Clean Coalition

A high Fixed Charge disproportionately punishes low-income households, apartments, duplexes and small homes (and conservation/energy efficiency)

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The Clean Coalition's modest Fixed Charge proposal

Utility	CARE (<200% FPL)	FERA (200% to 250% FPL)	All Others (> 250% FPL)
PG&E	$0	$5	$12.77
SCE	$0	$5	$13.94
SDG&E	$0	$5	$18.51

- The Clean Coalition's proposed Fixed Charge is modest and will not burden any ratepayers.
- All low-income ratepayers will save money on their electricity bills each month.
- Transparent incentives for efficiency, conservation, and self-generation are maintained.
- This proposal incorporates all the costs included in electricity that are truly "fixed". Since rates are primarily collected on a volumetric basis ($/kWh) very few cost components are fixed.

Why is a high Fixed Charge a bad option?

A Fixed Charge is not the silver bullet solution that will solve the crisis of unaffordable electricity rates in California. Reducing rates is only a temporary respite if the utilities continue to request rate increases that outpace inflation.

- Prices are high and low-income customers are not the only ones struggling to make ends meet in California. There are millions of renters, historically disenfranchised groups, and residents located in disadvantaged communities that could see bill increases from a high Fixed Charge.
- A one-time rate reduction will not solve the underlying causes of increasing rates.
- PG&E raised rates by 9% earlier this year and could increase rates by as much as 32% by 2026.
- SDG&E is proposing an 8% rate increase for this year.
- Imposing a high Fixed Charge will have significant unintended consequences.

Other issues to consider that are related to rates include:

- *Energy consumption patterns*
- *Sustainable growth of Local Solar*
- *Electrification/Decarbonization*
- *GHG reduction and environmental justice*
- *Affordability*

Cost drivers leading to increases in electricity rates

- **Transmission:** $30 billion over 20-years and $9 billion for 2023-2024.
- **Wildfire Mitigation Costs:** PG&E was granted over $1 billion (for 2023).
- **Wildfire Victim Payouts:** So far for payouts to victims in 2015, 2017, and 2018 PG&E has paid $10 billion and is expected to pay a further $8 billion.
- **Wildfire Insurance Costs:** This cost is getting so high (>$1 billion/year) that SCE has chosen to self-insure.
- **Undergrounding:** PG&E's cost to underground 10,000 miles will likely be close to $25 billion.
- **Legacy Generation & Nuclear Decommissioning Costs**

Nominal costs

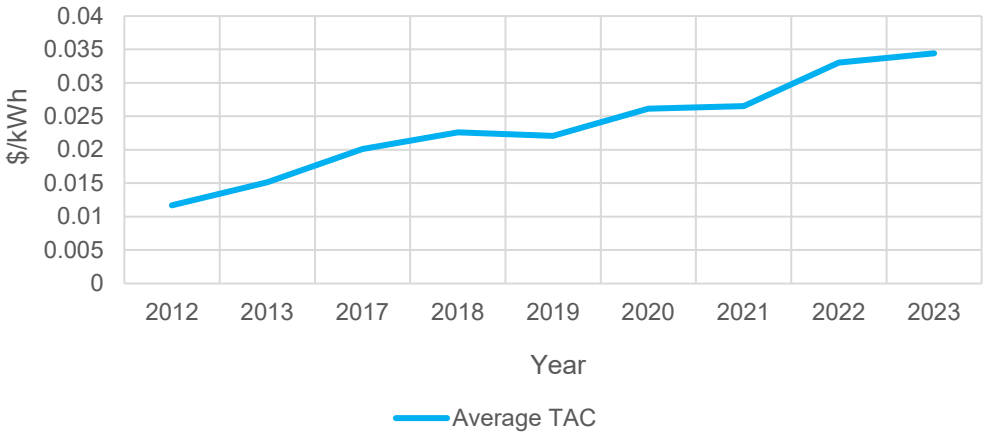
Asset value capital cost ($100 base)	$100
Return	$197
O&M	$631
Total nominal ratepayer cost per $100 investment (50 years)	**$928**

Real costs, discounted for inflation

Discount rate	2.19%
Asset value capital cost ($100 base)	$100
Return, discounted	$140
O&M, discounted	$296
Total discounted (real) ratepayer cost per $100 investment (50 years)	**$536**

In nominal dollars, total lifetime ratepayer cost is nearly 10x the initial capital cost; O&M accounts for 68% of this because it increases much faster than inflation. In real dollars (constant value dollars, accounting for inflation), the total lifetime cost is 5x the initial capital cost, and O&M accounts for 55% of this.

Average Rate of Transmission Access Charges (TAC) over the last 11-years)



Methodology behind the Clean Coalition's proposal pt. 1

- Covers the Marginal Customer Costs (e.g., the minimum bill for NEM customers).
  - No transmission, generation, or public purpose charge components.
- Results in savings for low-income customers on day 1 and a decrease in overall rates.
- Three income tiers based on existing low-income subsidy programs.
  - CARE: California Alternate Rates for Energy (30-35% bill credit)
  - FERA: Family Electric Rate Assistance (18% bill credit)
- CARE customers do not pay any Fixed Charge. FERA customers, of whom there are fewer, still see a savings.
- All other customers pay as much or slightly more than they currently are.

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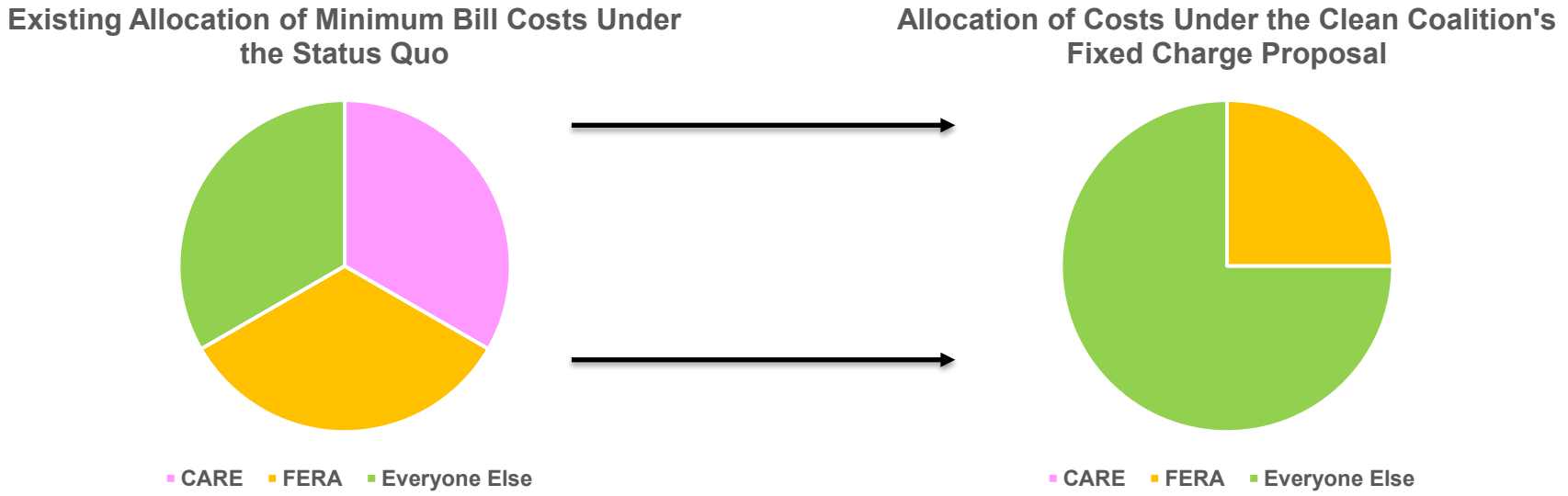
Methodology behind the Clean Coalition's proposal pt. 2

- Redistributes the cost of existing minimum bills without increasing the total amount of money being collected from ratepayers.
- This is similar to the way CAISO collects Transmission Access Charges (TAC). Each Participating Transmission Owner has a set Transmission Revenue Requirement. However, that is modified based on gross load to determine the final TAC rate.



Key Takeaways

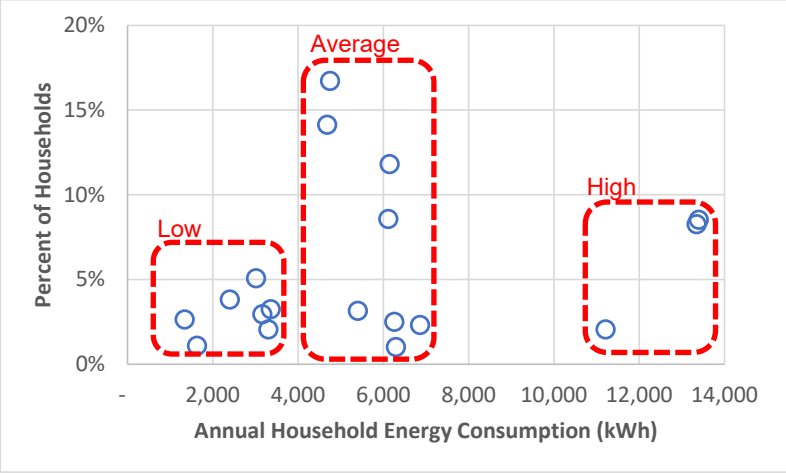
- High Fixed Charges don't help the people that proponents say that they do.
  - They reduce the transparency of rates, making it easier for the IOUs to raise rates or request a higher Fixed Charge in the future.
  - Monthly electricity bills will become even less affordable for a majority of Californians, without any change in energy consumption patterns
- Reallocating costs is not the same as permanently lowering rates by addressing the main cost drivers (transmission costs).
- The best way to increase affordability is by deploying Distributed Energy Resources (DER), like Local Solar.
  - DER have the potential to save the ratepayers hundreds of billions of dollars in avoided costs over the next few decades.
  - The benefits from DER accrue locally: 50% of the installed cost of a resource return to the community through direct/indirect benefits.
  - DER have a variety of benefits, including environmental, economic, and resilience benefits when utilized properly (e.g., a microgrid).
  - DER are essential to removing polluting peaker plants sited within communities. Reducing DER compensation further perpetuates existing inequities.

FLAGSTAFF RESEARCH

EnergyPlus

U.S. DEPARTMENT OF ENERGY

NREL
NATIONAL RENEWABLE ENERGY LABORATORY



CEC 2019 RASS Survey - Annual Energy Consumption by dwelling type, profile, and representation in population

US DoE open-source toolchains were used to perform the analysis

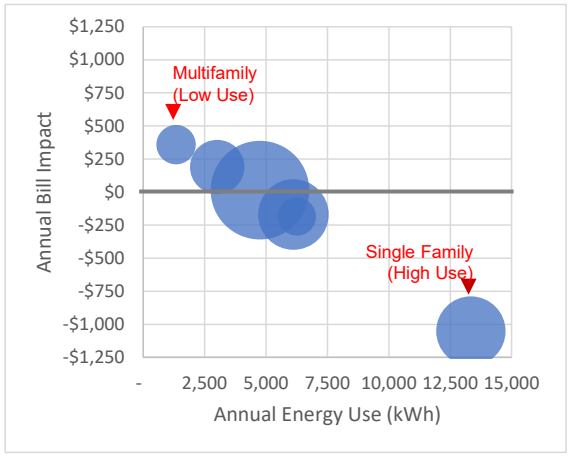
- Proposals on fixed charges were assessed from: CPUC Public Advocates Office (PAO), TURN/NRDC, and the Clean Coalition.
- US DoE EnergyPlus simulation software (from USDoE) was used to model dwellings for each utility in the corresponding climate: PG&E - CZ12 Sacramento, SCE - CZ9 Los Angeles, and SDG&E - CZ7 San Diego.
- Hourly home load profiles were monetized using NREL System Advisor Model (SAM) with both current and proposed tariffs for each proposal under three separate tariffs representing the following tariff types: flat, TOU, and electrification/EV.
- Impacts on homeowner annual electric bills as compared to existing rate structures were assessed for each proposal across regions and housing types.

There is no single 'typical' residential dwelling in California, there are several

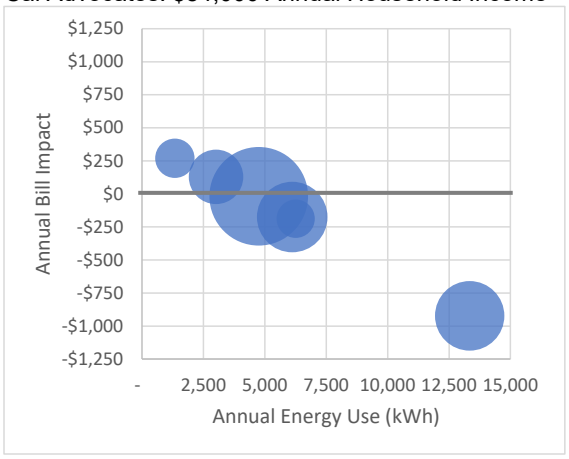
- Three separate dwellings were modeled to asses the impact of annual usage & load shape:
  - Low Use: 1,250 ft^2 home or apartment with light efficiency upgrades
  - Average Use: 2,500 ft^2 home built to 2016 Title 24 standards.
  - High Use: 3,750 ft^2 larger and older home with low insulation & older appliances

Impacts by Dwelling Type - PG&E Example

NRDC/TURN: $84,000 Annual Household Income



Cal Advocates: $84,000 Annual Household Income



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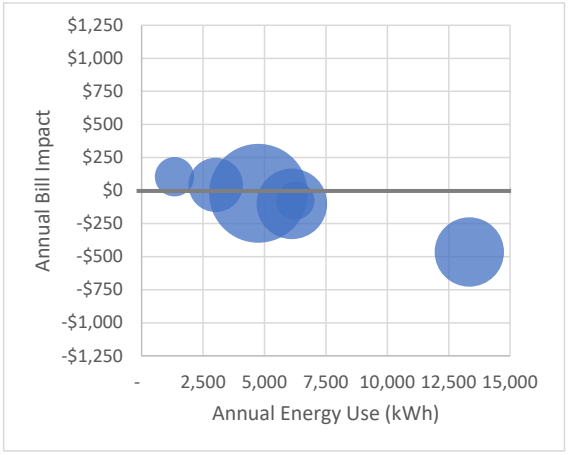
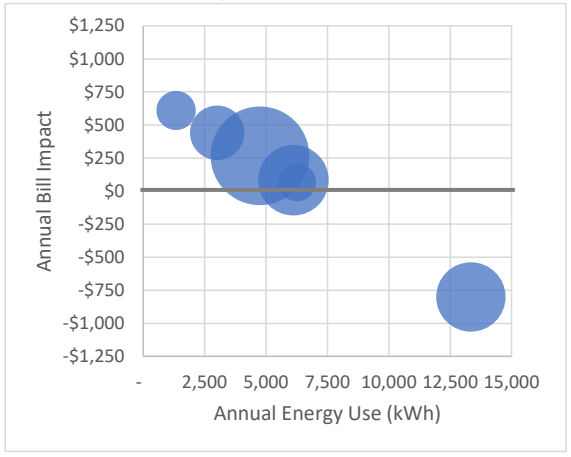


NRDC/TURN: $150,000 Annual Household Income



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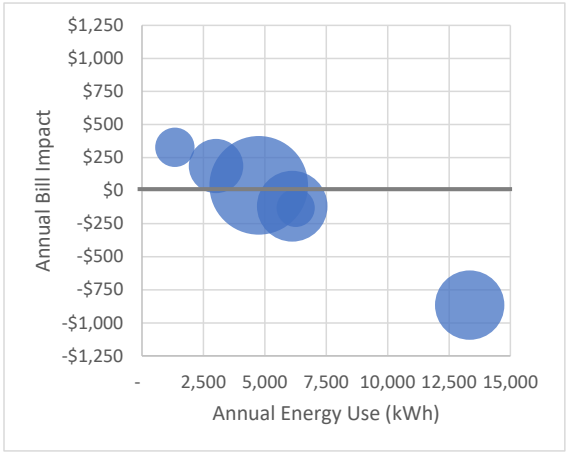

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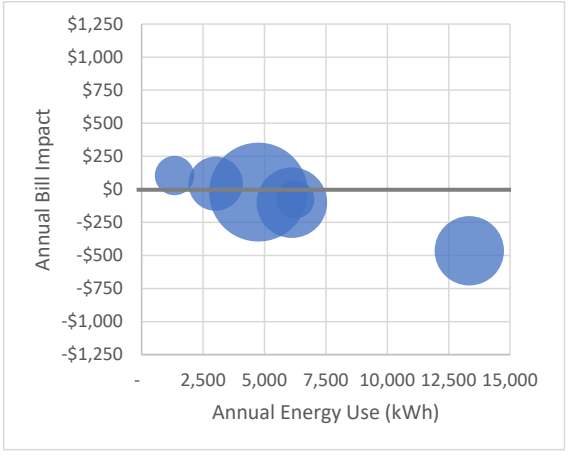
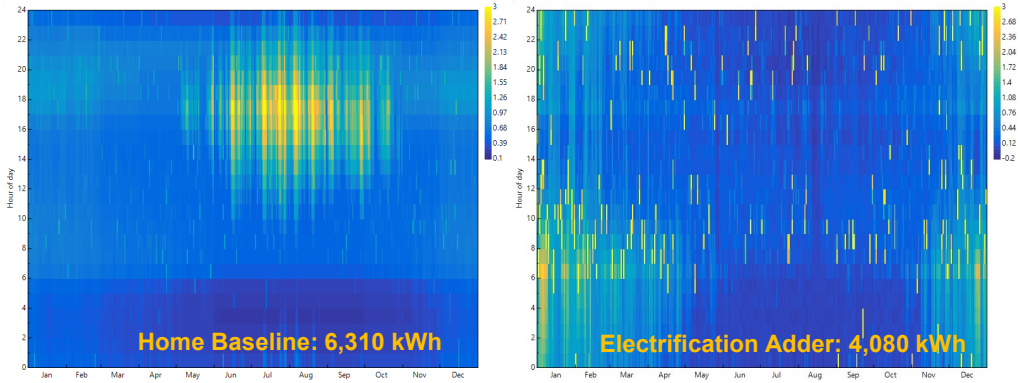


	Gas - Low Efficiency Appliances			Gas - High Efficiency Appliances		
Gas Usage & Cost	PG&E	SCG	SDG&E	PG&E	SCG	SDG&E
Space Heating (therms/yr)	334	96	76	256	73	57
Water Heating (therms/yr)	159	146	149	94	85	87
Appliances (therms/yr)	57	57	57	57	57	57
Annual Gas Usage (Therms)	550	299	281	407	214	201
Annual Gas Variable Charges	$ 941	$ 388	$ 549	$ 663	$ 279	$ 392
Annual Gas Fixed Meter Charges		$ 60			$ 60	
Annual Gas Total Charges	**$ 941**	**$ 448**	**$ 549**	**$ 663**	**$ 339**	**$ 392**
Electrification Use (kWh)	**4,080**	**2,299**	**2,224**	**4,080**	**2,299**	**2,224**
Breakeven Rate ($/kWh)	**$ 0.231**	**$ 0.195**	**$ 0.247**	**$ 0.162**	**$ 0.147**	**$ 0.176**
	E-ELEC	TOU-D-PRIME	TOU-ELEC	E-ELEC	TOU-D-PRIME	TOU-ELEC
Rate Proposal - Variable						
Clean Coalition	$ 0.286	$ 0.296	$ 0.422	$ 0.286	$ 0.296	$ 0.422
CPUC PAO	$ 0.237	$ 0.249	$ 0.362	$ 0.237	$ 0.249	$ 0.362
NRDC/TURN	$ 0.198	$ 0.211	$ 0.317	$ 0.198	$ 0.211	$ 0.317
Annual Bill Savings						
Clean Coalition	($225)	($233)	($389)	($503)	($342)	($546)
CPUC PAO	($24)	($124)	($257)	($302)	($233)	($414)
NRDC/TURN	$133	($38)	($157)	($145)	($147)	($314)



Fixed Charge proposals do not enable electrification

- Breakeven Rates reflect the blended rate where electrification does not increase customer bills
- Achieving electrification requires rates below these levels to provide meaningful savings for existing households
- Breakeven rates depend on the efficiency of the gas heating equipment, but can be as low as $0.15 - $0.18/kWh for modern gas appliances installed in the last 10-15 years
- The proposals do not achieve rate reductions that enable customer savings and in almost all cases result in annual bill increases

Highly Differentiated TOU's can be much more effective

- Highly differentiated TOU's offer a much more surgical and effective way to enable electrification
- The largest energy consumers in electrification are space and water heating. 2/3^{rds} of overall consumption is in the low cost winter off-peak period. Only 3% of usage is high cost summer on-peak.
- Dropping off-peak winter rates towards $0.05 - $0.10/kWh yet still above the utility avoided cost, and raising the on-peak rates to compensate can enable electrification below the breakeven rate

Backup Slides

Links and extra information

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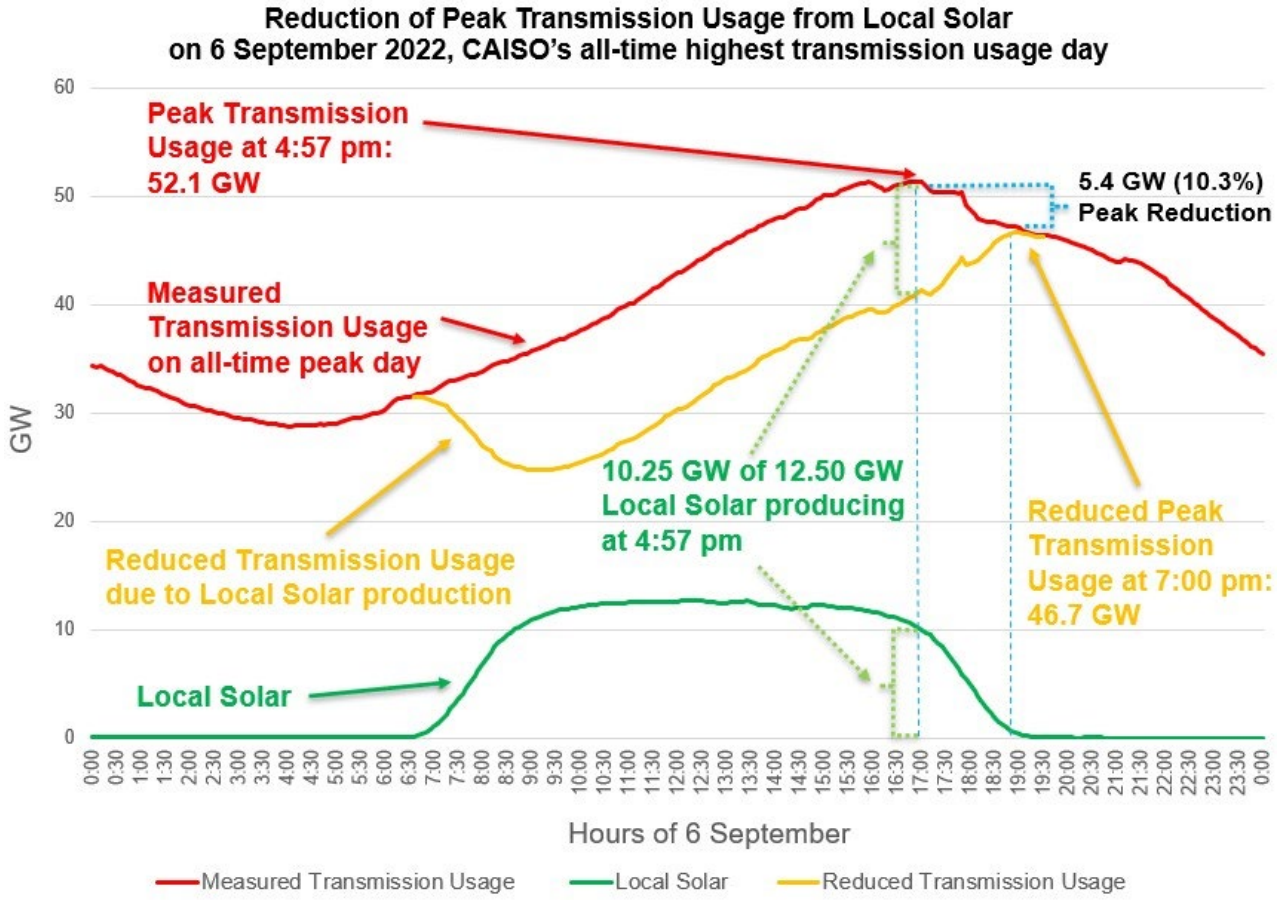
Clean Coalition's streamlined Fixed Charge proposal

1. Blog Post on the Clean Coalition's proposal and methodology: https://clean-coalition.org/news/clean-coalitions-streamlined-fixed-charge-proposal-satisfies-legal-requirements-while-preempting-another-attack-by-the-utilities-on-local-solar
2. Clean Coalition webinar on our streamlined proposal: https://clean-coalition.org/news/webinar-a-fixed-charge-solution-that-satisfies-legal-requirements-while-preempting-another-attack-by-the-utilities-on-local-solar-tuesday-15-august-2023/
3. Clean Coalition's Rebuttal Testimony and Flagstaff Research Report: https://clean-coalition.org/wp-content/uploads/2023/06/R.-22-07-005-Clean-Coalition-Rebuttal-Testimony.pdf

Local Solar is extremely valuable to the grid



1. Local Solar reduces Peak Transmission Usage by close to 50% of the installed capacity. The effect is amplified by energy storage.
2. Bringing down the peak with distributed generation and demand flexibility will reduce transmission investments, saving ratepayers hundreds of billions of dollars over the next two decades.
3. Reducing the Peak Transmission Usage by around 10% is enough to prevent most major outages.