CEA
Clean Energy Associates

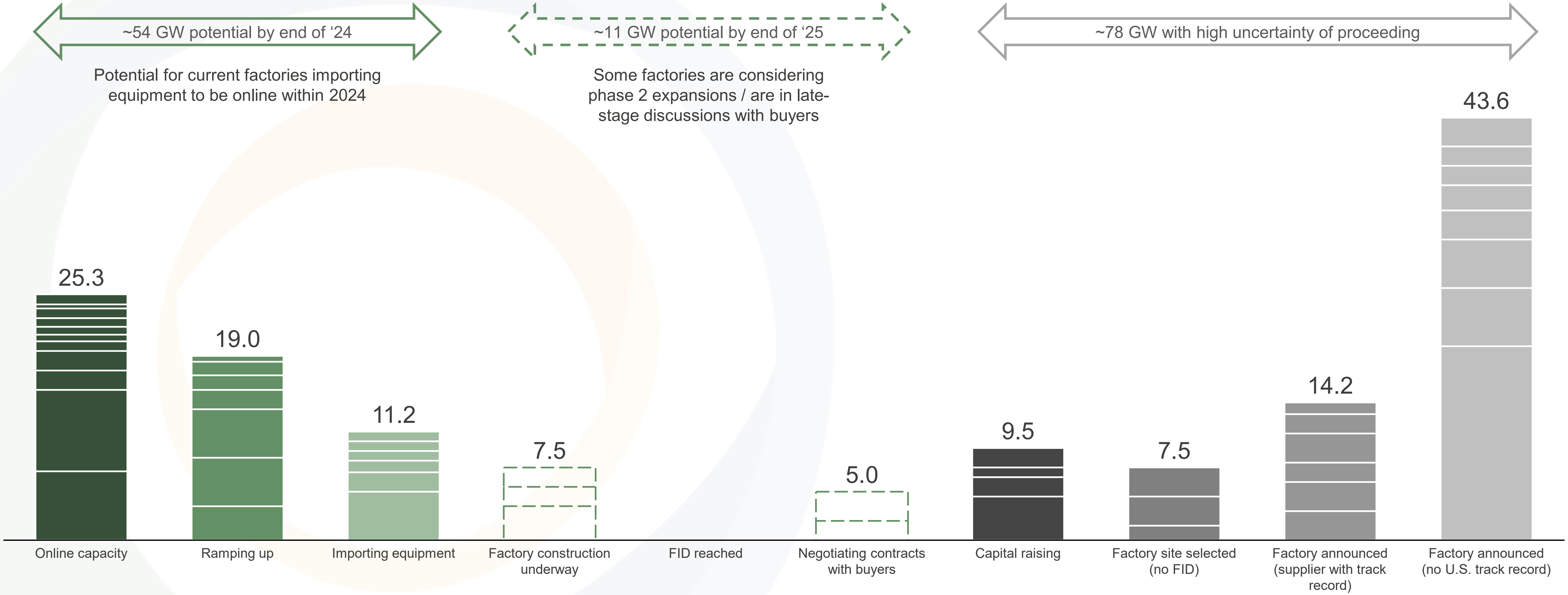
Status of U.S. solar factories: module to ingot/wafer

10/11/2024

Operational U.S. module capacity on track for ~55 GW by end of ‘24

10+ GW of follow-on plans are likely in ‘25; 75+ GW of plans are awaiting clarity

U.S. module capacity by estimated factory stage (GW)

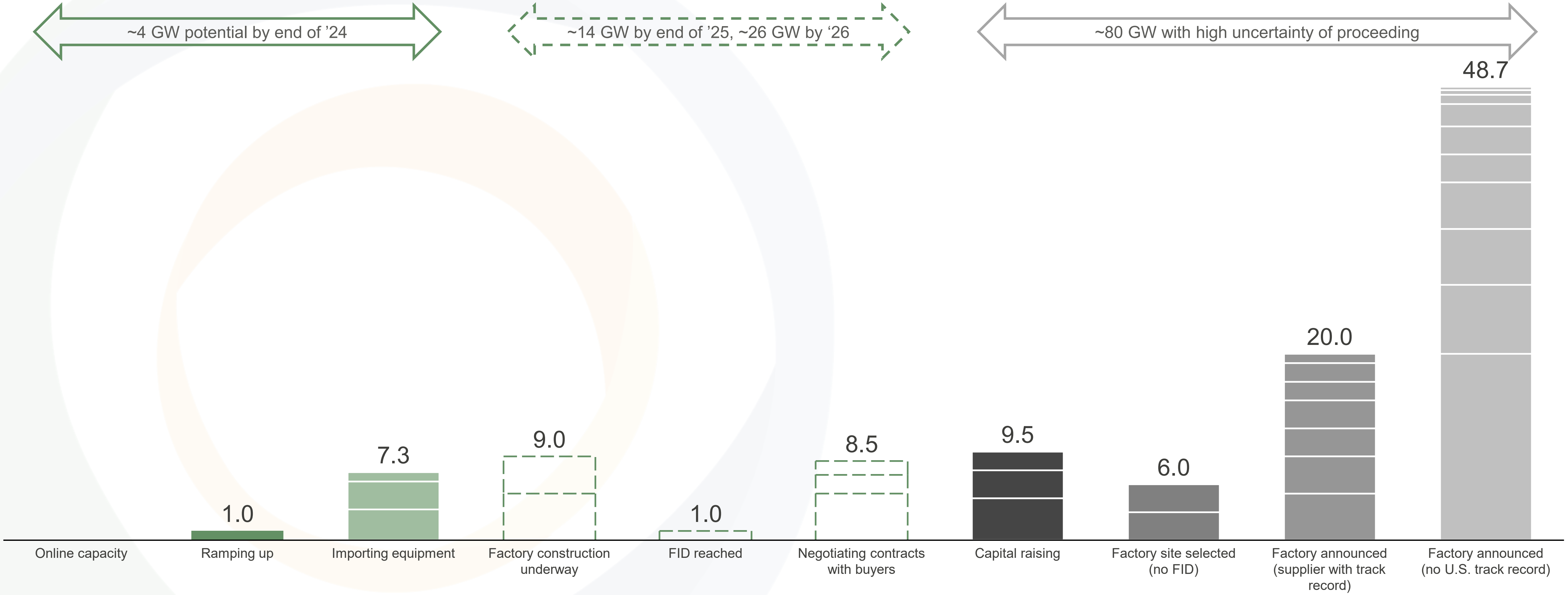


Notes | Data aggregated by CEA based on company announcements, disclosures, and monitoring of equipment and BoM imports. FID tracks a supplier’s final investment decision and is back-checked against buyers able to lock in purchase agreements with these suppliers. Some factory announcements have not made forward progress since the initial announcement and have been removed. Some factory progress may be more advanced than what is reflected here if the information is private/unknown.

U.S. c-Si cell capacity expected to reach ~8 GW by mid 2025

Potential for an additional 17 GW cell capacity by year-end 2026 to hit ~27 GW total

U.S. c-Si cell capacity by estimated factory stage (GW)



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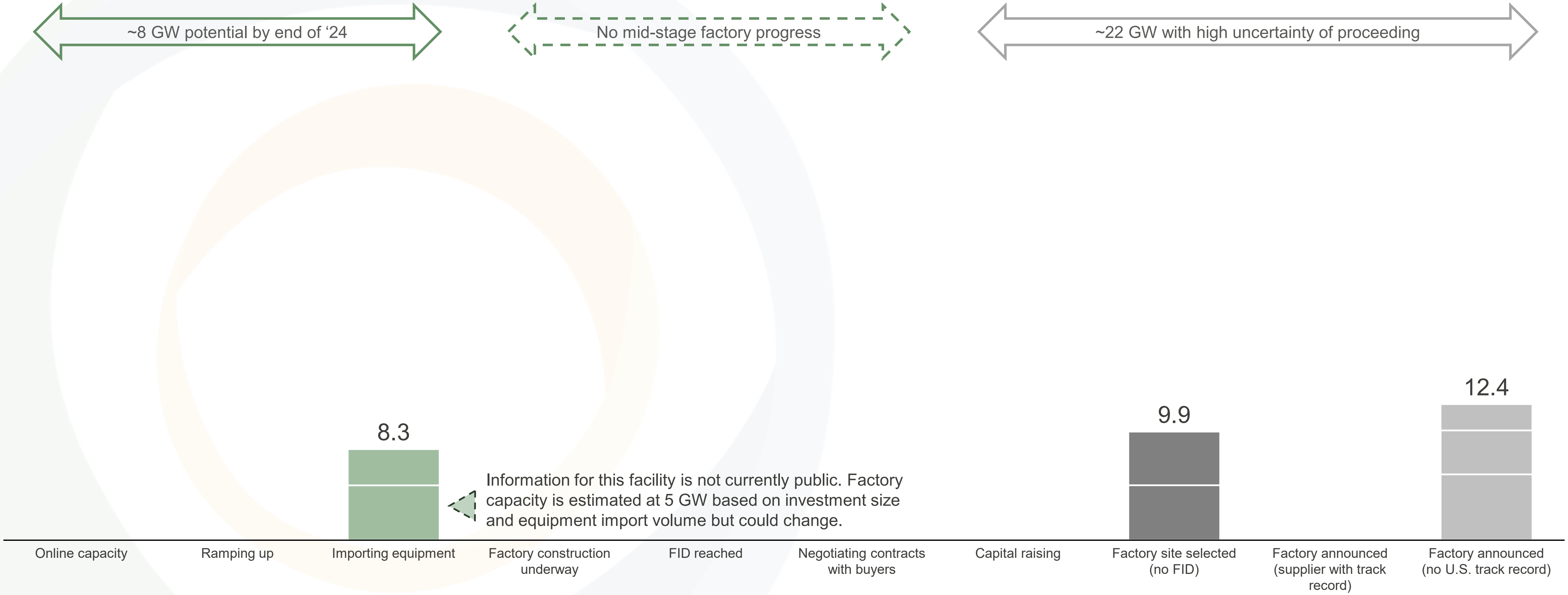
Two U.S. ingot/wafer factories progressing

Tier 1 PV supplier importing equipment likely destined for Michigan plant

U.S. c-Si ingot/wafer capacity by estimated factory stage (GW)



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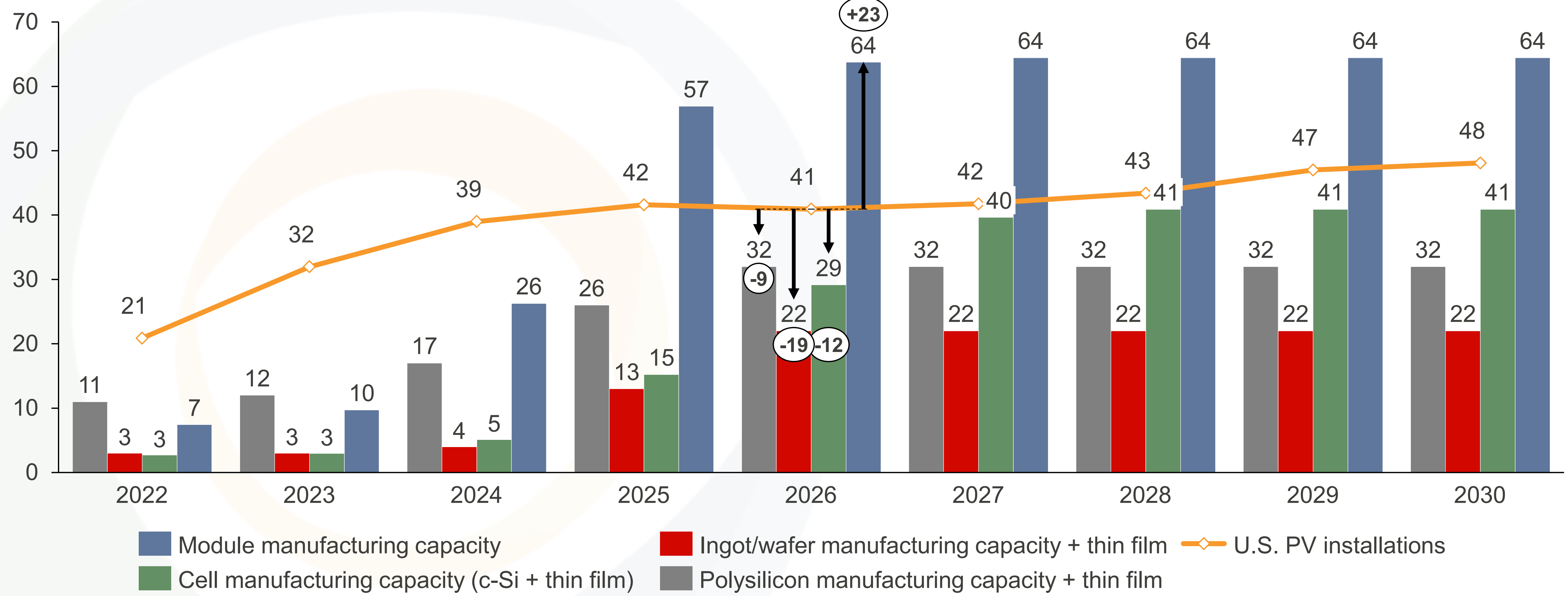
U.S. to meet domestic installation needs with U.S. module supply

Upstream polysilicon to cell capacity build-out still insufficient to meet domestic installs

Credible U.S. PV supply chain manufacturing capacity plans vs. PV installation outlook (GW)



Notes | Installation forecasts are reported in the SEIA/Wood Mackenzie Power & Renewables U.S. Solar Market Insight Report. Future installations projected based on historical installation trends by quarter. Quarterly capacity figures are forecast by CEA based on supplier statements and taking into account reasonable new factory ramp rates. Capacity figures are not adjusted for utilization.