



SOLAR AMERICA COMMUNITIES

What's holding us back?

Or, if solar is so great, why isn't it on my roof?

**“Solar as Sustainability Approach in the Metropolitan
Washington Region”**

October 6, 2011

Washington, D.C.

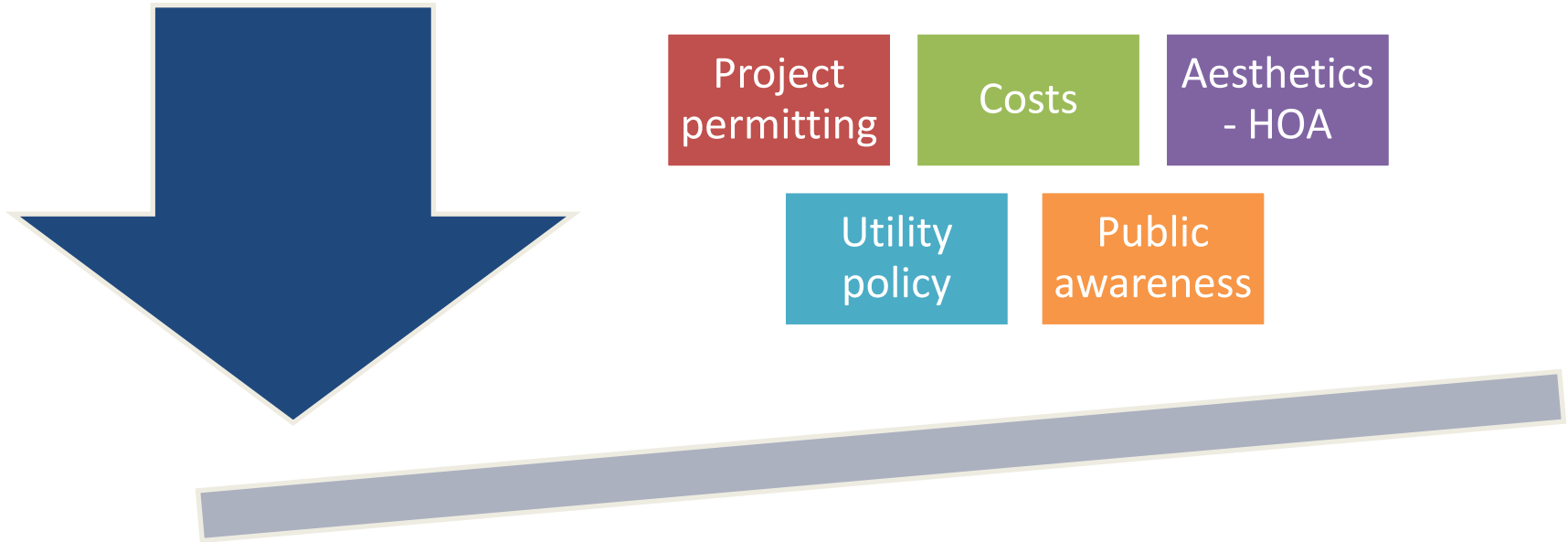
About Solar America Communities

Solar America Communities is a U.S. Department of Energy (DOE) program designed to increase the use and integration of solar energy in communities across the United States. The International City-County Management Association (ICMA) and ICLEI-Local Governments for Sustainability were competitively selected by DOE to conduct outreach to local governments across the United States, enabling them to replicate successful solar practices and quickly expand local adoption of solar energy. **For more information visit www.solaramericacommunities.energy.gov.**

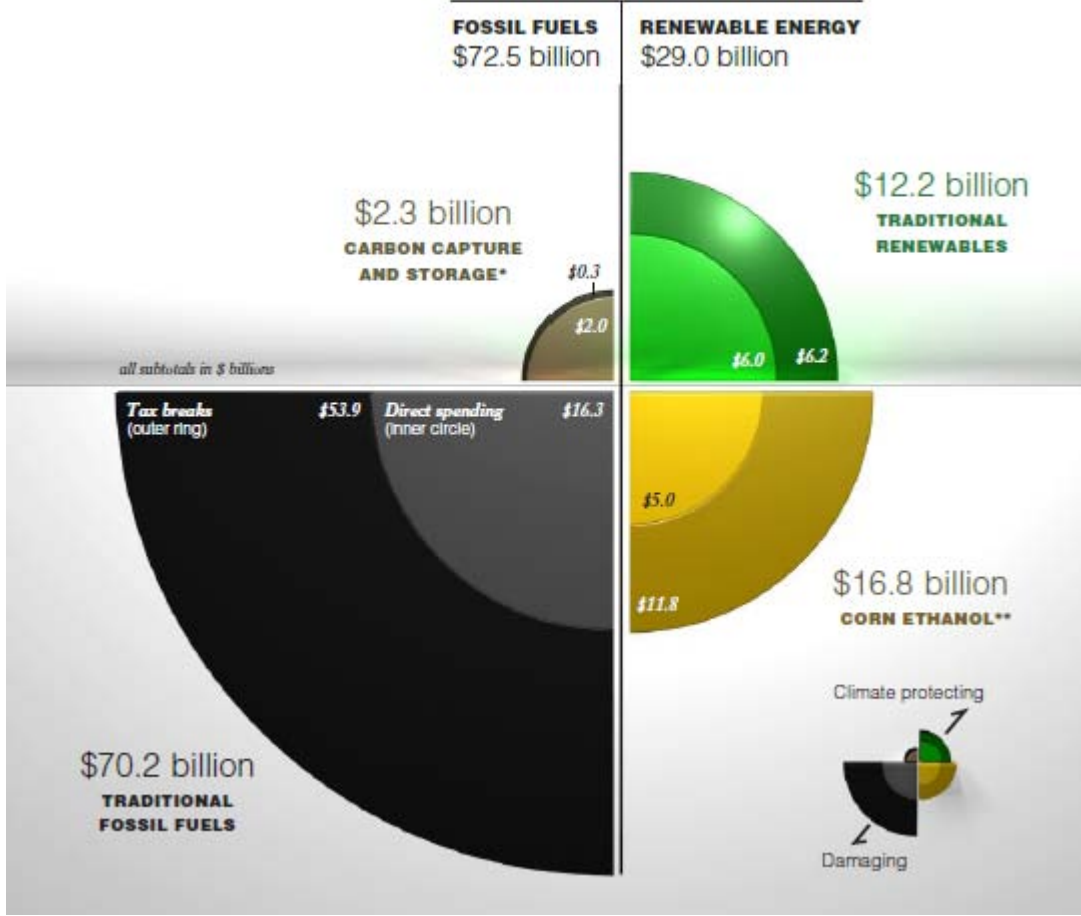
PARTICIPATING ORGANIZATIONS



Why Isn't Solar More Widely Adopted?



Federal Subsidies (2002-08)



Source: Environmental Law Institute



**Myths and
Misconceptions
and lack of
awareness.**

- It's not sunny enough where I live
- It takes up too much land
- I should wait because a better technology is around the corner
- It causes too much glare

All of these are False!

What's True?




**Solar can be
expensive**

People are not used to paying for 25 years of electricity up-front

Up-front cost for residential PV systems can be between \$5,000-\$15,000 after rebates and incentives.

I might not stay in my home long enough for the system to payback. 6-15 year payback might seem too long.




Is my home
“solar ready?”

Can I even put solar on my roof?

Expensive roof repairs?
Electrical upgrade?
Getting everything up-to-
code?



Panels on hurricane damaged roof in Florida. From One Block off the Grid:
<http://1bog.org/yes-solar-panels-can-survive-a-hurricane/>




**Local utility is
unfamiliar with
the process**

Can I connect to the grid?

Ground level disconnect?
Can I get net-metering?
Interconnection costs?

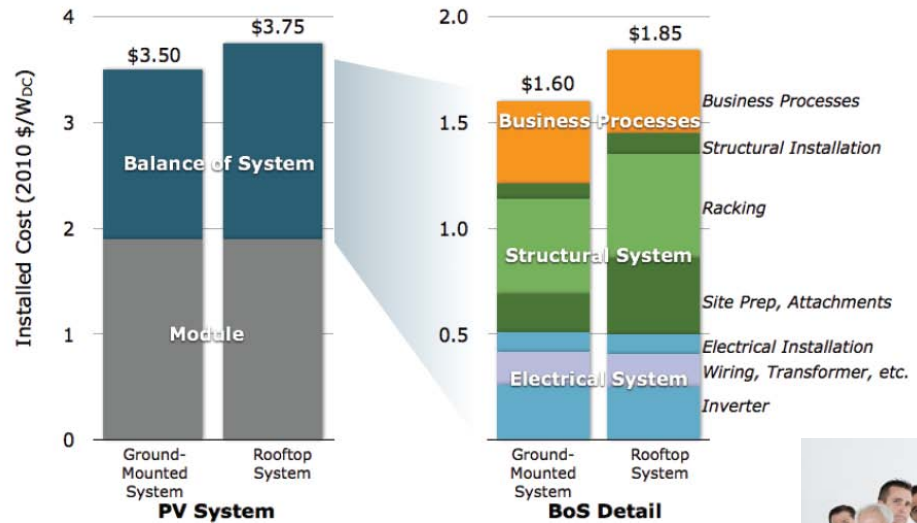
DISTRICT OF COLUMBIA							
NET METERING				INTERCONNECTION			
F	C	B	B	F	F	B	B
2007	2008	2009	2010	2007	2008	2009	2010
Eligible Renewables/ Other Technologies:		Solar Thermal Electric, Photovoltaics, Wind, Biomass, Hydroelectric, Geothermal Electric, Fuel Cells, CHP/ Cogeneration, Anaerobic Digestion, Small Hydroelectric, Tidal Energy, Microturbines		Eligible Renewables/ Other Technologies:		Solar Thermal Electric, Photovoltaics, Landfill Gas, Wind, Biomass, Hydroelectric, Geothermal Electric, Fuel Cells, Municipal Solid Waste, CHP/Cogeneration, Anaerobic Digestion, Small Hydroelectric, Tidal Energy, Wave Energy, Ocean Thermal, Microturbines, Other Distributed Generation Technologies	
Applicable Sectors:		Commercial, Residential		Applicable Sectors:		Commercial, Industrial, Residential, Nonprofit, Schools, Local Government, State Government, Fed. Government, Institutional	
Applicable Utilities:		Investor-owned utilities		Applicable Utilities:		Investor-owned utilities	
System Capacity Limit:		1 MW		System Capacity Limit:		10 MW	
Aggregate Capacity Limit:		No limit specified		Standard Agreement:		Yes	
Net Excess Generation:		Credited to customer's next bill at the full retail rate for systems 100 kW or less or at generation rate (i.e., avoided cost) for systems larger than 100 kW; credits may be carried forward indefinitely		Insurance Requirements:		Vary by system size and/or type; levels established by commission	
REC Ownership:		Customer and utility own RECs		External Disconnect Switch:		Not required for inverter-based systems up to 10 kW; required for all other systems	
Meter Aggregation:		Not addressed		Net Metering Required:		No	
Recommendations: <ul style="list-style-type: none"> Remove system size limits and allow systems to be sized to meet on-site load Adopt safe harbor language to protect customer-sited generators from extra and/or unanticipated fees Allow customers to retain RECs 				Recommendations: <ul style="list-style-type: none"> Further delineate tiers to accommodate different levels of complexity among system types and sizes Prohibit requirements for redundant external disconnect switch Prohibit requirements for additional insurance 			
<p>Net metering is currently available to D.C. residential and commercial customer-generators with systems powered by renewable-energy sources, combined heat and power (CHP), fuel cells and microturbines. Legislation enacted in October 2008 expanded the limit on individual system size from 100 kW to 1 MW. A 2008 PSC order clarified that NEG for small DG systems is credited at the full retail rate during a billing cycle. In February 2009 the D.C. PSC issued an order establishing interconnection procedures for systems up to 10 MW, using a four-tiered approach to screening criteria. These tiers specify a process for non-exporting systems and those connecting to networks.</p>							



**Local
jurisdiction
paperwork.**

Red tape for Green energy

- Special permit requirements?
- Fire setbacks?
- Multiple permits and inspections
- Permitting delays
- Local building officials unfamiliar with the technology or local installers





Not allowed in
my
neighborhood...



- Homeowner's Association restrictions
- Historic district restrictions
- Aesthetic complaints

Additional Barriers...

- Difficulty of coordinating efforts regionally
- Territorialism/Competition between neighbors
- Strong Anti-Regulation Sentiment
- Neighborhood Association Pushback

Questions

www.SolarAmericaCommunities.energy.gov