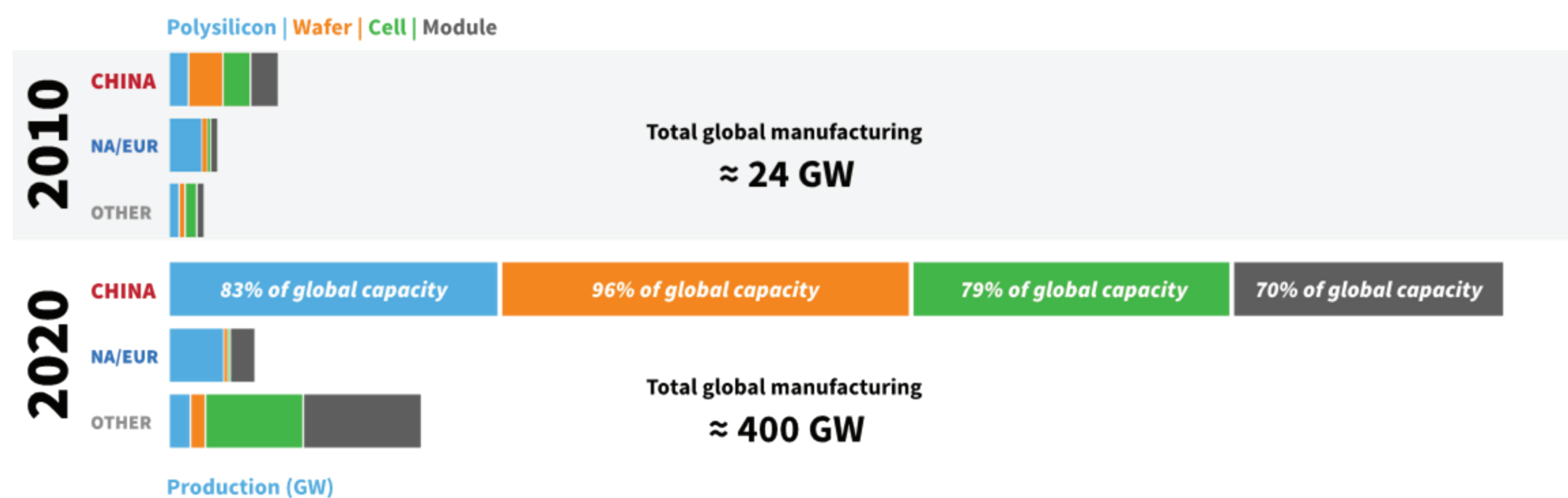


BUILDING RESILIENT U.S. SUPPLY CHAIN

Opportunity is **NOW** to leverage growing solar market and socio-political environment to develop critical solar domestic manufacturing infrastructure.

CURRENT STATE

Solar Manufacturing Output by Component and Region, 2010-2020

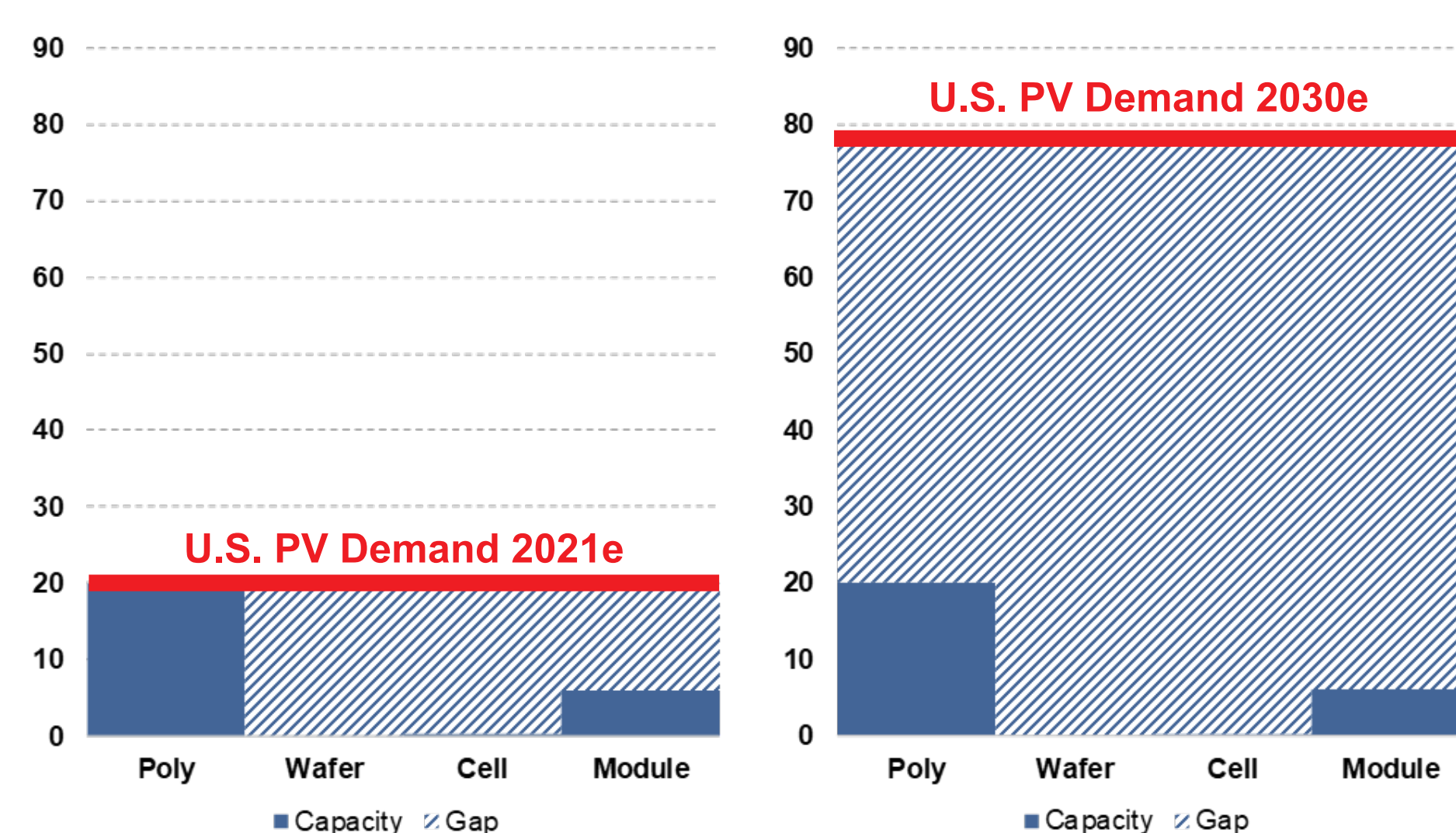


Reasons for Critical Attention:

- *Energy Independence
- *Renewable Resources /Sustainability
- *National Defense
- *Domestic Manufacturing / Jobs
- *Risk of Dominant Market / Region

MASSIVE OPPORTUNITIES FOR U.S. SOLAR MANUFACTURING

U.S. Supply Chain Manufacturing Capacities and Gap to PV End Market Demand (GW)



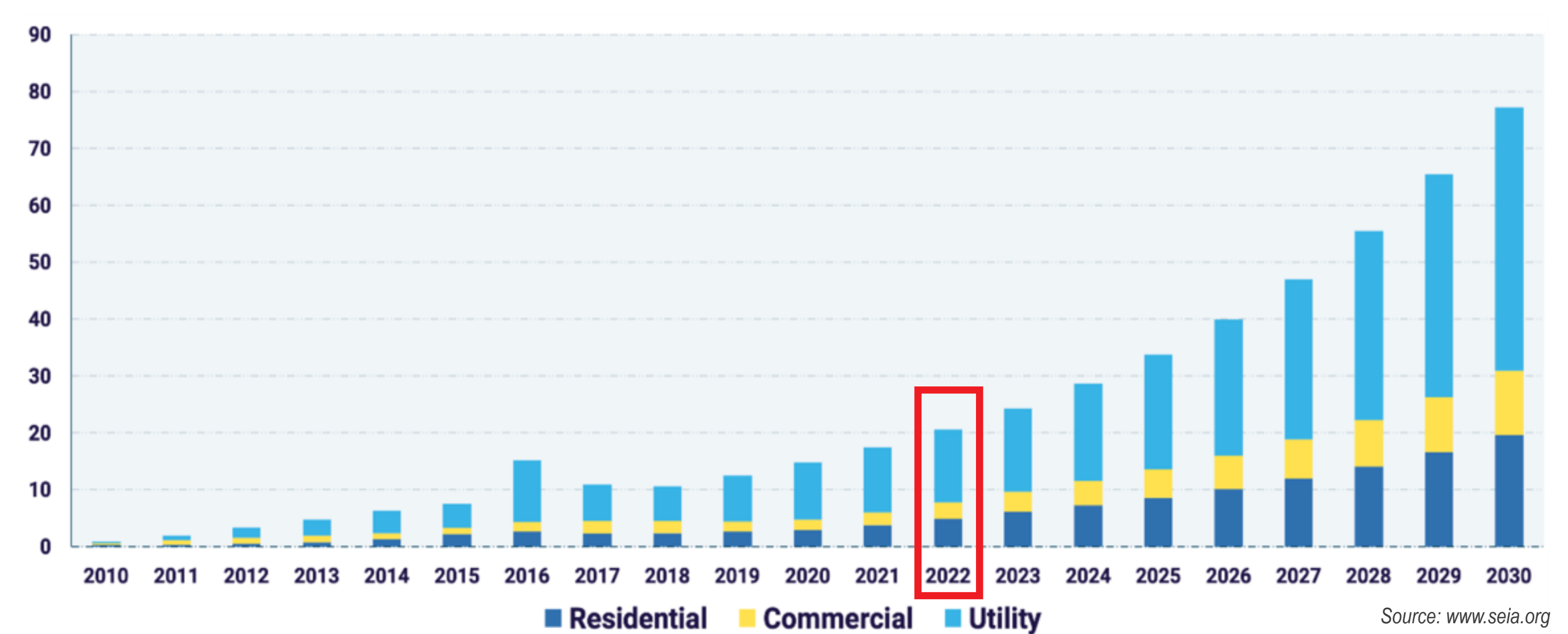
60GW ADDED BY 2030

~3000 jobs & ~500mn US\$ CAPEX for each GW of US manufacturing along the whole value chain (poly to module)

Total Value Chain Opportunity:

180,000 jobs
\$30B investment

Annual U.S. Solar Installations (GW) Required to Reach 20% of Generation by 2030

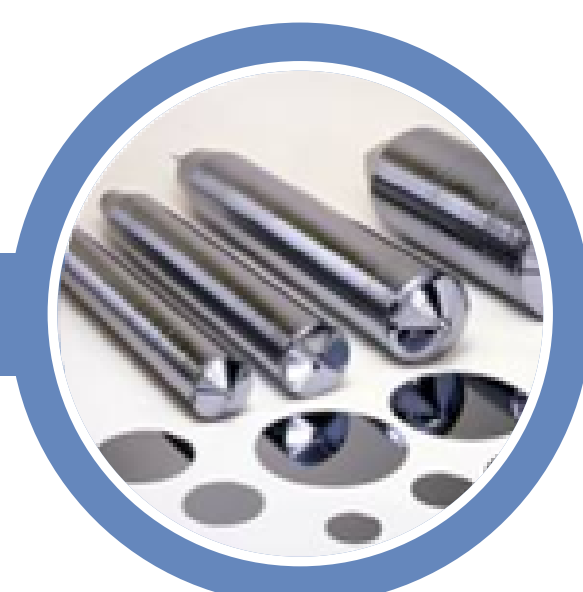


Following the passage of SEMA and CHIPS, consider the opportunity in the next 10 years for U.S. polysilicon and the solar supply chain.

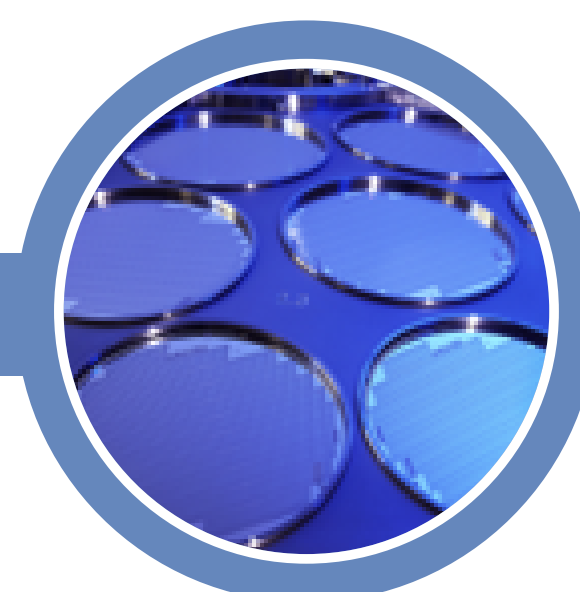
RE-SHORING / FRIEND-SHORING SOLAR SUPPLY CHAIN GROWTH



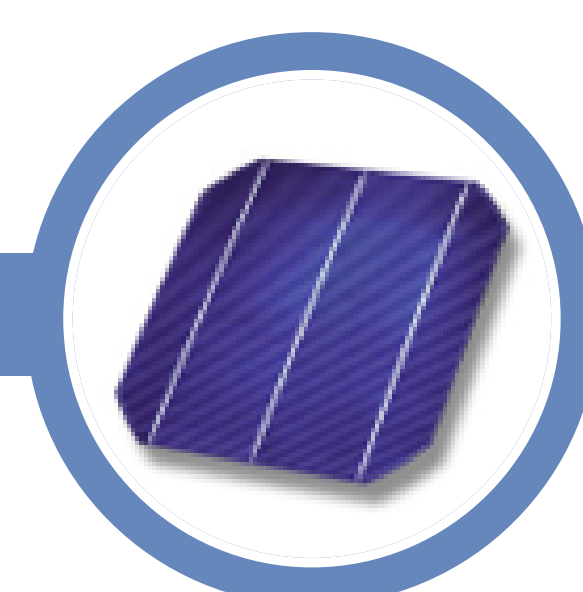
POLYSILICON
U.S. & GERMANY



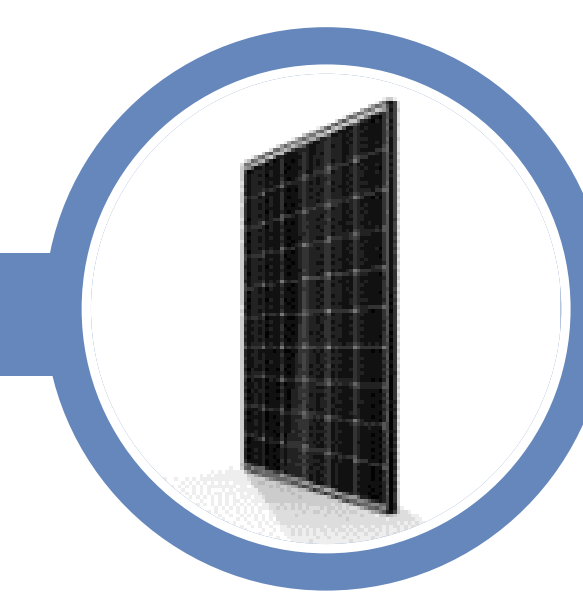
INGOT
EU / SE ASIA



WAFER
EU / SE ASIA



CELL
EU / SE ASIA



MODULE
U.S. / EU / SE ASIA



SYSTEM
U.S.



In addition to the recent progress in federal policy, there is more to do to build a more robust domestic polysilicon supply chain:

- * All of Government solar industry coordinated approach
- * Enhanced Government Procurement to drive demand
- * Ensure Import Certainty for non-US / China Solar materials
- * Use of the Defense Production Act (DPA)
- * Federal assistance for CapEx (i.e. grants/loan guarantees)
- * IRS Guidance on new 10% domestic content adder to spur U.S. made polysilicon / ingot / wafer
- * Streamline permitting for manufacturing facilities and needed raw material sourcing
- * Continue engagement with US/EU (i.e. TTC, ULCS)
- * Designate Polysilicon as a "critical material" and "critical supply chain material" essential to economic, energy and national security interests

