

Net Metering in California: Fair Credit for Solar Power

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The Vote Solar Initiative



Founded in 2002,
Vote Solar is a
non-profit
organization
working to make
solar a mainstream
energy resource
across the U.S.

About Vote Solar:

We work for all types of solar power

We work at the state level

We work with policymakers

We work with local advocates



What is net metering?

Net metering allows customers who install solar or other clean energy to get **fair credit on their power bills** for the energy they feed back to the grid.



Net metering has been a key driver of California's solar success

- Over 140,000 systems installed = three large polluting power plants avoided
- Cost of solar panels has dropped 80% in 5 years



Non-Grid Benefits from Rooftop Solar

Net metering works for California.



43 Thousand
jobs in the California solar industry³



\$10 Billion
in private investment



2/3 of home solar installations
now occur in low and median
income neighborhoods⁴



\$2.5 Billion in energy bill savings
for schools & other public agencies

Why the Controversy Over Net Metering?

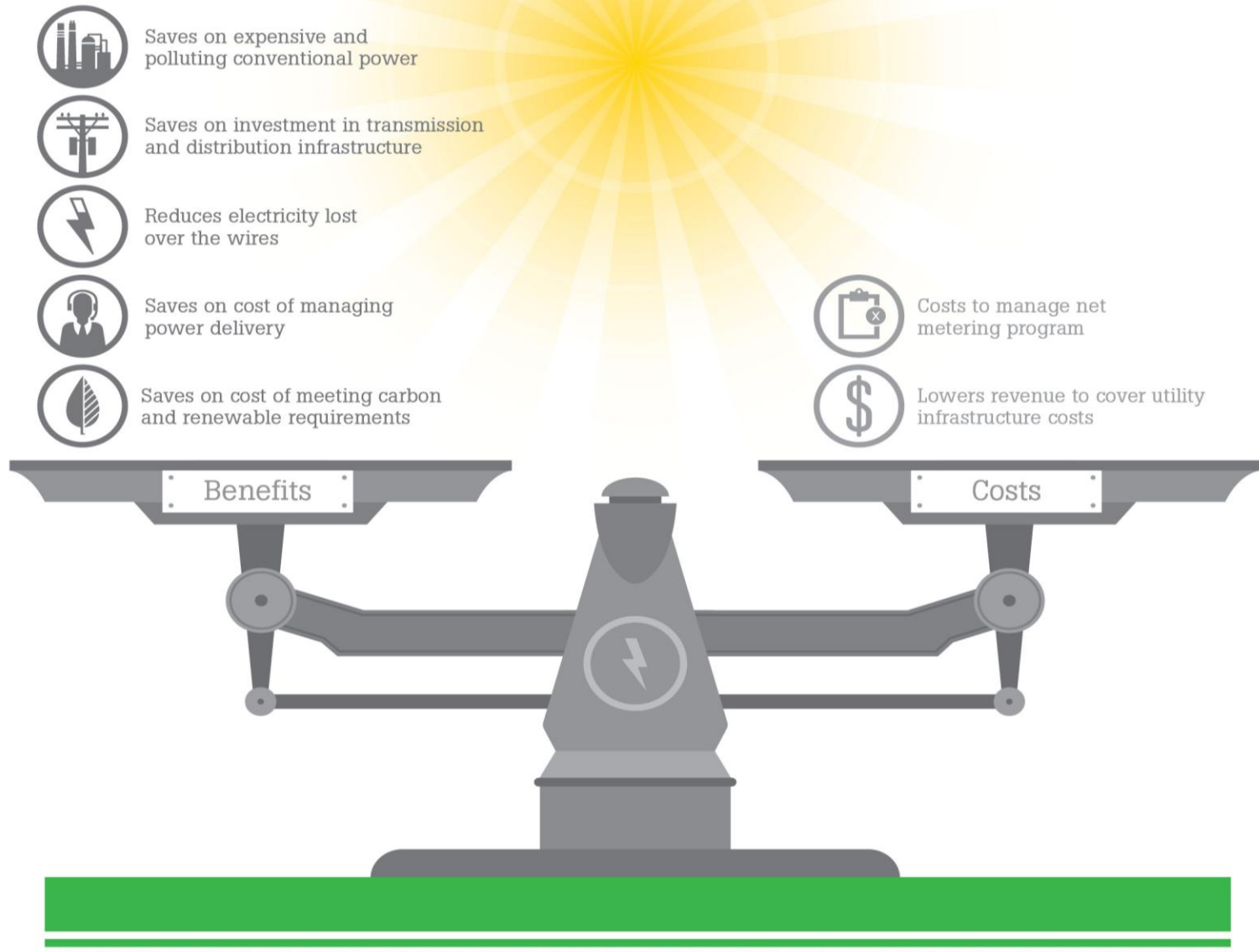


Some utilities claim...

- The costs of net metering to the grid outweigh the benefits
- But utilities have provided little data to support their claim

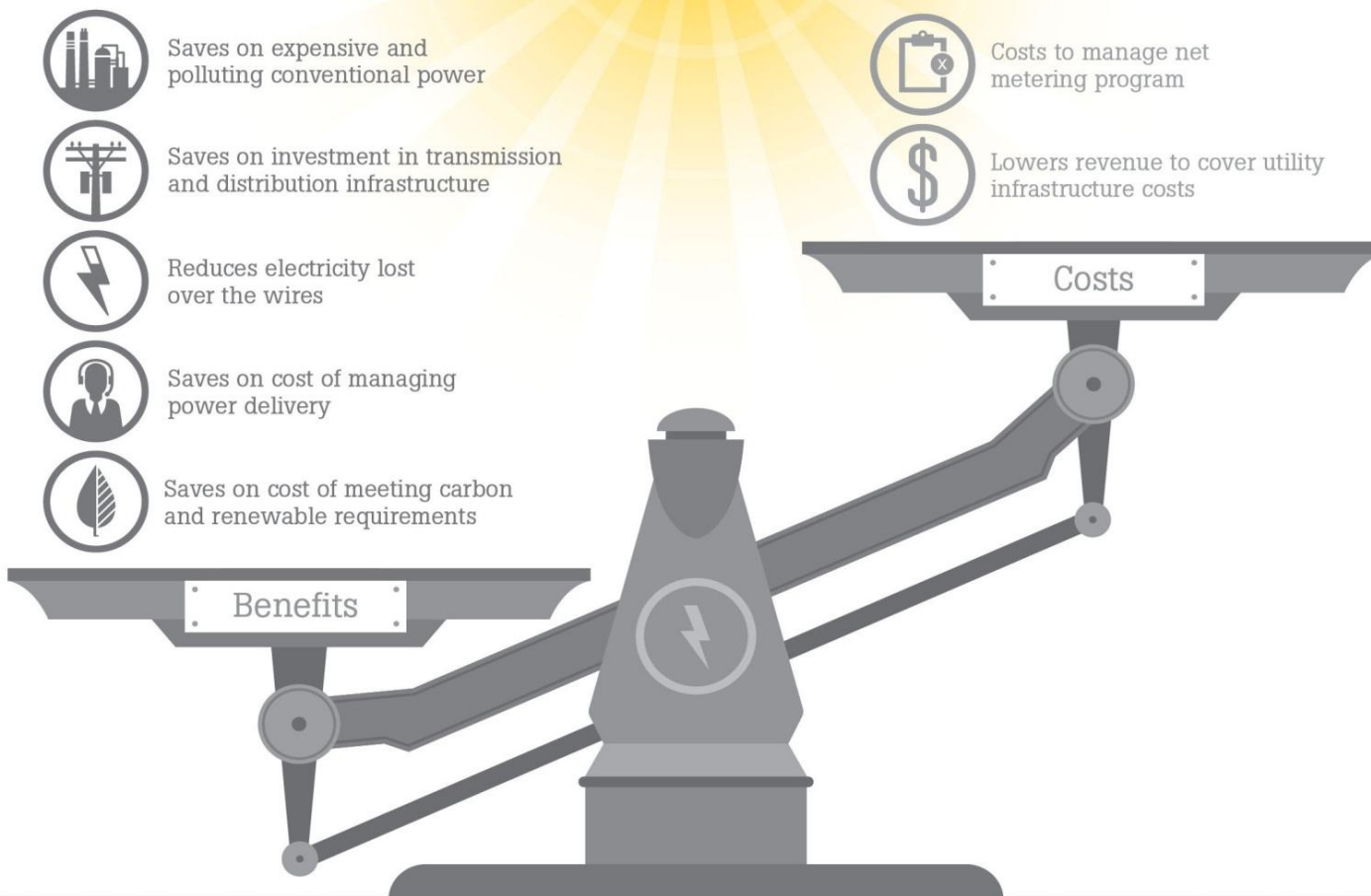


A Net Cost or a Net Benefit for Ratepayers?



Study Findings: Net Benefits

Net metering grid benefits **\$92.2** Million
outweigh the costs by: per year¹



Reference: (1) Annual net benefits to non-solar ratepayers once 5% net metering cap is reached, from *Evaluating the Costs and Benefits of Net Energy Metering in California*, Crossborder Energy, January 2013

Further Study Conclusions

- Net metering is cost-effective for the 3 CA IOUs
 - A small net cost in the PG&E residential market is outweighed by...
 - ...small net benefits in the SCE and SDG&E residential markets
 - Net metering for commercial customers produces significant net benefits
- Rate design has significant impacts on net metering economics

To sum it all up...

- New comprehensive analysis shows net metering is cost-effective for CA IOU customers as a group.
- Add to this the benefits to taxpayers, the economy and our environment, and it's clear net metering is working for California.
- Why fix what isn't broken?



Thanks for listening.

Susannah Churchill, Solar Policy Advocate
(415) 817-5065
susannah@votesolar.org

Crossborder Energy CA Net Metering Cost-Benefit Study
& Summary Fact Sheet Available at:

<http://votesolar.org/resources-impacts-of-net-metering-in-california/>

Additional Slides

Common Errors in Utility Calculations of Net Metering Impacts

- Account for only avoided cost of conventional generation, leaving out all the other utility cost savings created by net metered solar, including avoided transmission and distribution investments, avoided line losses, and avoided environmental compliance costs
- Assume that all NEM customers get bill credits at the highest rate tier, when many in fact get billed at lower tiers— results in an overstatement of average bill credits by up to 40%
- Count the impacts of all net metered system output, instead of only the generation that gets exported to the grid— but like energy efficiency, solar power that's used onsite places no burden on the utility system

Crossborder Energy Study: Additional Data

New Crossborder NEM Study Results

Annual Impacts at the 5% NEM Cap (millions, 2012\$)

Program	PG&E	SCE	SDG&E	IOU Total
Residential	6.4	(4.2)	(4.3)	(2.1)
C&I	(24.7)	(49.2)	(16.3)	(90.1)
Total	(18.2)	(53.4)	(20.6)	(92.2)

NEM Capacity at the 5% Cap (MW)

Program	PG&E	SCE	SDG&E	IOU Total
Residential	983	914	244	2,141
C&I	1,427	1,325	370	3,122
Total	2,410	2,239	614	5,263

New Crossborder NEM Study Results

Total NEM Annual Impacts,

33% Renewable Premium Sensitivity (millions, 2012\$)

Program	IOU Total
Residential	36.5
C&I	(53.0)
Total	(16.5)