



LOCAL GOVERNMENT  
**SUSTAINABLE**  
ENERGY COALITION

# **EMPOWERING LOCAL GOVERNMENTS TO TACKLE DECARBONIZATION WITH ESCALATING ENERGY RATES**

Wednesday, June 26, 2024

# AGENDA

- Welcome & Introduction
- Level Setting - *Steven Moss*
- Introducing Breakouts - *Lucia Pohlman*
- Breakouts
  - Legislative and Regulatory Solutions - *Steven Moss*
  - Local/Regional Government Solutions - *Lucia Pohlman & Annie Secrest*
  - New Technical Approaches for Affordable Electrification - *Marc Costa*
  - Direct Program Design to Reduce Cost - *Jane Elias*
- Share-Outs from Groups

# LEVEL SETTING

**Steven Moss**

**LGSEC Regulatory Consultant  
& Partner**  
*M.Cubed*



# Electrification (Decarbonization), a Pretty Good Idea

- Petroleum a filthy transportation fuel, at global and local levels. Electricity cleaner and less expensive to produce and deliver.
- Wind and sun, even arguably nuclear, lower polluting than natural gas for heating, cooling, and cooking, though cost advantage not as stark.
- Regulation of non-petroleum fuels can be largely state, even local government, based.



Significant Transformation Possible in Less than a Century

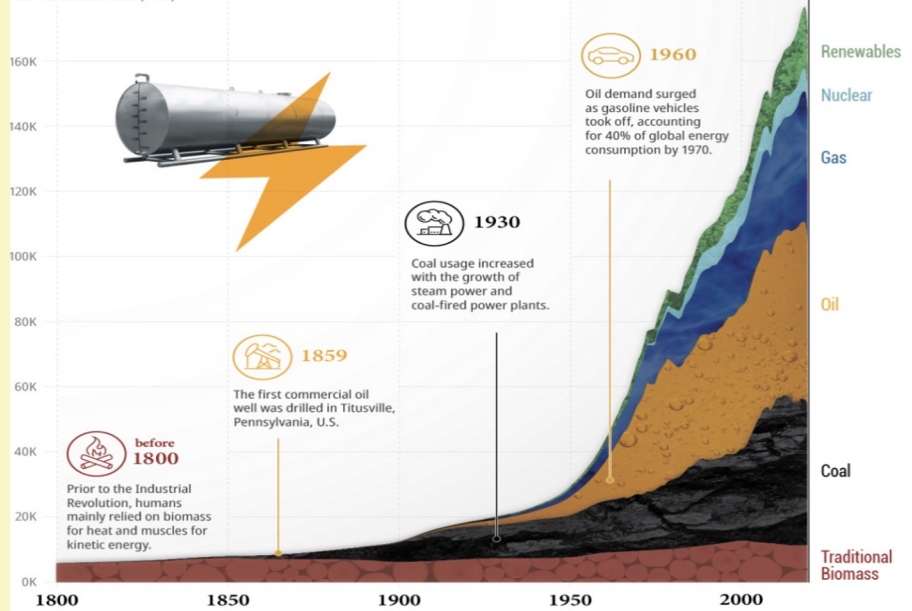
# THE HISTORY OF Energy Transitions

The economic and technological advances over the last 200 years have transformed how we produce and consume energy.

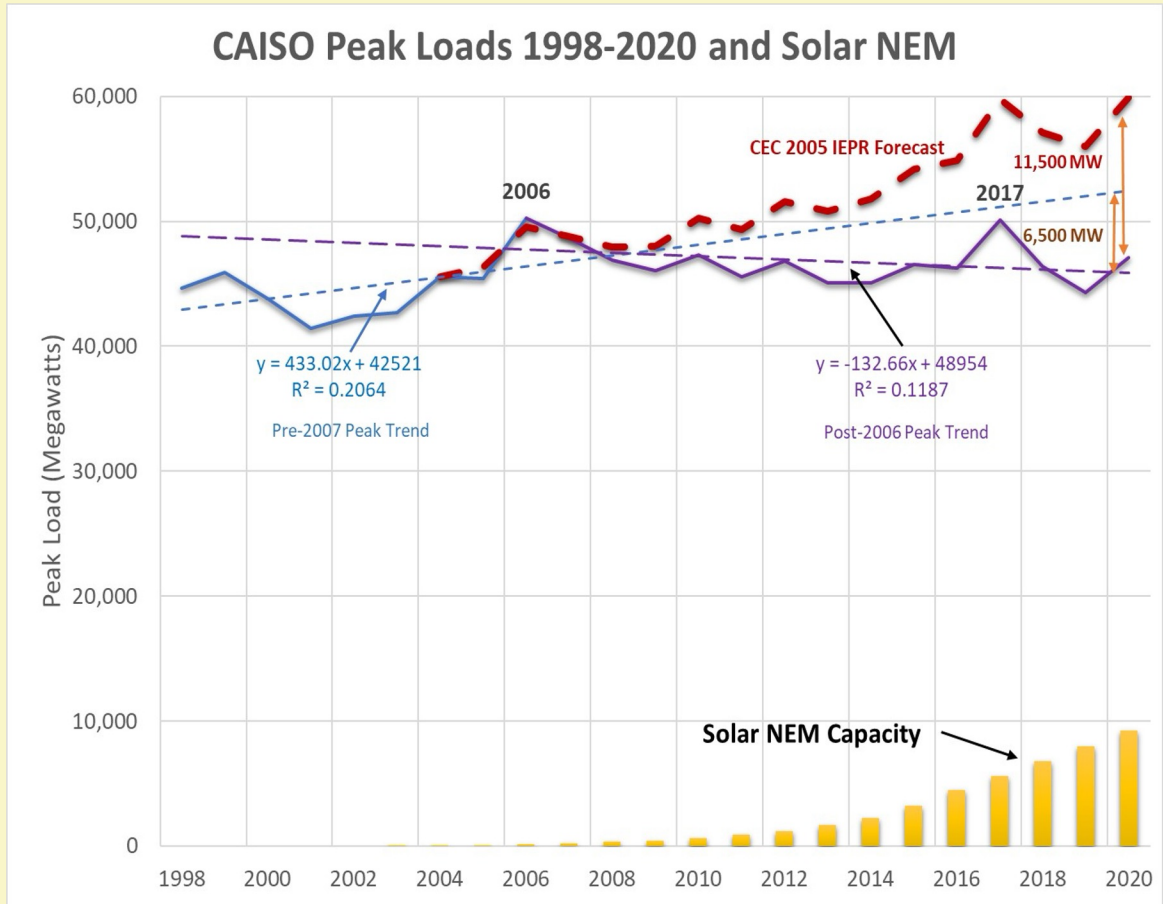
Here's how the global energy mix has evolved since 1800.

Global Primary Energy Consumption by Source 1800-2020

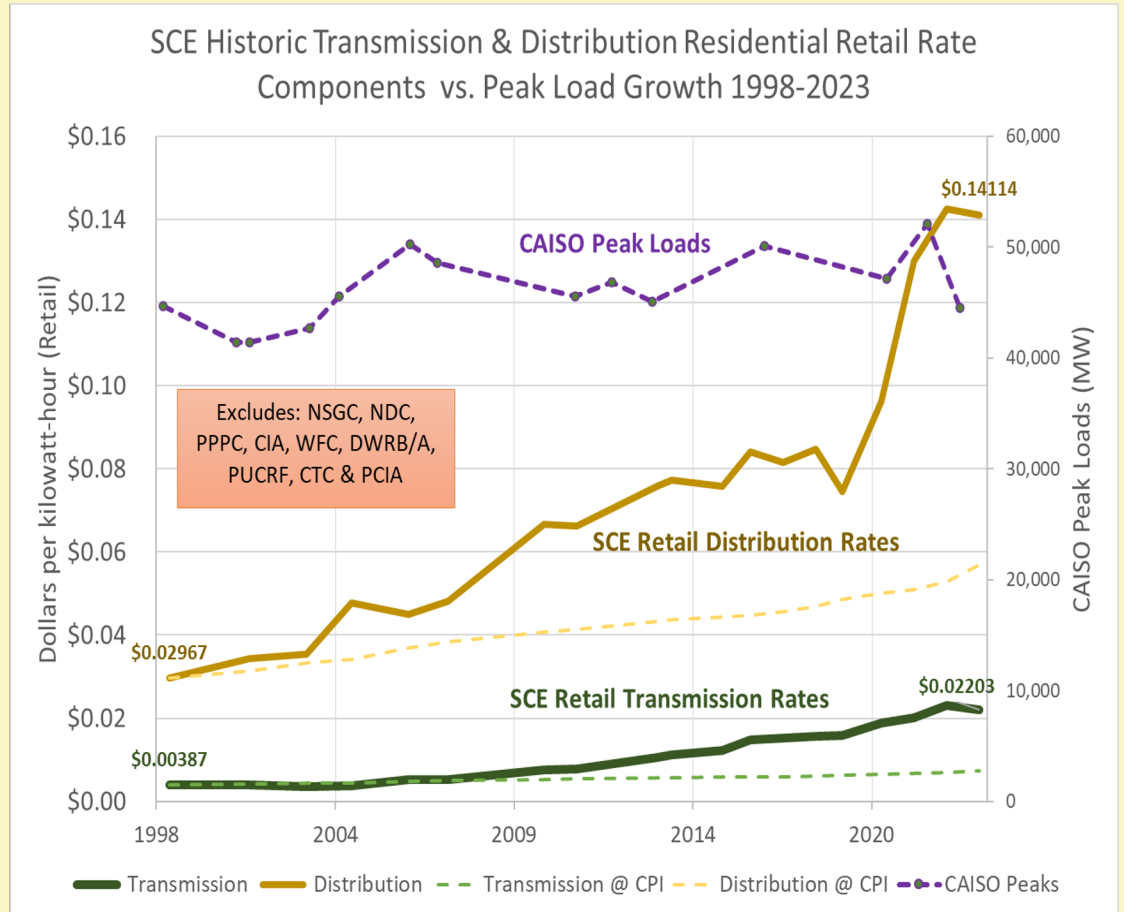
180K Terrawatt-hours (TWh)



# Rooftop Solar Muffled Expected Statewide Peak Demand



**While Demand Holding Steady, Rates are Rising *Transmission and Distribution, Rather than Generation, Driving Cost Increases***



# New Net Energy Metering Tariffs have Reduced Rooftop Solar Payback, but Distributed Energy Resources can “Help Meet Peak Demand with Clean Energy and Provide Essential Grid Services, while Equitably Sharing Revenue and Resilience Benefits with Households and Placing Downward Pressure on Rates”

## Utility Bill Savings Across All Irvine Homes NEM 2.0 vs NEM 3.0

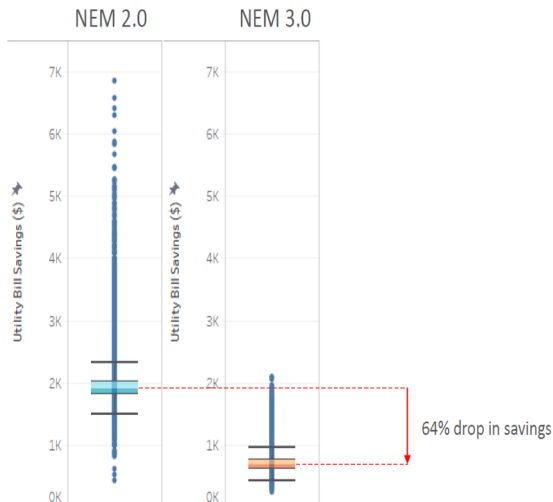
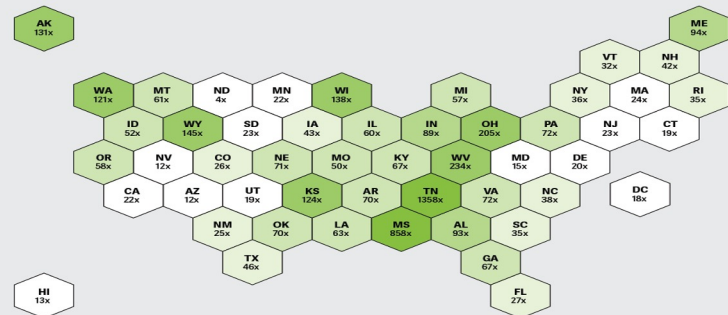
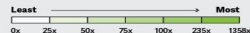


Figure 4

### In a decarbonized grid, residential DER capacity could grow exponentially across all states

Relative change in DER capacity from 2023 to 2035



#### Total 2035 DER capacity (GW)



Notes: Analysis assumes an optimized 1.5-degree decarbonization scenario. 2023 and 2035 total capacities include nameplate residential solar and storage capacity and enrolled demand response capacity. 2035 capacity includes storage that could be harnessed from vehicle-to-grid and hot water heaters. DER stands for distributed energy resources.

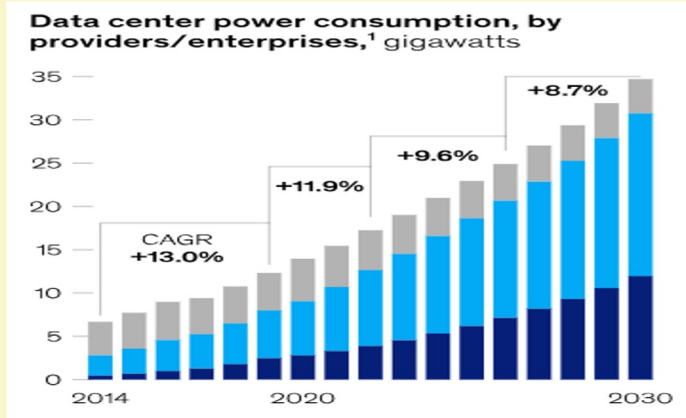
Source: Analysis by the Deloitte Research Center for Energy and Industrials of data from Department of Energy, US Energy Information Administration, The National Renewable Energy Laboratory, Advanced Building Construction, American Council for an Energy-Efficient Economy, Alternative Fuels Data Center, Brattle, Canary Media, Gridlab, Nature Communications, NC Clean Energy Technology Center, Vibrant Clean Energy, and WoodMac.



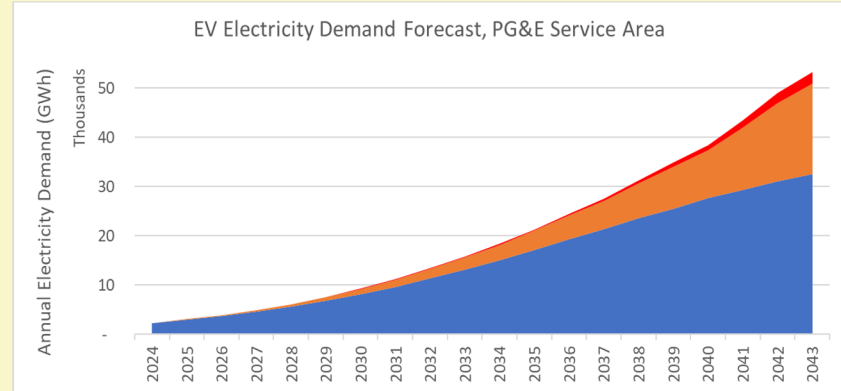
# Demand Expected to Rise Rapidly in Future Data Center Demand Growing Faster than EVs

Source: California Energy Commission Analysis of Emerging Demand Sources

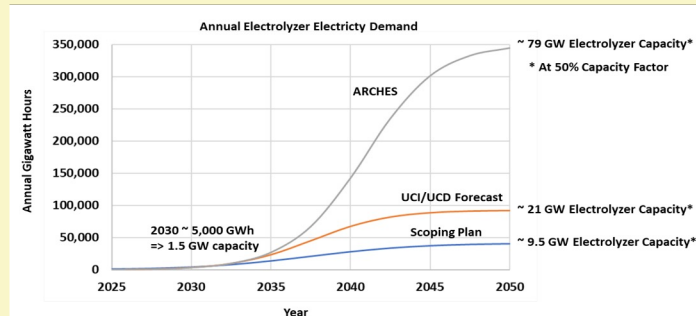
## Data Centers



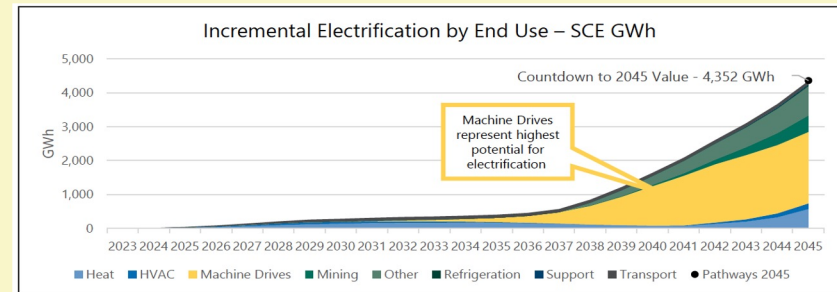
## Electric Vehicles






## Hydrogen Electrolysis



## Industrial Electrification



# Millions of households are behind on their bills today

	# of Customers in Areas	% of Customers in Areas	Average Amount Owed
	1,215,433	22%	\$550
	876,121	19%	\$986
	355,551	26%	\$737
<b>Total</b>	<b>2,447,105</b>	<b>21%</b>	<b>\$773</b>



# Achieving Affordable Electrification: Possible Actions

## Legislative

Breakup utilities into smaller units
State financing for municipalization
Allow "over-the-fence" generation sharing with local government permission
Funding to increase local government capacity
Reform CARE program
Require cannabis farms, data centers to adopt renewable DERs
Require backup engines to be cleaned up and grid networked
Require study and possible implementation of distribution system operator

## Regulatory

Create conditions for financeable microgrids
Properly value transmission and distribution marginal costs
Shift from marginal to embedded cost ratemaking
Encourage microgrids over undergrounding when cost-effective
Adopt LGSEC clean energy finance decarbonization rate
Adopt (automatic) variable pricing that accounts for T&D
Better planning between utilities and local governments
Incent residential/business batteries to smooth EV demand
EV subscription rate
Revise (virtual) net energy metering tariff to reflect geographic T&D benefits
Reduce rate-of-return on equity to reflect actual risks
Shift more investment risk to shareholders
Bolster CPUC audit/examination capacity
Shift responsibilities to local governments
Pilot backup engines clean up and grid networked
Consolidate grid investments in IOUs, to be paid for my growing demand
Reform IRP process and capacity expansion model to include local DERs

## Local/Regional Government

Municipalization
Municipalization of undeveloped spaces
Plan for public transport, e-bike, pedestrian future
"Make-a-Watt" building standards
Cooperative withdrawal from natural gas system
Concierge tax credit/rebate programs
Public-private EV community nodes
Parking garages as batteries
Transparent fuel cost comparison information
Truck electrification planning, synced with utility
Equity programs
Encourage third-party ownership of tenant electrical devices
Workforce development
Leverage 3rd party decarbonization funding to accomplish other facilities maintenance / public works objectives (equipment replacement, etc)
Local contractor price transparency
Regional Energy Network/CCA programs
Pilot backup engines clean up and grid networked
Add energy element/chapter to urban planning aligned with CAP / mitigation plans



# Breakout Groups

1. Legislative and Regulatory Solutions - *Steven Moss*
2. Local/Regional Government Solutions
  - a. Community-Facing Building Electrification - *Lucia Pohlman*
  - b. Agency Energy Management & Decarbonization - *Annie Secrest*
3. New Technical Approaches for Affordable Electrification - *Marc Costa*
4. Direct Program Design to Reduce Cost - *Jane Elias*

*~45 min*



# Share Outs from Groups

1. Legislative and Regulatory Solutions - *Steven Moss*
2. Local/Regional Government Solutions
  - a. Community-Facing Building Electrification - *Lucia Pohlman*
  - b. Agency Energy Management & Decarbonization - *Annie Secrest*
3. New Technical Approaches for Affordable Electrification - *Marc Costa*
4. Direct Program Design to Reduce Cost - *Jane Elias*



LOCAL GOVERNMENT  
**SUSTAINABLE  
ENERGY COALITION**

# LGSEC MEMBERS

[contact@lgsec.org](mailto:contact@lgsec.org)

[www.lgsec.org](http://www.lgsec.org)



ASSOCIATION OF  
MONTEREY BAY AREA  
GOVERNMENTS



California Center for  
Sustainable Communities



GENERAL SERVICES



Center for  
Sustainable  
Energy



City of  
**Santa  
Monica**



REDWOOD COAST  
**Energy Authority**



SOUTH BAY CITIES  
COUNCIL OF GOVERNMENTS



ELECTRIQ POWER





LOCAL GOVERNMENT  
**SUSTAINABLE  
ENERGY COALITION**

# GET INVOLVED

[contact@lgsec.org](mailto:contact@lgsec.org)

[www.lgsec.org](http://www.lgsec.org)



## BECOME A MEMBER

Represent your community's climate & energy goals to state regulatory agencies!

*Available to Local Governments (cities, counties), Council of Governments, Non-profits, Community Based Organizations (CBOs), Academia, and Local Educational Agencies (LEAs)*

### *LGSEC supports our members by....*

- Shaping statewide energy policy and funding
- Sharing technical expertise and best practices
- Providing members frequent regulatory updates through webinars, calls and newsletters
- Convening forums for networking and education
- Providing an online resource for members to share information resources



## BECOME AN INDUSTRY PARTNER

Support the work of local climate & energy practitioners to decarbonize California!

*Available to for-profit companies looking to engage with California local governments and LGSEC members*

### *Industry Partner Benefits*

- Select your preferred level of engagement
- Attend LGSEC Member-Only Forums for free
- Get access to our public network of 1,900 local sustainability practitioners
- ...& much more!





LOCAL GOVERNMENT  
**SUSTAINABLE  
ENERGY COALITION**

# STAY IN TOUCH

[contact@lgsec.org](mailto:contact@lgsec.org)

[www.lgsec.org](http://www.lgsec.org)



## Contact LGSEC

Get in touch with LGSEC staff by emailing [contact@lgsec.org](mailto:contact@lgsec.org) with any questions regarding membership.



## Join our List

Get notified about LGSEC's public webinars, forums, and resources.



## LGSEC is on LinkedIn

Stay in the loop on upcoming events, opportunities, and regulatory filings.



## Donate!

Donate today to support LGSEC's regulatory engagement!

