The Need for Reform in Pricing Rooftop Solar

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Retail Net Metering – The History

- Relic of Yesterday’s Market
  - Dumb Meters
  - Primitive Solar Technology
  - Low Market Penetration

- Lone Policy Rationale
  - Support for Embryonic Industry
Critical Characteristics of Distributed Solar

- No Emissions in Producing Energy (Full business cycle is not carbon neutral)
- Two-fold Intermittency (On-site Usage and Presence of Sun)
- Mostly Off-Peak (Low Capacity Value)
Critical Characteristics of Distributed Solar

- Highest Price Commonly Utilized for Renewable Resource
- Very Difficult to Do Locational Planning
- Inefficient in Reducing Emissions
Effects of Retail Net Metering

- Solar Hosts Avoid Paying Fair Share of Fixed and Capacity Costs
- Heavy Revenue Burden Passed on to Non-Solar Customers
- Socially Regressive
- Non-Solar Customers Compelled to Pay Retail Price for Wholesale Product
Effects of Retail Net Metering

- No Incentives for Productivity Gains (e.g. western exposure, smart inverters)
- Drives Up Price for Rooftop Solar (Compare Price trends with Large Scale Solar)
- Increases Profitability for Solar Companies but Bodes Ill for Future of Solar
Value of Solar Issues

- Displaces Alternative Energy, Although Not Necessarily “Dirtier” Energy

- Does Not Avoid the Need for new Generation or Transmission Capacity

- Transmission Congestion Reduction Theoretically Possible but Entirely Dependent on Time and Location
Value of Solar Issues

- Distribution Benefits Theoretically Possible, but Entirely Dependent on Time and Location
- No Hedge Value
- Uncertain Environmental Benefits If Obtained, Only at High Cost
Better Options for Solar DG

- Time Sensitive Pricing (Optimally LMP)
- Three Part Tariff: Fixed, Demand, Energy for Solar Customers