Clean Coalition Making Clean Local Energy Accessible Now

Transmission Access Charges (TAC) Webinar

California's transmission costs are exorbitant and growing fast, but the fix is easy

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Making Clean Local Energy Accessible Now

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To accelerate the transition to renewable energy and a modern grid through technical, policy, and project development expertise



Problem: Transmission Access Charges (TAC) are currently misapplied to energy from local renewable projects, even though it does not use transmission lines.

Solution: Meter TAC at the Transmission Energy Downflow (TED), as most California municipal utilities currently do.

SB 692: Senator Ben Allen introduced a bill to fix the TAC market distortion using this proposed solution.





- 1. TAC Overview & Why the TAC Rate is Rising
- 2. TAC Market Distortion
- 3. How Local Renewables Reduce Peak Load (with recent examples)
- 4. How Local Renewables Help Meet RPS Goals
- 5. Next Steps for the TAC Campaign & How to Get Involved



Transmission Access Charges (TAC) are volumetric usage fees designed to pay for California's transmission system and cover capital expenditures, along with a 10% return-on-equity, operations, and maintenance.



TAC Rates have been rising—and will continue to rise—quickly



Forecasted PG&E TAC Rate

Two main drivers affect transmission investments:

- 1) Growth in peak load
- 2) Policy goals (renewable portfolio standards or RPS)

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Median Installed Price of Solar Trends over Time





Local renewables help lower transmission costs by:1) Producing energy during peak load conditions2) Help meet RPS targets

Plus, they offer other important benefits:

- Help reach California's renewable energy and carbon reduction goals
- Keep energy dollars local, spurring economic development and creating local jobs
- Come online faster than remote power plants
- Protect pristine environments by avoiding remote power plants and associated transmission infrastructure
- Improve local energy resilience
- Democratize control and ownership of energy resources





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Local renewable projects connect directly to the distribution grid near end users and do not require the use of long range transmission lines like remote power plants.



Problem: Energy from local renewable projects is subject to transmission fees, even though it does not use transmission lines. This disadvantages local renewable projects in procurement decisions and subsidizes remote projects.

SOLUTION: Assess TAC only on energy that uses the transmission grid



CAISO should meter transmission usage at all substations and assess TAC only on energy delivered through the transmission grid.

- One-time cost to ratepayers of \$20 million to install meters (no cost to state government); approximately \$1 per customer
- This would save ratepayers an estimated \$38.5 billion in future transmission costs
- This is not a subsidy, incentive, or a cost shift—it is a cost correction to ensure that utilities that use the grid pay proportionally



The fix will slow the growth of transmission costs, saving California ratepayers billions



The PG&E TAC rate is projected to triple in the next 20 years (see the blue line below).

With the TAC fix spurring growth of local renewable projects, future transmission costs will be avoided, saving California ratepayers an estimated \$38.5 billion over 20 years.



Forecasted PG&E TAC Rate



Fixing the TAC distortion paves the way for Distribution System Operators (DSOs) and optimized grid operations.



Credit: National Institutes of Standards and Technology http://www.nist.gov/smartgrid/upload/NIST_Framework_Release_2-0_corr.pdf)



- Saves California energy consumers at least \$38.5 billion over 20 years in avoided transmission costs
- Local renewables instantly become more competitive through more accurate market signals, resulting in more local clean energy
- Owners of local renewables could see increased value for their energy generation
- Investment in local energy creates jobs in the communities buying the energy
- Environmental, economic, and resilience benefits
- Sets up the electricity market of the future





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DG reduces peak load, a key driver of transmission investments



Example DG production during peak load conditions





Savings (\$ millions)	Transmission project avoided via DER
\$60	LIPA, 2014: transmission upgrades east of the Canal substation
\$192	PG&E, 2015: General transmission upgrades
\$300	CEC, 2016: San Joaquin Valley transmission upgrades
\$145	PG&E, 2017: Gates-Gregg transmission project
\$75	JCP&L, 2017: 10-mile transmission line



•CAISO re PG&E, 2015.

In his remarks to the board, Eric Eisenman, director of ISO relations and FERC policy for PG&E, conveyed the utility's support for the plan, including the project cancellations.

"The need for those is just not there anymore," he said. "We really appreciate the reappraisal of those projects." Load forecast has flattened in the service area from a combination of energy efficiency and rooftop solar, which eliminates the need for these upgrades, Eisenman said.

--California Energy Markets, April 1, 2016

•CAISO re PG&E, 2017. "Due to the currently forecasted increases in the development of distributed energy resources and later peak energy demand in the greater Fresno area, the reliability need for the [Gates-Gregg] project will be pushed out."¹

-- Jeff Billinton, ISO regional transmission manager

¹ "Solar growth puts Fresno high-voltage line on hold," by Tim Sheehan. Fresno Bee, December 20, 2016.

CEC, SCE and NJ expert statements: DER reduce need for transmission projects

•CEC, 2016.	"DER can potentially provide ratepayer benefits in comparison to traditional system infrastructure investments. In the San Joaquin Valley region, the primary benefit is transmission infrastructure deferrals with an estimated long-term ratepayer benefit over \$300 million." ¹
	- CEC Staff Paper, July 2016
•NJ expert, 2017.	"The need for this project initially determined in 2011, has been diminishing ever since"
	Peter Lanzalotta, Consultant NJ Division of Rate Counsel
•SCE, 2017.	"AB 914 is premature, as demand forecast for transmission infrastructure is expected to decline due to distributed energy resources (DERs)."
	SCE letter to the CA Assembly Energy Committee

1 "Customer Power: Decentralized Energy Planning and Planning in the San Joaquin Valley," CEC Staff Paper, July 2016.

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Meeting 50% RPS target: local or remote?

















California Public Utilities Commission



California Energy Commission



•<u>RETI 2.0</u>: \$5 billion in new transmission required for 50% RPS by 2030

•Total ratepayer expense <=5x the upfront investment

•LA Department of Water and Power already started three projects for 50% RPS by 2030

Barren Ridge: transmit energy from Mohave Desert, Owens Valley
South of Haskell: Improve transfer capability of Barren Ridge
Victorville-LA Basin: transmit energy from Eldorado Valley, AZ, & Southern NV

Source: California Energy Commission, *Renewable Energy Transmission Initiative 2.0 Plenary Report*, Feb 23 2017.





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CAISO has suggested that the Clean Coalition raise the TAC market distortion in a fourth stakeholder initiative scheduled to start in Q1 2017:

- TAC Options
- Energy Storage & Distributed Energy Resources
- TAC Wholesale Billing Determinant
- TAC Structure

CAISO has publicly stated its commitment to "reconsider the TAC structure to better align it with California's policy objectives...which now include...an increasing number of renewable and distributed resources."



The Clean Coalition is supporting SB 692 (Allen), a legislative solution to the TAC market distortion.



- Threat of CAISO expansion was one reason for urgency, but enthusiasm for expansion declined following Trump's election.
- SB 350 requires CAISO to submit its proposal to the Governor by the end of 2017
- Governor Brown postponed a regionalization proposal





The TAC Fix is backed by a broad range of organizations

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Making Clean Local Energy Accessible Now



- 1. Endorse the TAC Campaign by authorizing use of your logo on the TAC Supporters web page
- 2. Contact your local legislator's office indicating your support for the TAC Fix legislation (letter templates and phone scripts are available on the TACC website)
- 3. Spread the word to other parties who can endorse the TAC Campaign and help influence legislators & CAISO
- 4. Submit comments to CAISO supporting the TAC Fix (measure transmission usage on a volumetric basis using TED) when the new Review TAC Structure stakeholder initiative begins in mid-2017
- 5. Provide lobbying and/or financial support



For more information on the TAC Campaign, visit <u>www.clean-coalition.org/tac</u> or email <u>katie@clean-coalition.org</u>

Endorse the TAC Campaign Contact Daryl Michalik, Associate Executive Director of the Dynamic Grid Council daryl@dynamicgridcouncil.com



Add your voice directly by filing comments to CAISO and key influencers