



U.S. DEPARTMENT OF  
**ENERGY**

Energy Efficiency &  
Renewable Energy



Solar Energy Technologies Program

# *SunShot: Balance of System Process Costs*

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February 9, 2011

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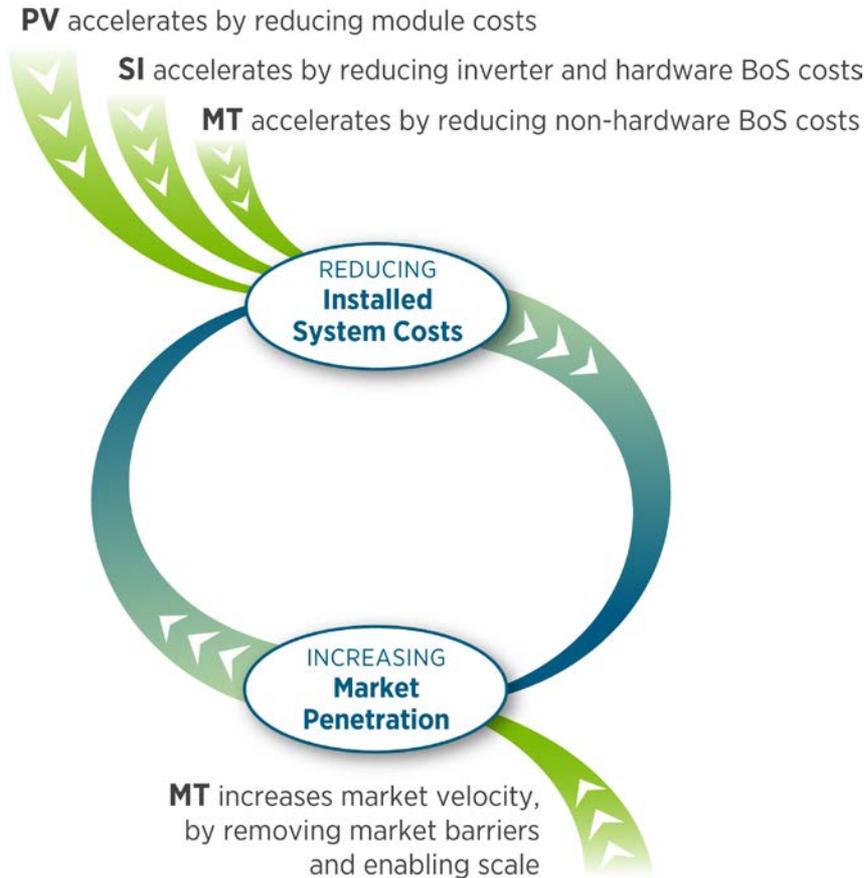
- Introductions: Key Staff and Participants
- Review Agenda and Structure for the Day
- DOE Solar Program Structure
- Focus on Balance of System Process Costs
- Data Needs
- Questions

# DOE Solar Program's Sub-Elements



# Relationship between Market Penetration and Installed System Cost

Activities that work towards reducing installed system cost and those that work toward increasing market penetration, have a reinforcing effect in the marketplace.



## Interdependence of Installed System Cost and Market Penetration

- With reduced installed system cost market adoption will generally increase, thus increasing market penetration.
  - The MT program can help reduce the non-hardware BOS cost components of an installed solar system (e.g., cost associated with permitting, interconnection and installation)
- With increased market penetration, the installed system cost generally falls due to scale.
  - The MT program can help increase market penetration by reducing market barriers such as lack of customer access to solar and unfavorable net-metering policies.

# DOE Approach to Reducing Non-Hardware BoS Costs

GOALS

MT PROGRAM SCOPE:  
Increase Market Penetration

Reduce BOS Costs  
(Non-Hardware Components)

**REDUCE:**

Customer acquisition costs

Financing and contracting costs

System design and engineering costs

Permitting, interconnection,  
and inspection costs

Installation costs

O&M costs

Market Barriers

**ACCELERATE**

Favorability of policy and regulatory  
environment for solar

Business and customer maturity

Through economies of scale, increased market penetration will reduce *all* LCOE inputs, not just the non-hardware components.

OBJECTIVES

- **Establish an accurate baseline against which cost reductions can be measured.**
- **Need:** Aggregate data from solar installers, local governments, utilities and others on BoS costs (itemized), based on varying system sizes and locations.
- **Purpose:** Quantify the impacts of process improvements on costs.
- **Key questions to consider:**
  1. What is the best way for DOE to work with stakeholders to gather this data on an ongoing basis?
  2. Are there data not being requested that would be helpful in quantifying the current costs as well as cost reductions?

# QUESTIONS?

