

SAEB Net Energy Metering



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SDG&E Cost Structure

SDG&E's rates recover costs incurred to provide four general categories of services:

- Customer Costs SDG&E incurs these costs on a fixed basis for each interconnected customer whether or not the customer uses electricity
- Distribution Demand Costs SDG&E incurs these on a fixed cost basis to the extent necessary to meet the combined non-coincident (maximum) demand of customers served off of a circuit
- System Capacity/Transmission Costs SDG&E incurs these on a fixed basis based upon the peak demand of the system
- Commodity Costs SDG&E generally incurs these on a variable cost basis and the cost depends on the time of delivery

With accurate price signals, these costs would be recovered from customers on the same basis as they are incurred



Net Energy Metering Pricing Today

NEM customers are compensated up to \$0.42 per kWh for energy, which is significantly higher than its actual value



- Currently Tier 3 & 4 rates average ~41¢/kWh
- Avoided cost of energy is ~5¢/kWh.
- NEM customers avoid paying the remaining costs of grid support, capacity, public programs, etc.
- Remaining costs not avoided by self generation are shifted to remaining customers

Solar Generation and Customer Demand





Developing a Rate Design for the Future



- Rates are intended to recover the cost of utility investments from customers based on the services customers receive from their utility
- The rapidly growing number of customers with Distributed Generation such as solar use the grid in new ways
 - The services they need and receive from their utility on an unbundled basis are also new (standby, reliability, storage and power quality)
 - They also can create unique grid benefits depending on location
 - In order to allow for long-term growth in the distributed solar market and other new technologies, it is necessary to update utility rate design
 - Rates must provide accurate unbundled price signals for the services utilities actually provide customers and for the benefits customers with new technologies create for the grid
 - Otherwise, customers that cannot afford new technologies will have to pay for the services provided to customers with new technologies and owners of new technologies may or may not be compensated for the system benefits they create
- Accurate price signals will maximize economic efficiency in long-term planning to meet the future energy needs of California
- To the extent DG subsidies are necessary, they should be clear and transparent rather than being hidden in the intricacies of utility rate design

The Utility of the Future Creating A Foundation that Allows Innovation and Customer Choice To Flourish





- An iPhone creates a platform for customization
 - Third parties develop apps that target services that customer's value
 - Customers love the iPhone because it allows them to customize their phone and their phone service
- The utility grid will do the same thing:
 - Some customers may want DG
 - Some may want an EV
 - Some may want distributed storage
 - Some may want to sell services to the grid
 - Some may want community solar
 - Others may want a green tariff from their utility, service from an ESP, or customary utility procurement service