


AMERICAN RENEWABLE ENERGY MANUFACTURING

100 GW by 2030

The Promise of American Renewable Energy Manufacturing



SEIA has an ambitious but achievable goal – solar energy will constitute 20% of all U.S. electricity generation by 2030. To reach this target, we must grow our industry by 18% annually and install more than 500 gigawatts (“GW”) of solar projects by the end of 2030, building upon the nearly 100 GW of solar energy capacity that exists today.

- » **Achieving the 20% by 2030 goal will result in hundreds of thousands of new jobs, more than 14 million solar rooftops, and 500 million metric tons of avoided CO2 emissions.**

To date, however, while the broader U.S. solar industry has and will continue to flourish, U.S. solar manufacturing has languished. It is time to seize the promise of American renewable energy manufacturing, including solar, wind, and energy storage.

- » **In parallel with 20% SEIA’s goal, we have set an additional target of 100 GW of renewable energy manufacturing production capacity by 2030.**

Long-term Federal Investments

So how do we get there? It will require long-term federal investments, over the course of a decade, and a suite of policy options designed to: (i) incentivize investments in manufacturing capacity; (ii) support ongoing factory production; and (iii) provide demand certainty. All three investments are essential.

We must also recognize that change will not happen overnight and that imports will continue to be necessary to meet our climate change goals.

SEIA’s recommended suite of federal investments includes:

- » **Access to low-cost capital**, e.g., long-term, low interest loans (capacity)
- » **Incentives for investments in facilities and equipment**, e.g., manufacturing tax credit (capacity)
- » **New, additional tax credit incentives for domestic production**, e.g., linked to factory output or materials, labor, and overhead costs (production)
- » **Federal purchases of domestically produced equipment** (demand)
- » **Long-term extension of investment tax credit** to provide demand certainty (demand)

SEIA’s target of 100 GW of annual renewable energy manufacturing capacity by 2030 is not about picking winners or losers or favoring domestic products over imports. It is a recognition that a strong renewable energy manufacturing base is good for America’s national security and economic well-being.

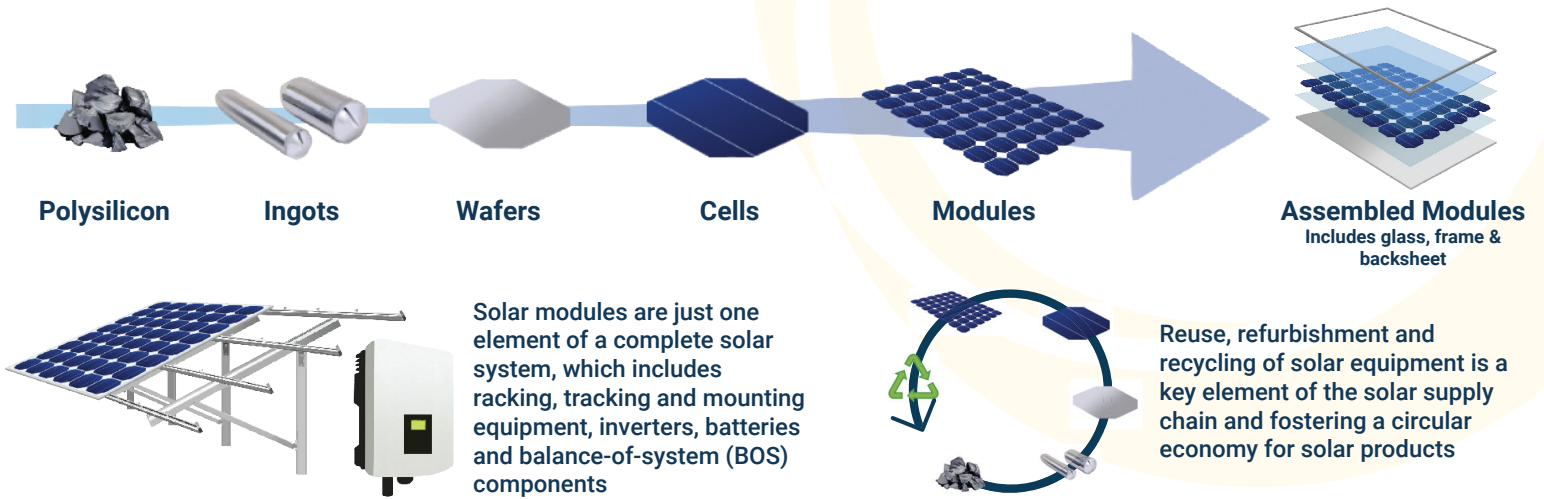


June 2021

© 2021 Solar Energy Industries Association (SEIA)

SEIA Solar Energy
Industries
Association®
www.seia.org

OVERVIEW OF THE SOLAR SUPPLY CHAIN



High-Level U.S. Manufacturing Capacity



Metallurgical Grade Silicon (MGS)

- 100% U.S. capacity
- Capital intensive



Polysilicon

- 100% U.S. capacity
- Capital intensive



Residential Modules

- Modest U.S. capacity
- Medium-sized-enterprises
- Labor



Racking, Tracking & Mounting

- Modest U.S. capacity
- U.S. steel production
- Innovation

Mid-Level U.S. Manufacturing Capacity



Batteries

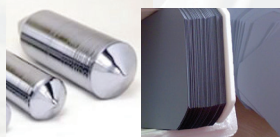
- Current capacity low, but factories are under construction
- Innovation



BOS Components

- Modest U.S. capacity
- Global supply chain

Low-Level U.S. Manufacturing Capacity



Ingots/wafers

- No current U.S. capacity
- U.S. ingot technology
- Labor



Cells

- No current U.S. capacity
- Capital intensive
- Innovation



Utility-scale Modules

- Limited U.S. capacity
- Sold out for next 2-3 years
- Innovation
- Labor



Inverters/Power Conversion

- Limited U.S. capacity
- Cybersecurity