



THE U.S. SOLAR INDUSTRY: 2018 AND BEYOND

Sean Gallagher
Vice President of State Affairs
Solar Energy Industries Association

January 19, 2018

www.seia.org

- Who we are
- Where solar has been
- Where the industry is heading
- Lessons from SEIA's national campaigns

The background of the slide is a close-up, high-angle photograph of solar panels. The panels are arranged in a grid pattern, with white lines separating the blue photovoltaic cells. The lighting creates a strong sense of depth and perspective, with the lines converging towards the top of the frame.

ABOUT SEIA

Our Mission: To Build a Strong Solar Industry to Power America

The U.S. National Trade Association for Solar Energy



- Founded in 1974
- 1,000 member companies from all 50 states, representing all market segments
- Our Mission: Build a strong solar industry to power America
- Our Goal: 100 gigawatts of solar capacity by 2020



BACKGROUND: WHERE SOLAR HAS BEEN

January 19, 2018

www.seia.org

5

The Solar Industry Today



49.3 GW of solar installed through the end of Q3 2017

Enough to power **9.5 million** American homes

68% 10-year average annual growth rate

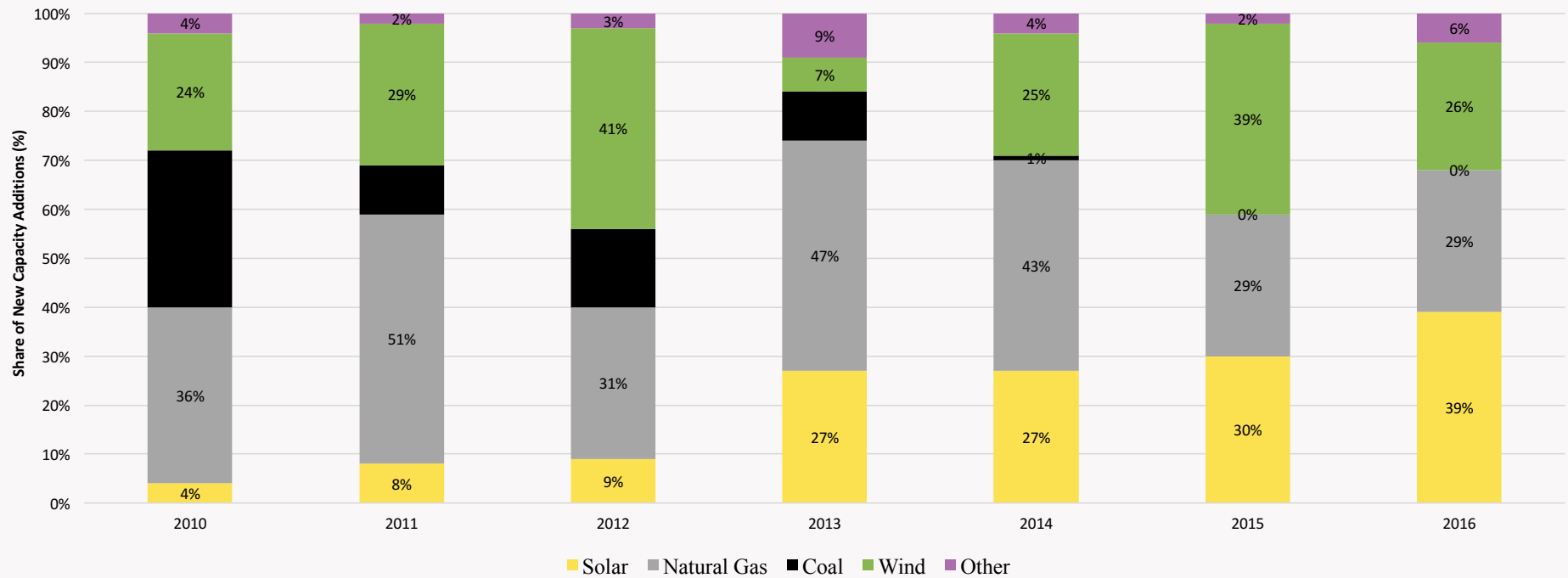
Workers employed in the solar industry: **260,000**

1.6 million individual installations nationwide

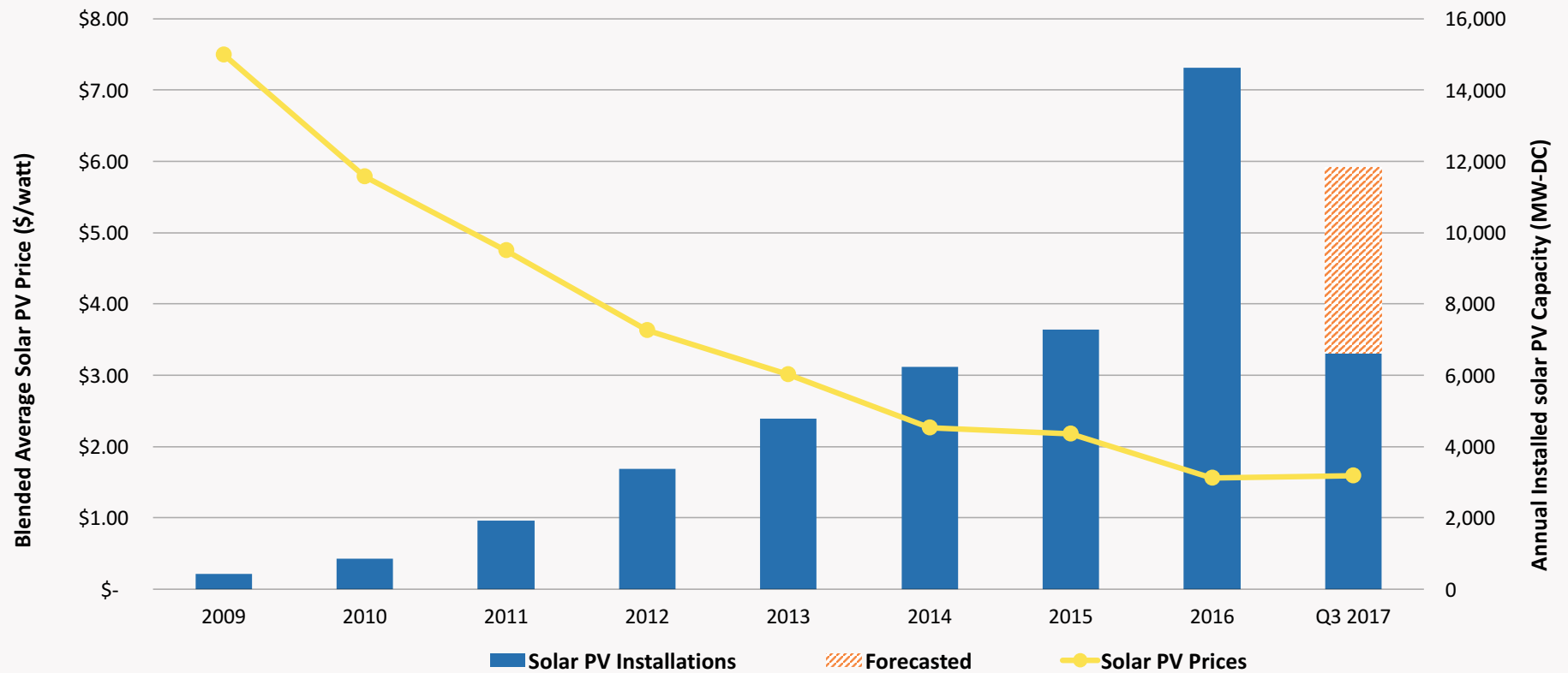
Source: SEIA/GTM Research *U.S. Solar Market Insight Q4 2017*

Solar's Share of New Capacity Has Grown

Annual Additions of New Electric Capacity

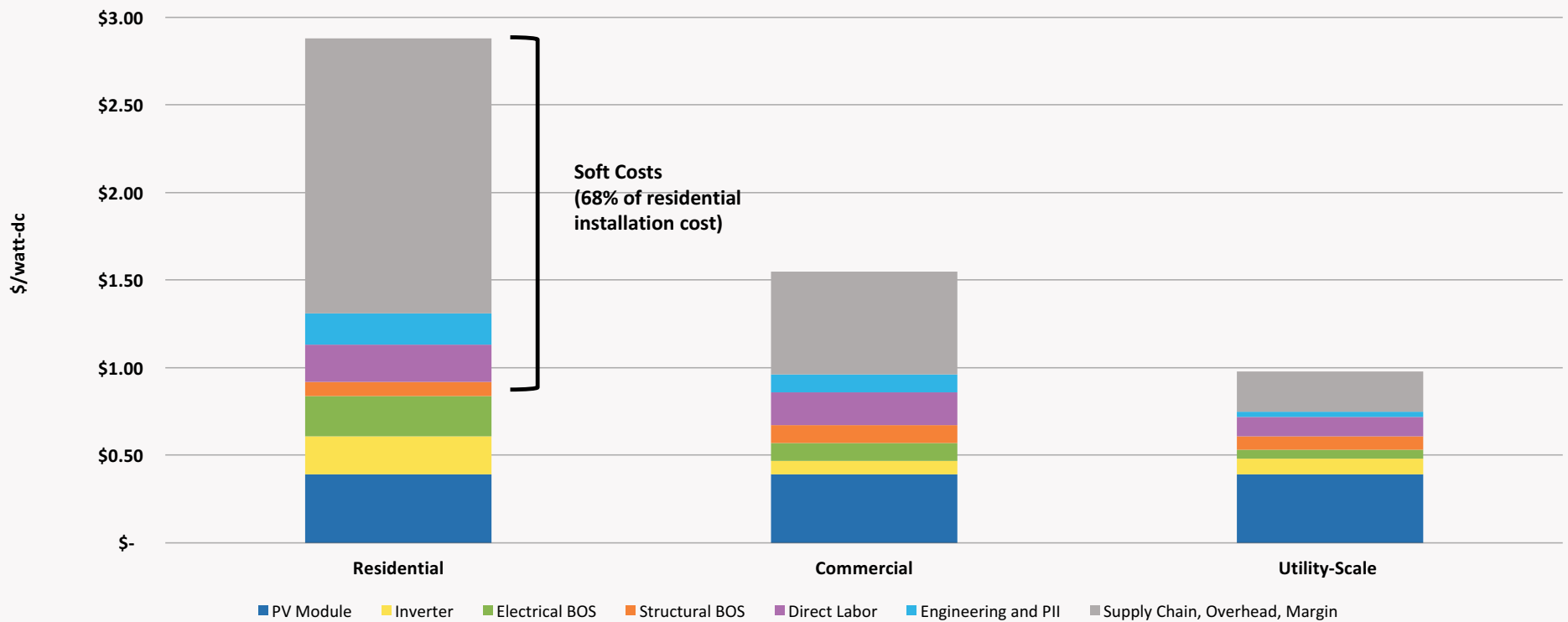


Growth in Solar Led by Falling Prices



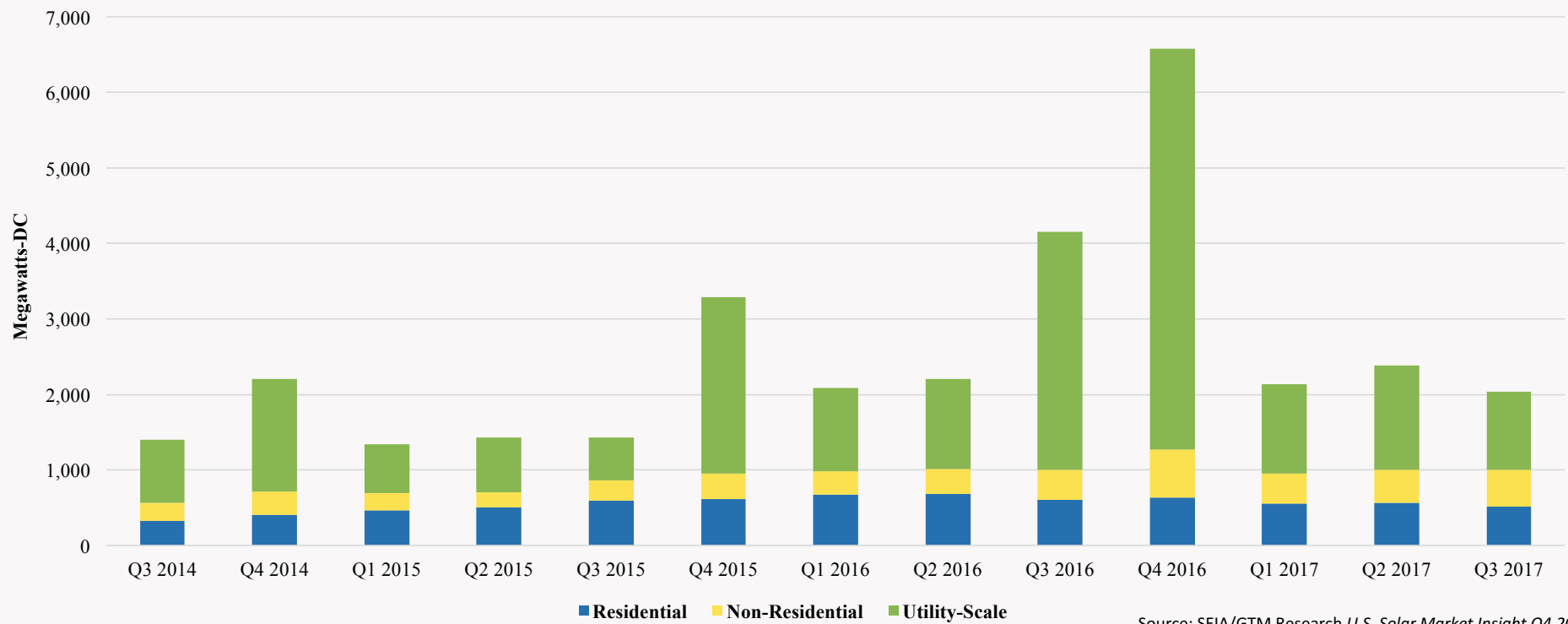
Solar PV Price Breakdown

Q3 2017 Quoted PV Prices



Q3 2017 Results

Quarterly Installed Solar PV Capacity



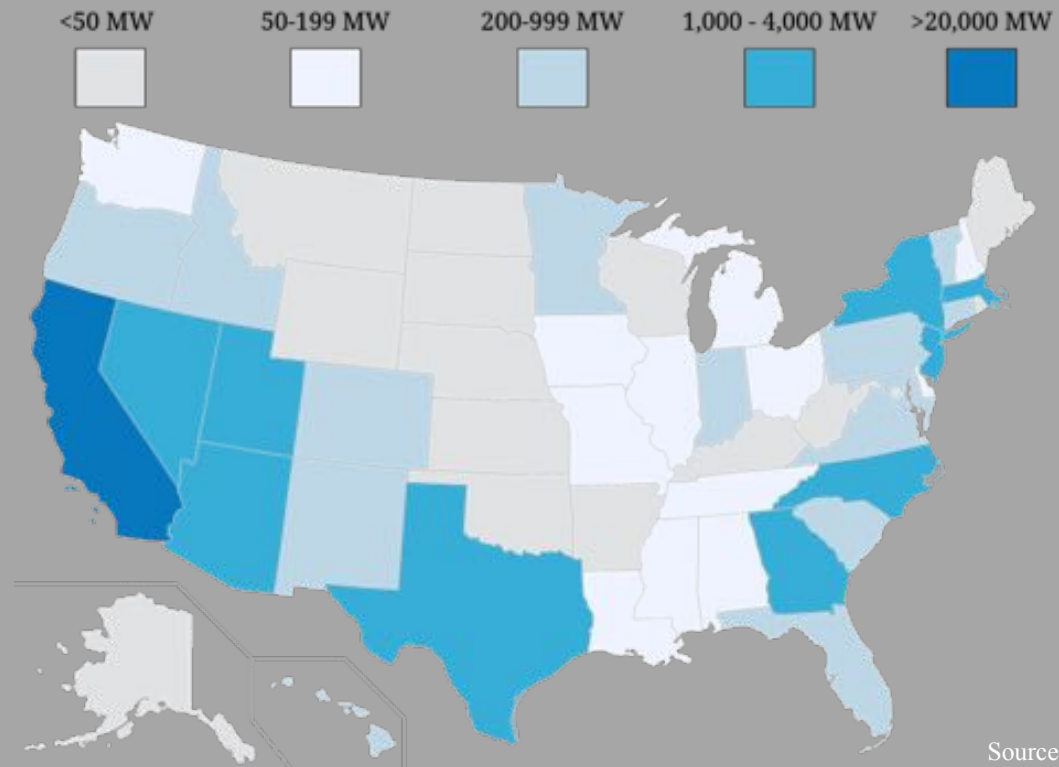
Source: SEIA/GTM Research *U.S. Solar Market Insight Q4 2017*

Solar Growth Coast to Coast

TOP 10 STATES (MW)

1. California – 20,163
2. North Carolina – 3,785
3. Arizona – 3,336
4. Nevada – 2,585
5. New Jersey – 2,234
6. Massachusetts – 1,898
7. Texas – 1,847
8. Utah – 1,566
9. Georgia – 1,505
10. New York – 1,176

Cumulative Solar Capacity by State, through Q3 2017

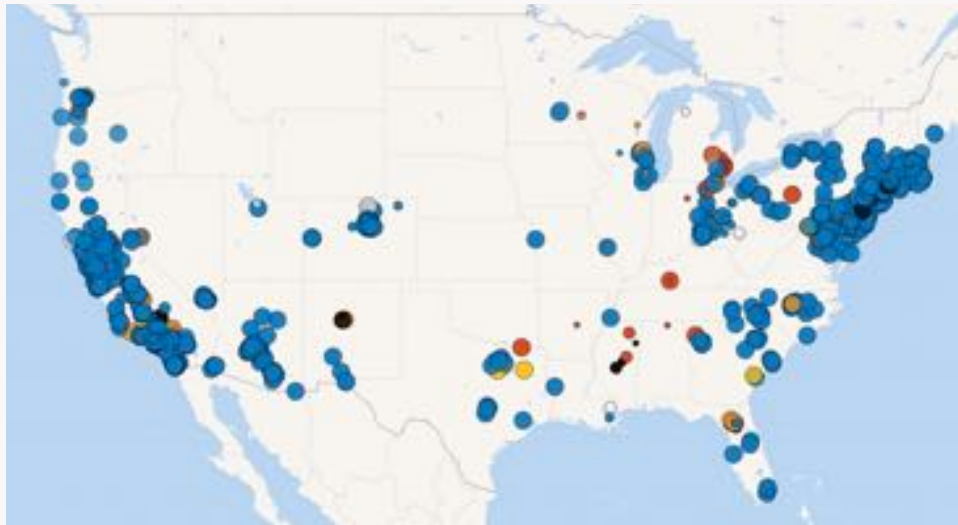


Source: SEIA/GTM Research

Commercial Solar – Huge Potential for Growth

Commercial solar installs grew 22% in Q3 2017 over same period last year

Map of the major corporate solar installations in the U.S.
available at seia.org/solarmeansbiz

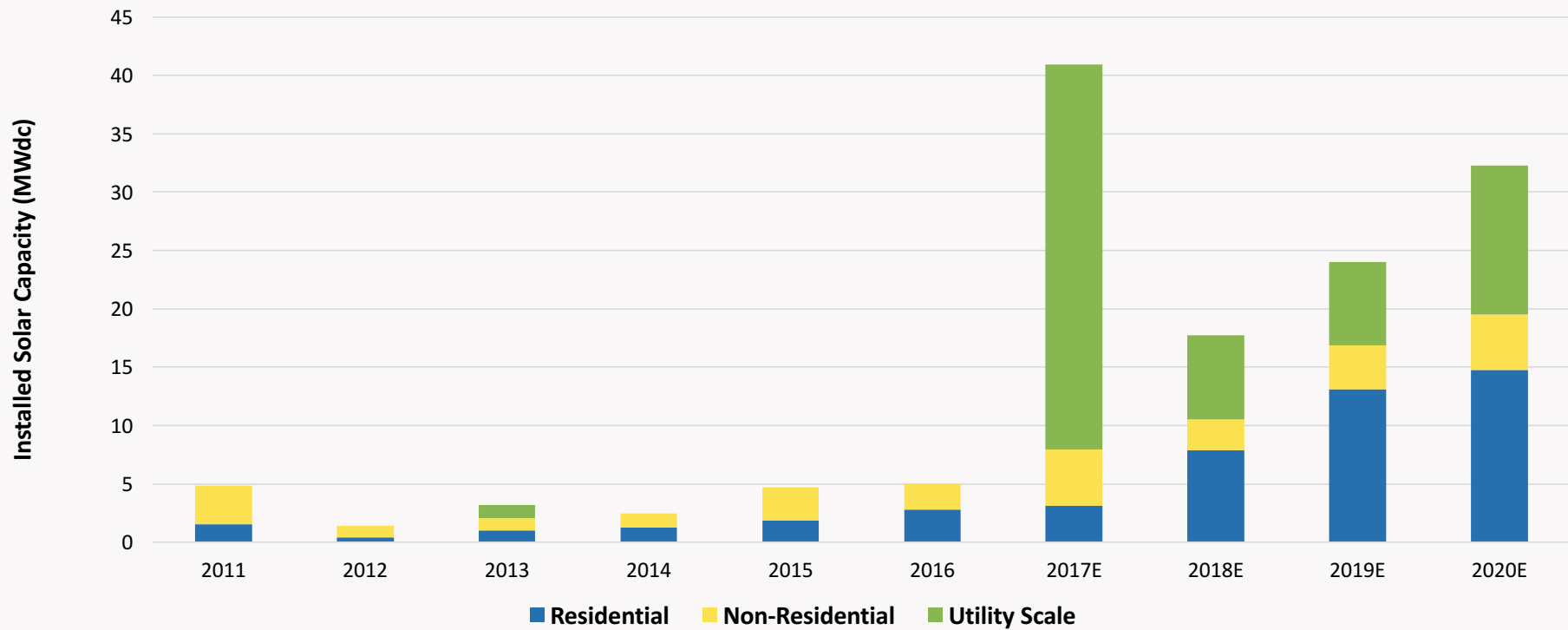


TSF/SEIA/Gen180 Solar in Schools Report
Available at seia.org/schools

Wisconsin Market: Steady Growth Across All Segments

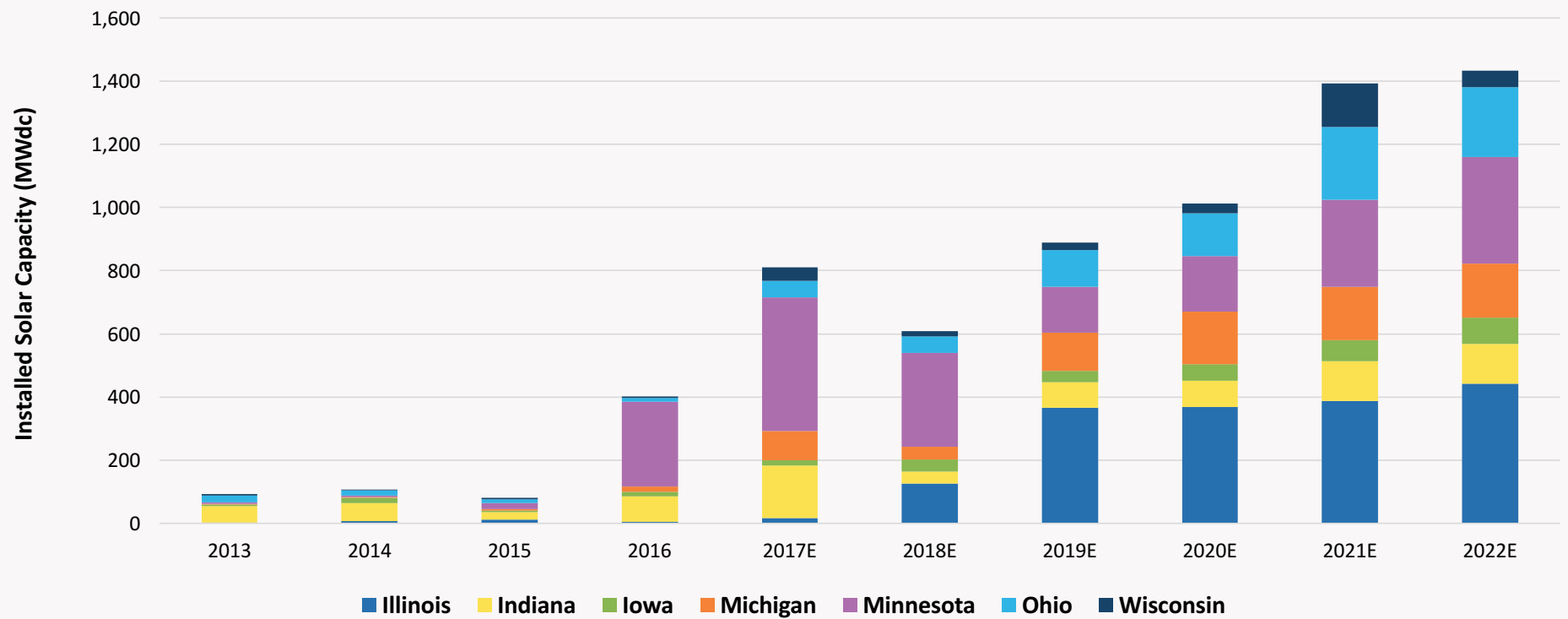


Wisconsin Annual Installed Solar Capacity



Midwest Context– Lessons to Learn

Midwest Annual Installed Solar Capacity



Wisconsin & the Midwest: Policy Horizon



- SEIA Formed a Midwest Committee in early 2017
- Working with members and local partners to support growth in state markets
- Focusing on providing support to RPS implementation in Illinois, PURPA reform, fair treatment for DG customers, and interconnection planning
- Contact membership@seia.org to get involved
- Wisconsin:
 - National installers entering the market
 - Community solar, corporate demand and rural co-ops leading the way
 - Policy leadership in neighboring states: implementation of RPS in Illinois & PURPA development in Michigan
 - Third-party ownership: PSCW denied WiSEIA petition, indicating the issue should be dealt with in legislature
 - As prices come down, Wisconsin is poised for a big leap forward in utility-scale installations

Continuing to Create Jobs



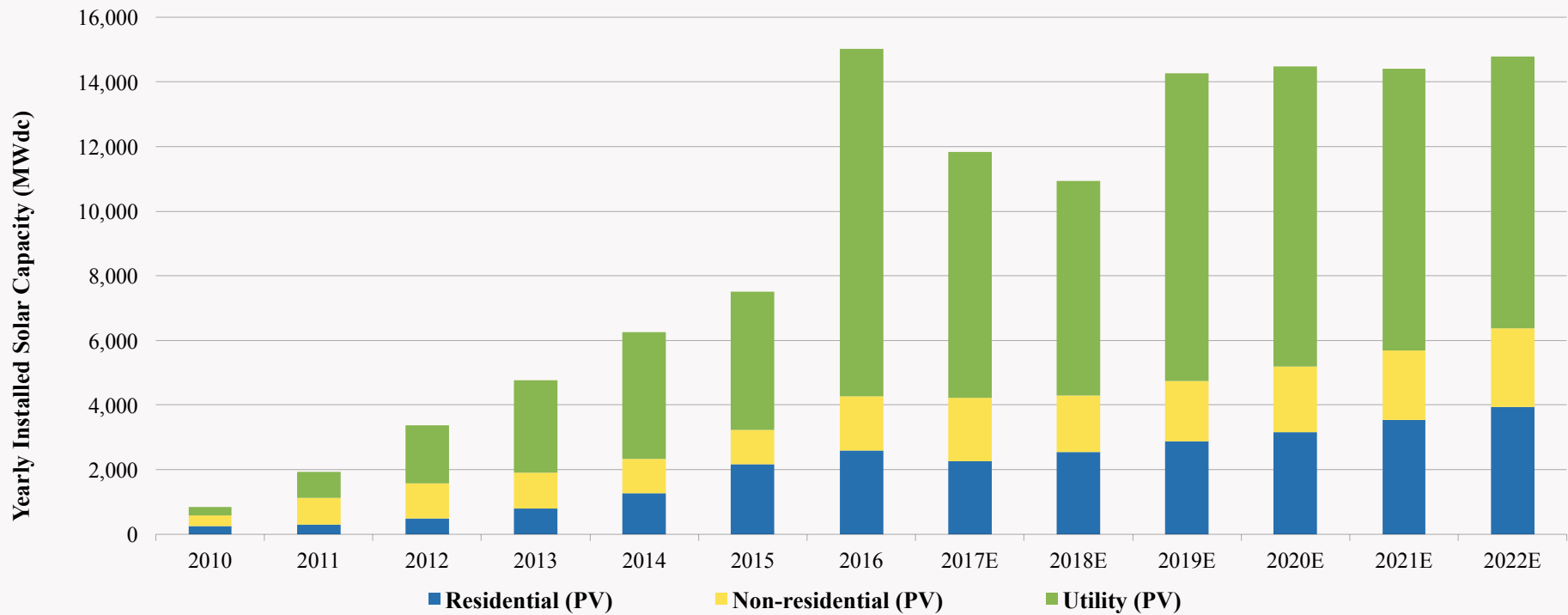
The background of the slide is a close-up, high-angle photograph of solar panels. The panels are arranged in a grid pattern, with white lines separating the individual cells. The overall color palette is dominated by various shades of blue, from deep navy to bright cyan, creating a clean, modern, and tech-oriented aesthetic.

WHERE OUR INDUSTRY GOES FROM HERE

Opportunities and Challenges in 2018 and beyond

Solar Deployment Forecast

U.S. Solar PV Deployment Forecast



Source: SEIA/GTM Research U.S. Solar Market Insight Q4 2017

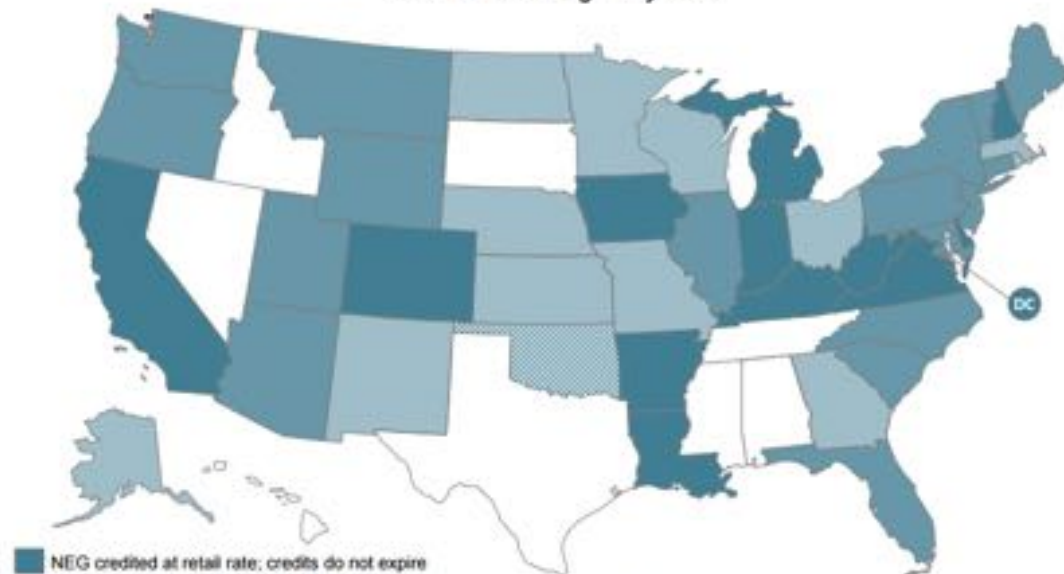
Maintaining & Expanding State Solar Markets

36 states are currently at grid parity for rooftop solar.

If rate compensation is cut in half, only a handful would remain.

Customer Credits for Monthly Net Excess Generation (NEG) Under Net Metering

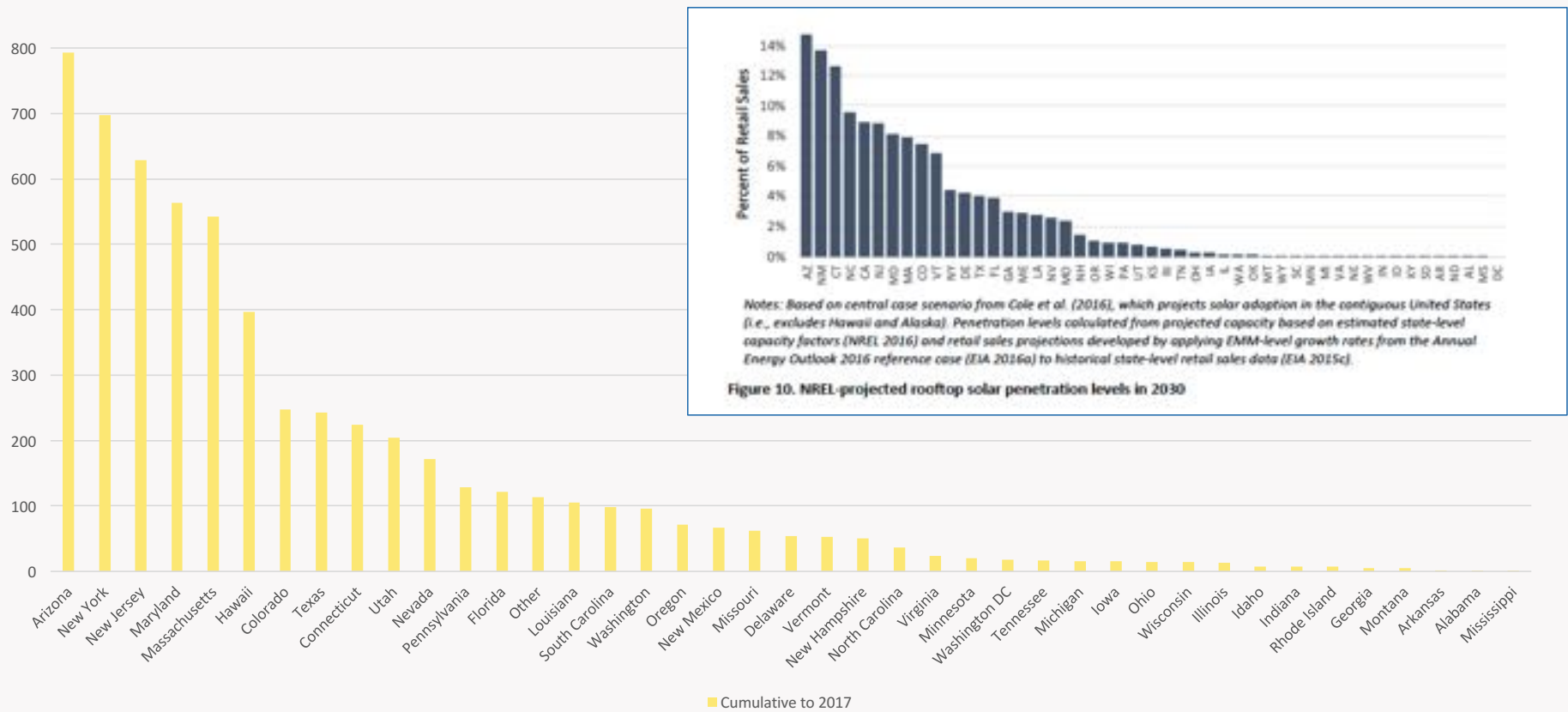
www.dsireusa.org / July 2016



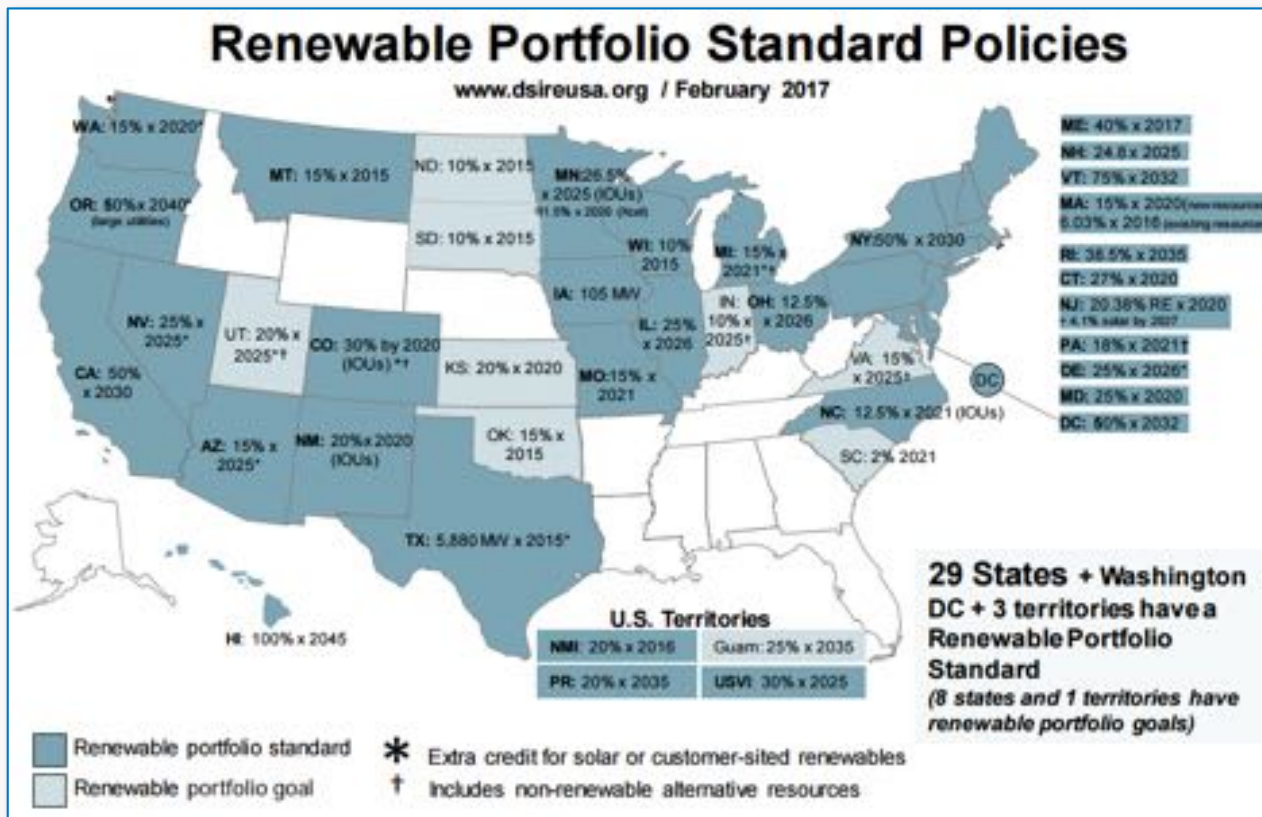
- NEG credited at retail rate, credits do not expire
- NEG credited at retail rate at first, then credits expire or are reduced (e.g., to the avoided cost rate at the end of year)
- NEG credited at less than retail rate (e.g., avoided cost rate)
- NEG is not compensated
- No statewide mandatory net metering rules

NOTE: The map shows NEG credits under statewide policies for investor-owned utilities (IOUs); other utilities may offer different NEG credit amounts. IOUs in HI, NV, MS, and GA have other policies for compensating self-generators. Some IOUs in TX and ID offer net metering, but there is no statewide policy. IOUs in WI differ in their treatment of NEG.

Residential Solar Installations Through 2017 (MW-DC)



Maintaining & Expanding State Solar Markets



While RPS will continue to be important in many markets, PURPA, and increasingly voluntary corporate procurement now drives more utility-scale procurement.

Defending PURPA at the state level and ensuring level playing fields in wholesale markets will be priorities moving forward

This is especially important in emerging Midwest markets

Federal Tax Reform



- Bill passed by Congress in December preserved the current federal Investment Tax Credit (ITC)
- Still working to fight 'BEAT' tax provision, which endangers billions of dollars in private-sector investments in industries such as solar.

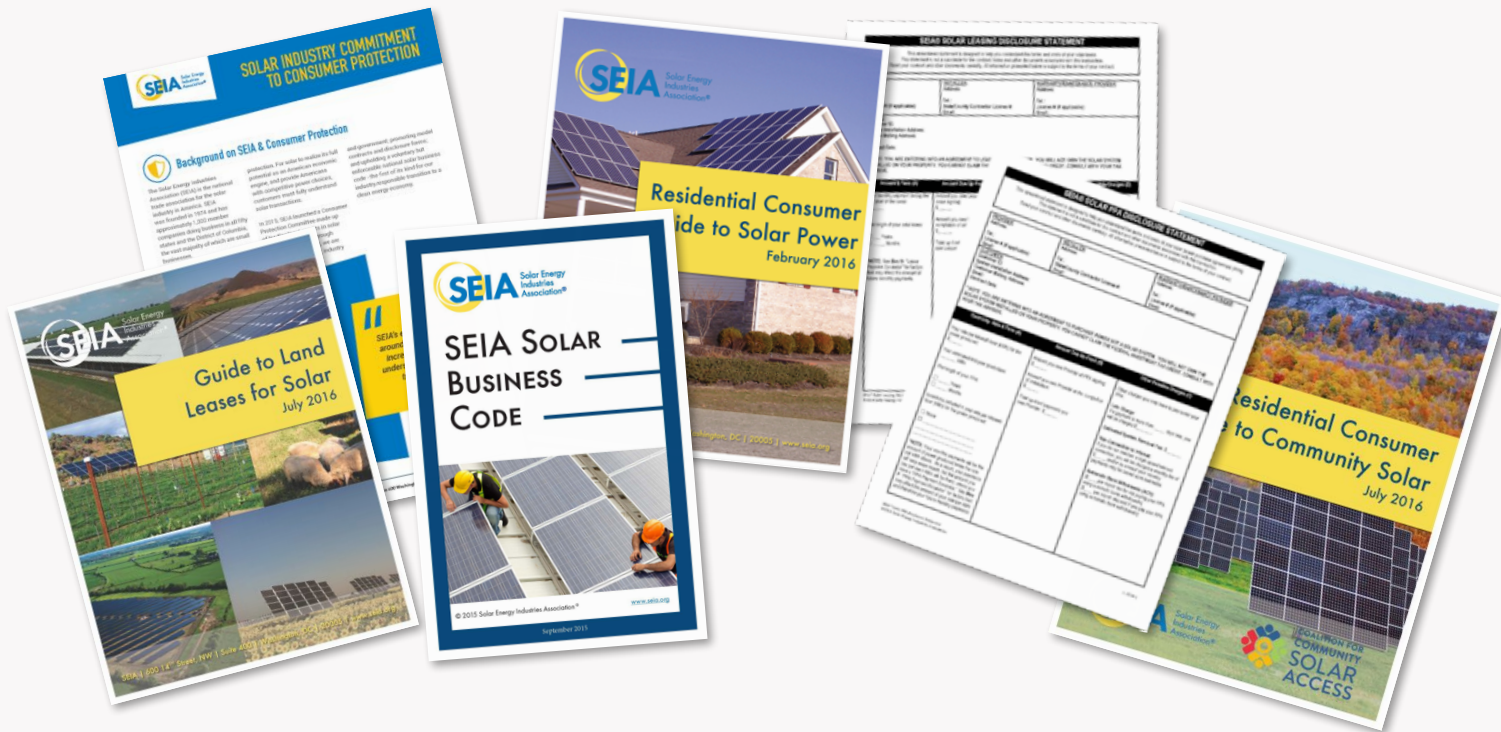
Codes & Standards

- National Electric Code – 2020 revision happening now with major implications for solar
- Installer safety, fire safety will always be important issues – we must *lead* on them

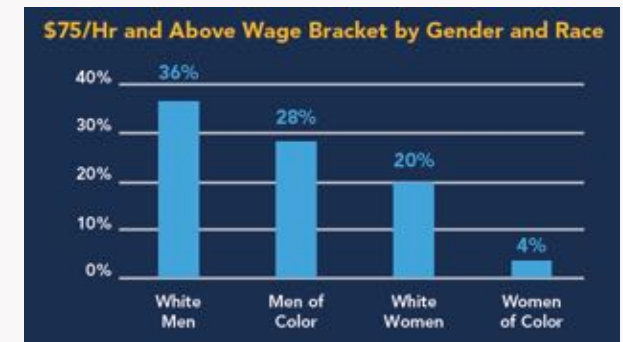


Consumer Protection

- Attacks on industry around consumer protection undermine all of the work we do
- Must continue to develop and promote our many resources around this issue:



Workforce Diversity



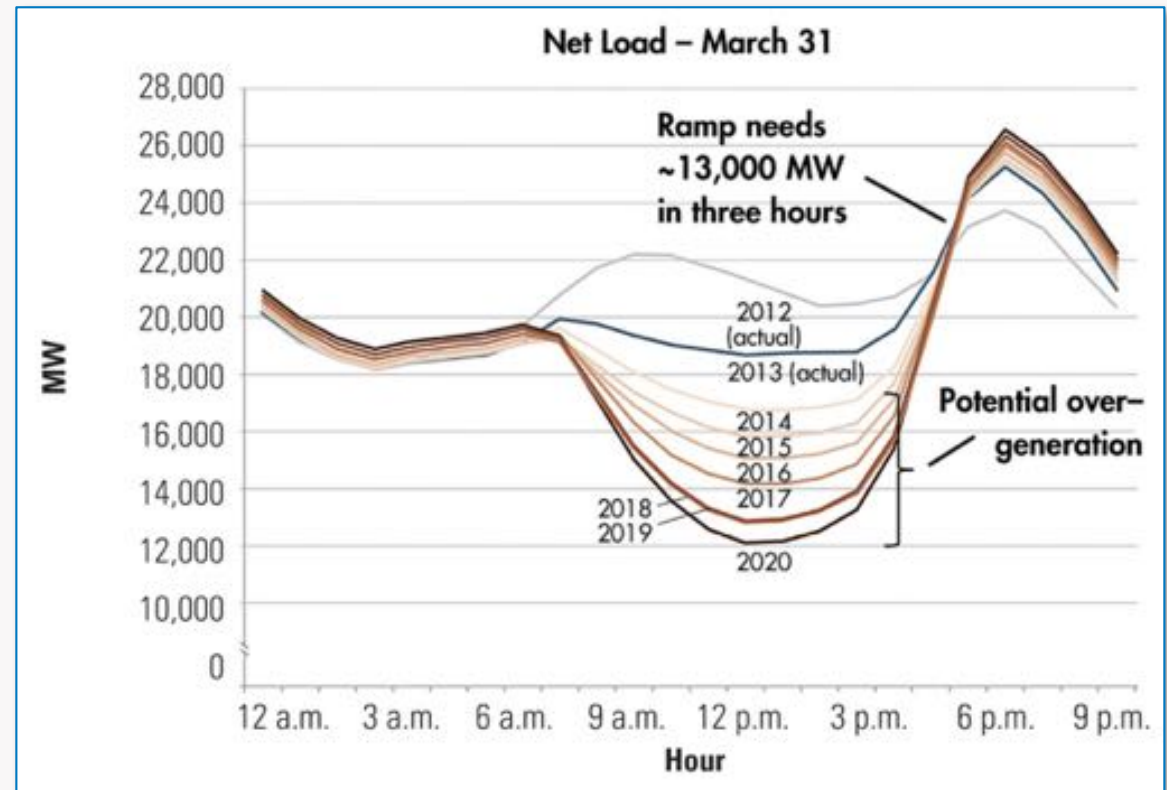
- Very few companies have implemented strategies to increase representation from women, veterans or people of color
- To increase diversity, companies need to:
 - Create company-wide pledges
 - Track and measure results
 - Broaden recruiting efforts
 - Implement blind application review
 - Establish diversity training programs

Solar + Storage

- Storage-friendly language being included in various state NEM/rate design legislation
- Many new utility-scale solar projects are incorporating storage
- What policy mechanisms are needed to advance solar + storage?



Transmission & Grid Modernization

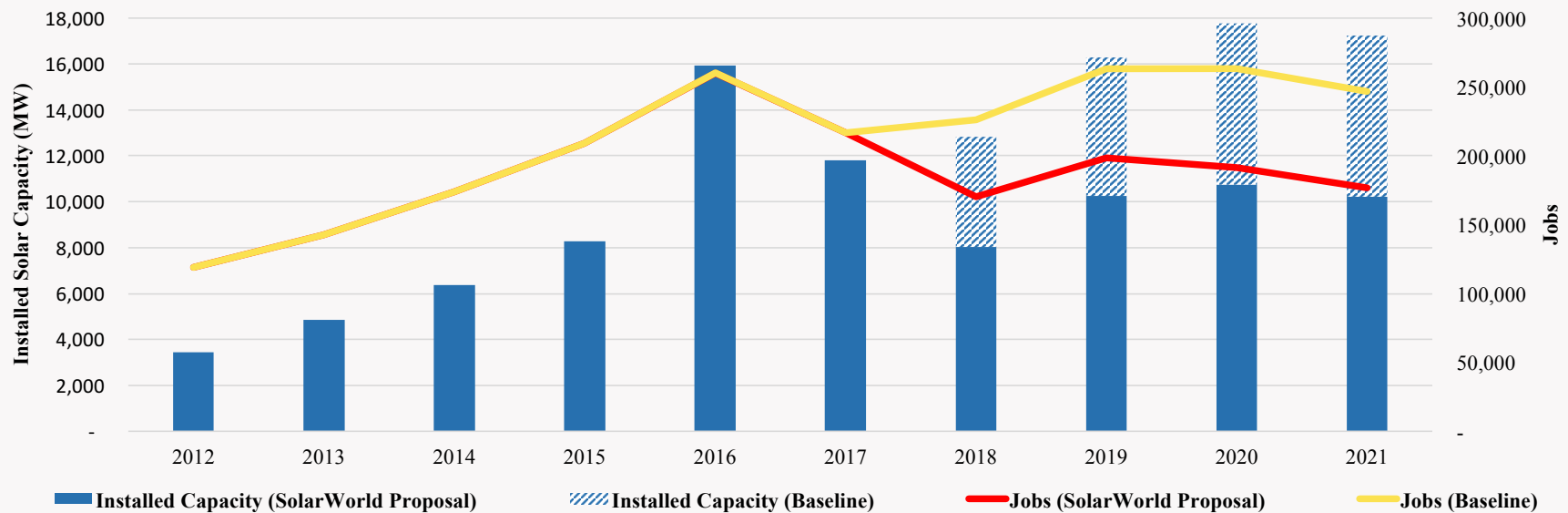


www.seia.org/gridmod

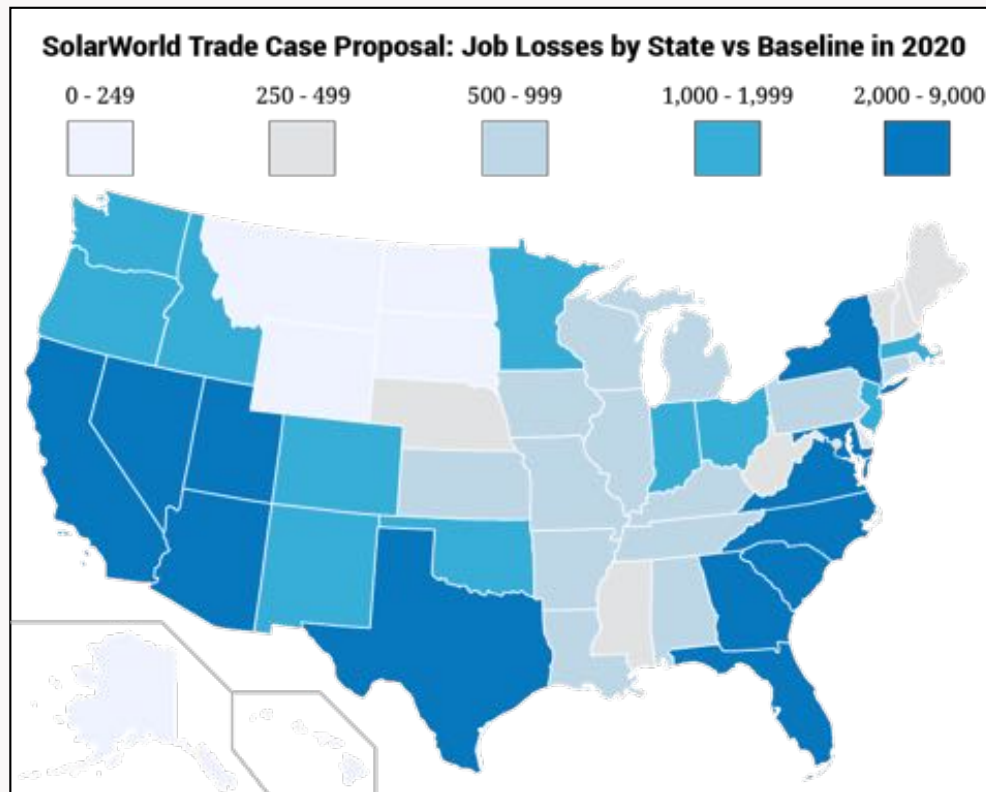
The Section 201 Petition Threat

- The petition brought by Suniva and SolarWorld asks for tariffs and minimum prices on imported cells and modules containing imported cells
- The proposed import restrictions could more than double the price of solar nationwide and lead to tens of thousands of jobs lost

SolarWorld Trade Relief Proposal Impact on Solar Deployment and Jobs vs Baseline



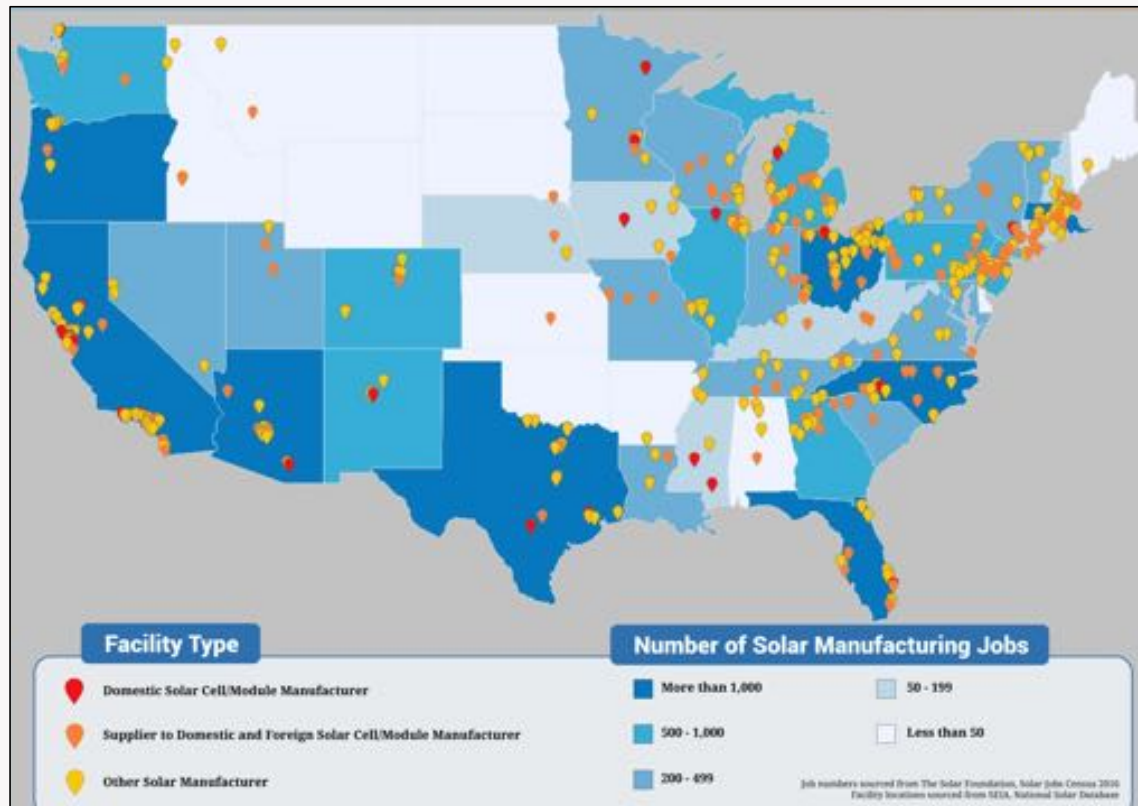
Job Losses Would Be Felt Nationwide



Low Costs Support U.S. Manufacturing



500+ U.S. Solar Manufacturers Support Over 38,000 Manufacturing Jobs



The background of the slide is a close-up, high-angle photograph of solar panels. The panels are arranged in a grid pattern, with white lines separating the dark blue photovoltaic cells. The perspective is slightly tilted, creating a sense of depth and repetition.

HOW TO WIN THE POLICY BATTLES

Lessons learned from SEIA's federal advocacy work that can be translated to state-level campaigns

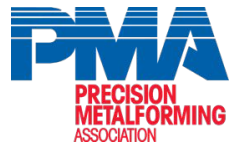
Coordination with other Renewables and Energy Technologies



- For communication and advocacy with DOE, we need a broad coalition
- Our efforts teach us that speaking with a unified voice gives us a seat at the table



Finding New Partners & Allies (in Unlikely Places)



“Tariffs meant to protect one industry can, and often do, have significant damaging effects on other domestic industries”
– [Heritage Foundation](#)



“The solar case is an example of the worst kind of trade protectionism. We’re delighted to stand for freedom and free markets.”
– [R Street Institute](#)



“Taxpayers should not have to bail out one foreign-owned company only for their foreign financiers to get another. American solar can compete just fine on its own.” – [Sean Hannity](#)

Using Traditional and Digital Media in Tandem

The Washington Post

Solar trade case weighs whether protection will save or sink industry

Aug. 15: “I just really hope everything goes well and I get to keep my job,” said Watkis, who wore a blue button reading “No new solar tariffs.” “If the prices go up, I could see us slowing up.”

Los Angeles Times

Trump positioned to slap potentially crushing tariffs on solar industry

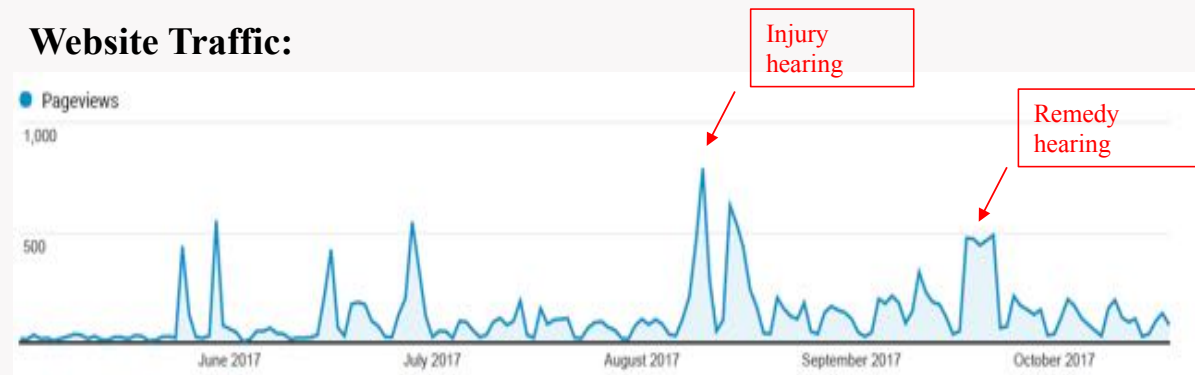
Sept. 22: Some 16,000 California jobs could disappear if the heavy tariffs being sought by the distressed manufacturers are imposed, according to an estimate from the Solar Energy Industries Assn.

THE WALL STREET JOURNAL.

Editorial: Solar Power Death Wish

Subsidies aren't enough. Now solar-panel makers want tariffs.
Sept. 15: Solar tariffs would be another destructive exercise that benefits a handful of Suniva and SolarWorld investors at the expense of everyone else—including the rest of the solar industry.

Website Traffic:



Social Media:

- As of January 1st, the #SaveSolarJobs social media campaign has had **52.5 million** impressions worldwide, with more than 10,000 tweets from nearly 3,000 contributors
- Recruiting support from high profile activists and influencers is critical

Traditional Lobbying and Education is Critical



Following Suniva's filing of the Section 201 trade case, SEIA has actively engaged with the U.S. Government

- Since April 26th, SEIA's federal affairs staff has conducted **more than 100 trade-related meetings**, including:

87 meetings

with Members of Congress and their staff



50+ meetings

with Trump Administration officials



Building Relationships with Lawmakers Yields Results

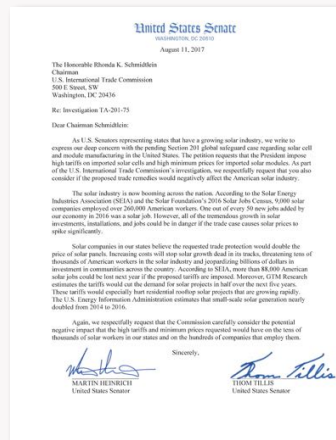


Congressional and Governor letters to the US International Trade Commission

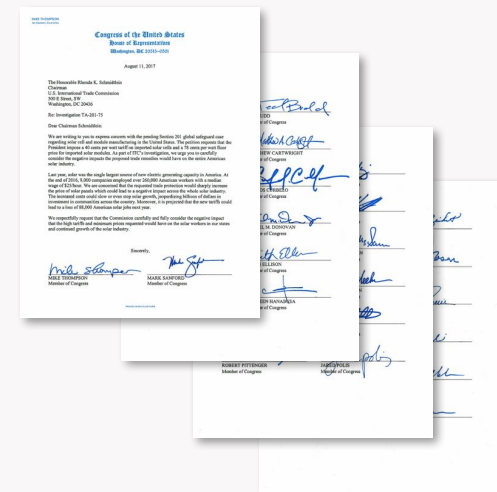
U.S. Governors



U.S. Senate



U.S. House



QUESTIONS

