



U.S. DEPARTMENT OF  
**ENERGY**

# **Federal Government Financing Programs for Energy**

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Special Advisor for Finance  
Office of the Secretary

September 23, 2015

# My Background

- Currently: Advisor to the Secretary of Energy on Finance & Investment in Clean Energy (2012-Present)
- Past:
  - MBA/MS, Stanford University
  - BA, University of Virginia
  - White House National Economic Council
  - Senior Consultant, Booz Allen Hamilton
  - Co-Founder/CFO, Editas



# Overview: U.S. Department of Energy



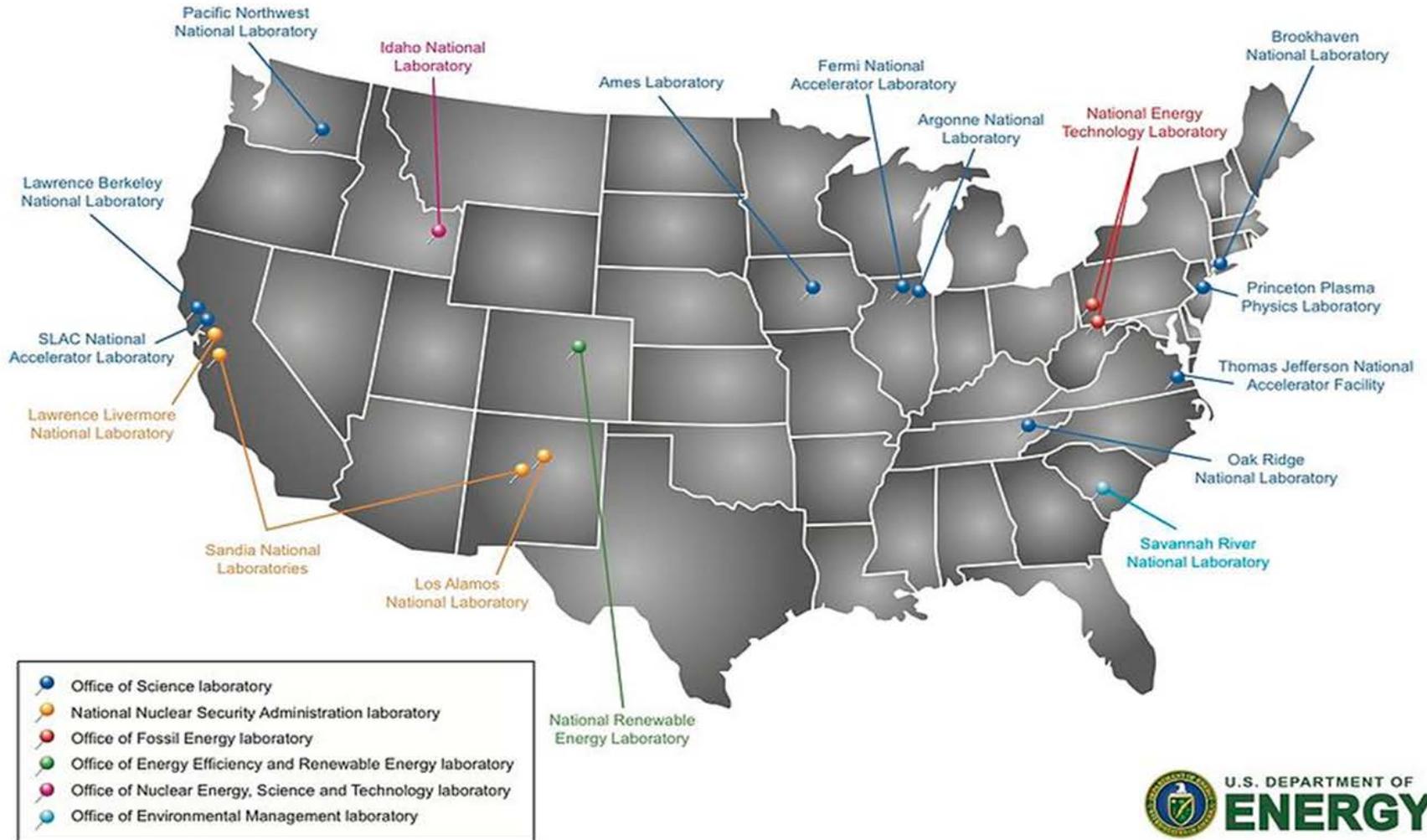
Dr. Ernest Moniz, U.S. Secretary of Energy

## Department of Energy at a Glance:

- Mission: To ensure America's security and prosperity by addressing its energy, environmental and nuclear challenges through transformative science and technology solutions.
- Budget: \$27.2 billion (FY 2014)

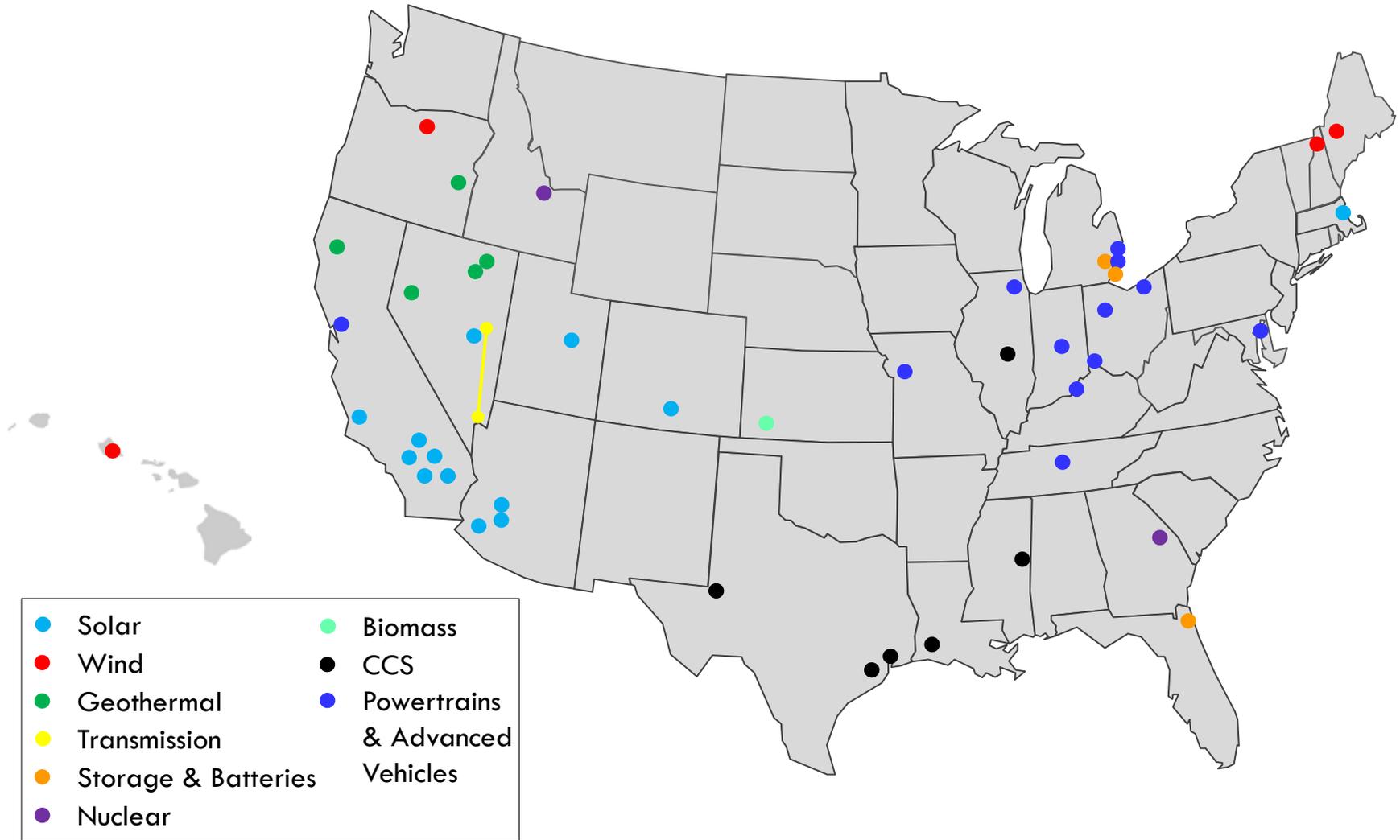


# Department Of Energy National Laboratories



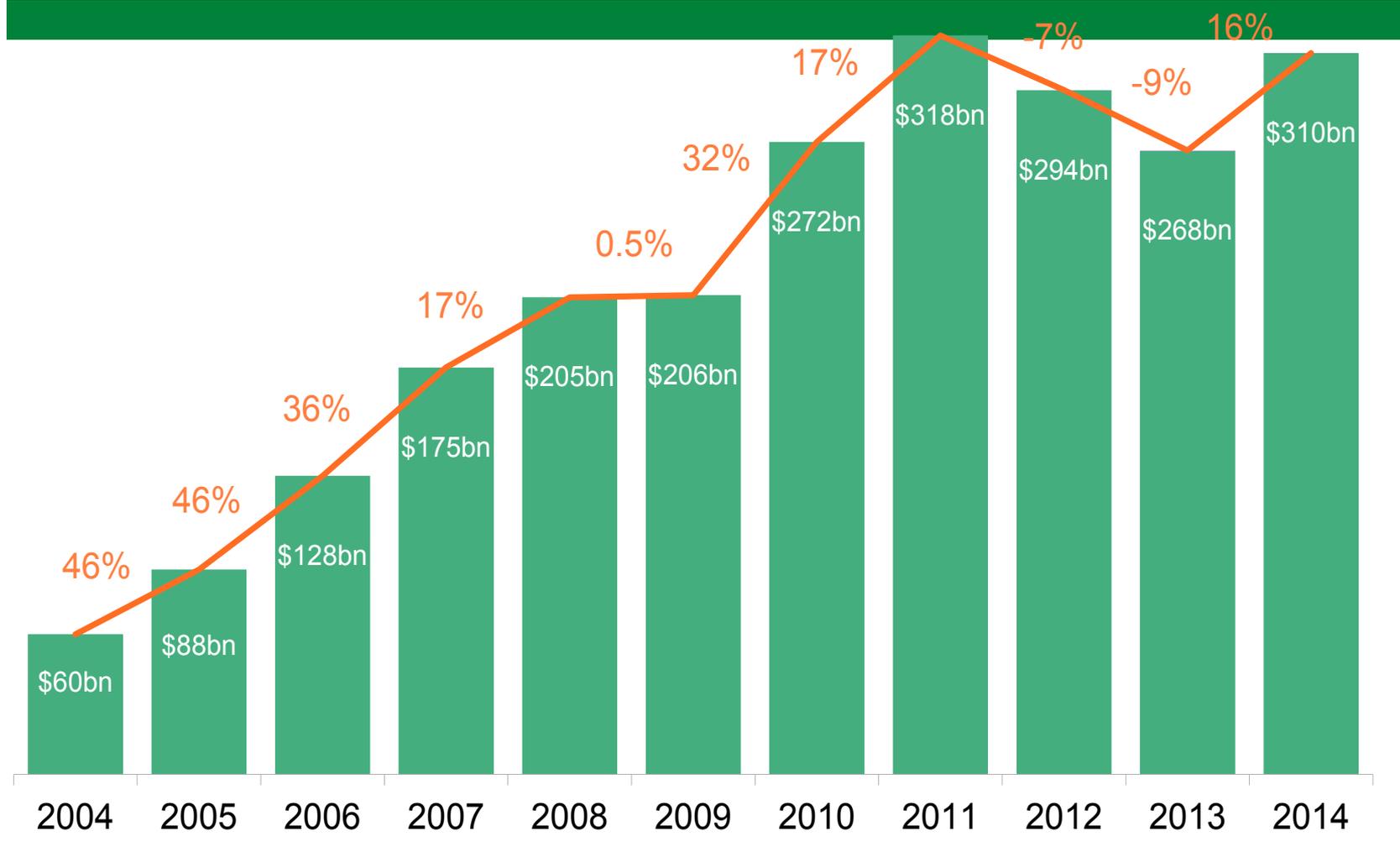
**DOE's 17 National Laboratories are the largest supporter of basic research in physical sciences in the United States.**

# Diverse Mix of DOE-Financed Energy Technologies



# New Investment in Clean energy

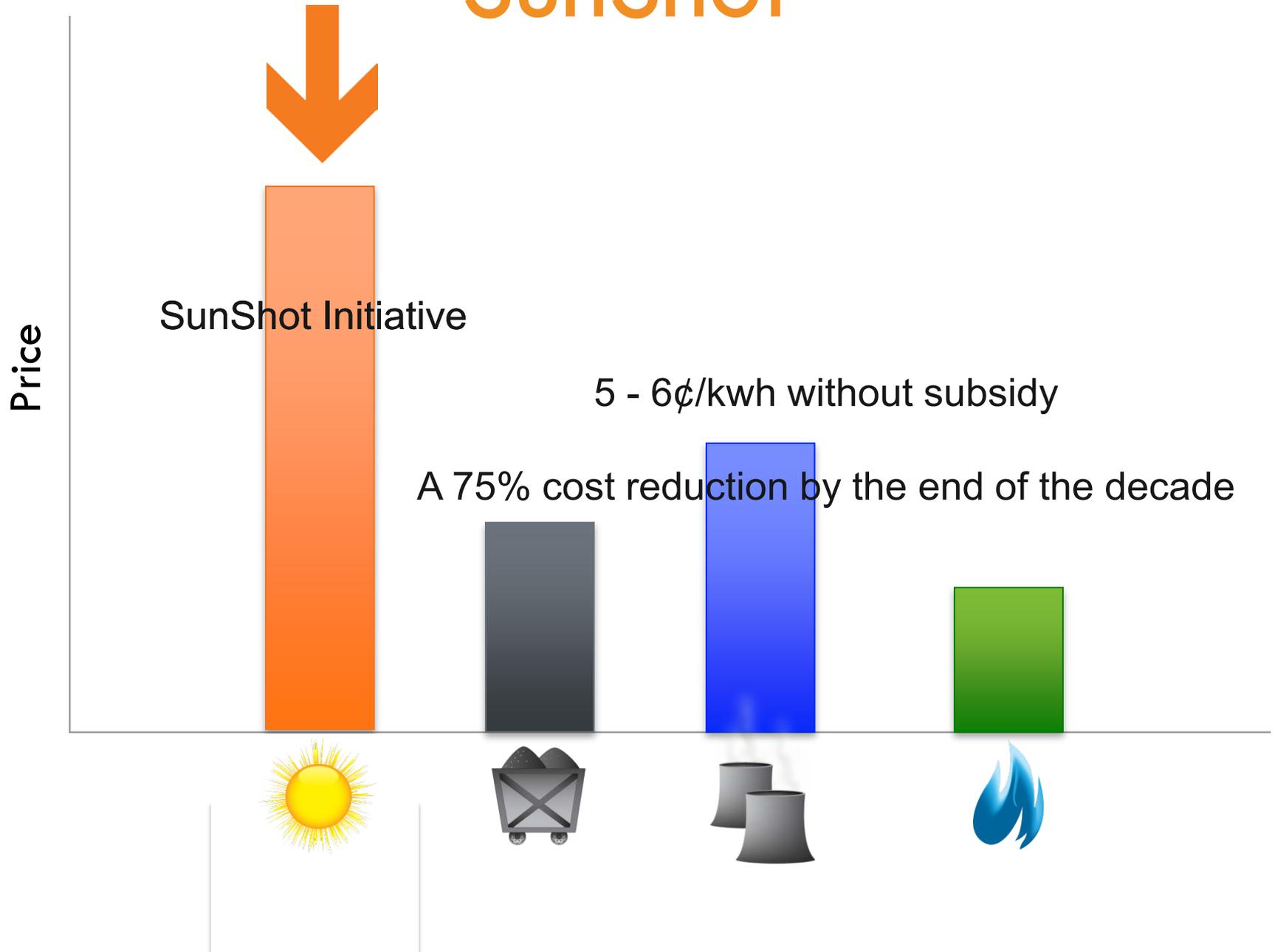
2004-14 (\$bn)



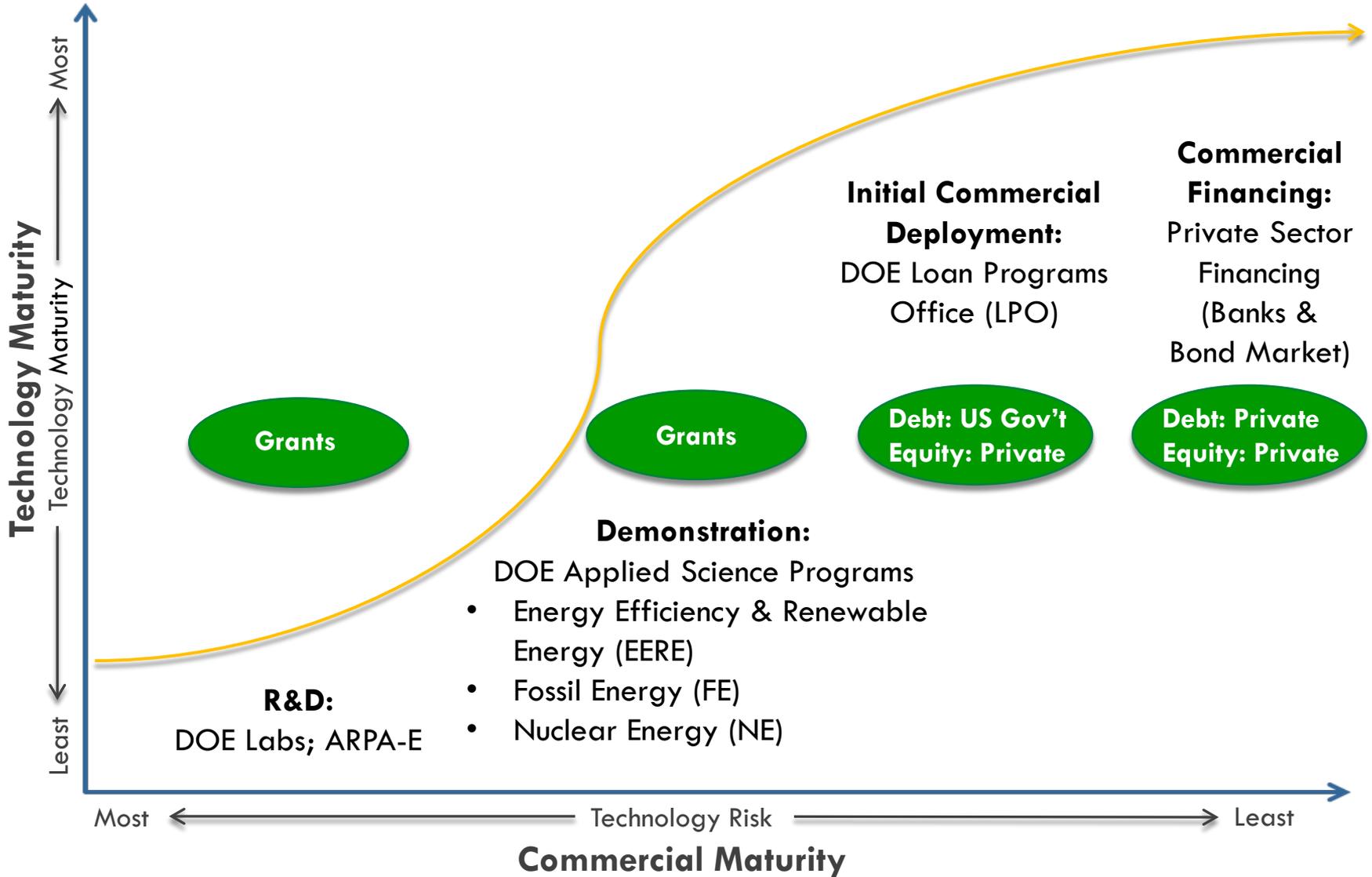
Note: Total values include estimates for undisclosed deals. Includes corporate and government R&D, and spending for digital energy and energy storage projects (not reported in quarterly statistics).

Source: Bloomberg New Energy Finance

# SunShot



# DOE Programs Support the Full Arc of Commercialization



# Examples of DOE Financing Activity

- **Grants and Cooperative Agreements**
  - \$35 billion assigned to DOE through Recovery Act (2009) that supported more than \$80 billion in capital investment
  - Support to technologies including:
    - Coal Carbon Capture and Storage
    - Renewable Energy (Solar Photovoltaic, Solar Thermal, Wind, Geothermal, Biofuels)
    - Grid Technology (including Smart Meters)
    - Energy Efficiency upgrades
  
- **Loan/Loan Guarantee Solicitations (Active)**
  - Advanced Fossil Energy Solicitation (\$8 billion)
  - Renewable Energy and Energy Efficiency Solicitation (\$4 billion)
  - Advanced Technology Vehicle Manufacturing Loans (\$16 billion in available authority)
  - Nuclear Energy Technology (\$12 billion)



# Resources: Financing Opportunities

**USDA** U.S. Small Business Administration  
**SBA**  
Your Small Business Resource

DEPARTMENT OF ENERGY  
DEPARTMENT OF COMMERCE  
DEPARTMENT OF AGRICULTURE  
DEPARTMENT OF THE INTERIOR  
DEPARTMENT OF JUSTICE  
DEPARTMENT OF LABOR  
DEPARTMENT OF TRANSPORTATION  
DEPARTMENT OF HEALTH AND HUMAN SERVICES  
DEPARTMENT OF EDUCATION  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT  
DEPARTMENT OF JUSTICE  
DEPARTMENT OF LABOR  
DEPARTMENT OF TRANSPORTATION  
DEPARTMENT OF HEALTH AND HUMAN SERVICES  
DEPARTMENT OF EDUCATION  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

**Guide to Federal Financing  
for Energy Efficiency  
and Clean Energy Deployment**

September 2014

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U.S. DEPARTMENT OF **ENERGY** Energy Efficiency & Renewable Energy

IREC  
INTERSTATE RENEWABLE ENERGY COUNCIL

NC CLEAN ENERGY  
TECHNOLOGY CENTER

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U.S. Territories

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# BACKUP

# White House Summit (June 2015)



*“You have the capacity to fundamentally change our direction... We need you to continue to work to bring even more philanthropies and investors on board.”*

**- Vice President Biden, June 16, 2015**

## White House Clean Energy Investment Summit

- \$4 billion in private sector investment commitments
- More than 100 private sector participants
- Coverage from sources including:
  - Fortune
  - ABC News
  - Wired Magazine
  - Bloomberg
  - The Guardian

February 10:  
ARPA-E Summit  
Announcement

February 26:  
DOE SLAC  
Roundtable

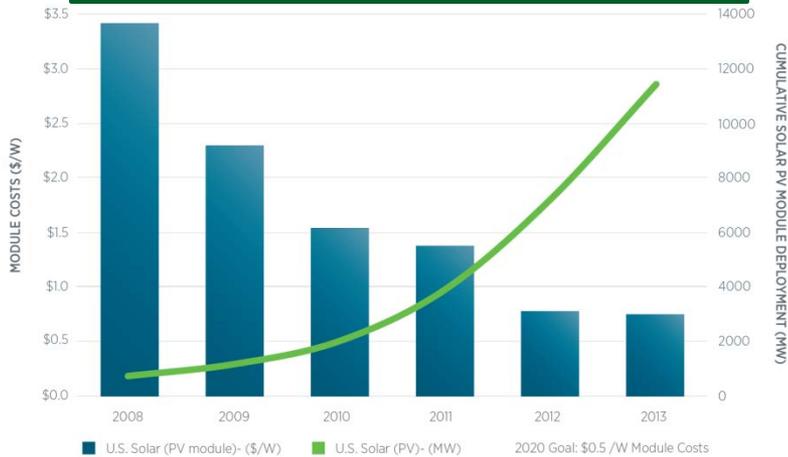
April 6: DOE  
NYC  
Roundtable

April 21-22:  
Chicago Event

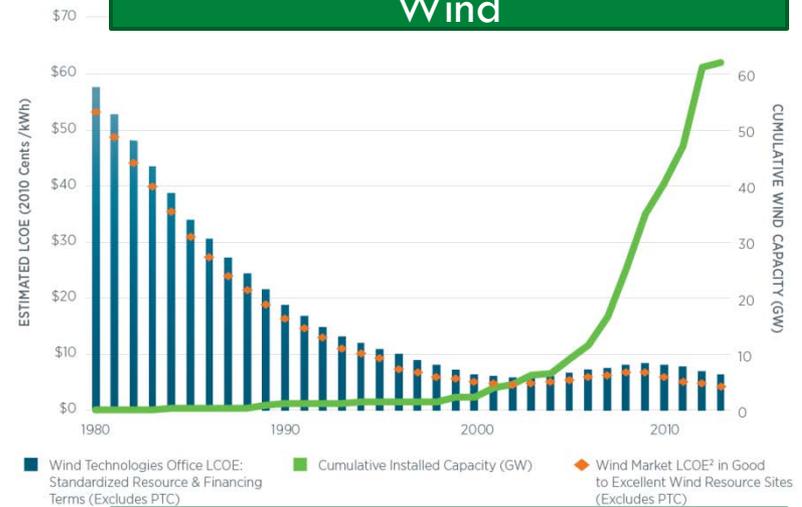
June 16: White  
House Summit

# Revolution Now Report: Exciting Future from Economies of Scale

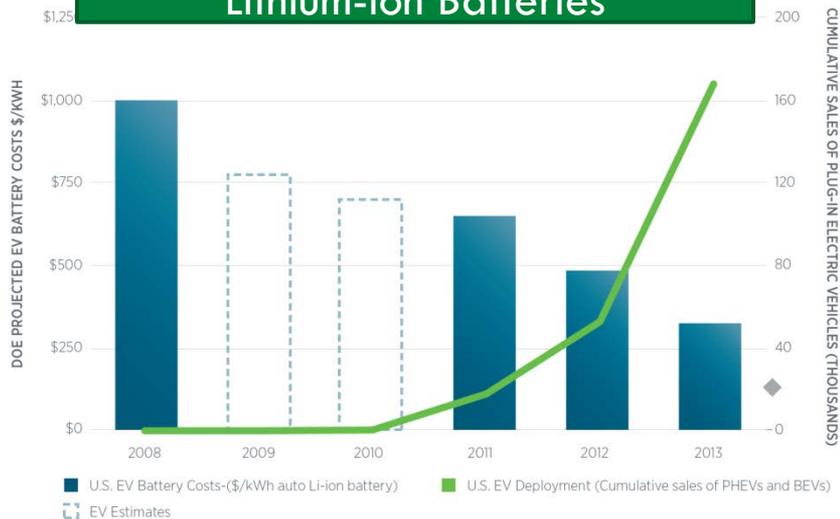
## Solar PV



## Wind



## Lithium-Ion Batteries



## LED Lighting

