



# INCREASING ENERGY RESILIENCY WITH DISTRIBUTED ENERGY RESOURCES

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# THE DISTRIBUTED GENERATION DILEMA

When customers deploy the solar & battery resources needed to provide energy resiliency, there is a substantial revenue loss challenge for their energy provider (utility or CCA). For example, one case study of 175 commercial customers deploying energy resiliency projects resulted in a \$62 million loss in electricity sales for the Energy Provider. While the Energy Provider may be able to generate value from the DERs (reduced RA obligation, reduced day ahead purchases), the program still results in a substantial net loss for the Energy Provider.

## RESILIENCY PROGRAM CASE STUDY

Customers: 175 Commercial Customers

DERs: Solar + Battery Storage

DER Operation: charge battery from solar exports, discharge against CCA's evening peak load

Customer Benefits: energy cost savings & resiliency

CCA Benefit: reduced RA obligation, reduced day-ahead purchases

## Resiliency Program Impacts To CCA Over 20 Years

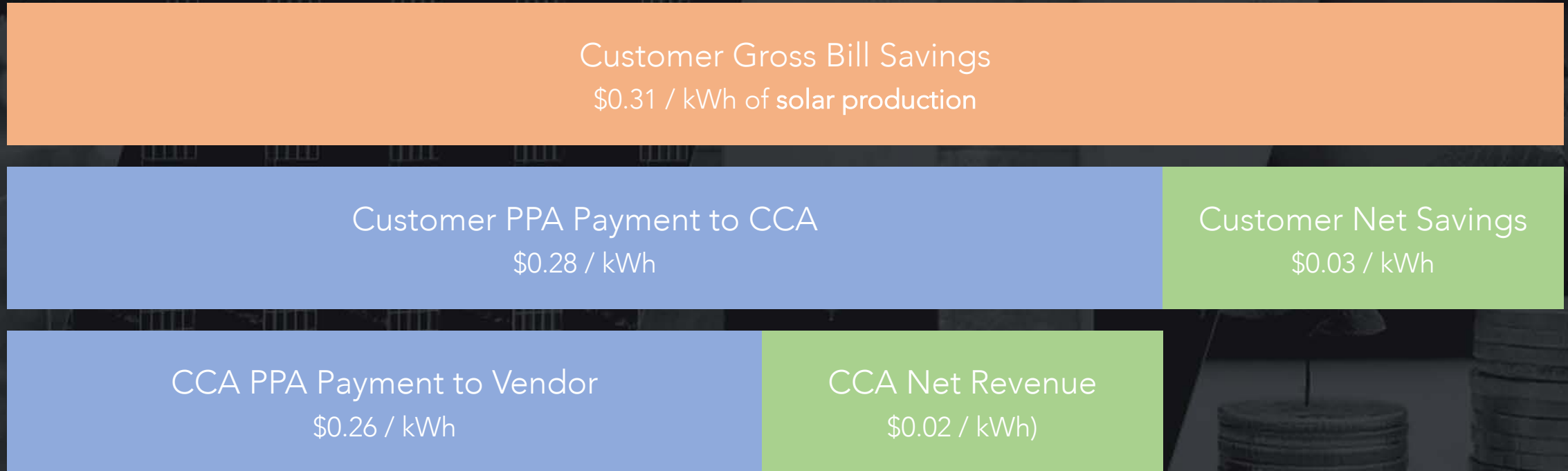
Electricity Sales Revenue Impact	(\$61.6 million)
Procurement Cost Savings	\$11.1 million
RA Obligation Reduction Savings	\$8.5 million
Program Benefit	(\$42.0 million)



# TERRAVERDE'S DISTRIBUTED PPA PROGRAM

Through this innovative program structure, Energy Providers partner with their customers in evaluating and procuring these projects. The Energy Provider engages a Vendor under a PPA to install, own, and operate these systems, and then offers a PPA to their customers at a markup. As reflected below, pricing on these contracts is managed so that both the Energy Provider and the Customers benefit from these projects.

Year-1 Program Financials



# TERRAVERDE'S DISTRIBUTED PPA PROGRAM

A case study of the Distributed PPA program, modeling the impacts of deploying solar + storage systems at 175 commercial customers, shows that the new value streams of avoided REC purchases and the Distributed PPA Net Revenue overcome what would otherwise be a \$62 million revenue loss, and provides the CCA with a net benefit of \$68 million dollars.

## DER PROGRAM CASE STUDY

**Customers:** 175 Commercial Customers

**DERs:** Solar + Battery Storage

**DER Operation:** charge battery from solar exports, discharge against CCA's evening peak load

**Customer Benefits:** energy cost savings & resiliency

**CCA Benefit:** reduced RA obligation, reduced day-ahead purchases, REC purchase savings, and PPA net revenue

## Distributed PPA Program Impacts Over 20 Years

Electricity Sales Revenue Impact	(\$61.6 million)
Procurement Cost Savings	\$11.1 million
RA Obligation Reduction Savings	\$8.5 million
Avoided REC Purchases	\$11.3 million
Distributed PPA Net Revenue	\$99 million
Program Benefit	\$68.3 million

# CALIFORNIA NEEDS CONTINUED SGIP FUNDING

California's SGIP Battery Incentive Program Funding Is Running Out

## *Base-Level Incentives For Commercial Scale Batteries*

Service Territory	Available Funding 3.23.2021	Available Funding 6 months ago	6 month draw down on funding	Estimated Time to Zero
SDG&E	\$21 million	\$23 million	\$2 million	> 1 year
SCE	\$23 million	\$36 million	\$13 million	< 1 year
SoCalGas	\$15 million	\$15 million	\$0 million	> 1 year
PG&E	\$23 million	\$50 million	\$27 million	< 6 months



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California's SGIP Battery Incentive Program Funding Is Running Out

*The Richer Equity Resiliency Battery Incentive*

Service Territory	Available Funding 3.23.2021	Available Funding 6 months ago	6 month draw down on funding	Estimated Time to Zero
SDG&E	\$0 million	\$33 million	\$33 million	already fully subscribed
SCE	\$71 million	\$145 million	\$74 million	< 6 months
SoCalGas	\$45 million	\$47 million	\$2 million	> 1 year
PG&E	\$0 million	already fully subscribed	N/A	already fully subscribed

*To learn more about available incentives  
or the Distributed PPA Program, visit:*

**TerraVerde.Energy/TerraBlog**

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