



# The Solar Climate Solution

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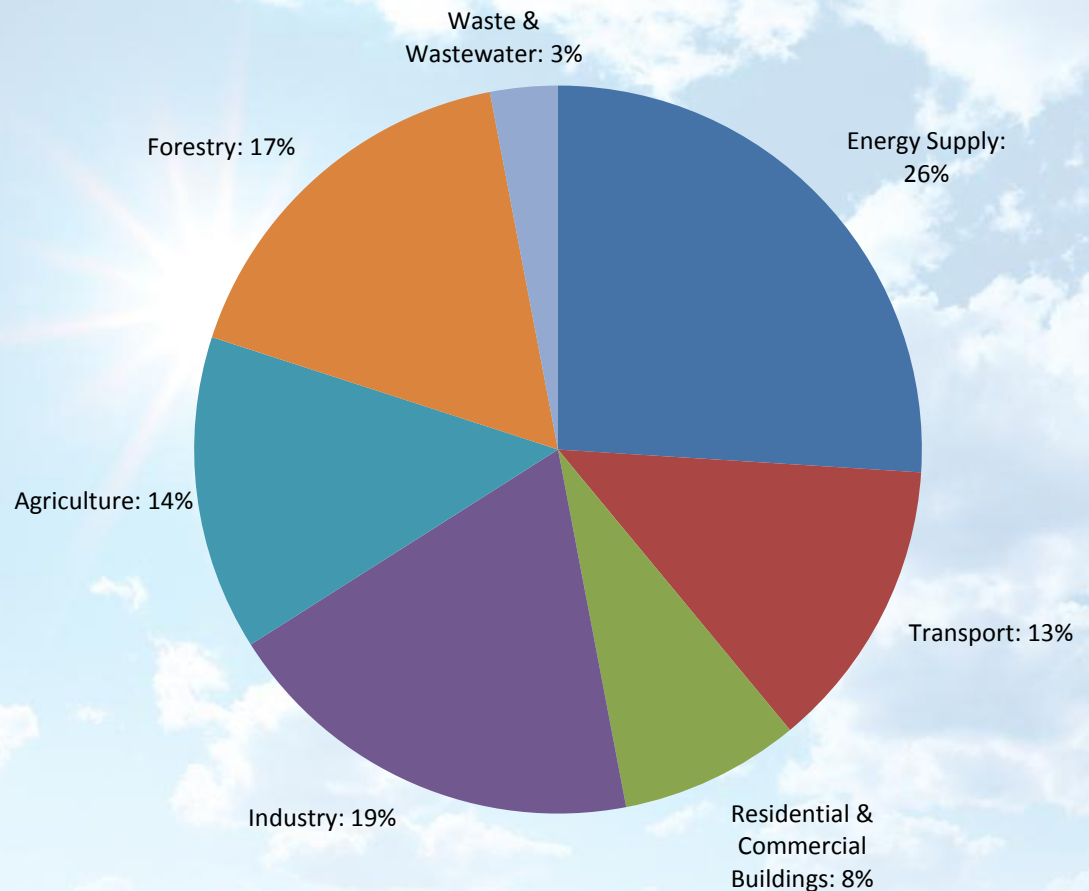
# About SEIA

- U.S. National Trade Association for Solar Industry
  - 1,000 member companies
  - 14 state and regional chapters
  - 93,000 people employed in the U.S. across the solar value chain
- SEIA's Mission
  - Build a strong solar industry to power America.
- Voice of Solar in U.S.
  - We represent the solar industry's interests in the U.S.

# Energy Use at Heart of Climate Change

- Globally, energy supply is the number one source of GHG emissions, and thus the sector with the most dramatic opportunity to affect future change.

**Global Anthropogenic GHG Emissions by Sector (2004)**



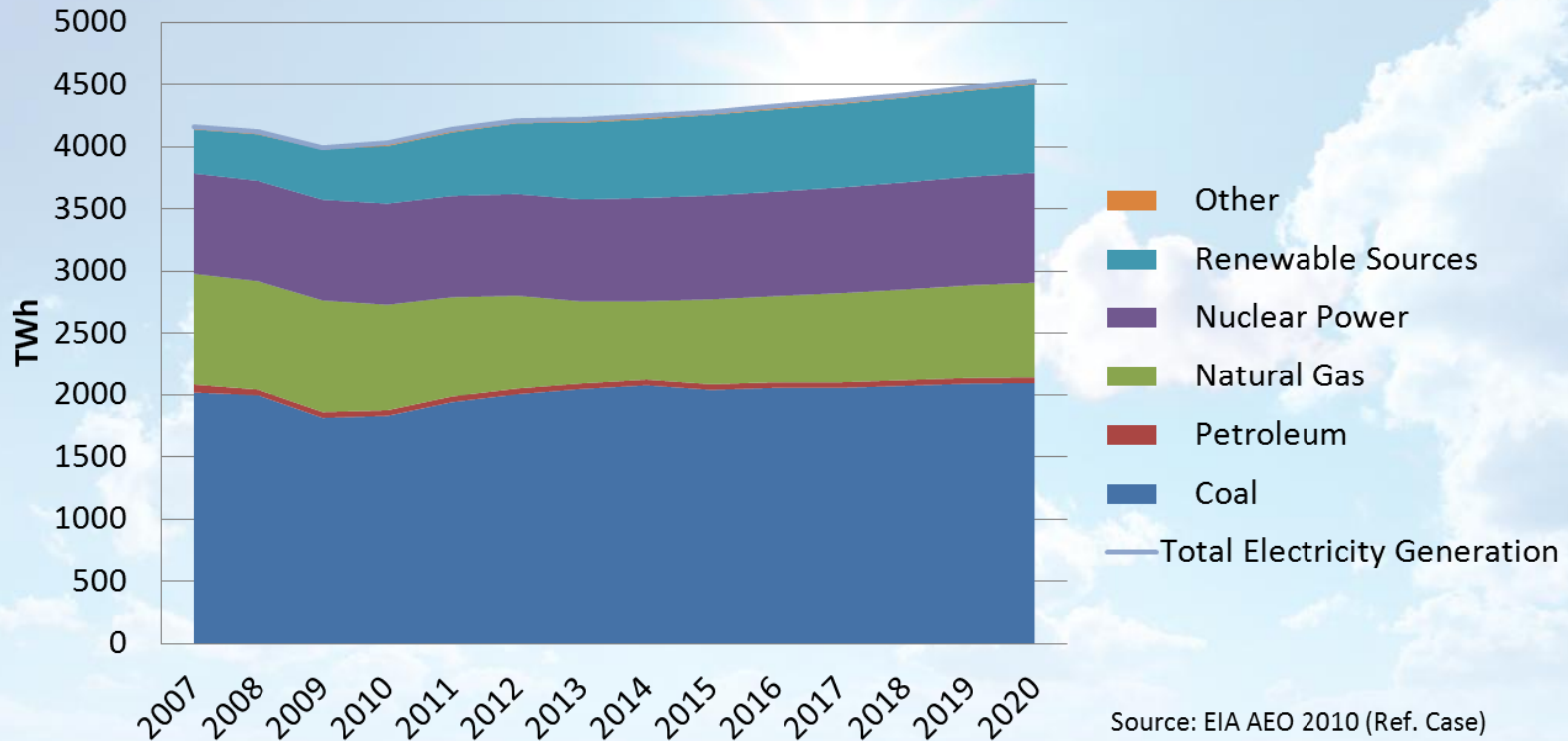
Source: IPCC Assessment Report 4 (2007), Summary of Policymakers: Figure SPM 3

\*Forestry includes deforestation

## The Same is True in the U.S.

- The U.S. emits 0.55 metric tons of CO<sub>2</sub>-e/MWh, with most of the emissions from coal.
- Without policy changes, fossil fuels, led by coal, will continue to dominate energy supply.

U.S. Electric Generation by Source (Baseline)



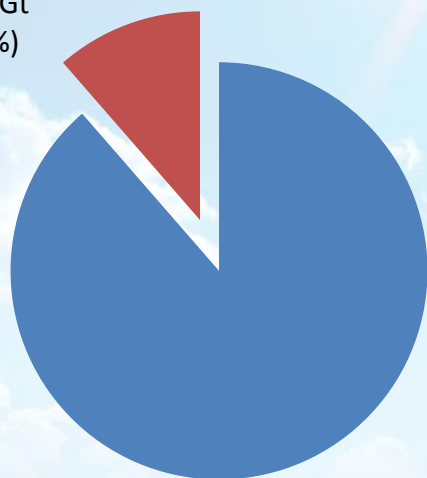


# Solar Is a Substantial Part of the Climate Change Solution

- Global solar associations have a combined goal of ~1,000 GW of solar installed by 2020
- Reduces carbon emissions by more than ½ gigaton (Gt) annually
- To achieve the 450 ppm target, the world needs to reduce emissions from the energy sector by 5-7 Gt of CO<sub>2</sub>e per year by 2020<sup>1</sup>

Carbon Reduction Needed to Stabilize  
Climate

Solar Goal:  
0.57 Gt  
(13%)



Other  
Technologies:  
4.43 Gt  
(87%)

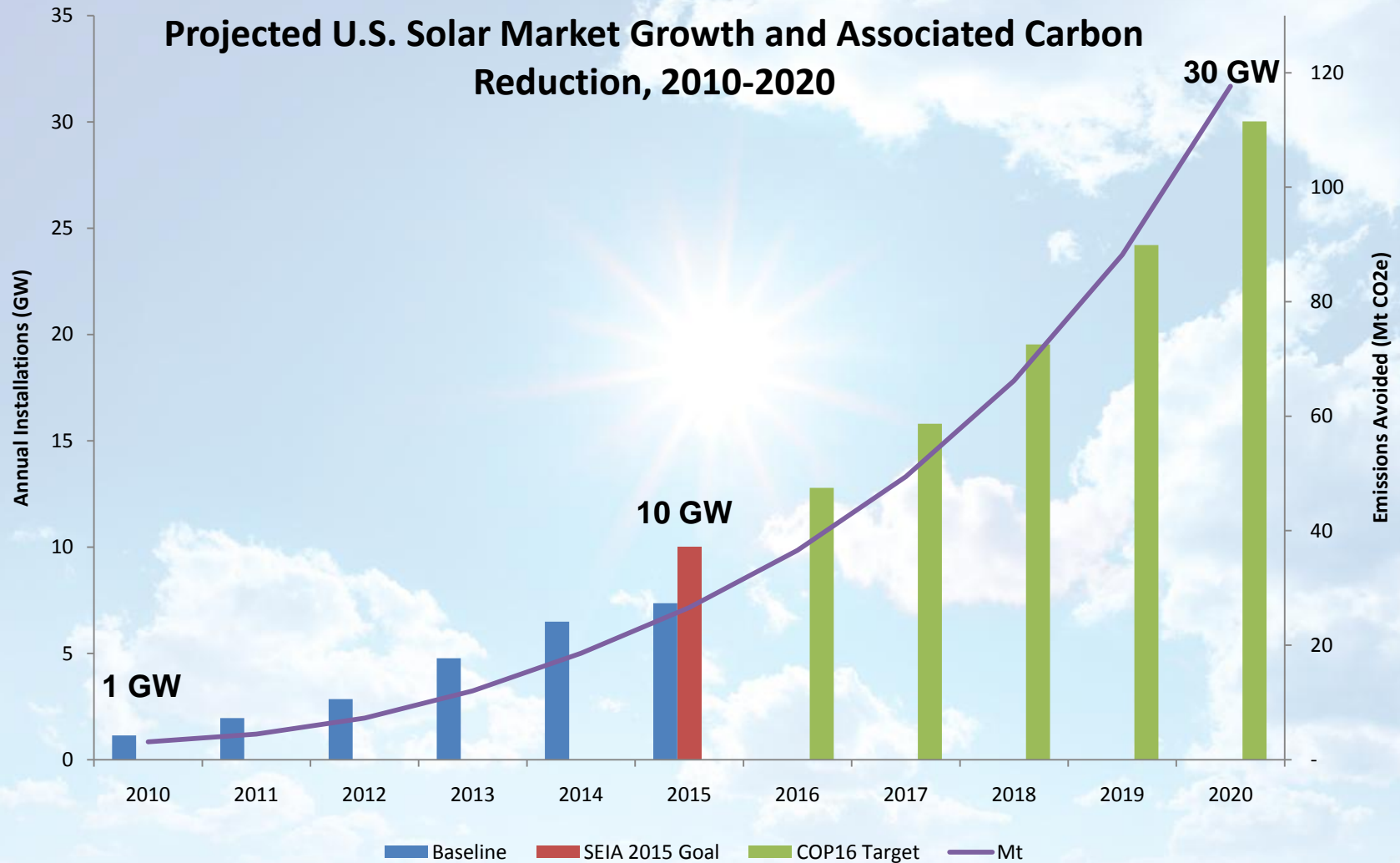
***“The 450 ppm  
climate  
stabilization goal  
looks well within  
reach.”  
-Gigaton  
Throwdown***

<sup>1</sup> Gigaton Throwdown, <http://www.gigatonthrowdown.org/>

# Why Solar?

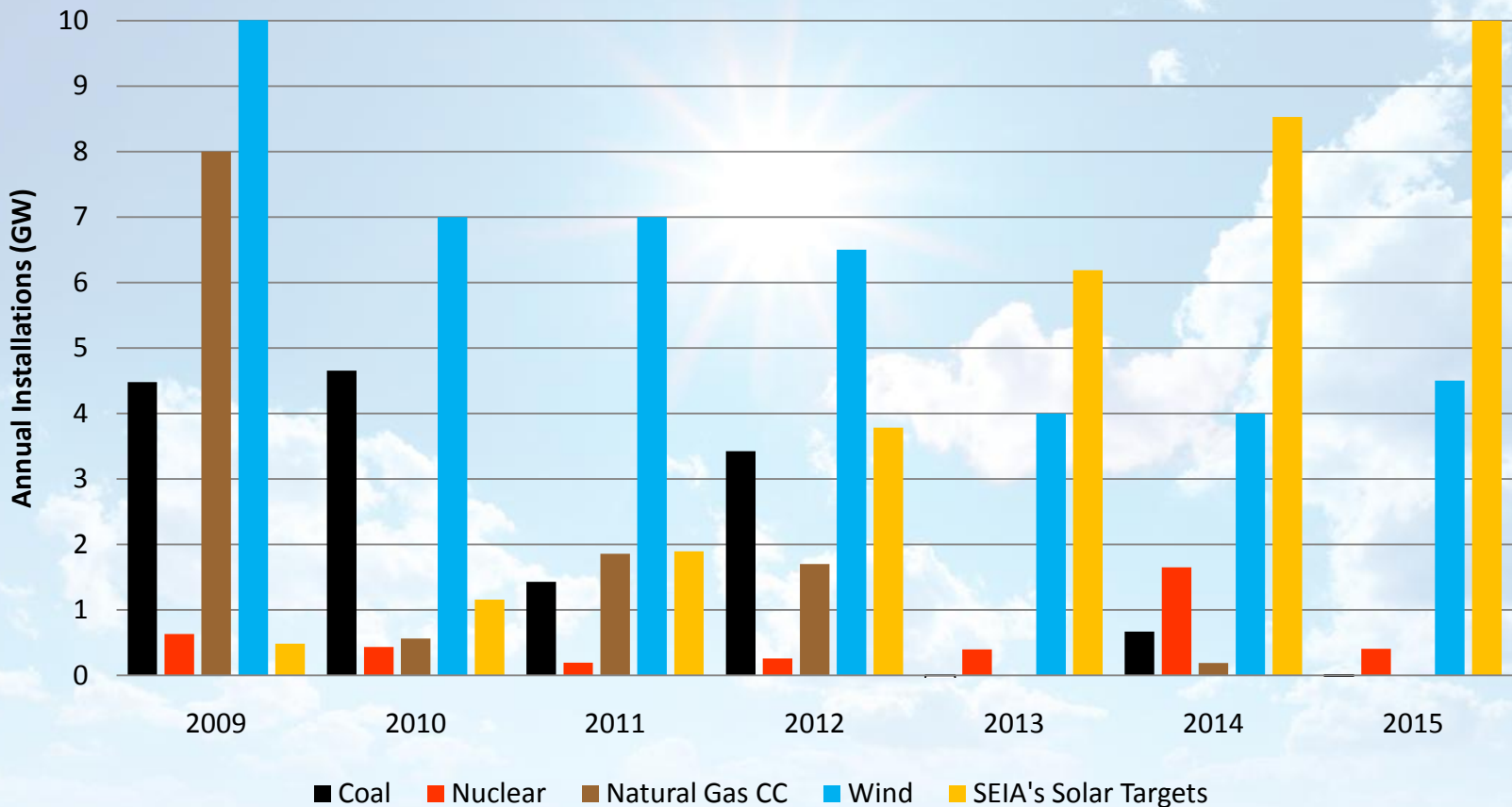
- Although solar is only one of the solutions, it is a critical one.
- The global industry has grown 47% annually over the past decade with huge growth potential ahead.
- No site carbon or GHG emissions.
- Offsets our greatest pollution sources – fossil fuels.
- Works in every nation.
- Technology advancements, although welcome, are not necessary to get us to the gigaton avoidance scale
- Provides energy access to those not yet connected to the grid, improving quality of life and providing jobs across the world

# In the U.S., Solar is Clearly Part of Our Climate Solution



# If Solar Works in the U.S. . . .

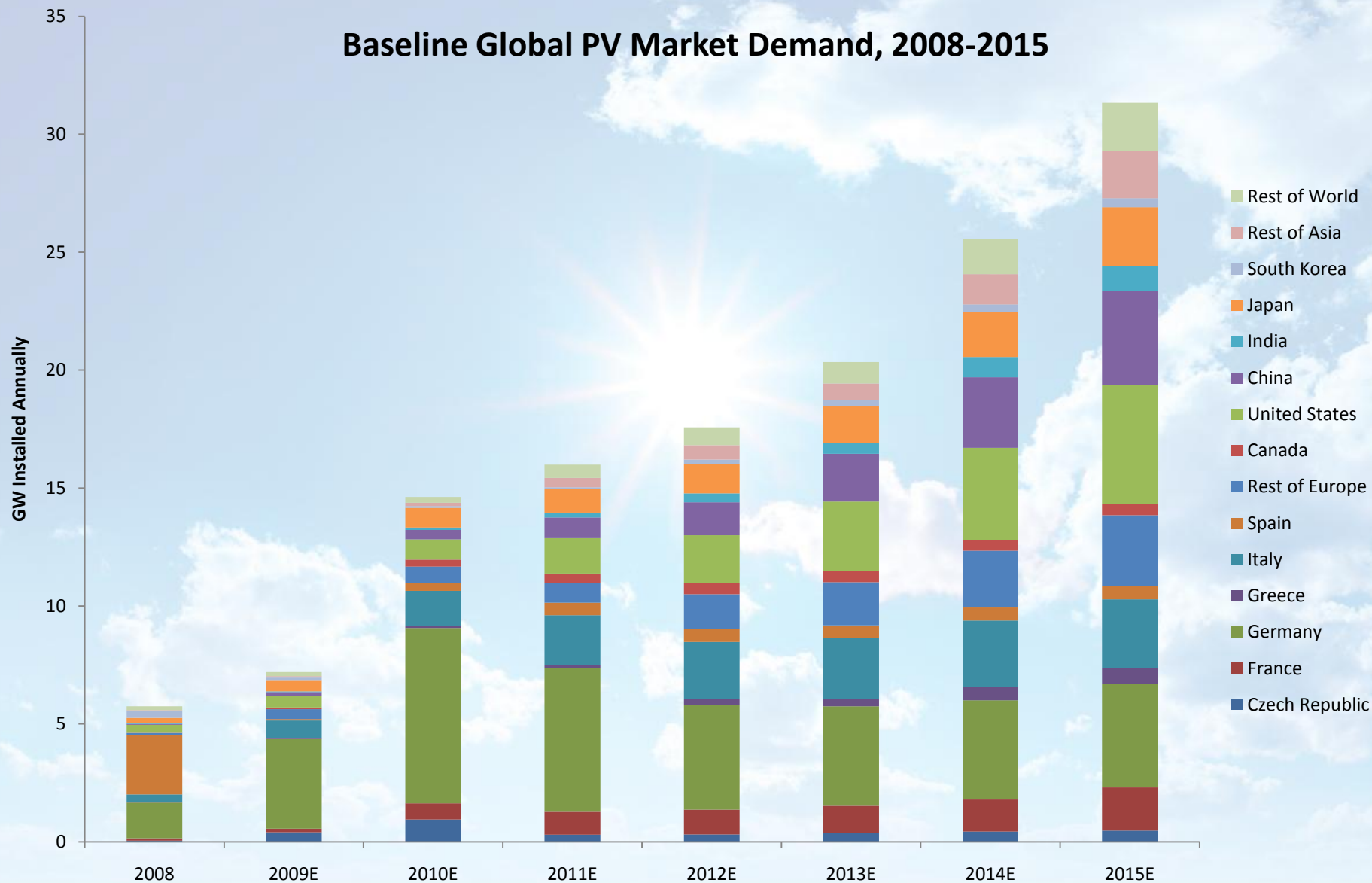
- With some of the cheapest energy sources in the world, the U.S. is still projected to become the largest global solar market in the 2013-15 timeframe.
- In fact, solar is projected to be the largest source of new capacity additions in the US in the same timeframe.





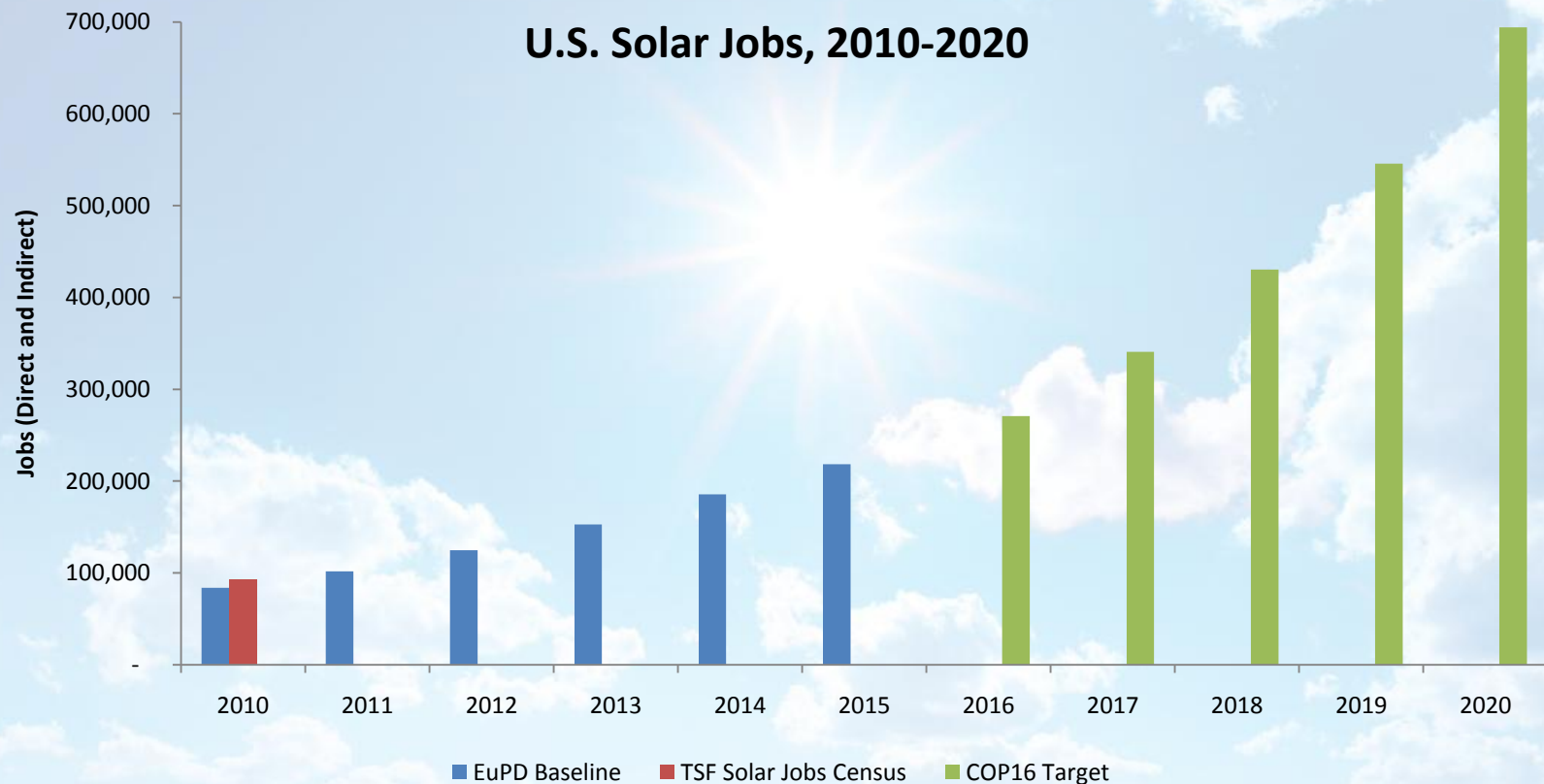
# ... It Can Work Anywhere

## Baseline Global PV Market Demand, 2008-2015



# Solar Powered Jobs

- Not only will solar mitigate climate change, it will also grow economies.
- There will be roughly 700,000 solar jobs in the U.S. by 2020, and more than 1 million in the EU by 2020.



Source: EuPD Baseline Forecast; The Solar Foundation

# How Do We Accelerate Our Solar Future?

1. Develop policy measures that promote stable, sustainable solar markets
2. Promote widespread education/awareness of solar energy
3. Maintain quality of product and installation process
4. Allow financiers, investors and entrepreneurs greater opportunities to invest in solar
5. Continue technology development and cost reductions across the solar value chain



# The Solution Starts Today: Government Action Needed Now

- Regardless of the progress of negotiators here in Cancun, we can't afford to wait for a global accord to take action.
- Manufacturing incentives
- Solar purchase incentives
- Government procurement
- R&D funding
- Public land access
- Upgraded transmission
- Streamlined permitting
- Net metering



Nellis Air Force Base



National Renewable Energy Laboratory



Moon Palace



U.S. Department of Energy



# The Solution Starts Today: Corporate Action Needed Now

- Corporations across the globe are installing solar today for many reasons:
- Energy expense savings
- Enhanced reliability
- Off-grid siting
- Redundant power
- Future fuel price hedging
- Corporate responsibility
- Customer demand
- Employee satisfaction



Google



eBay



Crayola



Walmart

**"Climate change is humanity's biggest long-term challenge, but it is also our greatest opportunity."**

**"The next few decades will see a revolution: a revolution in the way energy is produced and consumed."**

*-Christiana Figueres, Executive Secretary,  
United Nations Framework Convention on Climate Change  
Nov 29, 2010  
Opening Briefing of COP 16*

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