



Facts about Solar Photovoltaic Generation and SDG&E's Rates for Medium to Large Commercial Customers

Renewable energy is an important part of SDG&E's long-term energy resource plan. Renewable energy sources include wind, solar, biogas, biomass and hydroelectric power. Many businesses are also considering installing solar photovoltaic electric generation (PV) systems. We commend these efforts and want to provide some important and useful information about electric rates, incentives and ways to help maximize electricity savings.

SDG&E's Current and Proposed Electric Rates

In early 2007, SDG&E® filed with California Public Utilities Commission (CPUC) its proposal to allocate electric utility costs among its various customer groups as well as changes on how electric rates should be designed.

SDG&E has proposed rates that are "cost-based" where all customers pay the actual costs of serving them. Cost-based rates gives customers accurate price signals so they can take the most effective measures to conserve and save money on their energy bills. Cost-based rates also protect customers from paying more than their fair share or subsidizing the costs to serve other customers with utility service.

SDG&E's rates allow solar customers to save on energy costs while protecting against unfairly passing costs along to other SDG&E customers

If you have PV you can save on energy or kilowatt-hour (kWh) costs with power provided by your PV system. In most cases, these include electric commodity costs (i.e., generation costs) and other costs included in electric rates for programs and services provided to SDG&E's customers, such as the costs associated with implementing and providing incentives under energy-efficiency programs.

While PV is a good source of clean power, in San Diego the "peak sun hours"¹ are only about five hours per day and can vary depending on weather or the time of the year. Therefore, most customers with PV continue to depend on SDG&E's system to supplement their energy needs when their PV systems are not meeting their full



energy requirements or at times when their PV systems are not producing any electricity.

To provide reliable electric service, SDG&E must continue to build and maintain its electric distribution system (e.g., cable, poles, transformers, substations etc.) to meet the maximum and often increasing electric needs of all its customers, including those with PV, so they have reliable energy whenever they may need it.

Because the costs of SDG&E's electric distribution system are driven primarily by customers' maximum loads on the system rather than by kWh usage, SDG&E recovers these costs through a "demand" charge based on a customer's individual maximum demand from the utility during the month.²

To the extent a PV system reduces a customer's individual maximum demand from SDG&E, the customer can save on costs associated with electric distribution.

Although separate from SDG&E's electric rate proposals, there are a number of financial incentives and programs available to solar customers that are funded by ratepayers.

Solar Incentives³

To encourage customers to install solar for their energy needs, a number of state, federal and utility incentives have been mandated and are currently available.

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¹ Peak Sun Hours for the nation are calculated by the National Renewable Energy Laboratory (NREL).

² Demand charges pertain to commercial customers with demand greater than 20kW.

³ This is an overview of the various incentive programs that are subject to change or may terminate at any time and have a number of terms and conditions. Descriptions of these programs or links to information on these programs can be found at sdge.com

- The 2007 California Solar Initiative (CSI) is a \$223 million program that provides incentives of approximately \$2200/kW for SDG&E customers to install PV systems.
- The federal government offers businesses up to a 30% tax credit for installing PV.
- Customers installing PV can take advantage of Net Energy Metering (NEM), which allows eligible customers to receive credits for excess kWh produced by their PV systems and then to “bank” the credits for up to 12-months to offset the costs of kWh supplied by SDG&E.
- Through NEM, PV customers remain eligible for energy-efficiency programs and can receive incentives although with their PV, they can avoid the costs of funding these programs. In addition, NEM PV customers are exempt from paying stand-by and other charges that are not by-passable for customers using other types of electric generation technologies.
- SDG&E has established a streamlined service for interconnecting PV systems with its electric distribution system. In most cases, this service is provided free of charge to customers installing PV systems.

Before you go Solar

Explore ways to save energy, use energy more efficiently and reduce demand. This will help optimize the size and effectiveness of your PV system. SDG&E offers a variety of energy-efficiency and demand reduction programs. To learn more about these programs, contact SDG&E or visit sdge.com.

Get informed about the many important factors that can optimize the performance of your proposed PV system. You and your contractor should fully understand how electric rates apply to your solar project and how your electric usage patterns impact your overall utility bill. You should also be aware of the best practices for installing solar to ensure optimal system performance. Lastly, develop and implement a maintenance plan to keep your system running at maximum performance.

For more information

If you have any questions about what you’ve read, please call SDG&E at **1-800-411-7343** or visit sdge.com.

Answers to two very common questions about PV systems

Q. Is it true that I can eliminate all charges on my monthly electric bills from SDG&E by installing a PV system that supplies 100% of my annual electric consumption?

A. Although there are several saving opportunities, certain charges on your monthly electric bill are not avoidable. For instance, the monthly charge that recovers the costs to read your electric meter and send a bill each month. Another example is the demand charges associated with the cost of providing medium and large commercial customers with electric transmission and distribution services when their PV systems cannot meet their entire demand for electricity.

Q. How much can I save by installing a PV system?

A. There is no single answer to this question. There are a number of very important variables, such as the size and performance of the system and your specific electric usage patterns that impact the amount of savings. Through careful analysis and planning, many of SDG&E’s commercial customers have been able to substantially reduce their total monthly electric bills by using PV.