

# Community Choice Energy – Updating the CCE Vision

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North County Climate Change Alliance



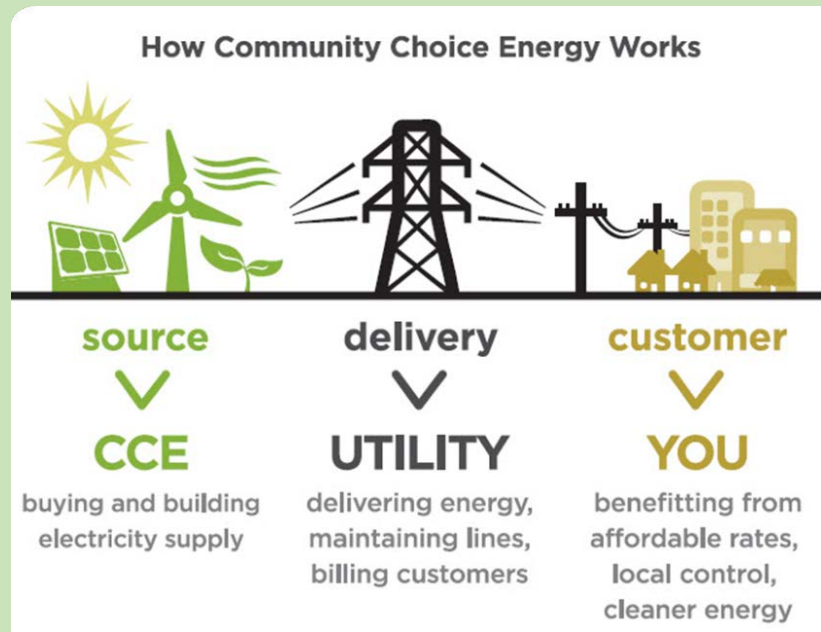
# Nomenclature

The term **Community Choice Aggregation** refers to the fact that Community Choice agencies have authority to “aggregate” customers from the ranks of incumbent utility customers in the communities they serve.

I prefer the term **Community Choice Energy** because it refers to a community’s role in shaping its own “energy” future.

In conversation, the term “**Community Choice**” is used in reference to the CCE industry and its role.

# CCE Evolution To Date and Beyond



Phase 1 – Opportunistic bulk electricity purchases - CCEs formed in OH, MA, and IL to aggregate electricity customers and provide them with low-cost electricity from existing sources

Phase 2 – Bulk energy and capacity procurement - CA CCEs formed in California to accelerate the transition to renewable and low carbon electricity

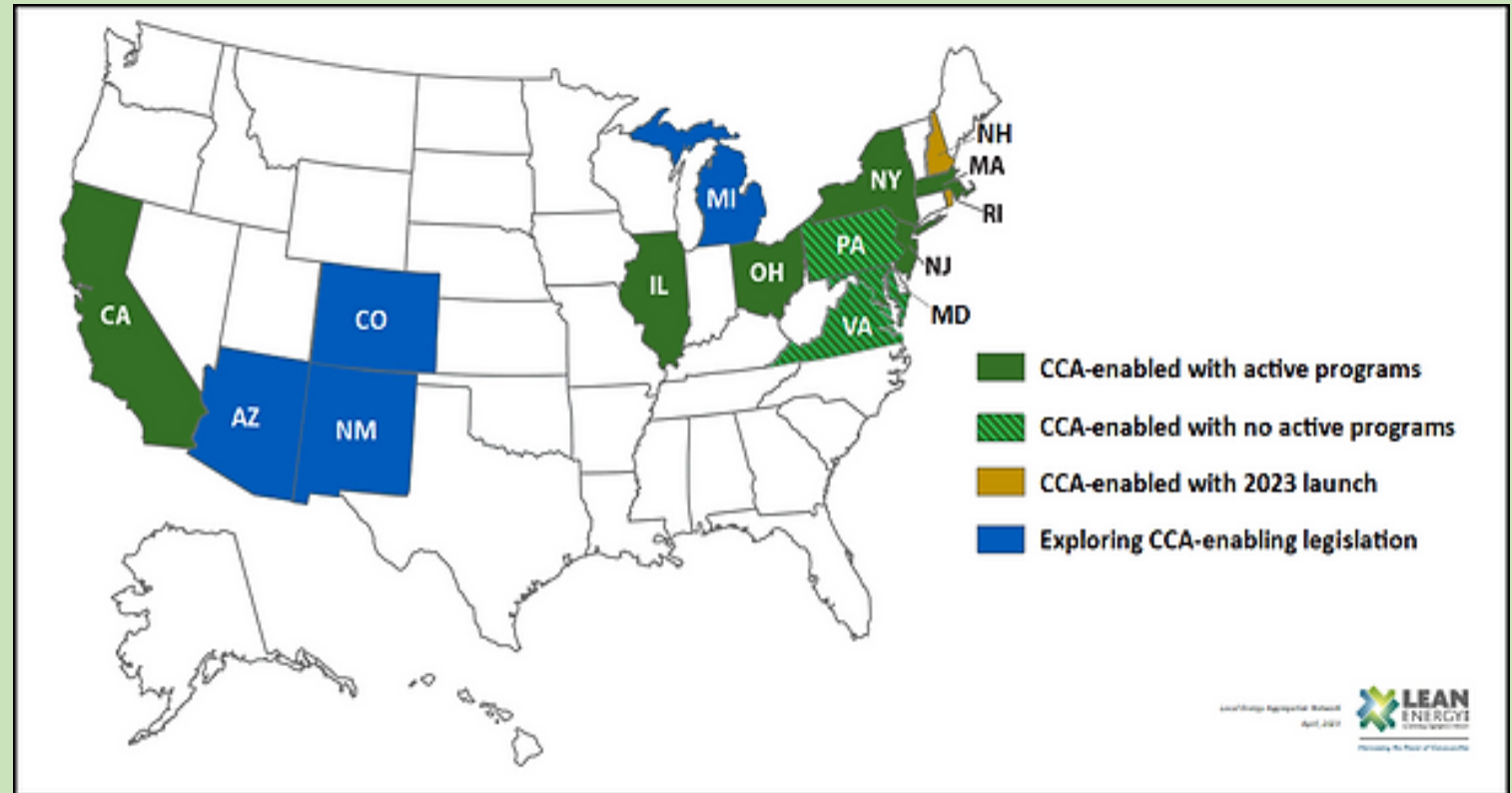
Phase 3 – Generation and energy storage project portfolios plus customer engagement - CA CCEs are currently developing robust generation portfolios based on individual and joint competitive procurement from projects that supply energy and capacity

**Phase 4? – CCE enabled local renewable and EV integration - CA CCEs procuring electricity and capacity from a mix of local and centralized sources consistent with local goals and priorities**

# Origins and Adoption of CCE - Local Governments in the US Procuring and Reselling Bulk Electricity

CCE Implementation began in IL, OH, and MA in the 1990s and then in CA in 2002 after California and many other states dismantled for profit electricity supply monopolies in the 1990s. California CCEs now provide **generation services to over 200 cities and counties having a combined population of 11 million.** California CCEs focus on the transition to **renewable and/or low carbon sources of electricity generation** while keeping rates at or below what investor-owned utilities charge.

# CCE Expansion in the US



California's attention to CCE's **environmental and GHG emissions** benefits distinguish it from other states where adoption has been driven by the goal of **lower generation rates**. Some states have enabled CCE more recently and do not yet have active CCEs. States currently exploring CCE enabling legislation are **relying on California experience** to shape their own CCE legislation.

# California CCE Legislation

- After the first California electricity crisis in 2001, California suspended expansion of “customer choice”, aka “direct access” and created “community choice aggregation”, aka “community choice energy (CCE)”.
- **AB 117 (2002) empowered “cities and counties served by investor-owned utilities (IOUs) to facilitate the sale and purchase of electrical energy, transmission, and other services on behalf of electricity customers in their jurisdictions.”** CCE customers could “opt out” and IOUs would continue as both electricity suppliers and distributors.

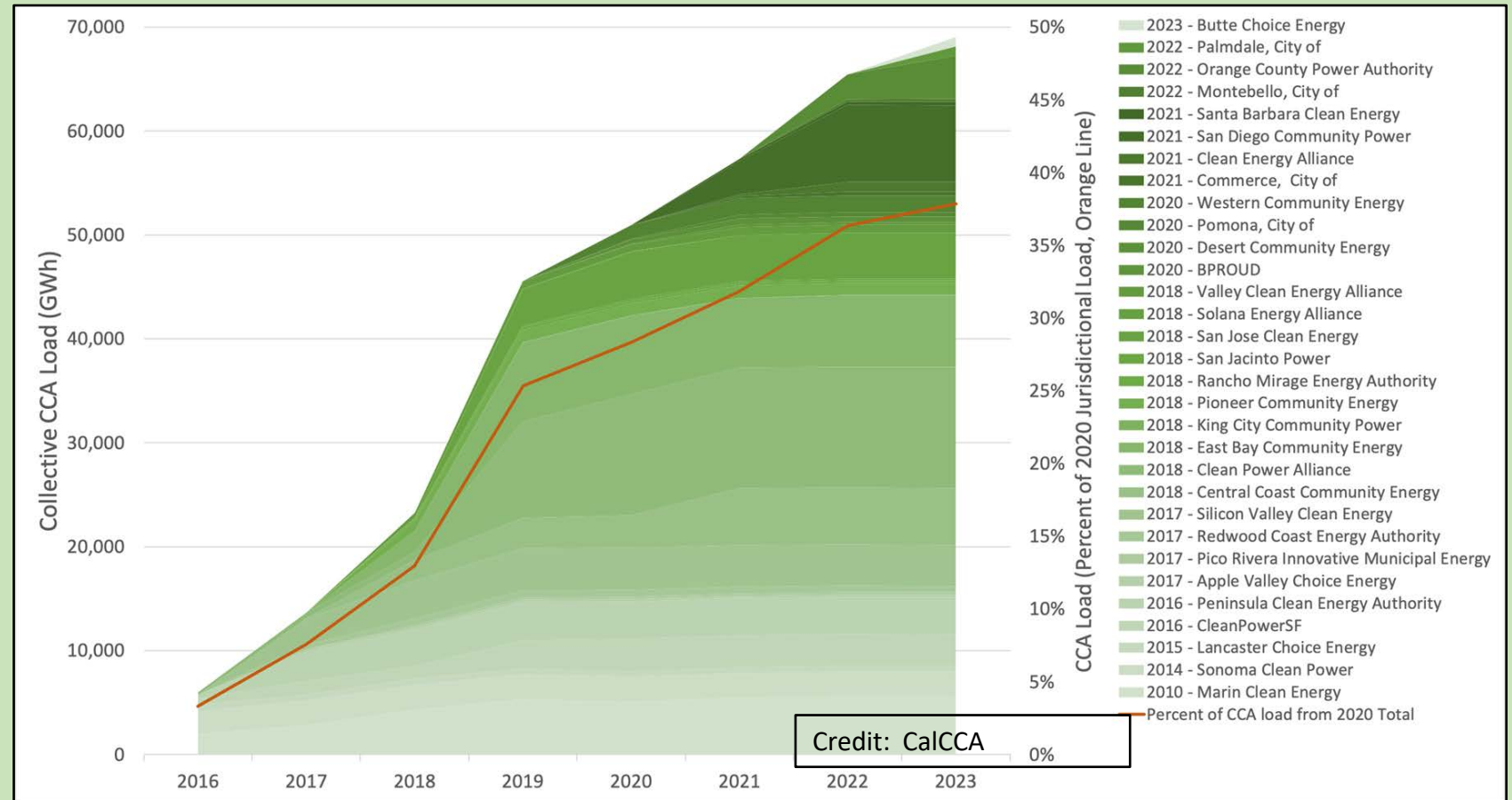
# California CCE Formation and Operations

- State funded feasibility assistance was available in 2007 and 2008. Typically, the formation process proceeds based on technical study results. JPA formation can be slow but insulates member jurisdictions from risk. Trend toward larger JPAs\* and expansion of existing JPAs\*.
- Operational Focus:
  - **CCE governance focuses on rates, reserves, net income risk, and opt out risk.** (Only one CCA startup bankruptcy to date.) Rate sensitivity and opt-out risks vary depending on local politics and customer class. Core operational focus is power procurement and customer outreach.
  - **Power procurement focus is on cost to meet/exceed state renewable standards.**
  - **Customer outreach focus is on customer retention.** Smaller CCEs minimize permanent staffing and program offerings and outsource some core functions, e.g., billing and generation scheduling.

\*joint powers authorities. The JPA governance framework insulates member jurisdictions from financial responsibility and active engagement in local energy policy and planning.

# Collective California CCA Electricity Supply – Meeting the Need for Speed and Scale

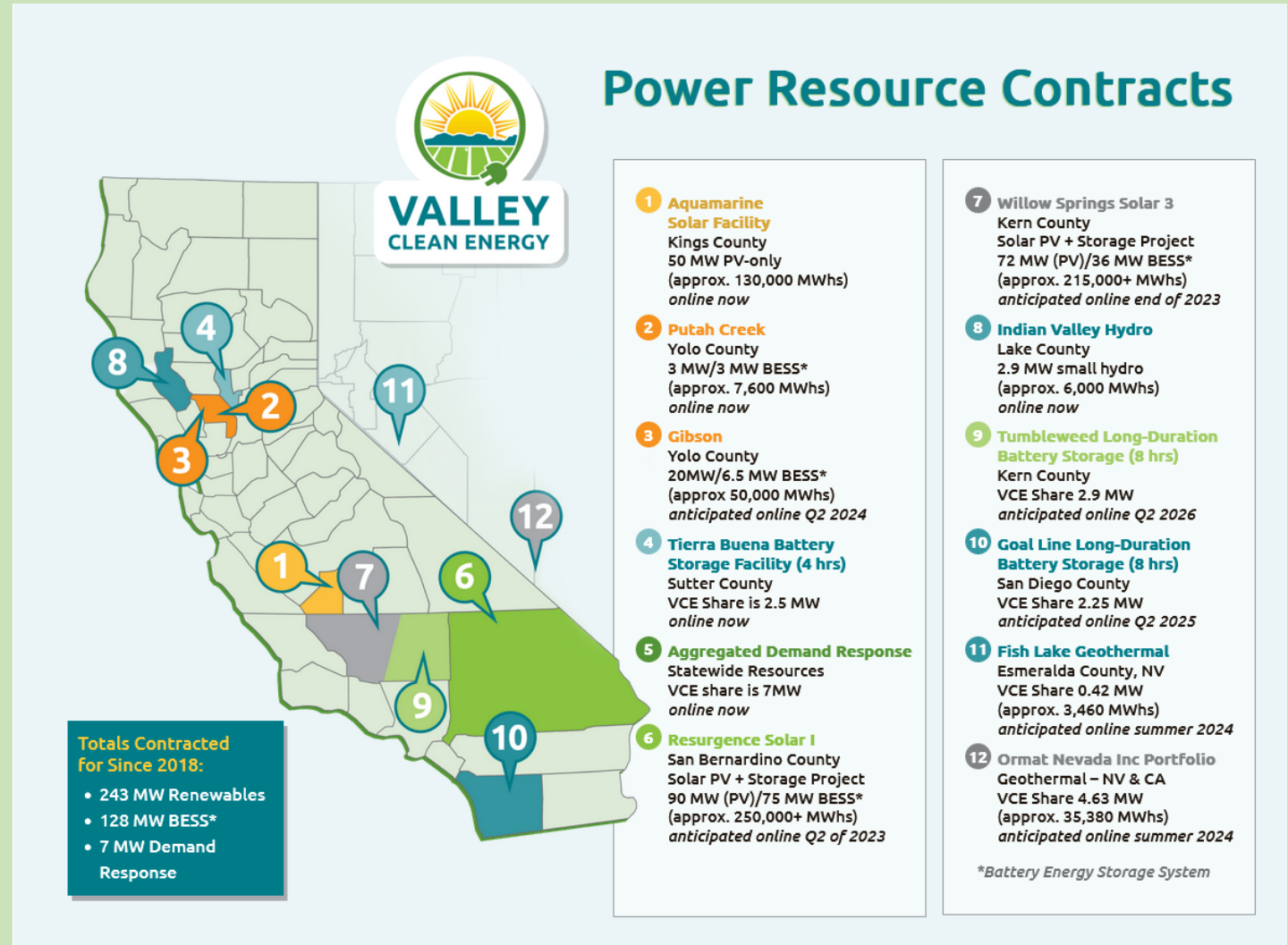
Marin and Sonoma County CCEs formed in 2007 and 2011 and launched in 2010 and 2012. Twenty plus since then. Primary CCE formation considerations are: “local control”, financial risks, and faster renewable deployment. Public distrust and high electricity prices have been a motivating factor in northern California.





# Power Procurement Example – Valley Clean Energy

- VCE expects its generation portfolio to exceed eighty percent renewable (mostly solar PV) in 2024 or 2025.
- Contracting for battery energy storage systems fulfills “resource adequacy” (generation capacity and storage) obligations.
- **Mix of primarily 4-hour and some 8-hour battery storage capacities some of which also provide resilience benefits**
- Projects in home county and adjacent counties are considered “local”.



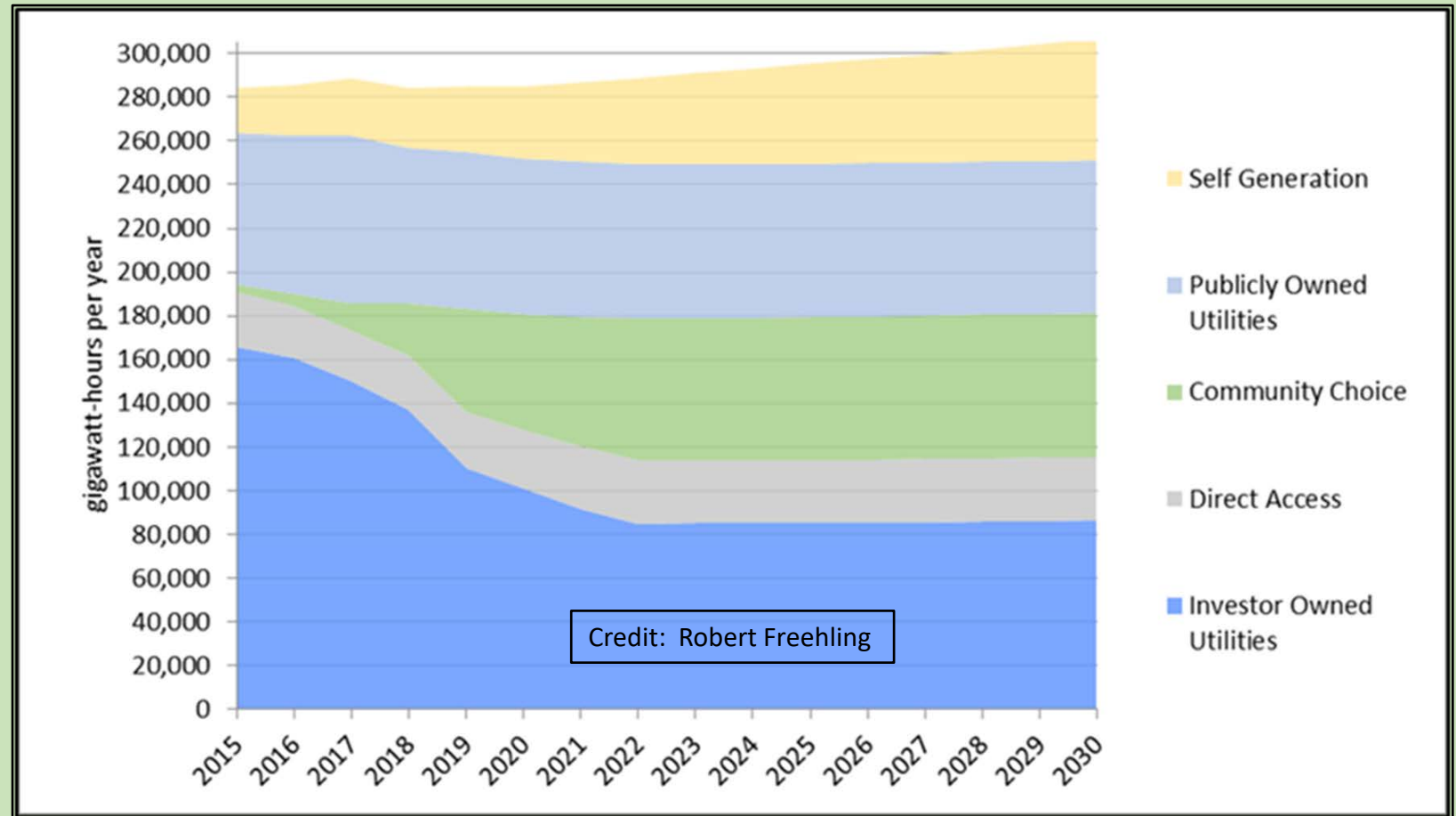
# California CCE Outcomes To Date


- **California CCEs are now, collectively, the primary agent of in-state renewable electricity procurement.**
- California CCEs are capturing GHG reductions and electricity cost savings for electricity customers, relying on electricity transport by California's for-profit grid owners.
- Renewable content\* of CCE electricity has increased in recent years faster than mandated by the state. Some CCEs are aiming for 100 percent renewable supply or 100 percent renewable and carbon free supply well before 2030.
- **The California CPUC is moving to more closely and directly regulate CCEs.**

\*exclusive of large hydro

# Suppliers of California Electricity.

**More than half of California's electricity is supplied by energy users and locally controlled entities.**



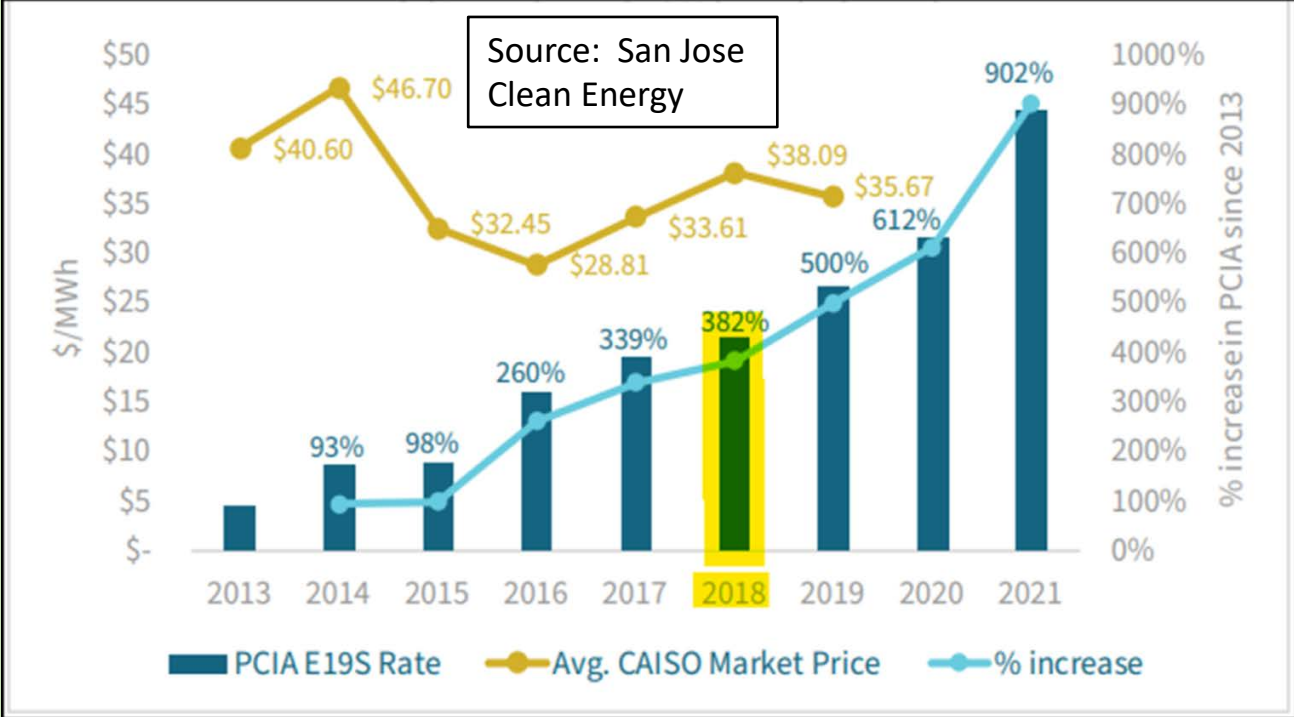


# California CCE Concerns and Issues

- AB 117 addressed a potential “cost shift” from customers “departing” IOU generation service to remaining IOU customers. Departing customers were to pay **“above market costs of IOU supply contracts in effect at the time of their departure”**.
- The California Public Utilities Commission (CPUC) initially mandated a “power charge indifference adjustment (PCIA)”, to quantify CCE payments to incumbent IOUs mandated by AB 117.
- **In 2018, the CPUC expanded departing customer obligations specified in AB 117 to equal the difference between the “value” and “cost” of IOU generation portfolios.** The legality of the expansion has not yet been challenged.

# PCIA Trajectory

- Because of PCIA charges, aka “exit fees”, **local renewable and storage engagement by CCEs is still limited and progressing slowly.**
- PCIA charges also result in a need for cost-efficiency that is achieved by minimizing permanent CCE staff, joint sourcing with other CCAs, and outsourcing of program offerings and selected business functions, e.g., billing and generation scheduling.





# Updating the California CCE Vision

Twenty years after it inspired AB 117, the early vision for CCE - locally controlled bulk electricity procurement - has been fulfilled at scale in California.

The California CCE industry's current focus is bulk electricity procurement, a 20th century practice and continuing need.

The current focus may be too narrow. Disruptive technologies are coming on stream that alter energy supply, transport and usage patterns. They create opportunities for local action to capture cost savings and environmental and resilience benefits.

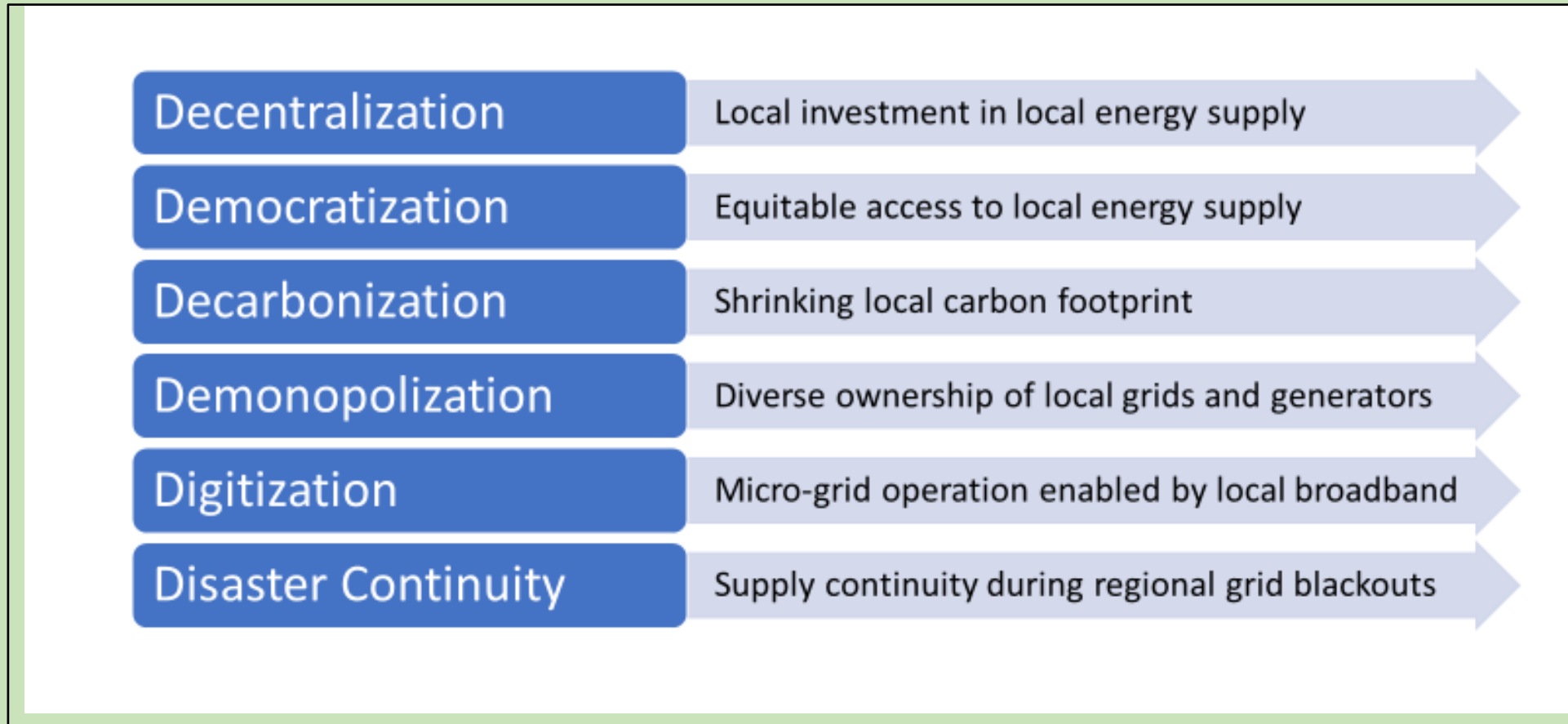
**Can California CCEs develop integrative, mutually beneficial relationships within robust local energy eco-systems? Specifically, can they take on mission of striking an economically beneficial and environmentally responsible balance between centralized and decentralized electricity supply?**

Is this a realistic vision, and, if so, how can it be fulfilled?

# Aiming for a More Locally Integrative Vision

**A locally integrative state-wide CCE vision would account for emerging economic penalties and benefits, emerging trends and needs and would emphasize collaborative relationships within local energy eco-systems.**

# Qualitative Trends and Needs – 6 Ds of a Climate Impacted Energy Future



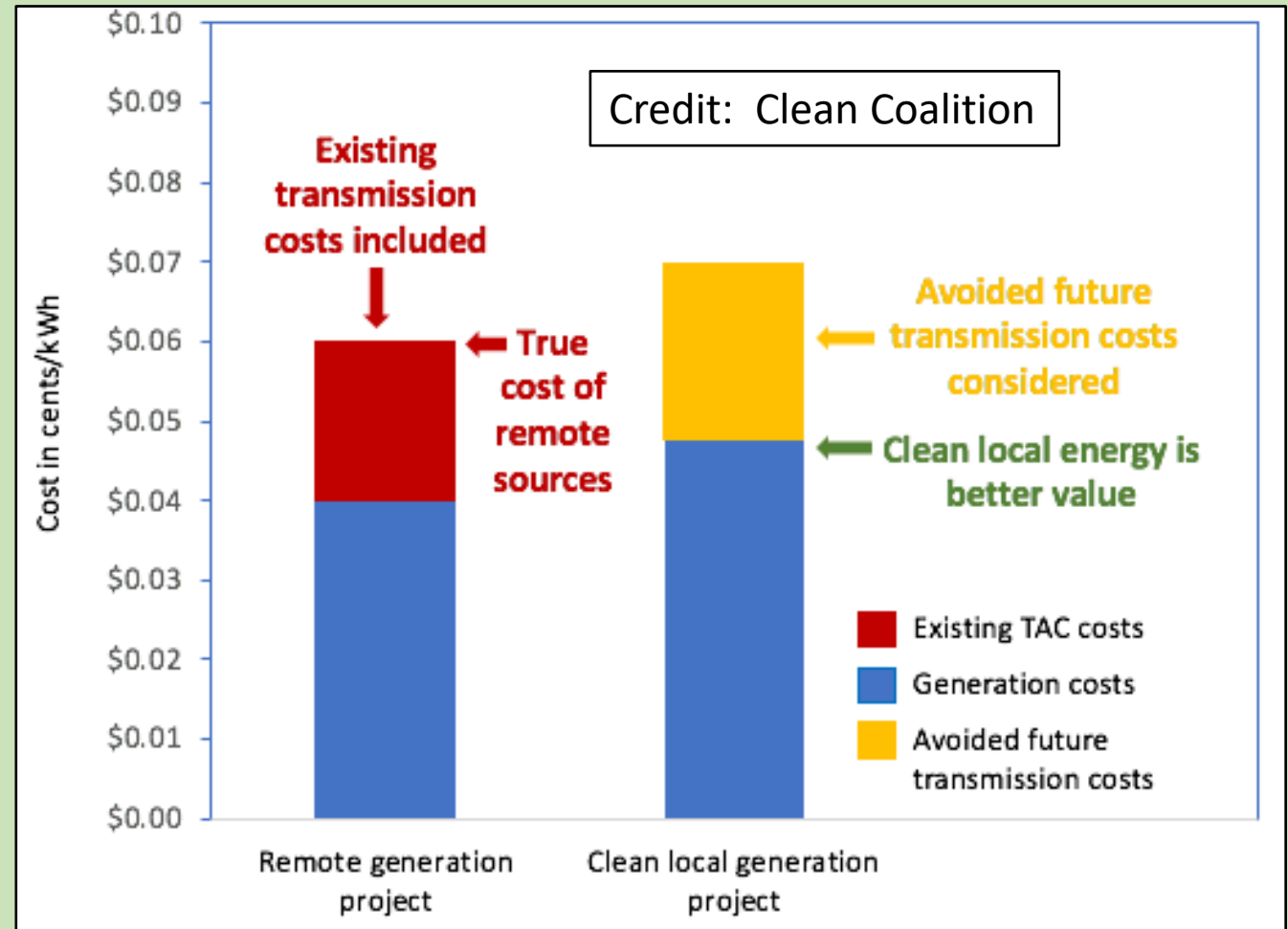


# Quantitative Trends

- **Shift in dominant renewable supply from hydro to wind and solar**
- **Shift in dominant energy storage medium from fuel to batteries**
- **Shift in transportation energy supply from fuel to electricity**
- **Local energy resilience investment that outpaces and exceeds investment in bulk electricity supply and transport**
- **Energy equity and resilience degradation that is better ameliorated through local investment than state regulation.**

# Electricity Cost Trade-offs

- Investment in centralized generation requires parallel investment in transmission upgrades which more than offset economies of generation scale.
- Investment in decentralized generation does not require transmission upgrades but does require parallel investment in smarter distribution systems that now can take advantage of vehicle to grid integration to minimize costs of distribution capacity upgrades.



# Integrative Benefits – Exploiting Local Energy Resilience Investment

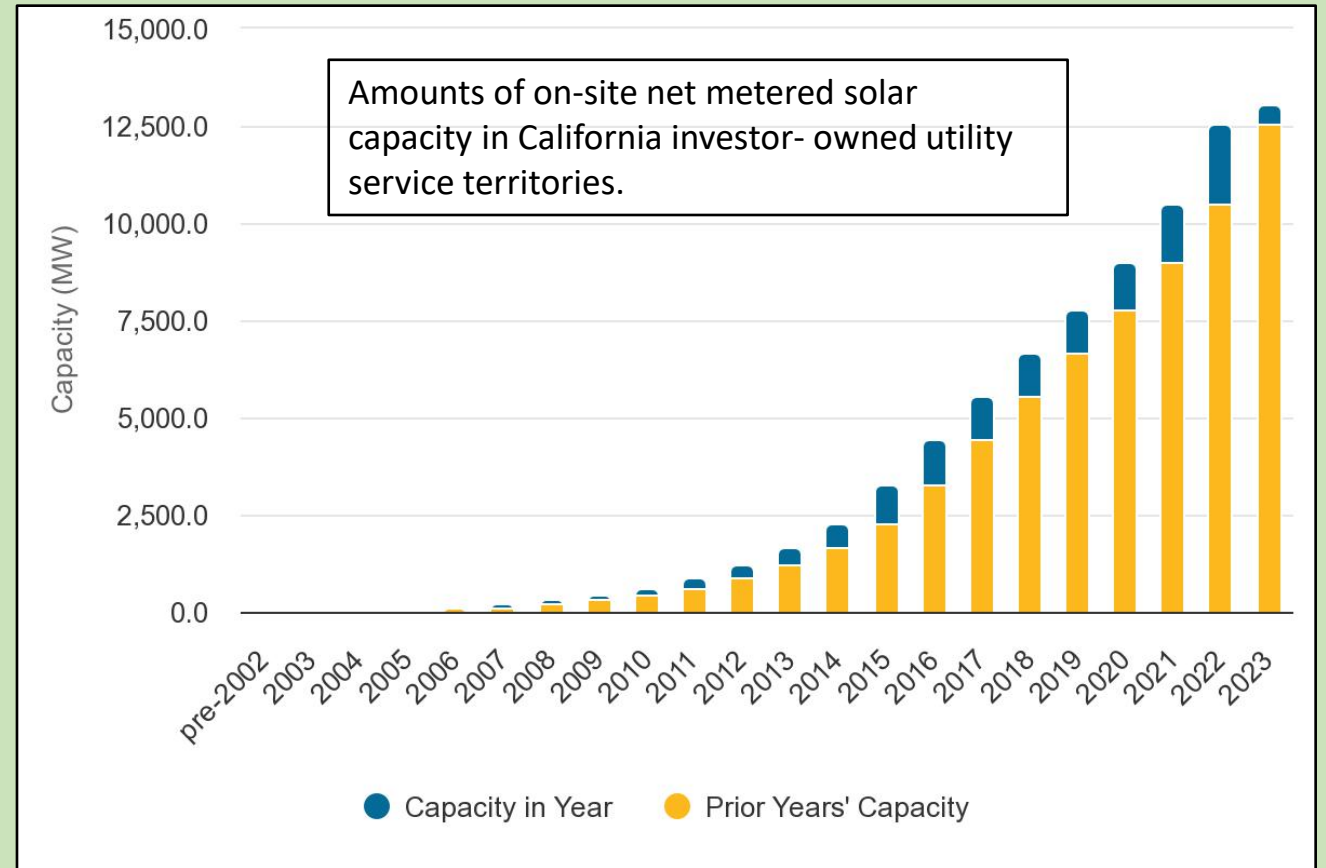
- Energy resilience is a growing concern in some communities that routinely experience power outages.
- Overall local energy resilience investment exceeds and outpaces investment in bulk electricity supply and transport.
- **The combined capacity of decentralized power sources (resilience assets) in California will exceed California's bulk electricity generation capacity by a factor of two in 2025.**

Table 1. California's Energy Resilience Assets			
Resilience Asset	2020 Capacity (est.) (GW)	Annual Market Growth (%)	Projected Capacity in 2025 (GW)
<b>Currently Operational Assets</b>			
Combined Heat and Power	8.6	5	11.0
Standby Power	10.4	4	12.6
<b>Additional Assets Available for Use</b>			
Solar PV	9.3	14.5	19.5
Electric Vehicles	41.4	22	108
<b>Enabling Assets</b>			
Campus Microgrids	0.2	19	0.5
Community Microgrids	No est.	No est.	0.5

Ref: <https://www.iresn.org/s/Inventory-Expansion-and-Integration-of-Californias-Energy-Resilience-Assets.pdf>

# Benefits of Citizen and Local Business Engagement in Electricity Supply

- Chart shows installed capacity at the end of 2022
  - Total state-wide amounts exceeded 23,000 MW at the end of 2022
  - On-site solar capacity exceeded “utility-scale” solar capacity
- Benefits to local economies and budgets are too often overlooked by local governments.



Paul Fenn (March 2020): “CCE to rapidly mobilize our transition to renewable energy production through citizen engagement and equitable benefit distribution”

# Integrative Benefits –Agencies Working Together


- CCE roll out in New Hampshire by a newly formed coalition of local governments.
- Freedom from exit fees allows capture of local project benefits, including cost savings and IRA incentives

## Local Project Opportunity


The Coalition can build new local projects for 30%+ less cost than purchasing market power

- ⚡ Reserves enable Coalition to execute long-term contracts (w/ CPA approval) to build local projects
- ⚡ **Senate Bill 321 pilots:** local clean projects < 5MW credited as 'load reducer' for CPAs
  - **Local generation lowers wholesale energy + transmission + capacity charges**
  - **Worth > \$200/MWh (on average)**
- ⚡ Inflation Reduction Act of 2022: direct pay or tax credit incentives = **up to 50% of cost offset**
  - 30% baseline incentive
  - **+10% bonus for brownfield**
  - **+10% bonus for low-income <5 MW**
  - **PLUS: <5MW installed in low-income zones can include interconnection costs**
- ⚡ **Ascend's scope includes local project solicitations, valuation, and contracting support**

Community Projects generate \$millions / year extra (strong competitive advantage)



Nashua zones additional tax credits under IRA



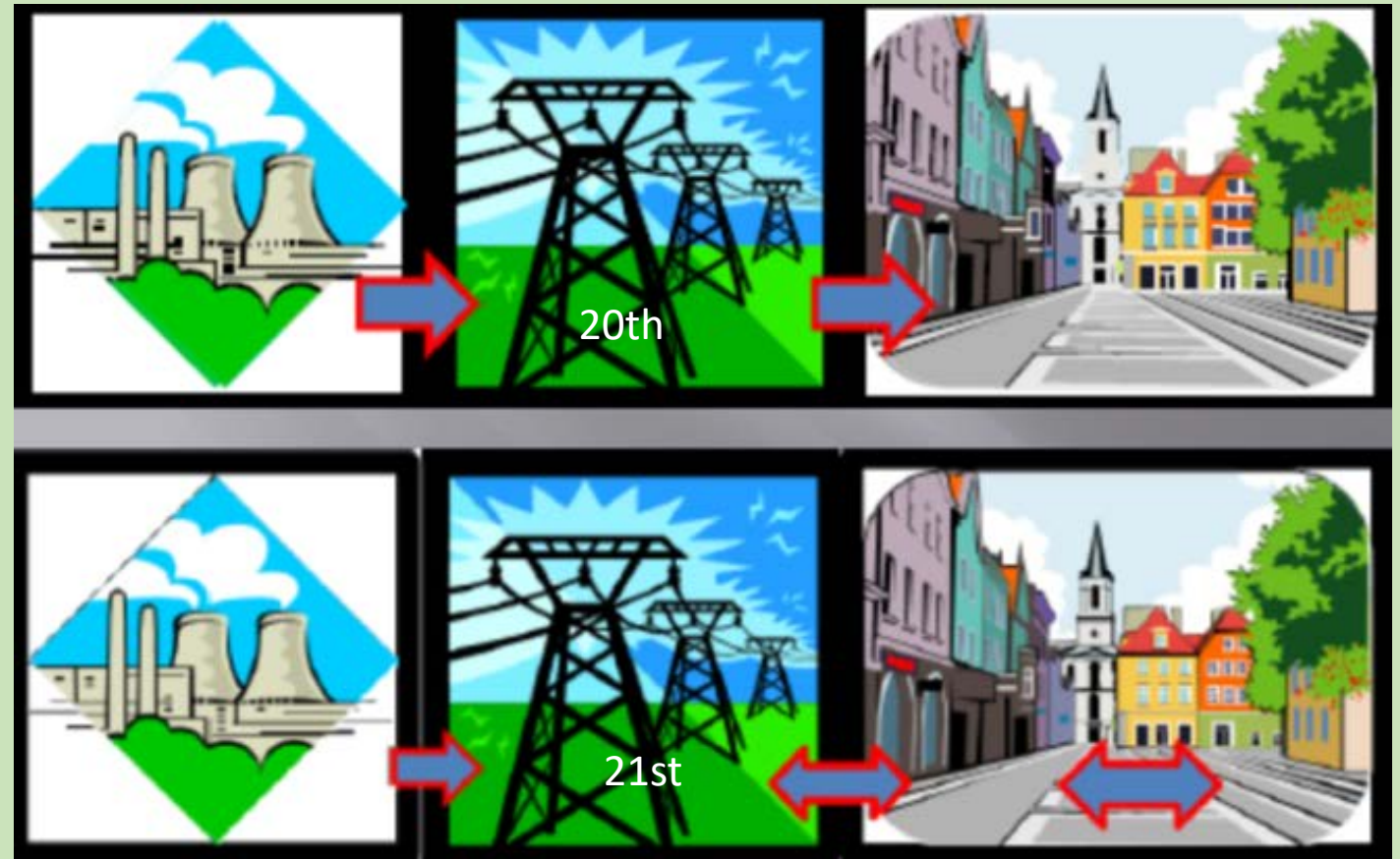
Low Income (green shading) + Brownfield Sites (brown dots)

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Samuel Golding (May 2018): “Individual agencies working together...sharing resources, staff, jointly, contracting for services and power, etc.” (e.g., according to the model of existing public power joint action agencies)

# An Integrated – Decentralized Vision

- Centralized 20<sup>th</sup> Century power generation and transmission will likely remain under state regulation in California.
- CCEs and their member jurisdictions have an interest in bringing about the most economically and environmentally beneficial balance between centralized and decentralized electricity in areas they serve or govern.
- **Electricity flows in CCE service territories that cannot or do not enter utility owned transmission systems or require distribution capacity upgrades should be valued and regulated by CCE member jurisdictions, not by transmission owners and the CPUC. This means...**



Gerry Braun (May 2015): CCEs should be “competent to evaluate local needs and opportunities and adapt the basic CCA model to deliver “integrated-decentralized” energy service.”

# ...thinking out of the CPUC/IOU Box About Critical Local Services

- Local Water Utility

- Supply
  - Community Owned Production Wells
  - Customer Owned Wells
  - Water JPA
- Purchasing
- Distribution by Utility or Franchisee
- Rate-setting
- Billing

- State Enforces Water Quality Standards

- 21<sup>st</sup> Century Local Energy Utility

- Supply
  - Community Owned Solar/Storage
  - Customer Owned Solar
  - CCE JPA
- Purchasing
- Distribution by Utility or Franchisee (IOU)
- Rate-setting
- Billing

- State Operates Transmission Systems

# Points Favoring Local Electricity Service Integration and Regulation in CCE Service Territories

- **Subsidiarity - an organizing principle that matters ought to be handled by the smallest, lowest or least centralized competent authority**
- City and county governments already competently regulate and integrate important commodity delivery and collection services.
- **California has an interest in curtailing state-sanctioned IOU interventions that confiscate CCE and self-generator savings that could otherwise support rational, equitable local energy planning and investment.**
- CCE skill sets are available to support local integration and regulation.
- Primary motivator for CCE adoption is “local control”.



# Summary - 1

**The California community choice energy industry quickly overcame obstacles of organizational inexperience and limited financial track records and credit;** it now serves eleven million electricity customers in California, purchasing bulk renewable electricity and “utility” battery storage services essential to achieving California’s decarbonization goals.

**The California CPUC’s policy of “power charge indifference” is unique among US states, pernicious in its consequences if continued, and inconsistent with legislative intent.** It precludes timely CCE investment in local renewable electricity resources, diverts revenues that could incent or subsidize community renewable projects that have local economic and resilience benefits, precludes striking the best local balance between centralized and decentralized electricity supply, and results in de facto state regulation of cost recovery for locally provided services.

# Summary - 2

**Unstoppable trends in local energy investment and cost favor more active engagement by cities and counties in providing energy services.** Now that California's CCE industry is strong and capable, individual CCEs can support member jurisdiction initiatives that achieve a locally appropriate balance between centralized and decentralized energy supply.

**CCE is meeting the need for speed, scale and prudent investment in state-wide decarbonization in critically important ways California's IOUs cannot and will not.** It is time to engage CCEs in meeting the need for speed and scale in creating more affordable, equitable and resilient energy services and stronger local economies.

**New or updated legislation will be required.**



# Conclusions

“Power charge indifference” surcharges and hard-to-forecast “resource adequacy” pricing:

1. result in under-investment in local energy resource development and local energy resilience, both of which would be highly beneficial to local economies; and
2. shift the cost of IOU generation services from IOU generation customers to CCE generation customers and prevent CCEs from playing an effective role in striking the best local balance between electricity imports and local supply.

**Surcharges should be made consistent with CCE authorizing legislation, then capped, then eliminated, so that local climate action goals can be more effectively and expeditiously addressed.**

Utility services, whether for water, waste or energy, require long term financial commitments secured by a stable customer base. Allowing CCE commercial and residential customers to “opt-out” may have been politically necessary twenty years ago but now distorts CCE rate-setting. The combined effect of unforecastable surcharges and exit fees minimizes potentially transformative local decarbonization and energy resilience.

**California legislators should work with the CCE industry to update CCE authorizing legislation to create a public service planning environment for CCEs that respects local authorities and responsibilities.**

# Thank You!

## Links:

- [Why Does CCA Matter at the State and Local Level](#)
- [Local Energy Production and Local Economies](#)
- [Integrated Implementation of Community Solar and Community Choice](#)
- [California Experience Implementing Community Choice Energy](#)
- [Investigative Report of the Public Utilities Commission of the State of Colorado](#)
- [Can Colorado Take Community Choice to the Next Level](#)
- [Community Choice is a Better Way to Meet 21<sup>st</sup> Century Challenges](#)
- [The Exit Fee Dilemma](#)

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