



NY-Sun Performance-Based (>200kW) Program

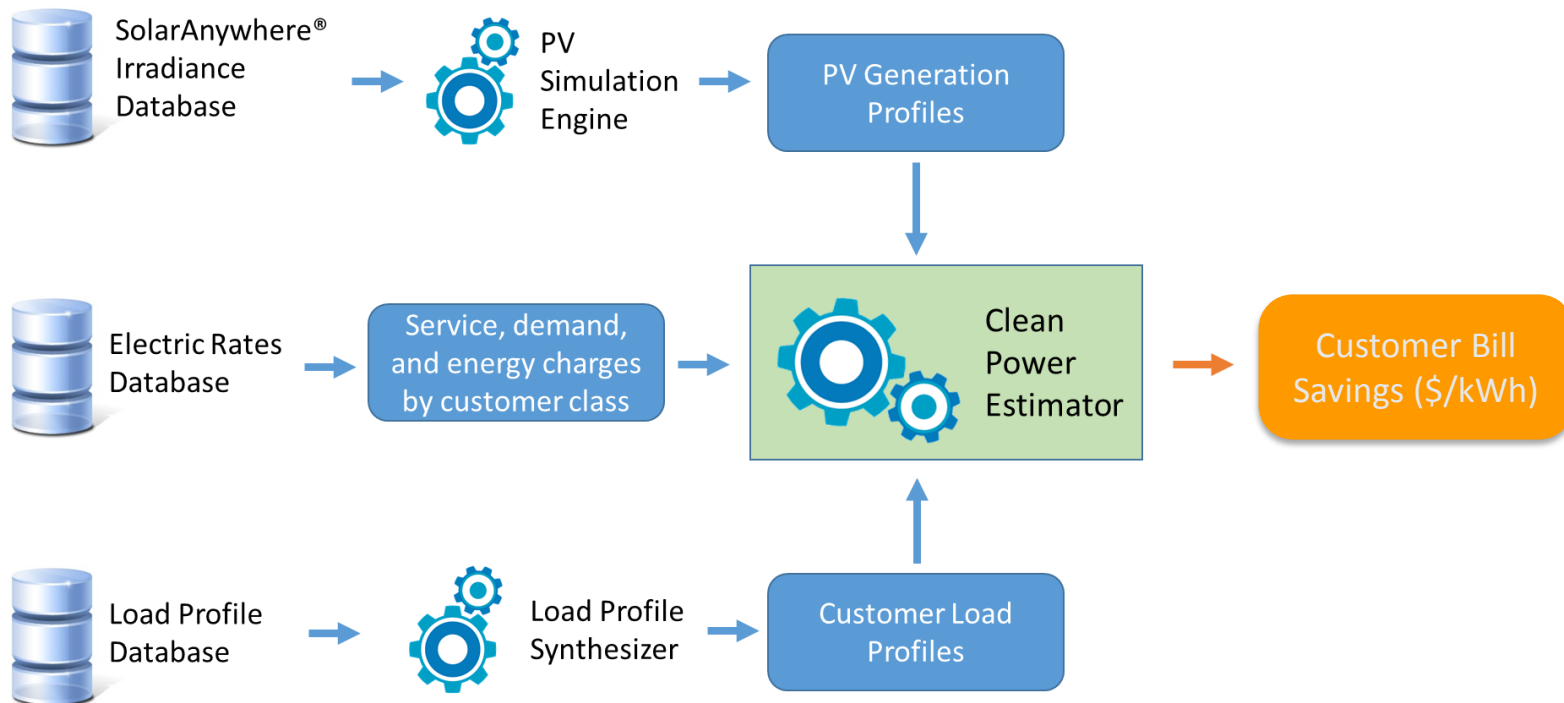
November 14, 2014

Prepared for
NYSERDA

Prepared by
Clean Power Research

Clean Power Estimator

- Clean Power Estimator takes into account PV production, electric rate structure, and customer load when calculating customer bill savings



Bill Analysis Components

- The following utility bill components are accounted for when calculating customer bill savings in Clean Power Estimator

The image shows a utility bill from PG&E with several callout boxes pointing to specific sections:

- Minimum Bill Charges**: Points to the 'Amount Due' field in the account summary table.
- Riders, Taxes, Fees**: Points to the 'Service' section of the account summary, specifically listing 'Gas PPP Surcharge', 'Energy Commission Tax', and 'Utility Users' Tax'.
- Demand Charges**: Points to the 'Special Account Information' section.
- Time of Use (TOU)**: Points to the 'Service Dates' section, which lists '01/01/2008 - 01/30/2008'.
- Rate Territories**: Points to the 'PG&E' address information.
- On-Peak, Partial-Peak, Off-Peak**: Points to the 'Amount' column in the account summary table.
- Baseline & Tier Rates**: Points to the 'TOTAL CURRENT CHARGES' field.
- Seasonal & Time-of-Day**: Points to the 'TOTAL AMOUNT DUE' and 'DUE DATE' section.

Account Number	Bill Date	Amount Due	Due Date	Amount Paid
1234567890-1	01/30/2008	\$724.31	02/18/2008	

Service	Service Dates	Amount
Gas	01/01/2008 - 01/30/2008	\$496.31
Electric	01/01/2008 - 01/30/2008	111.49
Gas PPP Surcharge		17.98
Energy Commission Tax		0.17
Utility Users' Tax		8.36
TOTAL CURRENT CHARGES		\$724.31
Previous Balance		789.30
01/20 Payment - Thank You		789.30
TOTAL AMOUNT DUE		\$724.31

Bill Savings by Utility

Analysis done in August 2014

- Bill savings is the customer's annual bill decrease divided by the annual energy production of the PV system

ConEd

Region	City	Bill Savings (\$/kWh)	Provider
Zones I-J	New York, NY	\$ 0.125	ConEd
	Yonkers, NY	\$ 0.125	ConEd

\$0.125/kWh

\$0.090/kWh

ROS

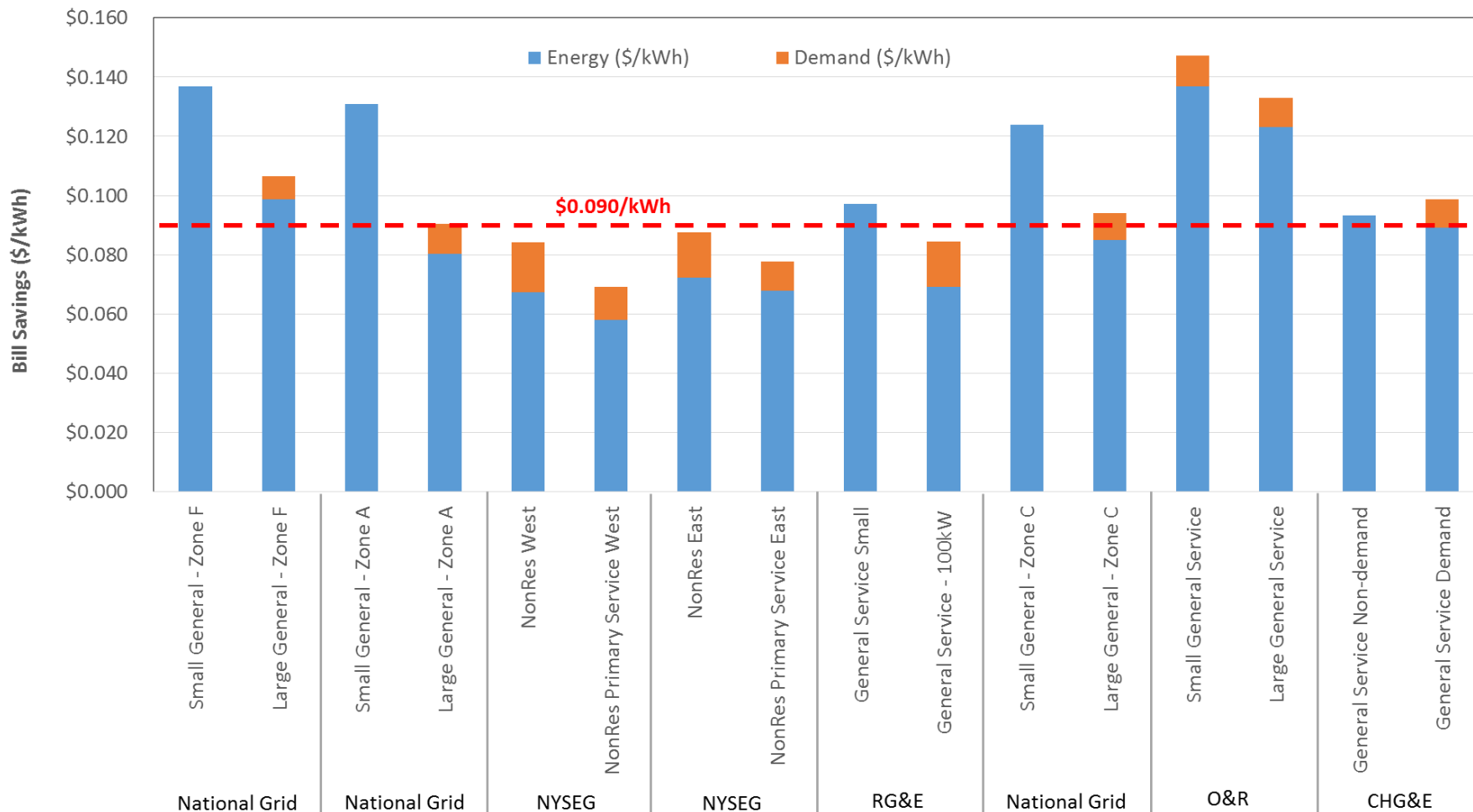
Region	City	Bill Savings (\$/kWh)	Provider
Zones A-F	Buffalo, NY	\$ 0.095	National Grid
	Syracuse, NY	\$ 0.095	National Grid
	Ithaca, NY	\$ 0.084	NYSEG
	Utica, NY	\$ 0.095	National Grid
	Binghamton, NY	\$ 0.084	NYSEG
	Schenectady, NY	\$ 0.096	National Grid
	Oneonta, NY	\$ 0.084	NYSEG
	Rochester, NY	\$ 0.097	RG&E
Zones G-H	Middletown, NY	\$ 0.079	CHG&E
	Middletown, NY	\$ 0.127	O&R
	Poughkeepsie, NY	\$ 0.079	CHG&E
	Poughkeepsie, NY	\$ 0.087	CHG&E

- Analysis for large commercial rate classes

Bill Savings

Analysis done in November 2014

- 200 kW PV system, south-facing with 20 deg tilt
- Average of results from customer bill before PV of \$3,000/mo and \$10,000/mo



Bill Savings

Analysis done in November 2014

- 200 kW PV system, south-facing with 20 deg tilt
- Average of results from customer bill before PV of \$3,000/mo and \$10,000/mo

Zone	City	Provider	Rate Class	Energy Only Bill Savings (\$/kWh)	Bill Savings (\$/kWh)	Change (\$/kWh)
Zones A-F	Albany	National Grid	Small General - Zone F	\$0.137	\$0.137	n/a
	Albany	National Grid	Large General - Zone F	\$0.099	\$0.107	+\$0.011*
	Buffalo	National Grid	Small General - Zone A	\$0.131	\$0.131	n/a
	Buffalo	National Grid	Small General Demand - Zone A	\$0.084	\$0.098	n/a
	Buffalo	National Grid	Large General - Zone A	\$0.080	\$0.090	-\$0.005
	Ithaca	NYSEG	NonRes West	\$0.067	\$0.084	n/a
	Ithaca	NYSEG	NonRes Primary Service West	\$0.058	\$0.069	-\$0.015*
	Mechanicville	NYSEG	NonRes East	\$0.072	\$0.088	n/a
	Mechanicville	NYSEG	NonRes Primary Service East	\$0.068	\$0.078	n/a
	Rochester	RG&E	General Service Small	\$0.097	\$0.097	n/a
	Rochester	RG&E	General Service - 100kW	\$0.069	\$0.084	-\$0.013*
	Syracuse	National Grid	Small General - Zone C	\$0.124	\$0.124	n/a
Syracuse	National Grid	Large General - Zone C	\$0.085	\$0.094	-\$0.001	
Zones G-H	Middletown	O&R	Small General Service	\$0.137	\$0.147	n/a
	Middletown	O&R	Large General Service	\$0.123	\$0.133	+\$0.006
	Poughkeepsie	CHGE	General Service Non-demand	\$0.093	\$0.093	+\$0.014
	Poughkeepsie	CHGE	General Service Demand	\$0.089	\$0.099	+\$0.012