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Making (and Saving) Money While the Sun Shines: A Public / Private Partnership Financing Model to Promote Large-scale Installation of Solar Power in Urban America

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Identifying the Problem

- How do we make solar power affordable and cost-effective for individual homeowners and commercial tenants on a monthly basis?
- How do we create financial incentives for developers to go green in residential and commercial developments?
- How do we incentivize cities to provide low cost financing for large scale installation of solar power?

Seeing the Light…Structuring the Solution

- City-established special “solar” zones to attract new developers, homeowners, and commercial tenants to vacant parcels.
- Green developers in solar zones eligible for 100% long-term, low-cost financing for installation of community solar arrays (roof tops and parking canopies) funded through issuance of municipal revenue bonds.
- Initial ownership / debt in installed solar PV panel arrays vests in developer (net metering = surplus power = positive cash flow).
- Incremental ownership / debt in installed solar power generation transferred to homeowners / commercial tenants on *pro rata* basis (condominium style).
- Efficiencies of scale drive down installation costs.

Change You Can Believe In…How to Make It Happen

- Conduct a financing model feasibility study
  - Establish optimal economies of scale to minimize installation costs per watt of power generated
  - Establish mathematical “sweet spot” for length of financing term and interest rates
  - Establish developer focus groups
  - Establish bond market receptiveness
- Issue SunShot RFP to fund urban pilot project(s) for municipal bond financing of large-scale solar installations.

Follow the Money… The Rx for Success

- Current assumptions:
  - Current installed cost of PV system at $4.50 / watt
  - Avg. home consumption is 2000 kWh per mo. @ 9 ¢ per kWh
  - Soft costs account for 40% or total installed cost
  - 25% reduction in installation costs for single home (installation / hard cost is 60 % of total cost)
  - Electricity consumption reduced by 33% by solar (660 kWh)
  - 50% increase in kW hours produced per household via community garden / common area condo ownership concept (1320 kWh)
  - Net metering credits for surplus power generation
- Projected Cost Savings Per Watt : **$0.45 to $0.68**
- **BUT… Is there a better yardstick for success? Savings in monthly electric bill $$$ vs. common area fee increase; potential for positive cash flow in early stages of development.**

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