# Solar Deployment and Policy

Justin Baca
Director of Research
Solar Energy Industries Association

# About SEIA

- Founded in 1974
- U.S. National Trade Association for Solar Energy
  - 1,000 member companies from around the world
  - Members from across 50 states
  - Largest companies in the world as well as small installers
- Our Mission: Build a strong solar industry to power America
- Our Goal: 10 gigawatts (GW) of annual installed solar capacity in the U.S. by 2015

# Key Solar Policies

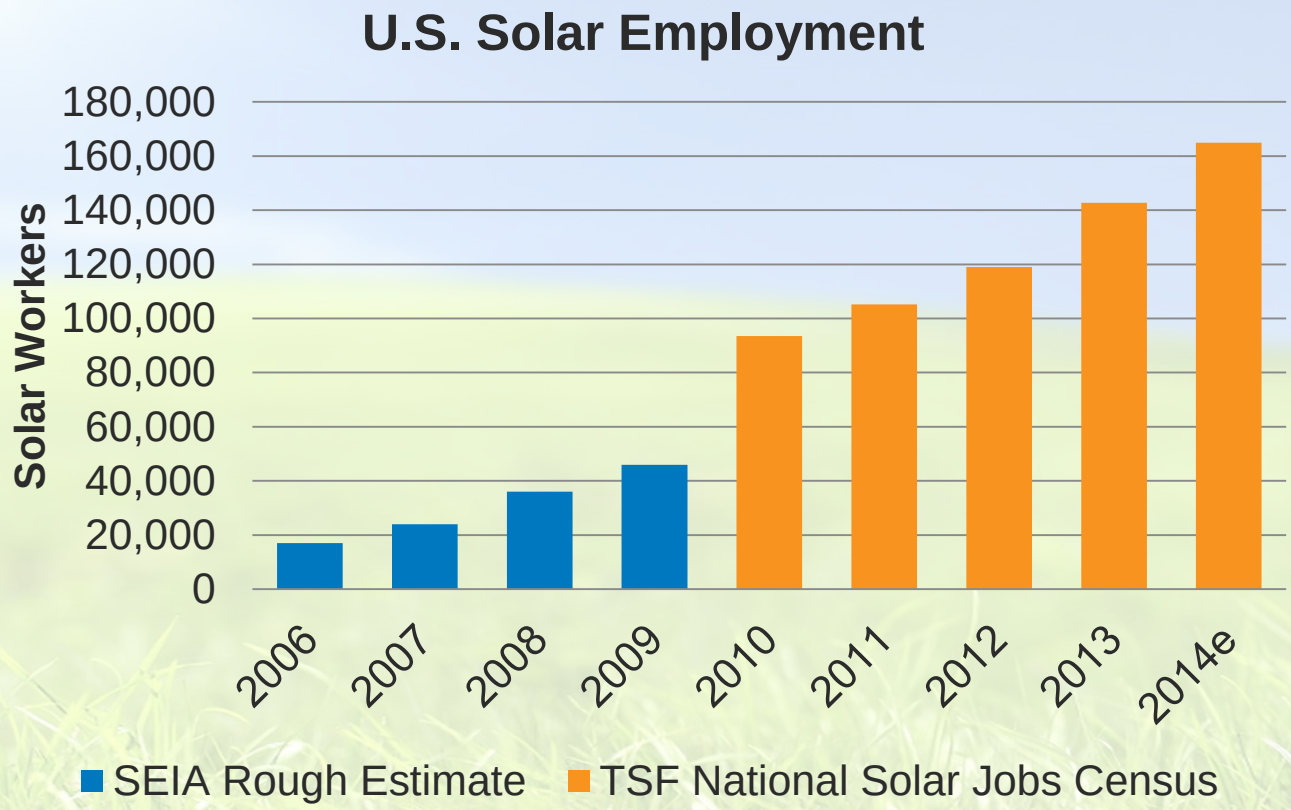
- Federal 30% Investment Tax Credit (ITC) through 2016
  - Commercial credit drops to 10% on January 1, 2017
  - Residential credit expires January 1, 2017
- Renewable Portfolio Standards
- Net Energy Metering for Customer-Sited PV
  - Value dependent on rate structure, load profile and solar generation profile
- Interconnection Policy
- Improved Financing to Ease Tax Equity Crunch

# Policy is Not Just About Incentives

- Net metering, interconnection and utility procurement policies define market access for solar.
- Carbon policy will play a role. Watch how 111(d) develops.
- For customer-sited systems, the permitting process has the potential to break a market through inefficiencies.
- The housing and financial markets impact financing options for solar.
- Trade policy matters

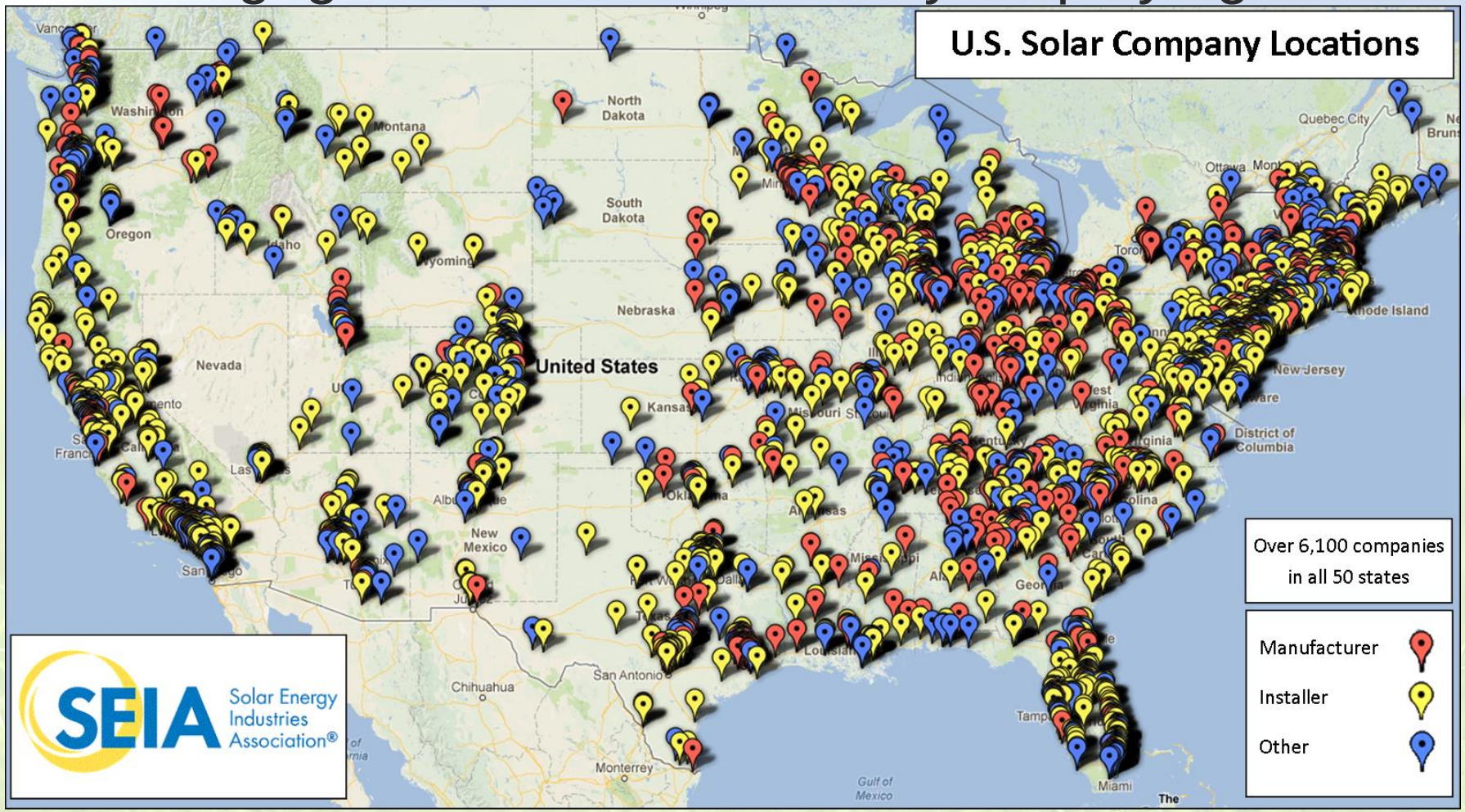
# Solar Workforce

- 143,000 Solar Workers in 2013



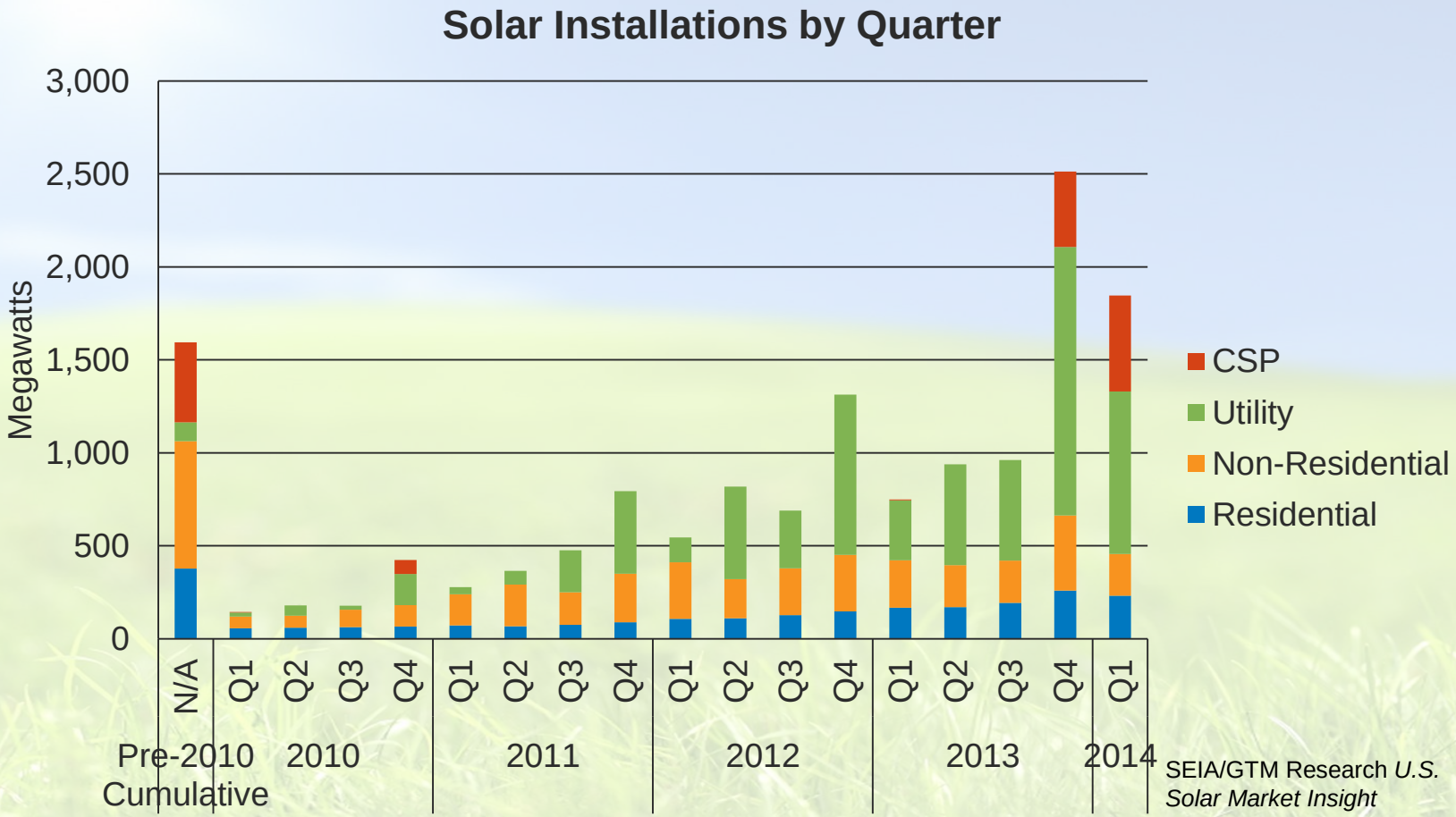
# Solar Businesses

- 6,100 businesses engaged in the solar industry employing 143,000 people



# Solar Installations

- PV installations up 79% in Q1 2014 vs Q1 2013

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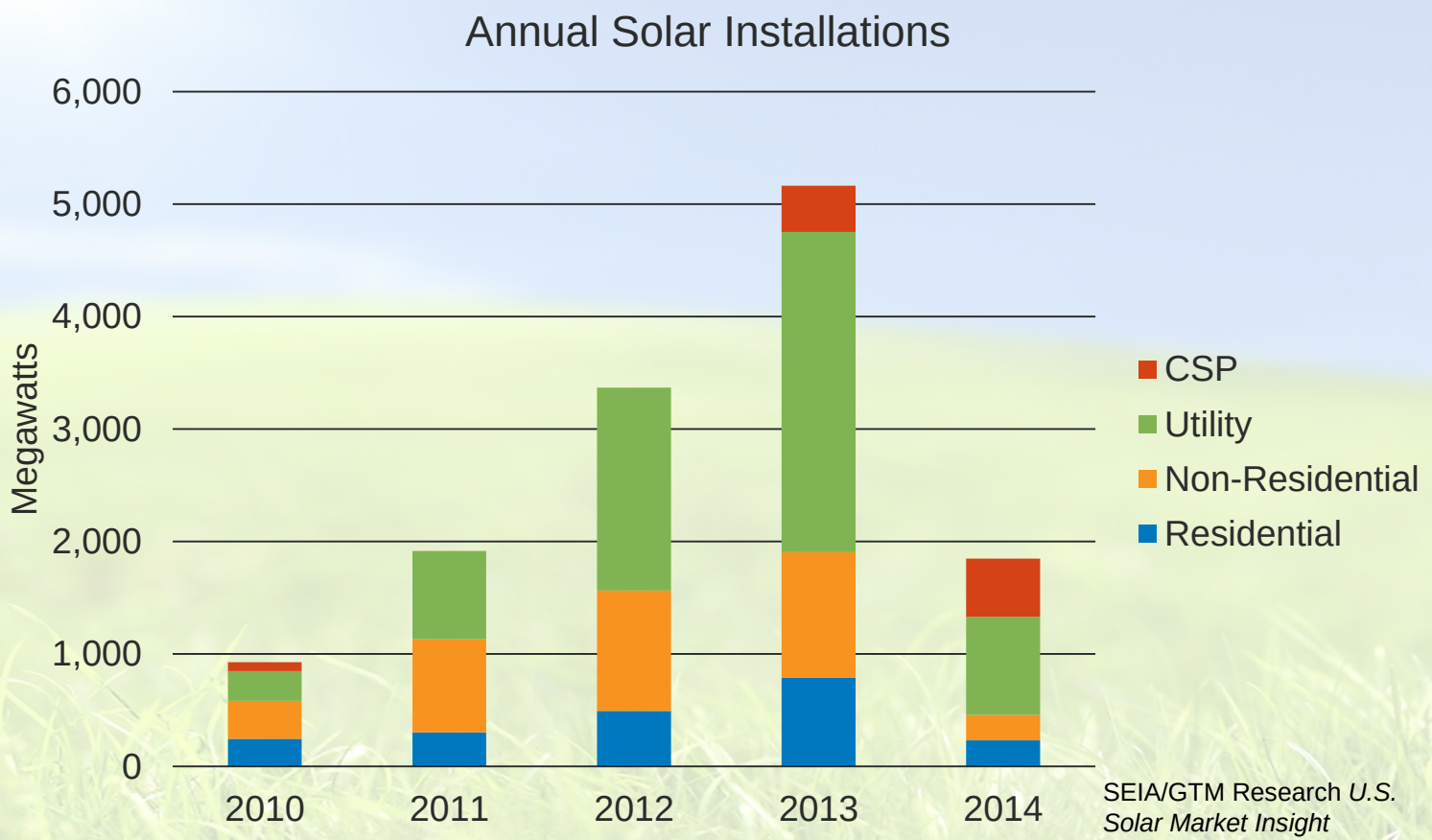
# Year to Date Solar Installations

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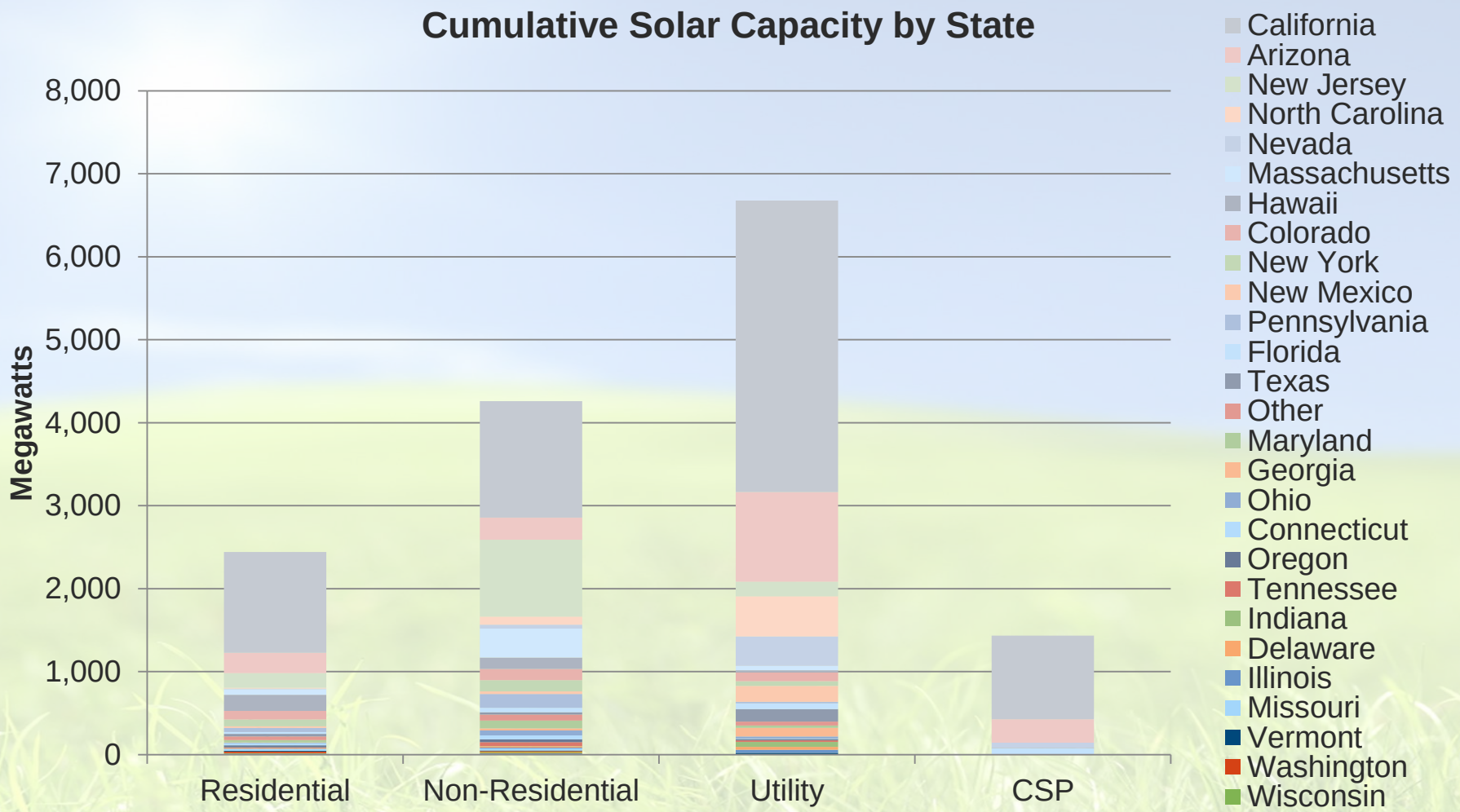
# Outcomes Driven by Different Policy and Market Structures

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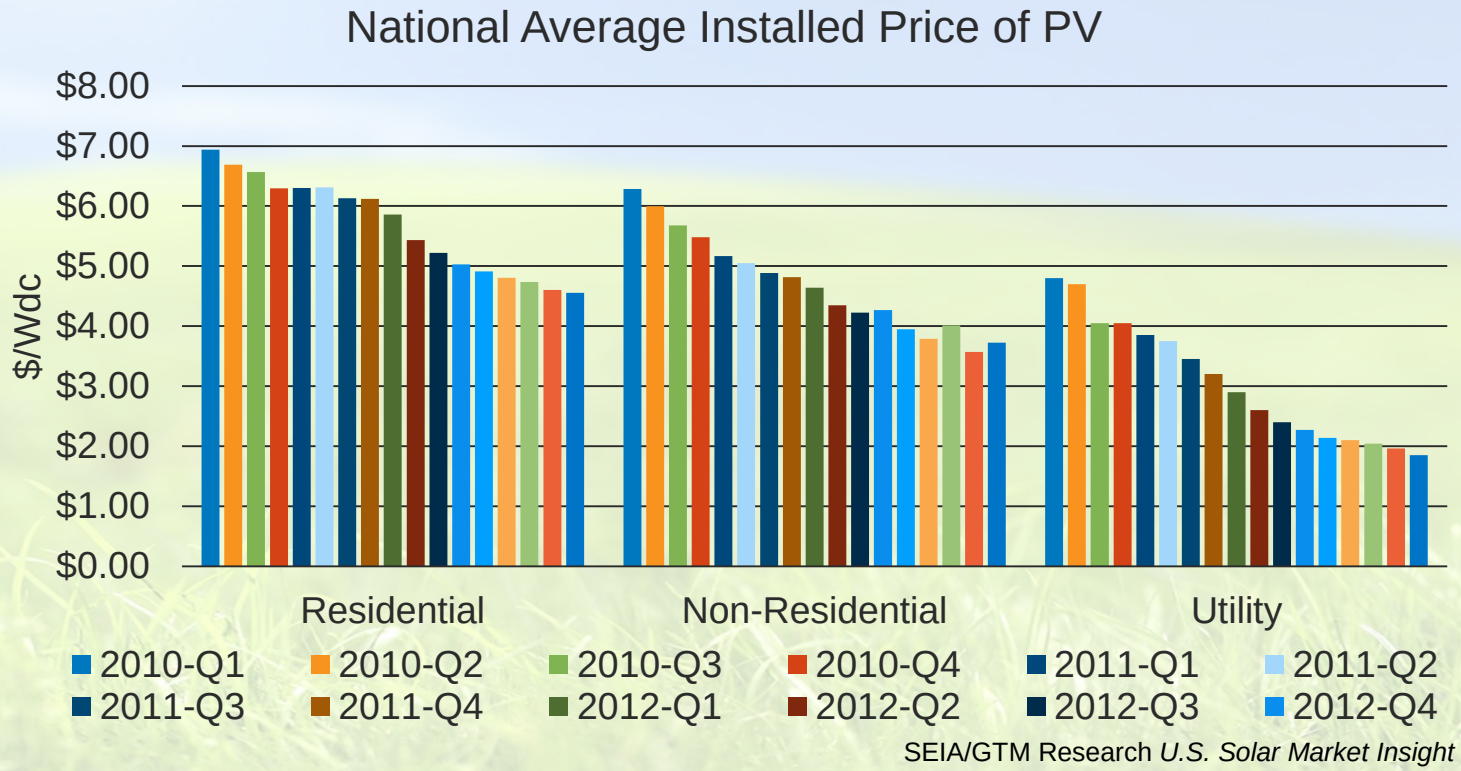
# System PV Prices Continue to Decline

- Typical residential system now about $3.73/$W_{dc}$
- Typical commercial system now about $2.53/$W_{dc}$
- Utility system now $1.77/$W_{dc}$

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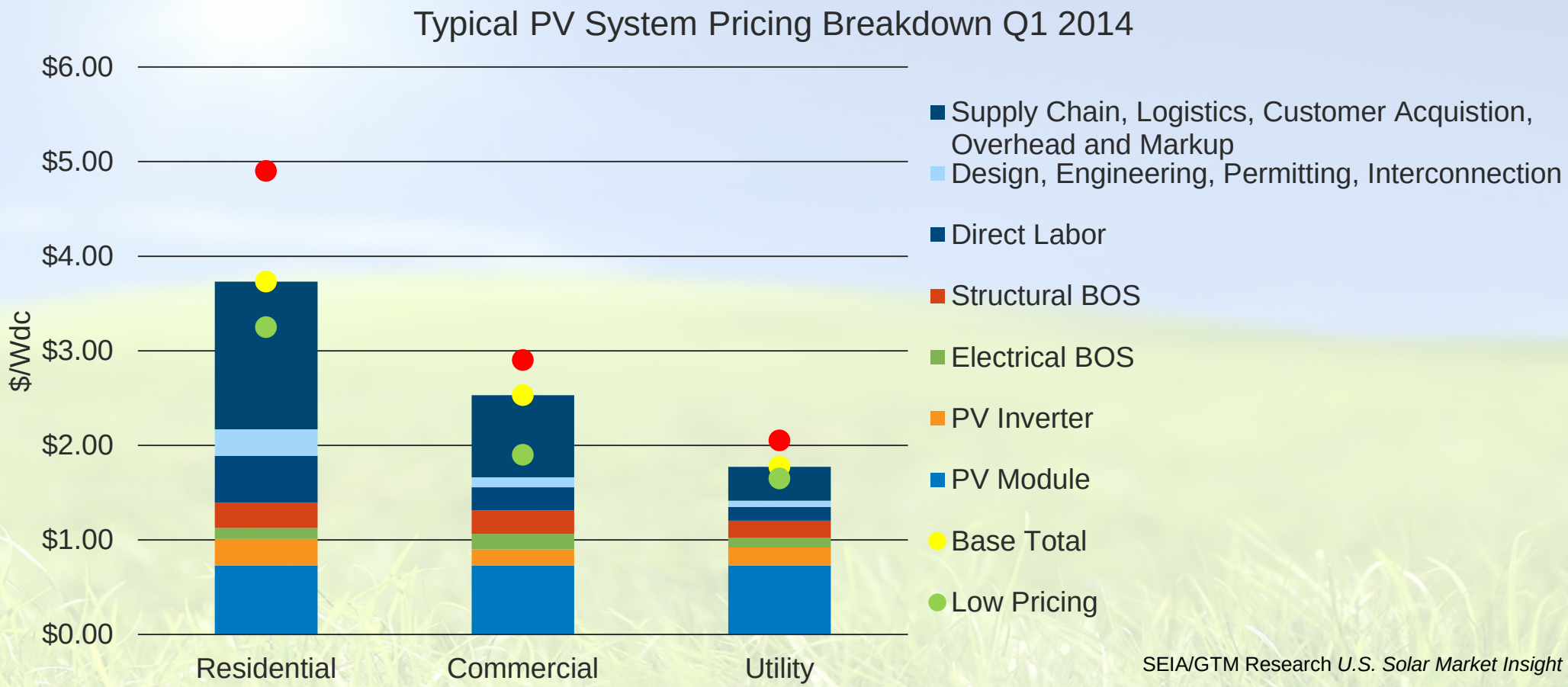
# Non-Incentive Policies Impact PV System Costs

- Top two components largely driven by non-incentive policies.

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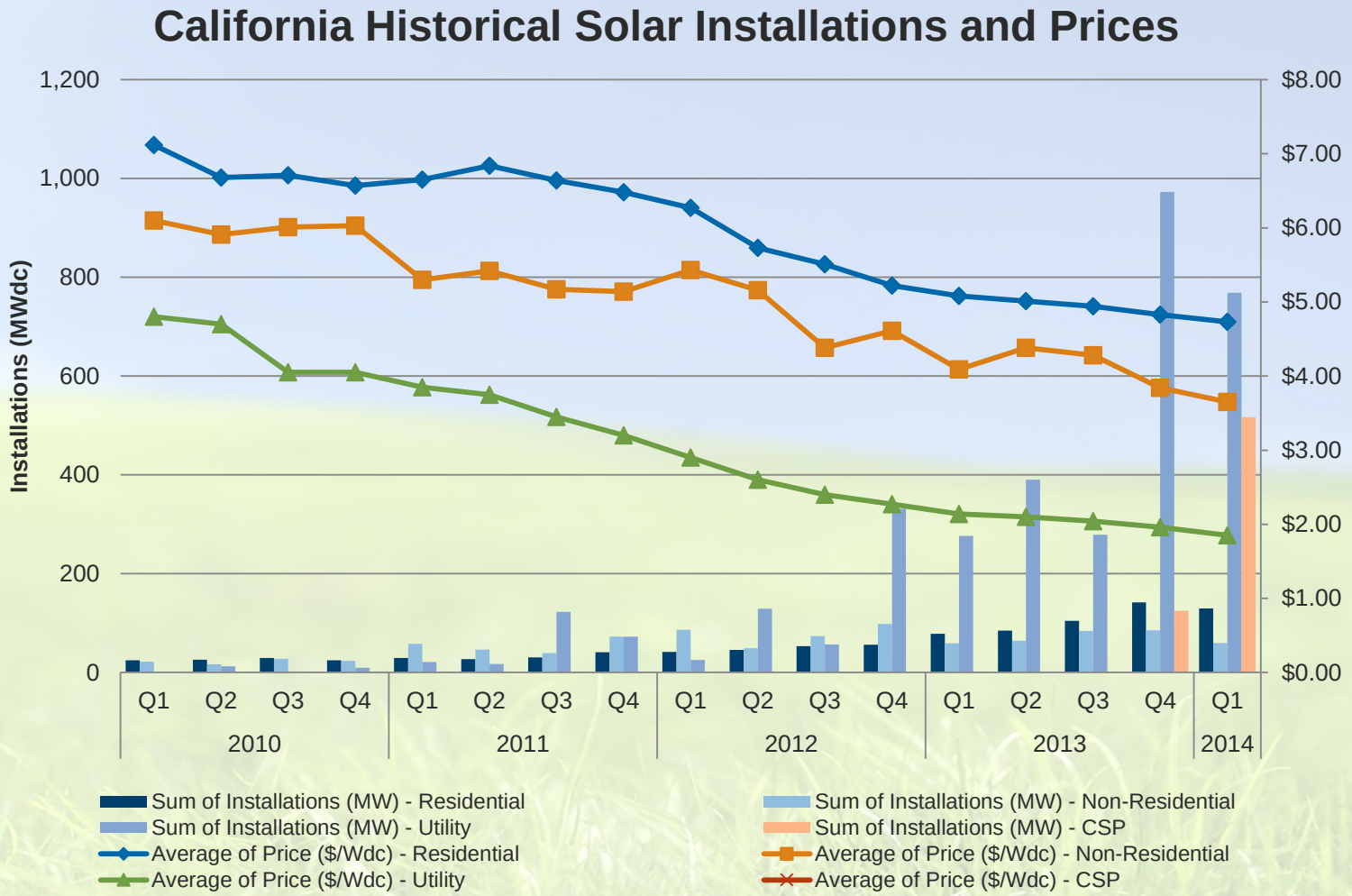
# No Secret that Costs Matter

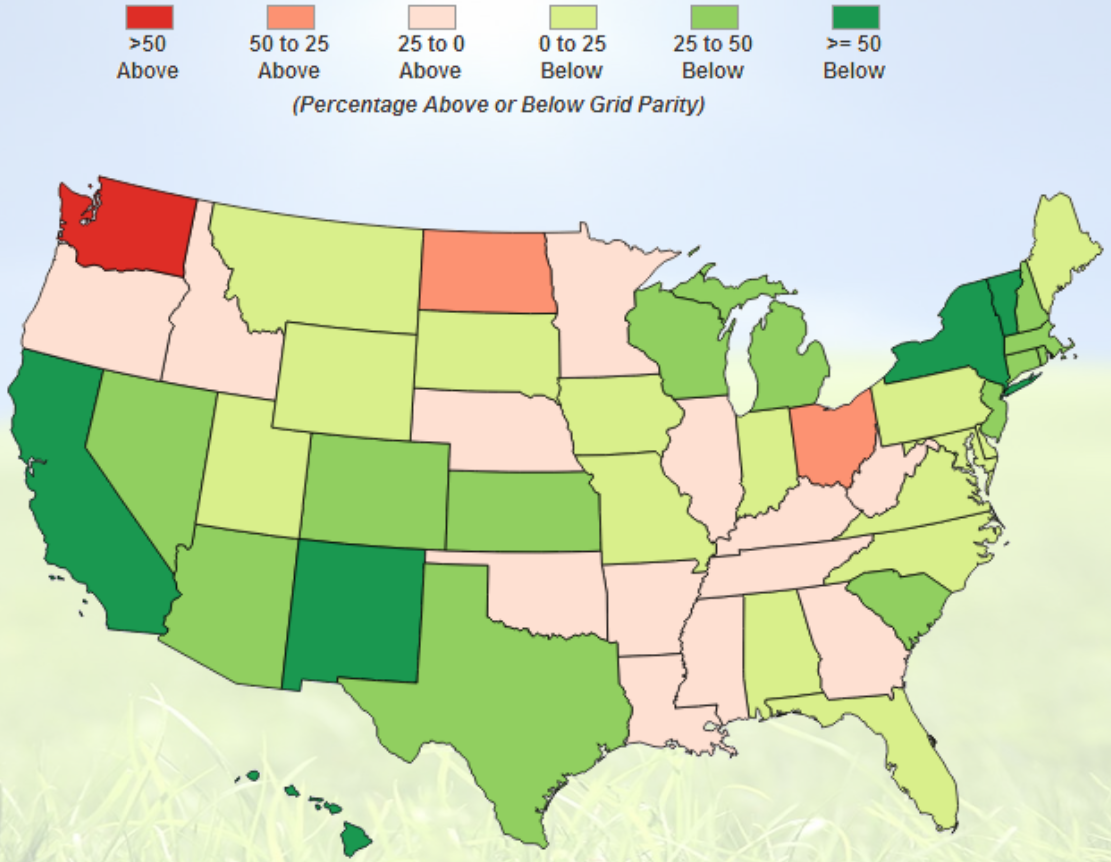
- Small changes can have a large impact
- Incentives decreased over the time shown in the chart
- Most new deployment in CA now done without rebates or PBIs



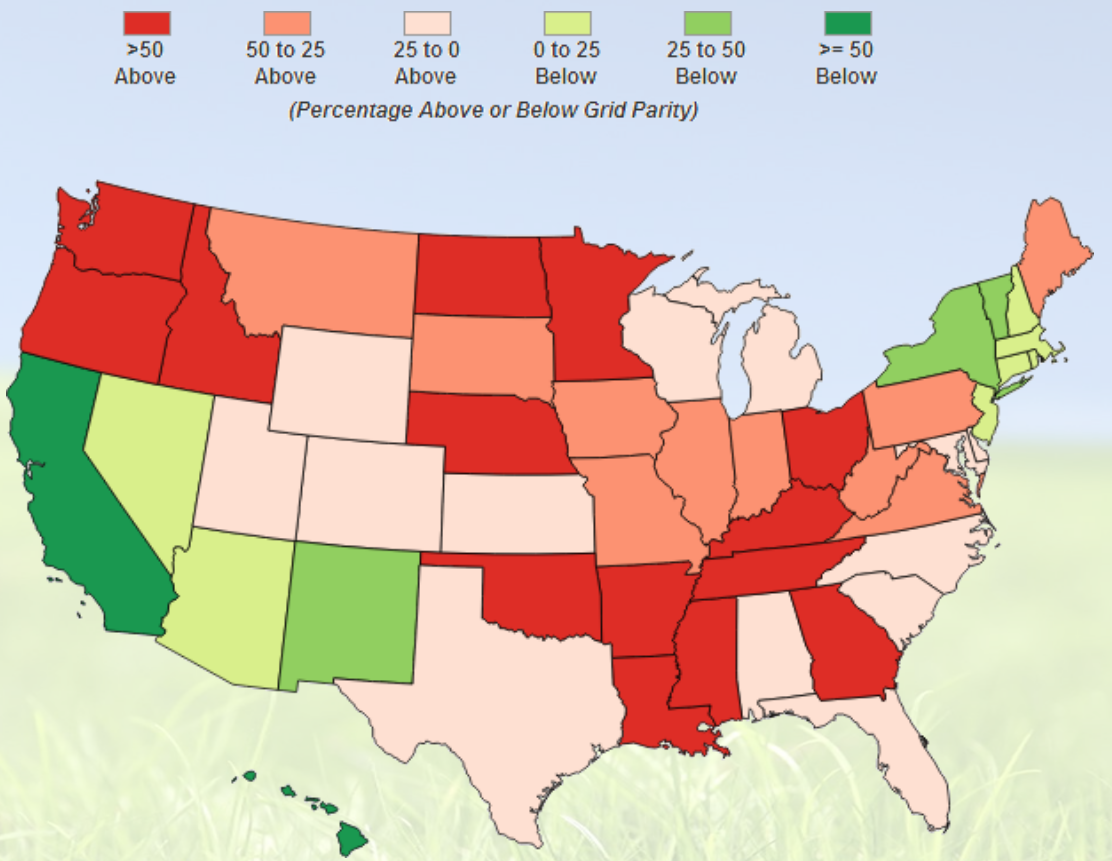

SEIA/GTM Research *U.S. Solar Market Insight*.(Utility pricing reflects national average, not state

# Residential Retail Parity

- $2.00/Wdc with ITC at 30%



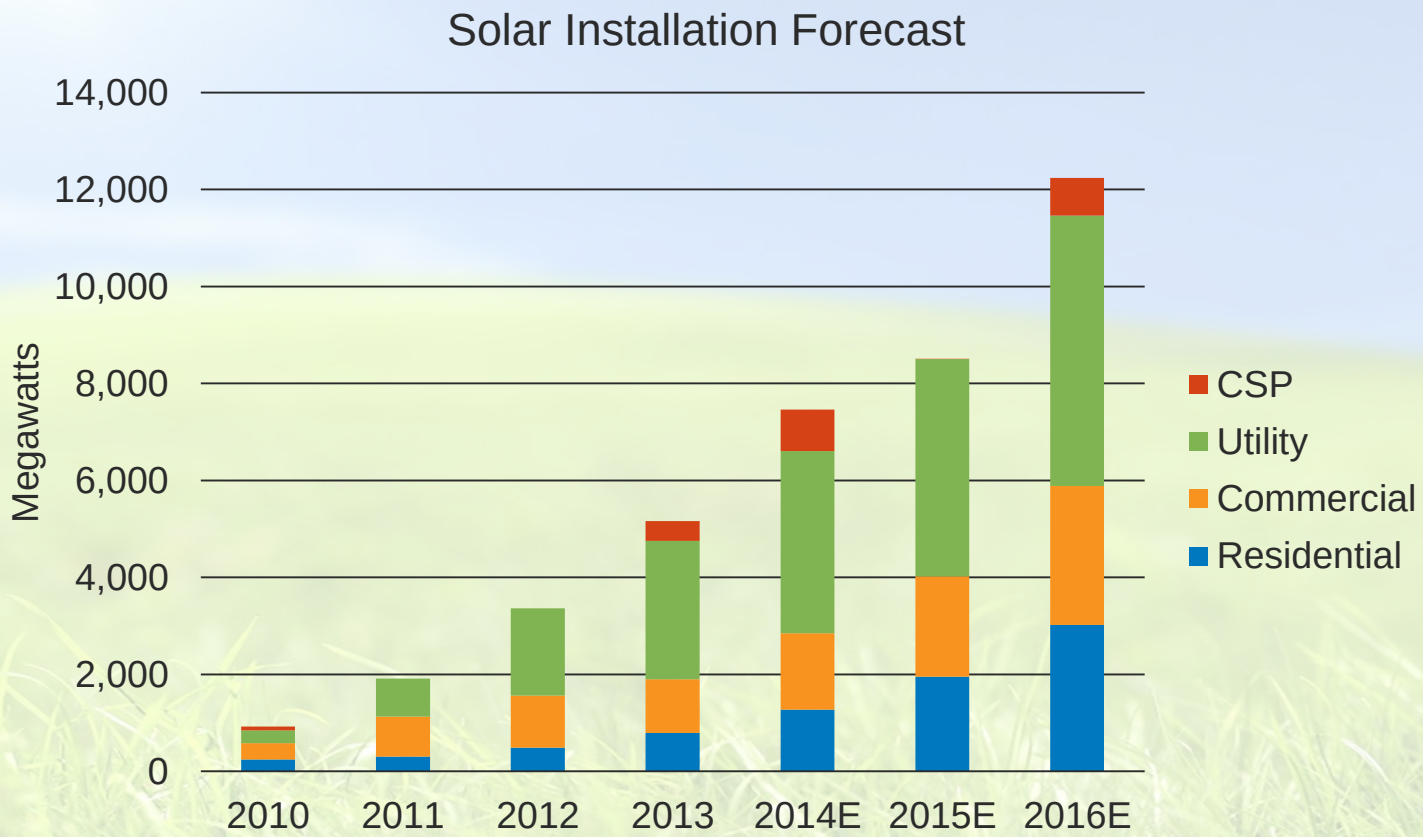

- $2.00/Wdc with no incentives




Source: NREL "Residential PV Breakeven Scenario Viewer"

# Solar Installation Forecast

- 38 $GW_{dc}$ of PV and 2.6 $GW_{ac}$ of CSP expected to be online by the end of 2016.

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# Solid, Timely Data is Critical to Policy and Markets

- The Energy Information Administration has a critical role to play
  - Continue to improve solar coverage: more data, better data, faster access
- Policymakers/regulators depend on data and analysis to inform their decisions
  - Integrated Resource Plans (IRP) forecasting informs investments in assets that will exist for decades
  - Outdated or inaccurate data and can lead to sub-optimal decisions
- Markets thrive on accurate data
  - Consumers develop confidence
  - Financiers can lower costs when they have access to reliable data on asset performance

# Thank you

Justin Baca

jbaca@seia.org