ASU Sustainable Cities Network - Solar & Energy Efficiency Workgroup

August 13, 2013
Agenda

- About SolarCity
- Electricity Rates and Trends
- Government Incentives
- Financing Options
- Client Case Studies
About SolarCity
SolarCity

- The leading solar service provider in the U.S.
  - More than 30,000 projects completed or underway
  - Serving 14 states nationwide—AZ, CA, CO, CT, DE, HI, MA, MD, NJ, NY, OR, PA, TX, WA and Washington DC and Ontario, Canada
- 1,800+ Employees
- Raised $1.4 billion in structured financing
Benefits of SolarCity’s Integrated Approach

- SolarCity provides a single source for solar financing, engineering design, installation, monitoring and maintenance
- Better customer experience with single point of contact
  - Reduce financing risk
  - Access to market-leading, most appropriate and cost-effective technology
  - In-house system design for quality control
  - Proprietary monitoring technology
Electricity Rates & Trends
Arizona Electricity Generation Mix

- Arizona generates over 70% of its electricity from fossil fuels

Data Source: Energy Information Administration, Jul 10
TEP Electricity Generation Mix

- TEP generates almost 100% of its electricity from fossil fuels

Data Source: Unisource, March 2010
Increasing Cost of Electricity in Arizona

Data Source: Energy Information Administration
Government Incentives
## AZ Government Incentives (APS Commercial)

Government incentives can reduce the system cost by as much as 100%

<table>
<thead>
<tr>
<th>Less Utility Rebate</th>
<th>~40% of Project Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less Federal Tax Credit</td>
<td>Can be Cash Grant 30% of Project Value</td>
</tr>
<tr>
<td>Less State Tax Credit</td>
<td>$25,000 Cap 10% of Project Value</td>
</tr>
<tr>
<td>Less Depreciation Savings</td>
<td>5 year MACRS Depreciation ~25% of Project Value</td>
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</table>

**GROSS SYSTEM COST**

**NET SYSTEM COST**
Government incentives can reduce the system cost by as much as 100%
Financing Options
How a Power Purchase Agreement (PPA) Works

- SolarCity installs & maintains a solar system on your site
  - You simply “host” the system and only pay for the electricity you produce and use

- No upfront cost and immediate payback
  - SolarCity can fully leverage gov’t incentives and depreciation which you may not qualify for on your own. This lowers the overall PPA price.

- Reduced electricity costs
  - New lower utility bill + PPA payment < old utility bill

- Lock in electricity rates for the next 20 years
  - Protect against utility rate escalation and uncertainty
Purchase vs. Power Purchase Agreement

- **Purchase System**
  - Energy savings pay off cost of system over time

- **Power Purchase Agreement**
  - Free installation and lower rate for solar electricity than current utility rate
# Cash Purchase vs. Power Purchase Agreement

<table>
<thead>
<tr>
<th>Financial Considerations</th>
<th>Cash Purchase</th>
<th>PPA</th>
</tr>
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<tbody>
<tr>
<td>Upfront Cost</td>
<td>Full Price $0</td>
<td>$0</td>
</tr>
<tr>
<td>Monthly Solar Cost</td>
<td>Only pay for power used each month</td>
<td></td>
</tr>
<tr>
<td>Government Incentives</td>
<td>30% credit</td>
<td>All incentives included to lower price</td>
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<tr>
<td>Federal tax credit</td>
<td>Paid to owner</td>
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<tr>
<td>State, local &amp; utility rebates</td>
<td>5 year to MACRS</td>
<td></td>
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<tr>
<td>Depreciation benefit</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Premium Services</td>
<td>5 years</td>
<td>20 years</td>
</tr>
<tr>
<td>Monitoring service</td>
<td>10 years</td>
<td>20 years</td>
</tr>
<tr>
<td>Repairs under warranty</td>
<td>Company</td>
<td>SolarCity</td>
</tr>
<tr>
<td>O&amp;M responsibility</td>
<td></td>
<td></td>
</tr>
<tr>
<td>System Considerations</td>
<td>Own for 30+ years</td>
<td>“Host” for 20 years</td>
</tr>
<tr>
<td>System ownership</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Option to upgrade later</td>
<td></td>
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</tbody>
</table>
Pre-pay Power Purchase Agreement

- **PPA**
  - Free installation and lower rate for solar electricity than current utility rate

- **Pre-Pay PPA**
  - Buy system output up front to receive discounted rate

![Utility Cost and Solar Cost Comparison](image-url)
SolarCity Client Case Studies
City of Chandler – City Hall Parking Garage
City of Chandler – Police & Courts Facility
Navajo County
City of Globe