

Options Being Considered as Alternatives to Traditional Net Metering

EUCI NEM Workshop

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As Many Options as States

- Continuation of Net Metering Unchanged
- Movement of Net Metering to TOU
- Modifications to Net Metering
 - California; Pedernales Electric
- Higher fixed or demand charges
 - Nevada
- Unbundled rate design / Value of Solar
 - Hawaii
 - Austin

Continuation of Net Metering (Unchanged)

- Definition:
 - Fixed or customer charges remain at the cost of billing and collection only (\$10 or less)
 - All distribution and power supply costs included in energy charges for residential consumers
 - Customer “nets” usage in each billing period.
 - No TOU features

Movement of Net-Metering to TOU

- Customer is net-metered by time period.
- Example:
 - Customer Charge \$8.00/month
 - Energy Charge (either direction)
 - Off-Peak: \$.08/kWh
 - On-Peak: \$.18/kWh
- Examples: California municipal utilities
 - On-peak may be defined at 6–9 AM; 5–9 PM

Modification of Net Metering California

- Retain low (or zero) fixed charges
- Modify the net-metering charge to reflect some cost removal:
 - System benefit charge
 - Nuclear decommissioning
 - Competitive Transition
 - DWR
- Mandatory TOU for SCE and PG&E

Modification of Net Metering Pedernales Electric (300,000 customers)

- Rate design has unbundled elements:
 - Customer Charge: \$20/month
 - Delivery Charge: \$.039/kWh
 - Energy Charge: \$.06/kWh
- Dual register meter: only the energy charge is credited for power exported
- Only the fuel rate (\$.0485) credited if < 0 kWh net usage.

Higher Fixed or Demand Charges Nevada

- Separate rate class for NEM customers.
- Distribution costs recovered in fixed charge.
- Generation and Transmission costs remain in kWh charge.
- Lower distribution pricing for multi-family dwellings

Higher Fixed Charges (Nevada)

	Single-Family	Single-Family NEM	Multi-Family	Multi-Family NEM
Customer Charge	\$12.75	\$17.90	\$9.00	\$11.51
Energy Charge	\$.106	\$.104	\$.099	\$.096
Excess Energy Credit		(\$.092)		(\$.086)

Residential Demand Charges

NEW Solar -- Salt River Project (Arizona)

- Customer Charge includes distribution costs
 - Under 200 Amp Service: \$32.44
 - Over 200 Amp Service: \$45.44
- Energy Charge:
 - Summer: On-Peak \$.049 Off-Peak \$.037
 - Jul/Aug: On-Peak \$.06 Off-Peak \$.039
 - Winter: On-Peak \$.043 Off-Peak \$.039

Customers with Pre-2014 systems are grandfathered on full NEM for 20 years

Residential Demand Charges Salt River Project (Arizona)

	First 3 kW	Next 7 kW	Over 10 kW
Summer	\$8.03	\$14.63	\$27.77
Winter	\$3.55	\$5.68	\$9.74

30-minute integrated demand

Customers with Pre-2014 systems are grandfathered on full NEM for 20 years

Value of Solar Rate: Austin, Texas

Austin Energy (Texas)

Key Features:

- Inclining block/seasonal rate
- Value of solar credit for PV exceeds initial block rate

		Summer	Winter
Customer Charge	\$/month	\$10.00	\$10.00
Usage Charges	\$/kWh		
	0 - 500 kWh	\$0.087	\$0.072
	500 - 1,000 kWh	\$0.134	\$0.110
	1,000 - 1,500 kWh	\$0.145	\$0.126
	1,500 - 2,500 kWh	\$0.164	\$0.138
	Over 2,500 kWh	\$0.168	\$0.150
Value of Solar Credit	\$/kWh	(\$0.107)	(\$0.107)

Grid-Supply Rate Option (Hawaii)

- Hawaii closed conventional net-metering to new customers.
- A limited number of customers allowed to connect with the Grid Supply rate (limit now reached in Maui).
- Other new customers can only connect with self-supply (non-export) rate.

Grid-Supply Rate (Hawaii)

Charges for all power received from grid	
Customer Charge	\$10.30
First 350 kWh	\$.234
Next 850 kWh	\$.246
Over 1,200 kWh	\$.265
Minimum bill:	\$17.00
Credit for all power delivered to grid	\$.151

RAP: Smart Rate Design for a Smart Future

Rate Element	Amount
Costs to connect to the grid - per month	
Billing and collection	\$4.00
Transformer Demand Charge	\$1.00/kVA
Power Supply and Distribution (both directions) - per kWh	
Off-Peak	7¢
Mid-Peak	10¢
On-Peak	15¢
Critical Periods	75¢

Summary

- Lots of options.
- Some are simple to understand; others are complex.
- Some invite PV; others discourage PV
- Some consider all benefits; some consider limited benefits.

About RAP

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- Promote economic efficiency
- Protect the environment
- Ensure system reliability
- Allocate system benefits fairly among all consumers

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