



Canadian Solar US Manufacturing Journey

Thomas Koerner, CEO

Key Market Movers

Pressing US power-system problems that needs to be addressed



Rising Electricity Costs

Retail electricity prices continue to outpace inflation, putting pressure on household budgets and corporate operating costs. Solar delivers predictable, low-cost electricity and reduces exposure to rising utility rates.



Surging AI & Data Center Demand

US data center and industrial load is outpacing new supply. Solar paired with storage is the quickest technology to interconnect and deliver firm capacity.



Aging, Congested Grid Infrastructure

Long interconnection queues and constrained transmission delay new capacity. Solar sited near demand centers eases bottlenecks and defers costly upgrades.



Import Dependence & Trade Risk

Trade actions including Section 201, Section 301, AD/CVD, UFLPA, FEOC restrictions and Section 232 measures continue to create sourcing uncertainty and cost volatility

Source: S&P Global Commodity Insights

CS Power Systems, Inc.
Information Classification: General

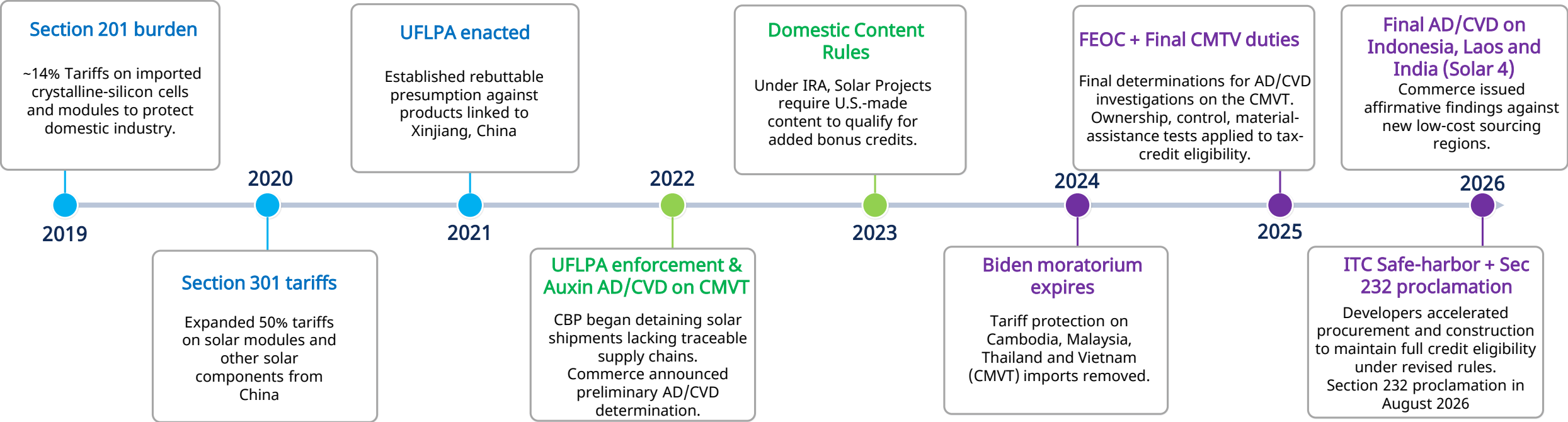
Industry uncertainties have been the new reality

Rising tariffs, import controls, tax-credit deadlines and compliance burdens: impact by higher equipment costs, border and sourcing risk, compressed credit timelines and rising qualification complexity

2019–2021 | IMPORT COST + TRACEABILITY

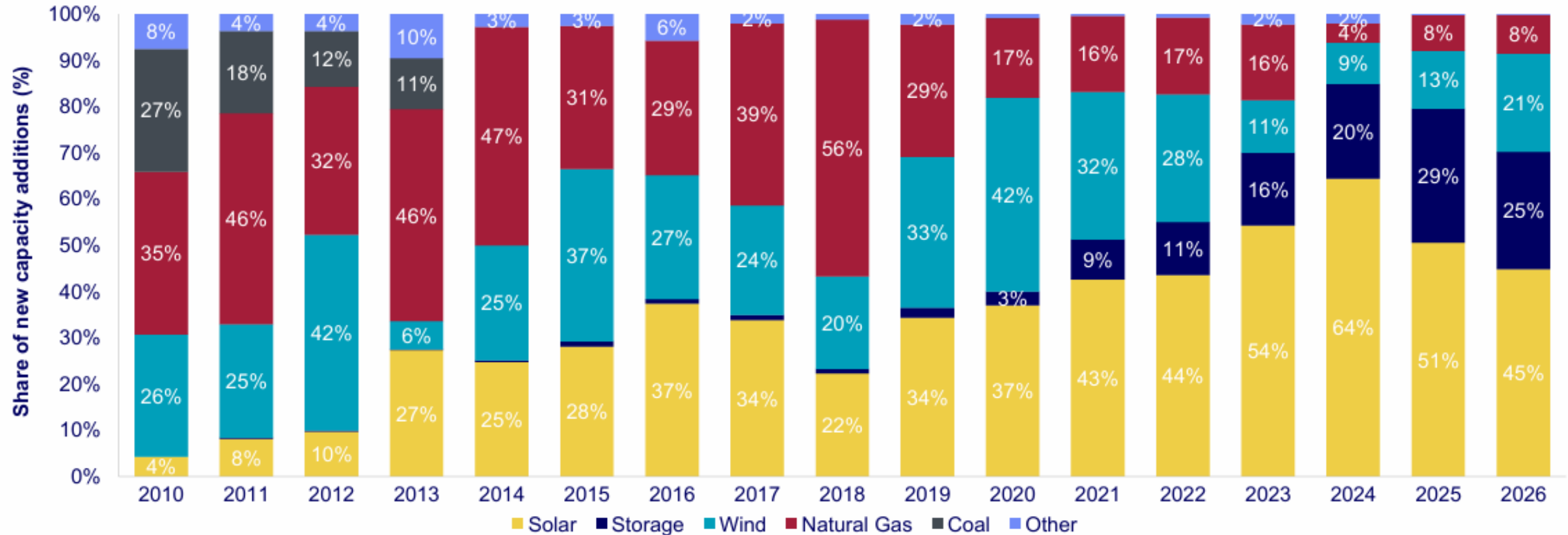
2022–2024 | DETENTIONS + TRADE RESET

2025–2026 | CREDIT SUNSET + BROADER TARIFFS



Solar and Storage Rise Together

New US electricity-generating capacity additions, 2010 – H1 2026



*Solar and storage supplied **80%** of all new U.S. generating capacity in 2025 — driven by data-center and AI-related demand growth, even amid federal policy headwinds.*

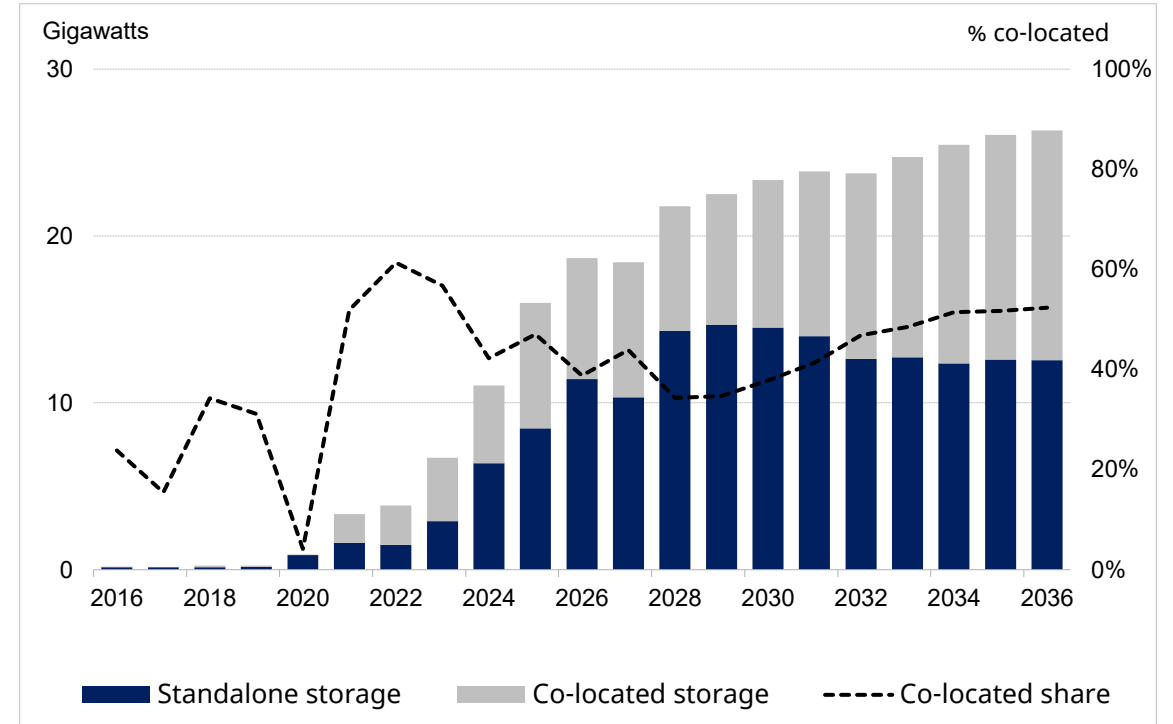
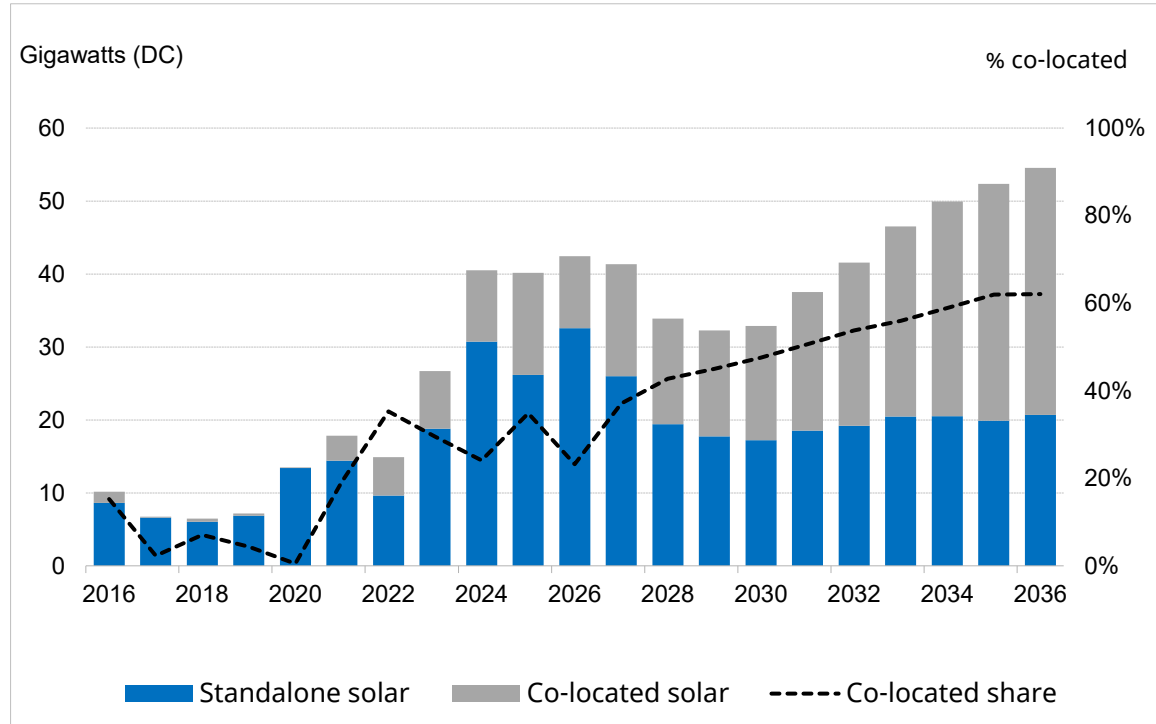
Source: Wood Mackenzie

CS Power Systems, Inc.

Information Classification: General

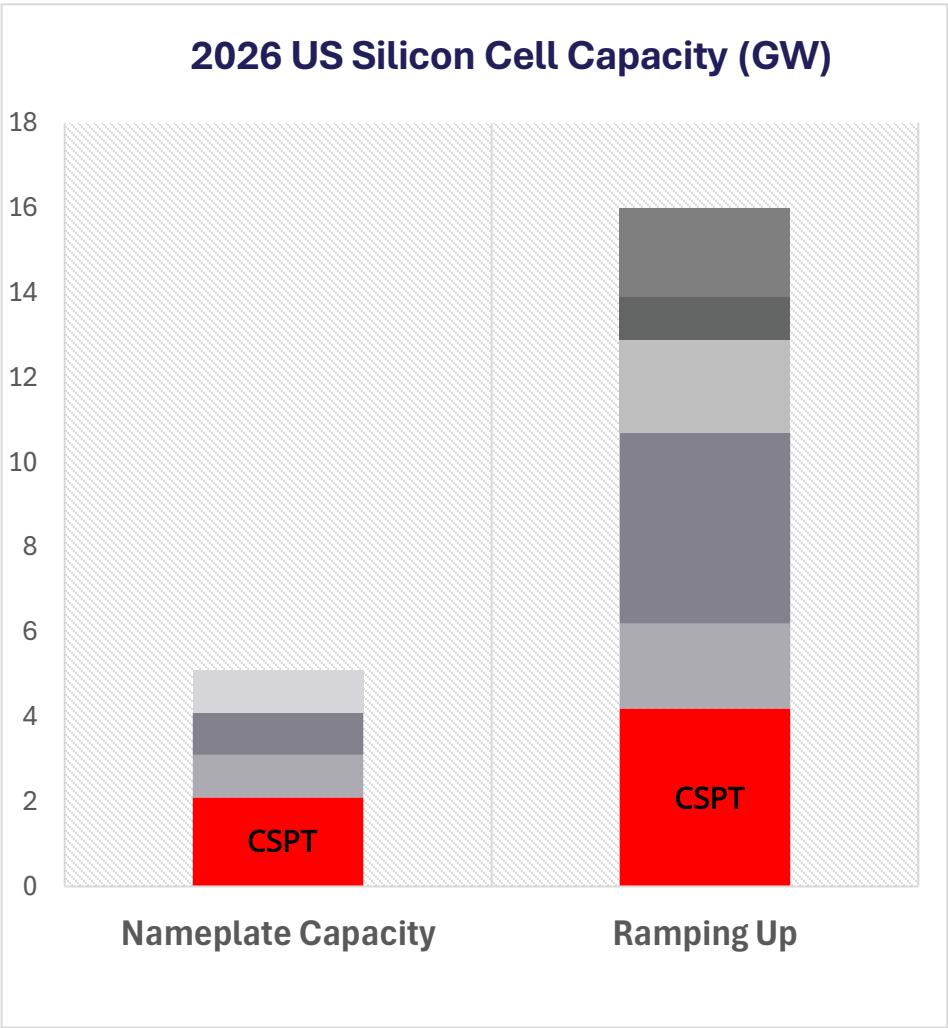
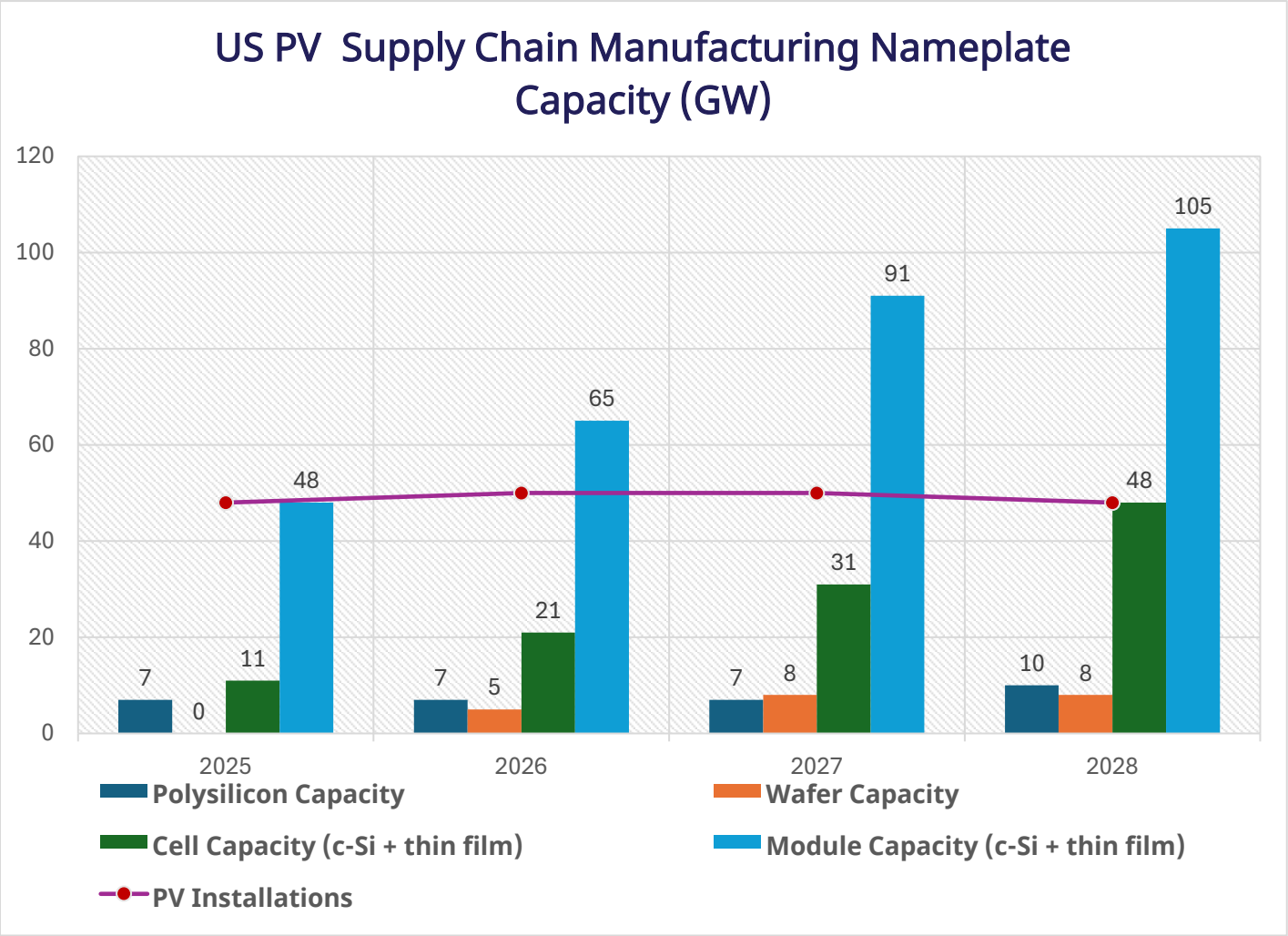
Solar and Storage Utility Scale Market

A third of all US solar built in 2025 was co-located with Battery. And growing further!
System design and integration knowledge of both segments (Solar + BESS) is becoming key!!*



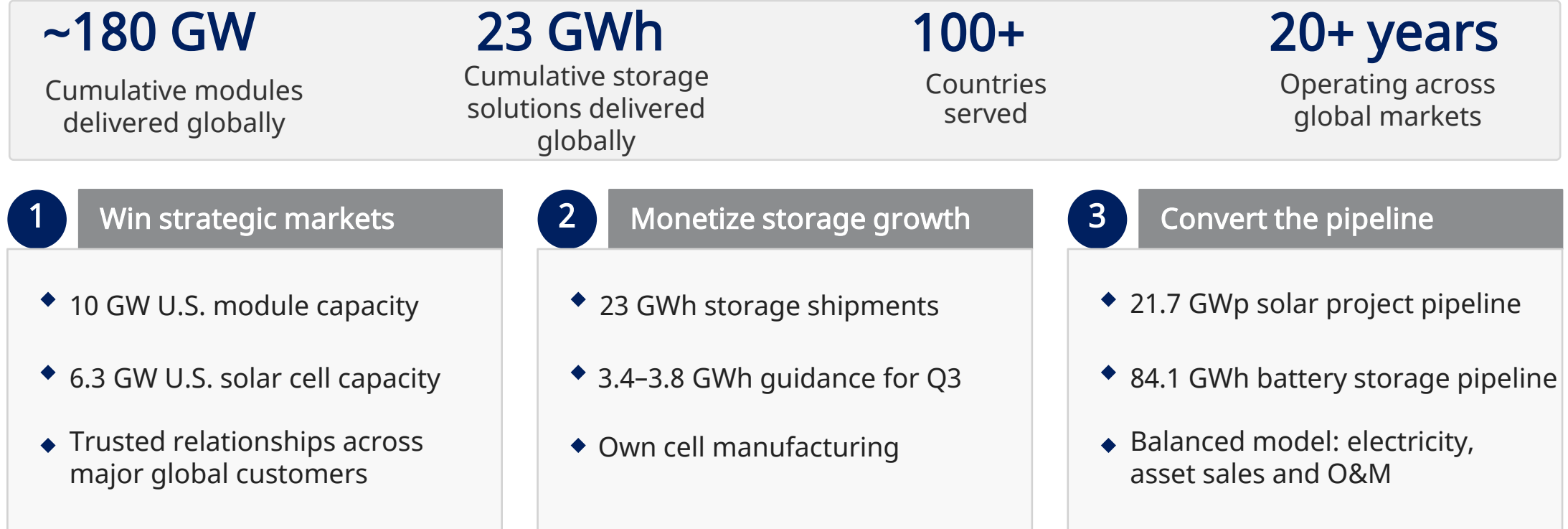
** Co-located share is the share of solar capacity that is paired with batteries. DC is direct current. Totals from 2026 onwards are forecasts*

Solar and Storage: US Supply and Shortfall



Canadian Solar's Growth Journey

A 25-year growth story built on scale, innovation and market expansion



Largest Global Manufacturing Experience in both PV and BESS

SEA / Brazil / Taiwan / Middle East / Canada / USA

Canadian Solar's Module Factory - Mesquite, Texas

 **10 GW** annual module capacity – Expansion from 5 GW in 2H 2026 – **LARGEST** in North America

 Up to 40,000 modules per day

 \$250M+ investment

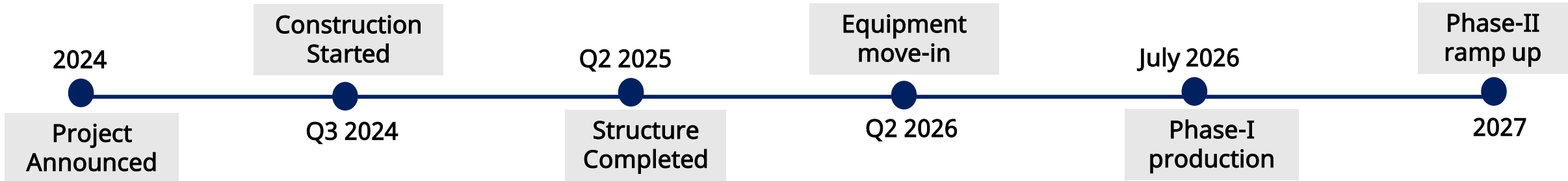
 2,000 local jobs

 Production started in Dec 2023

 Over **7GW+** of modules produced & shipped to date



Canadian Solar's Cell Factory- Jeffersonville, Indiana



	Nameplate Capacity	Timeline
Phase-I	2.1 GWp	Commercially Operational
Phase-II	4.2 GWp	Start Trial Production in 2027
6.3 GWp- the largest crystalline silicon solar cell factory in North America		



Advance HJT Technology- A Strategic fit

Three design parameters converge in the economics of a U.S. production line.

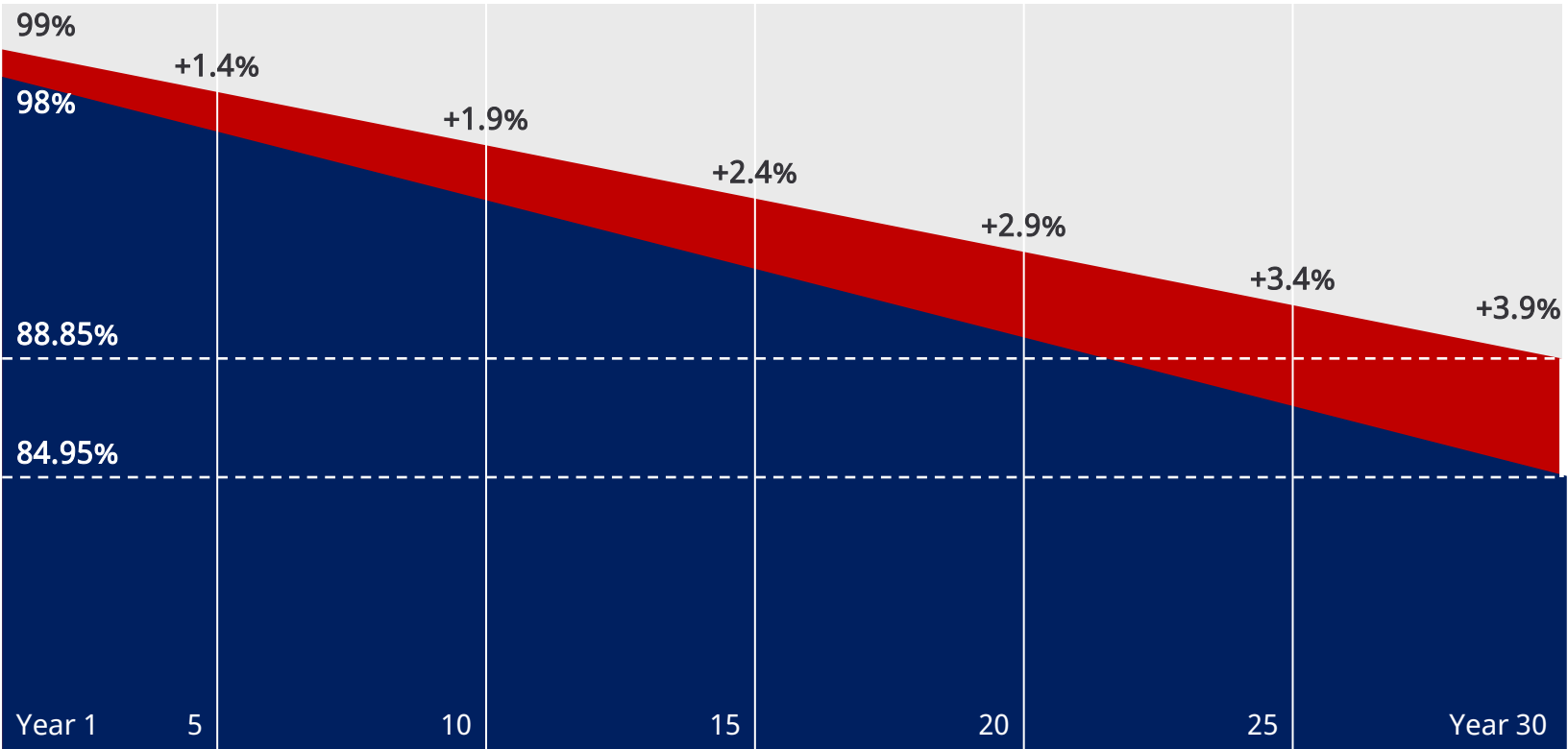


HJT vs PERC comparison

Cell Technology	PERC	HJT	HJT Benefits vs PERC
Module Power (W)	573	630	Higher power density
Bifaciality Ratio	up to 75%	up to 90%	Higher energy harvest from rear side
Low Light Performance	97.2%	97.5%	Better low light energy capture
Light Induced Degradation (LID)	0.8%	0.5%	Higher energy generation
Potential Induced Degradation (PID)	2.1%	1.3%	Higher energy generation
Power Temperature Coefficient (%/°C)	-0.34	-0.255	Better performance in warm climate
Carbon Footprint (CO ₂ eq./kWp)	~450-500	~350-400	Lower manufacturing carbon footprint
Lifetime Energy Yield (MWh/kW)	59.11	61.50	+4.0% from higher bifaciality, lower temperature loss and lower degradation
System cost excluding module (c\$/W)	46.5	44.9	1.54 c\$/W lower system cost, higher efficiency means fewer modules per 1P tracker

Warranted power output: HJT vs PERC

HJT vs PERC, 30-year power warranty



■ HJT power warranty ■ PERC power warranty

Year-1 output = 100% minus first-year degradation, then reduced linearly by the annual degradation each year. Labels show the HJT advantage in percentage points.

HJT
1.0% first-year degradation
0.35% annual degradation

PERC
2.0% first-year degradation
0.45% annual degradation

+3.9%
more warranted output for HJT
at year 30 (88.85% vs 84.95%)

System cost savings & LCOE improvement

HJT vs PERC

System cost excluding module

-3.3%

46.509 → 44.968 c\$/W

First-year energy yield

+2.4%

2,108.0 → 2,159.4 kWh/kW

Lifetime energy yield

+4.0%

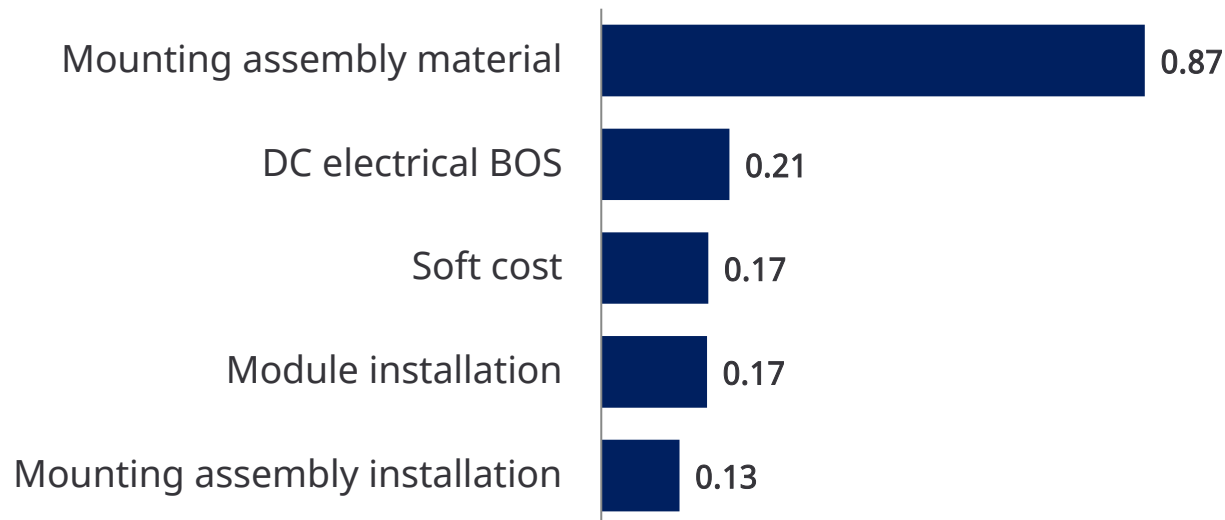
59.11 → 61.50 MWh/kW

LCOE

-5.0%

23.46 → 22.28 \$/MWh

System cost saving by component (c\$/W)



What drives the result

- **1.54 c\$/W lower system cost:** higher efficiency means fewer modules per 1P tracker (84 vs 90), so less mounting structure and cabling are needed. Mounting material is the largest saving (0.87 c\$/W, about 56% of the total)
- **More energy:** lifetime yield +4.0% from higher bifaciality, lower temperature loss and lower degradation
- **Lower LCOE:** lower BOS cost and higher yield together cut LCOE by 5.0% (1.18 \$/MWh)

Thank You

Let's Connect

United States

1350 Treat Blvd, Suite 500

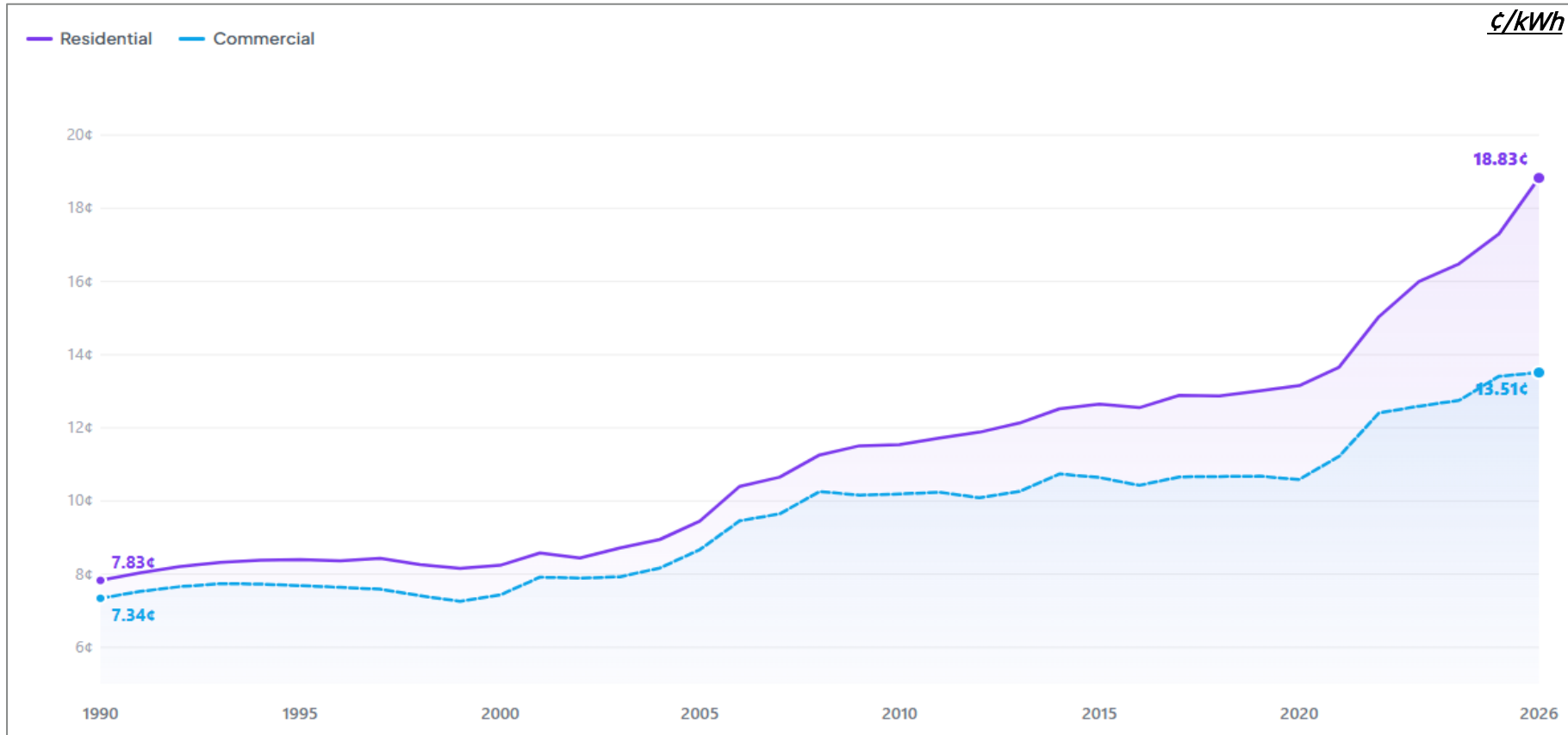
Walnut Creek, CA 94597

P: +1 925 866 2700

sales.us@cspowertech.com

Rising electricity Cost

U.S. electricity rates have risen 140% since 1990—from 7.83¢/kWh to 18.83¢/kWh in nominal terms. Adjusted for inflation, however, electricity has only become about 17% more expensive over three decades.



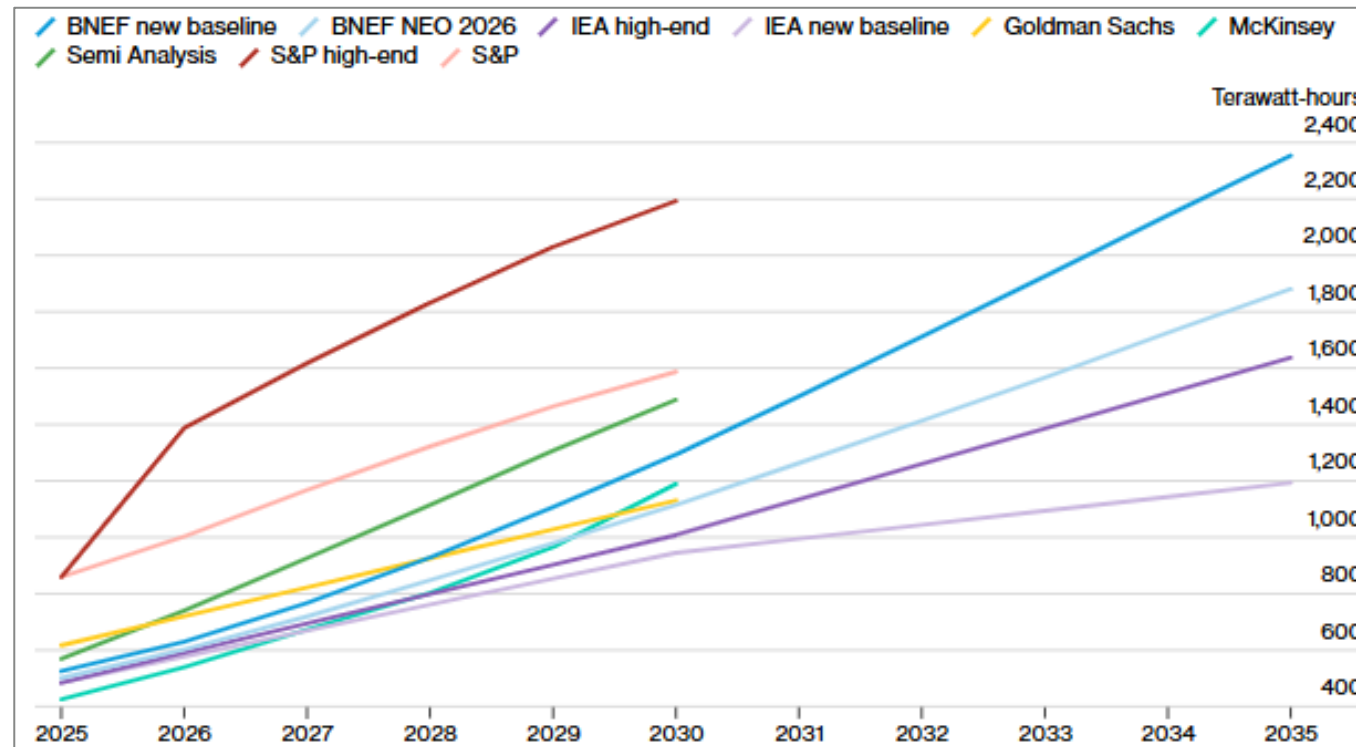
- Fastest period of growth: 2020–2026 (+43%)
- Inflation-adjusted increase: ~17% over 35 years
- 2026 residential rate: 18.83¢/kWh (+140%)

Slide 1

Source: U.S. Energy Information Administration

Surging AI and Data Center Demand

- ❑ *Data-center power demand is likely to at least double to over 1,000 terawatt-hours worldwide by 2030, from 525 terawatt-hours today*
- ❑ *The US share of global electricity demand for computing is likely to rise to 44% in 2030 from 39% in 2025. This is accelerated by higher utilization rates as more data centers are dedicated to artificial intelligence workloads.*

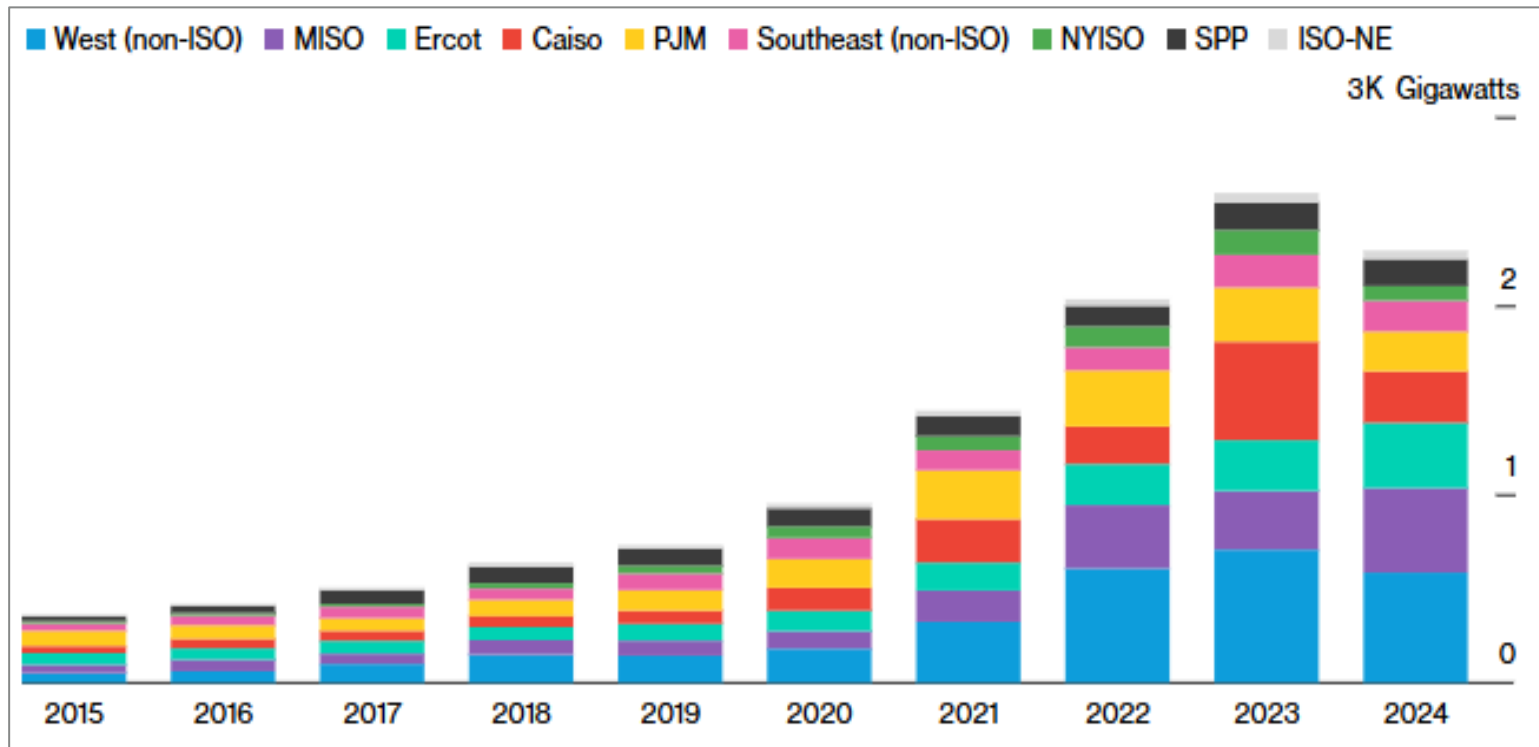


Slide 1

Source: BNEF, Goldman Sachs, IEA, McKinsey, S&P Global

Aging, Congested Grid Infrastructure

The queue to connect new generation to the US grid averaged an annual growth rate of 22.7% over the last decade, putting ever more pressure on grid operators to keep up with system expansion upgrades.



Slide 1

Source: Lawrence Berkeley National Laboratory