCA and can change in value over time
    - Newer CCAs tend to have lower PCIA fees than older CCAs
  - Franchise Fees: city/county fees for the poles, wires, and other IOU infrastructure on public property
- Quality of renewable contracts between CCAs

Total Premium Plan Rates

How the CCAs' premium plans compare in competition with their local IOU

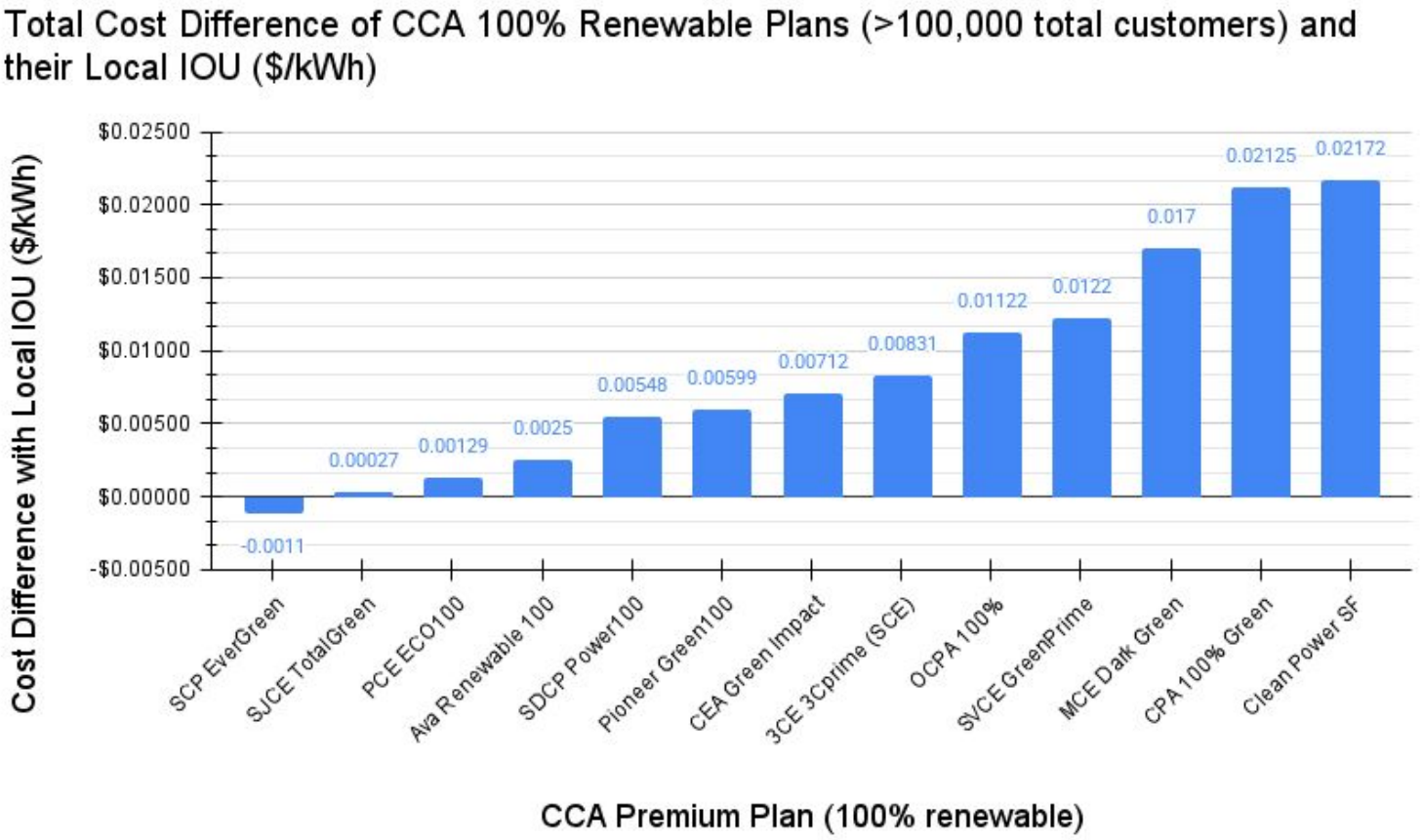




Average total cost difference among all CCAs: $.02031/kWh

Some CCA premium plans are more competitive with the IOU than others (min. 100,000 total customers)

Clean Coalition



Average total cost difference among CCAs with >100,000 total customers: $.00871/kWh

Conclusion & Next Steps

CCA program remarks

- CCAs support customers with generating their own renewable energy and electrifying their homes
- Many of the core programs and incentives are offered by all the largest CCAs across California
- While there isn't much differentiation between CCA programs, some CCAs have created innovative programs for customers
  - Are programs like SJCares or CPSF's Solar Inverter Replacement Program replicable to other CCAs?
- CCAs try to reach all customers in their areas, including disadvantaged and low-income customers by offering them greater access to incentives and rebates
- Many CCAs have incentive finders that can find personalized incentives through other programs

Rate analysis remarks

- The majority of CCAs offer a rate plan that is competitive with the IOU (<$.01/kWh total cost difference)
- The greater the scale of the CCA, the more competitive its pricing is with the IOU
  - Most CCAs with >100,000 total customers offer base plans that are cheaper than the local IOU
- Within the same plans (base or premium), greater renewable content does not necessarily correlate with a higher total cost
- CCAs like SCP, 3CE, and CPA keep rates low and competitive, while CCAs like Ava guarantee a competitive rate with PG&E (5% cheaper than PG&E for its base plan) instead of setting the lowest possible rate
- Of the larger CCAs, MCE and CPSF have the least competitive rates, but they aim to compensate for their rates with unique programs and incentives

Rate analysis next steps and questions to ponder

Clean Coalition

- What causes total rates to be so varied between the CCAs?
  - Potential theories: quality of renewable contracts signed by each CCA, individual rate-setting policies, scale of CCA, geographic location and proximity to the energy sources, climates/availability of different renewable energy sources, or the difference in desire of customers in each area to commit to renewable energy
- Why do the renewable % and competitiveness of pricing within rate plans not correlate?
  - If the economics of renewable energy was an issue, shouldn't we see at least a slight correlation between renewable % and total cost difference?
- Is there a correlation between the size of a CCA and the competitiveness in its rates?
- Why do smaller CCAs exist? Would they be better off forming fewer CCAs with a greater scale to operate more efficiently?

Appendix

Generation Rates

Appendix

Generation rates do not factor in:

- Delivery rates
  - Transportation costs of delivering the electricity across the grid
- PCIA/FF fees (typically)
  - PCIA fees: fees incurred by IOUs from long-term electricity contracts for customers who converted to CCAs and no longer purchase electricity from the IOU
  - Franchise Fees: city/county fees for the poles, wires, and other IOU infrastructure on public property

E-TOU C*

Residential: E-TOU C	PG&E	MCE Light Green (61% Renewable)	MCE Deep Green (100% Renewable)
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Average Monthly Bill ($)	**$193.08**	**$196.14**	**$200.52**

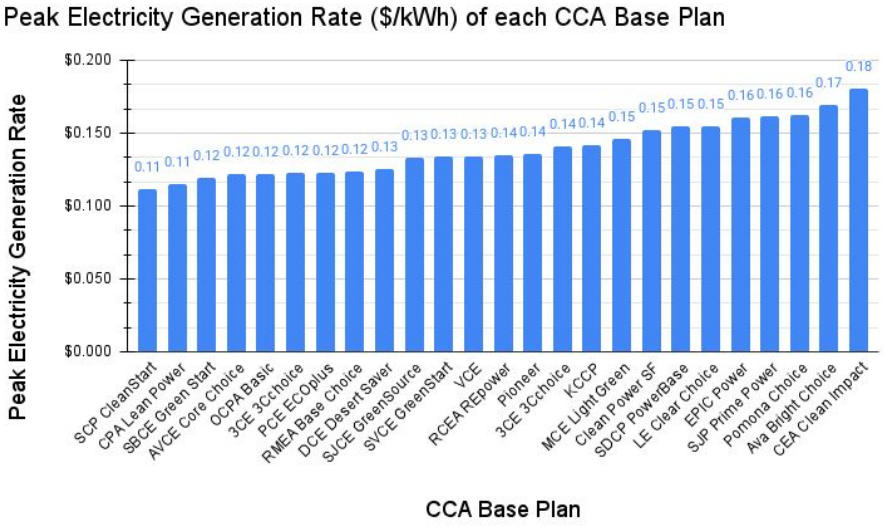
Monthly usage: 438 kWh
Rates are current as of April 1, 2025

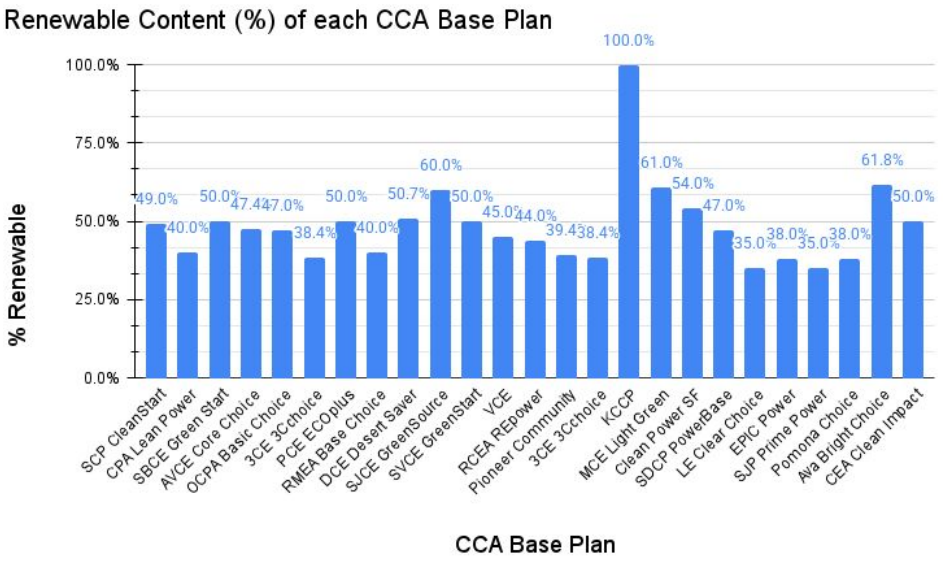
Generation Rates - Base Plans

Appendix

Clean Coalition

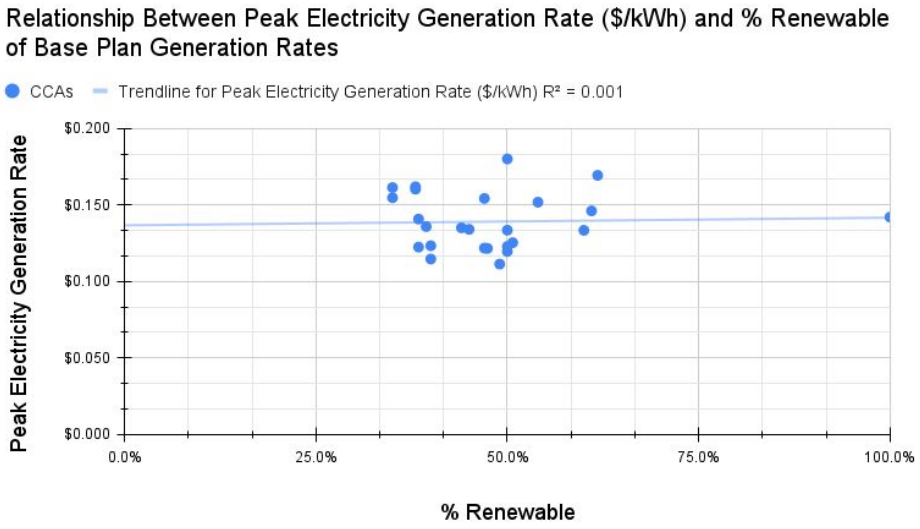
Electricity generation rates of base plans during peak hours (4-9 p.m.)





Appendix

There is no relationship between peak electricity generation rate and renewable content among base plans



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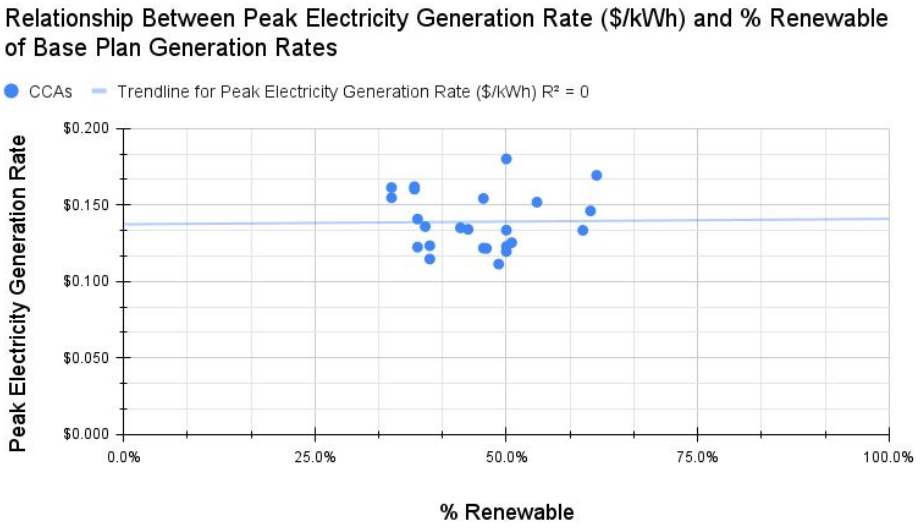

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Appendix

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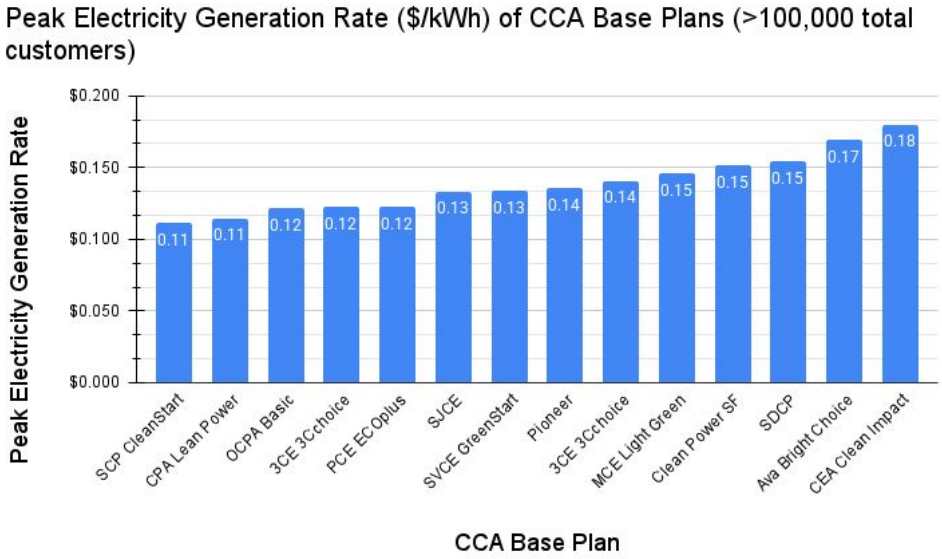
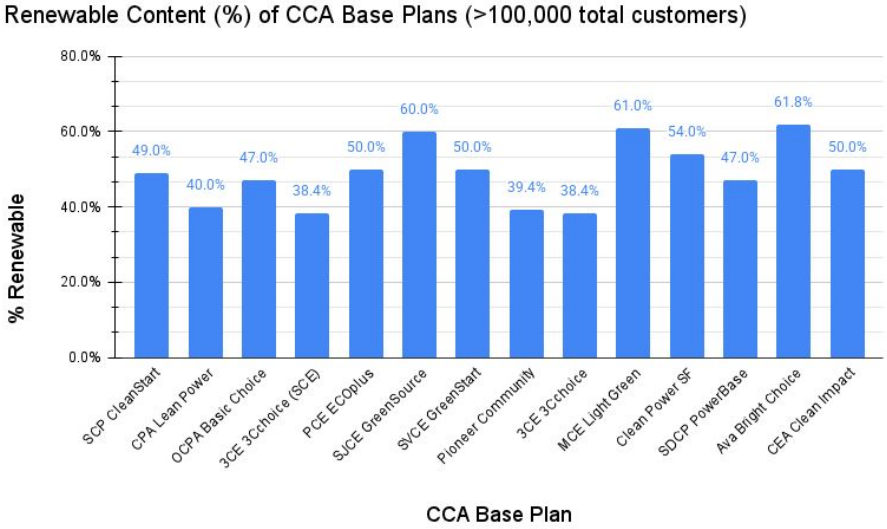
Electricity generation rates of base plans (min. 100,000 total customers) during peak hours (4-9 p.m.)





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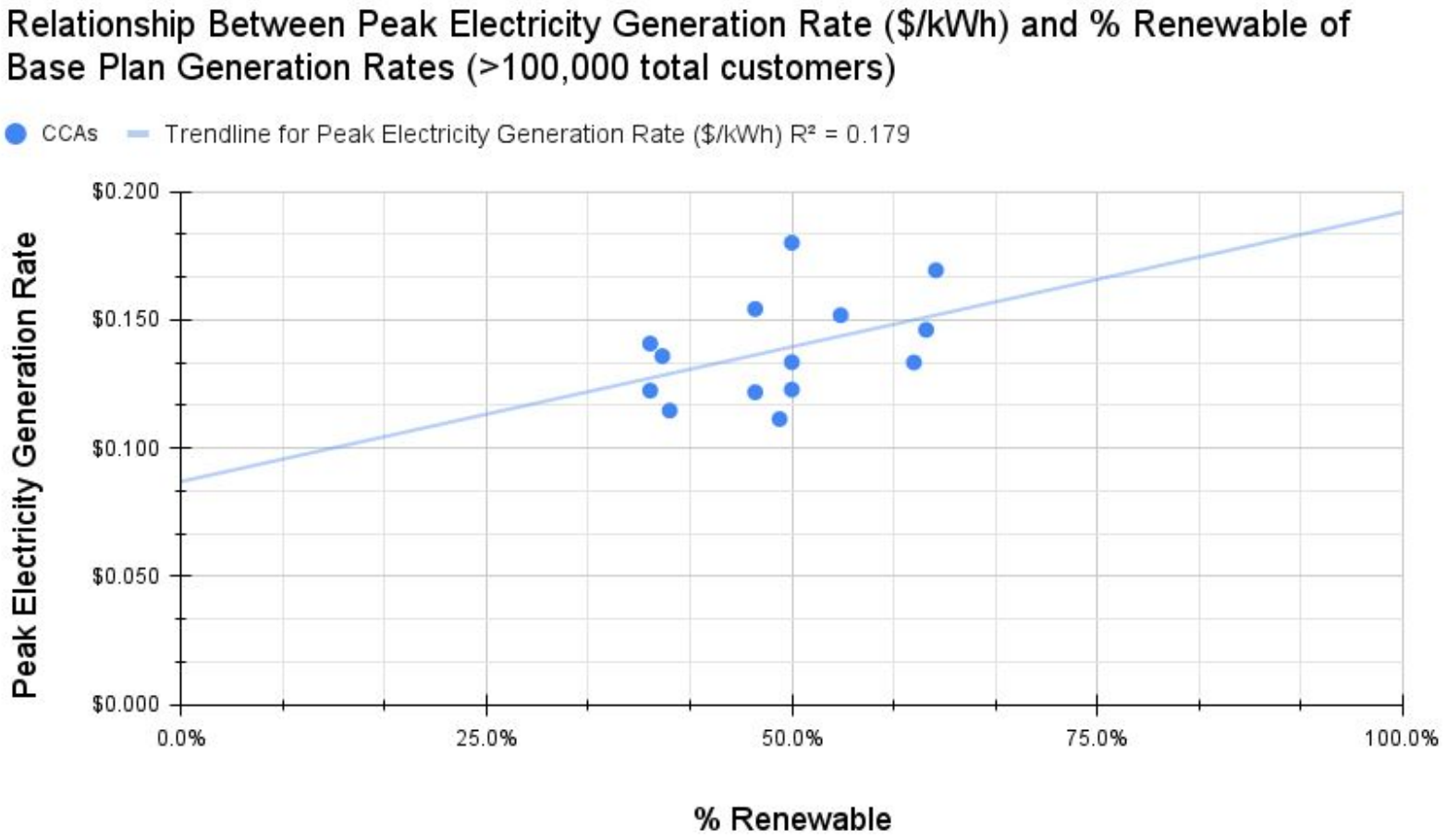

There is a very weak positive relationship between peak electricity generation rate and % renewable content

Generation Rates - Premium Plans

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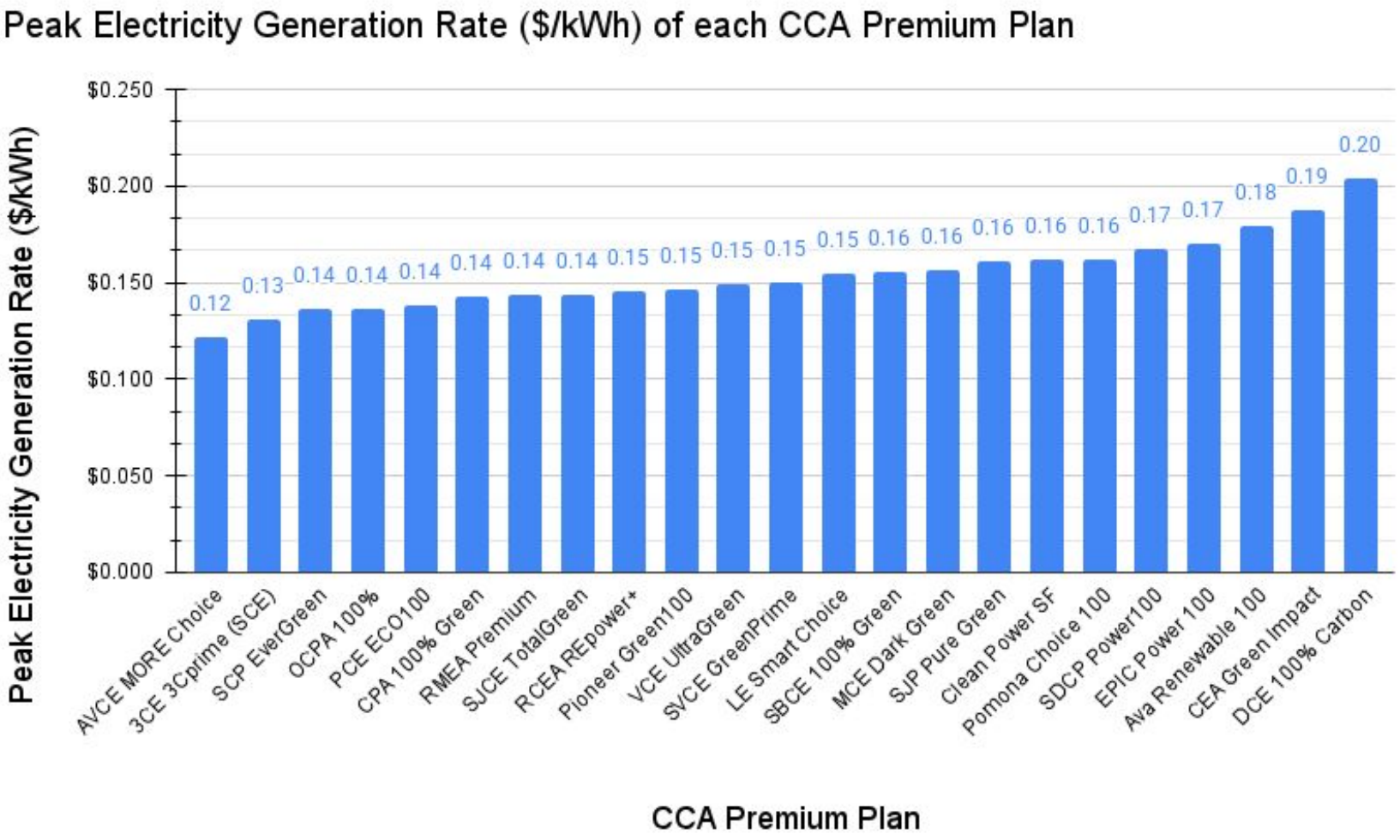
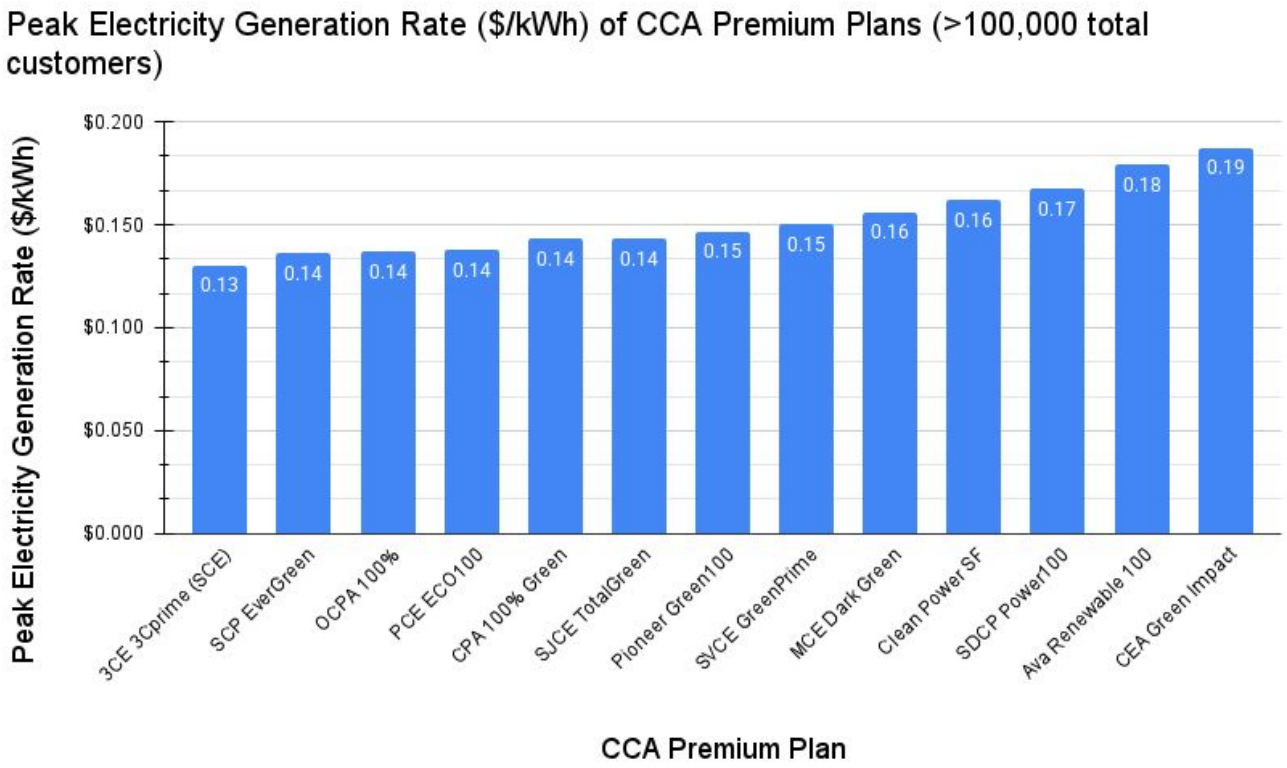
Peak electricity generation rates of premium plans



Appendix

Peak electricity generation rates of premium plans (min. 100,000 total customers)



Despite the $.06/kWh range in generation rate, most of these premium plans are within $.02/kWh of their local IOU in total cost (including Ava and CEA).