

How Much Will You Save?

Calculating the Avoided Cost of a Solar Project



An important factor in determining the viability of a solar project is your potential saving in electricity, the “avoided cost.” By generating your own electricity with solar, your electrical utility avoids the cost of having to generate the electricity that you produce. They pass their savings to you.

Using an electric bill and the step-by-step formula below, you can easily figure out how much you’ll save by going solar.

SERVICE FOR JOHN SMITH COMPANY 1010 ANY STREET ANYTOWN RI 09999	BILLING PERIOD Feb 16, 2016 to Mar 15, 2016	PAGE 2 of 3
ACCOUNT NUMBER 99999-99999	PLEASE PAY BY Apr 9, 2016	AMOUNT DUE \$ 1,532.51 TB

DETAIL OF CURRENT CHARGES						
Delivery Services						
Type of Service	Current Reading	Previous Reading	Difference	Meter Multiplier	Total Usage	
Energy	96799 Actual	88473 Actual	8326	1	8326 kWh	
					Total Energy	8326 kWh TU
Demand-kW	Demand-kVA				Billed Demand	23.8 kW
18.0 kW	18.5 kVA					
METER NUMBER 12345678 NEXT SCHEDULED READ DATE ON OR ABOUT Apr 19						
SERVICE PERIOD Feb 16 - Mar 15 NUMBER OF DAYS IN PERIOD 28						
RATE General C&I Rate G-02 VOLTAGE DELIVERY LEVEL 0 - 2.2 kv						
Customer Charge						135.00 CC
LIHEAP Enhancement Charge						0.73
Distribution Energy Chg						63.70
Renewable Egy Dist Chg						19.40
Distribution Demand Chg						72.17
Transmission Dem Chg						71.88 PD
Transmission Adj						74.43
Transition Charge						-16.74
Other Charges/Adjustments						
Paperless Billing Credit						-0.34
Gross Earnings Tax						61.30
Total Other Charges/Adjustments						\$ 60.96 TX

To get started, find the following line items on your bill:

- Total bill amount (TB)**
- Total kWh for a given month (TU)**
- Customer charge (CC)** – The customer charge is the standard service fee that the utility bills you for being connected to their network.
- Peak or demand charges (PD)**
- Taxes (TX)** – Your electric bill will have the standard state and local taxes as well as a gross receipts tax.

To calculate your avoided rate, follow these three steps:

Step 1. Calculate PD_1 by multiplying $PD \times 0.35$

Step 2. Calculate TB_1 by subtracting PD_1 , CC and TX from TB

Step 3. Calculate your avoided rate by dividing TB_1 / TU

$$PD_1 = 71.88 \times 0.35 = 25.16$$

$$TB_1 = 1,532.51 - 25.16 - 135.00 - 60.96 = 1,311.39$$

$$1,311.39 / 8326 = \$0.16$$

The avoided rate is \$0.16 per kWh.

$$\text{Avoided Rate (\$/kWh)} = \frac{(TB - (PD \times 0.35) - CC - TX)}{TU}$$

TU

For businesses of all sizes, solar energy can be a great way to reduce operating costs and increase the bottom line. At BAI, we work with businesses to develop solar projects that have an attractive ROI while delivering long-term cost savings. [Contact us today.](#)