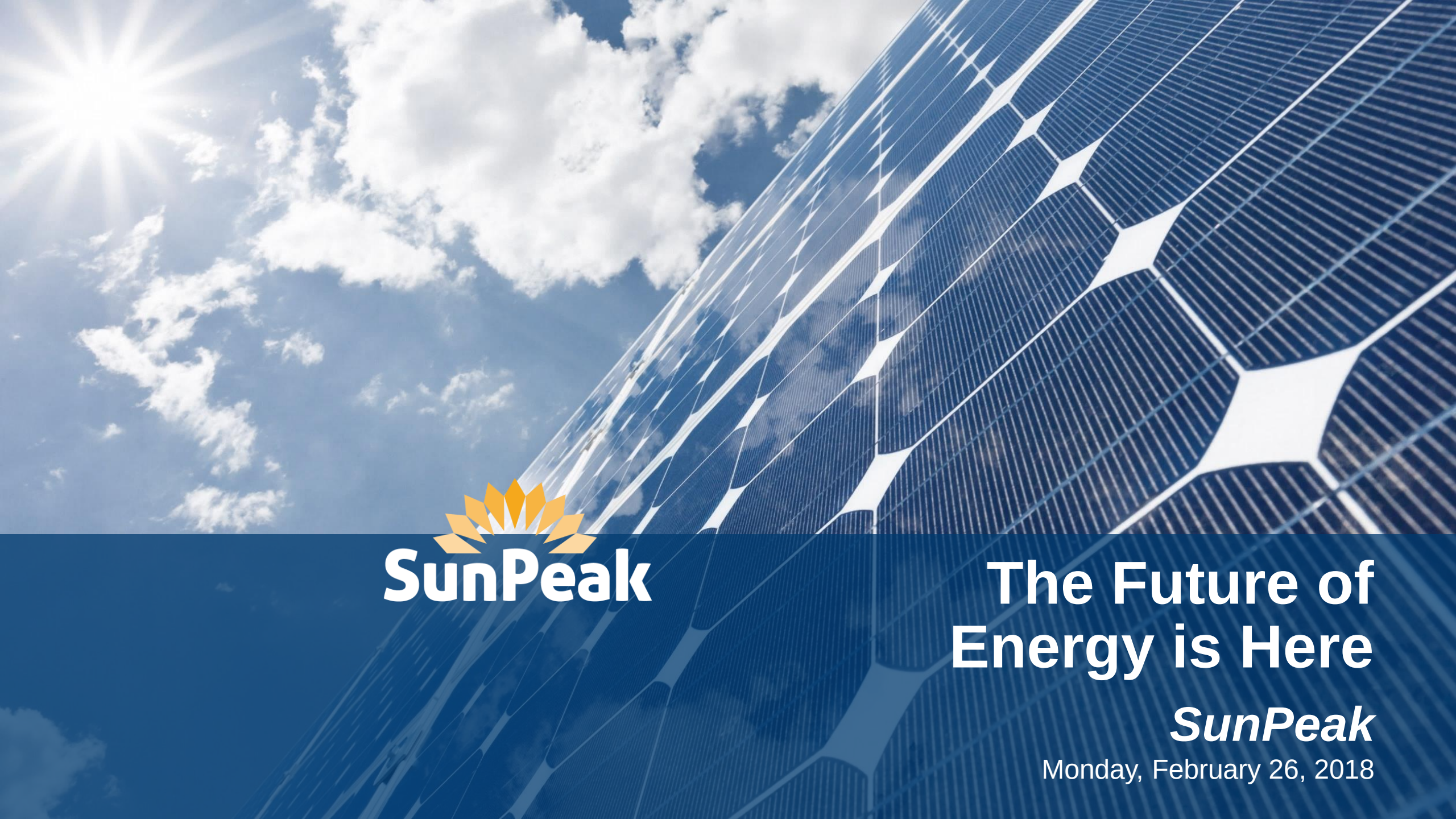
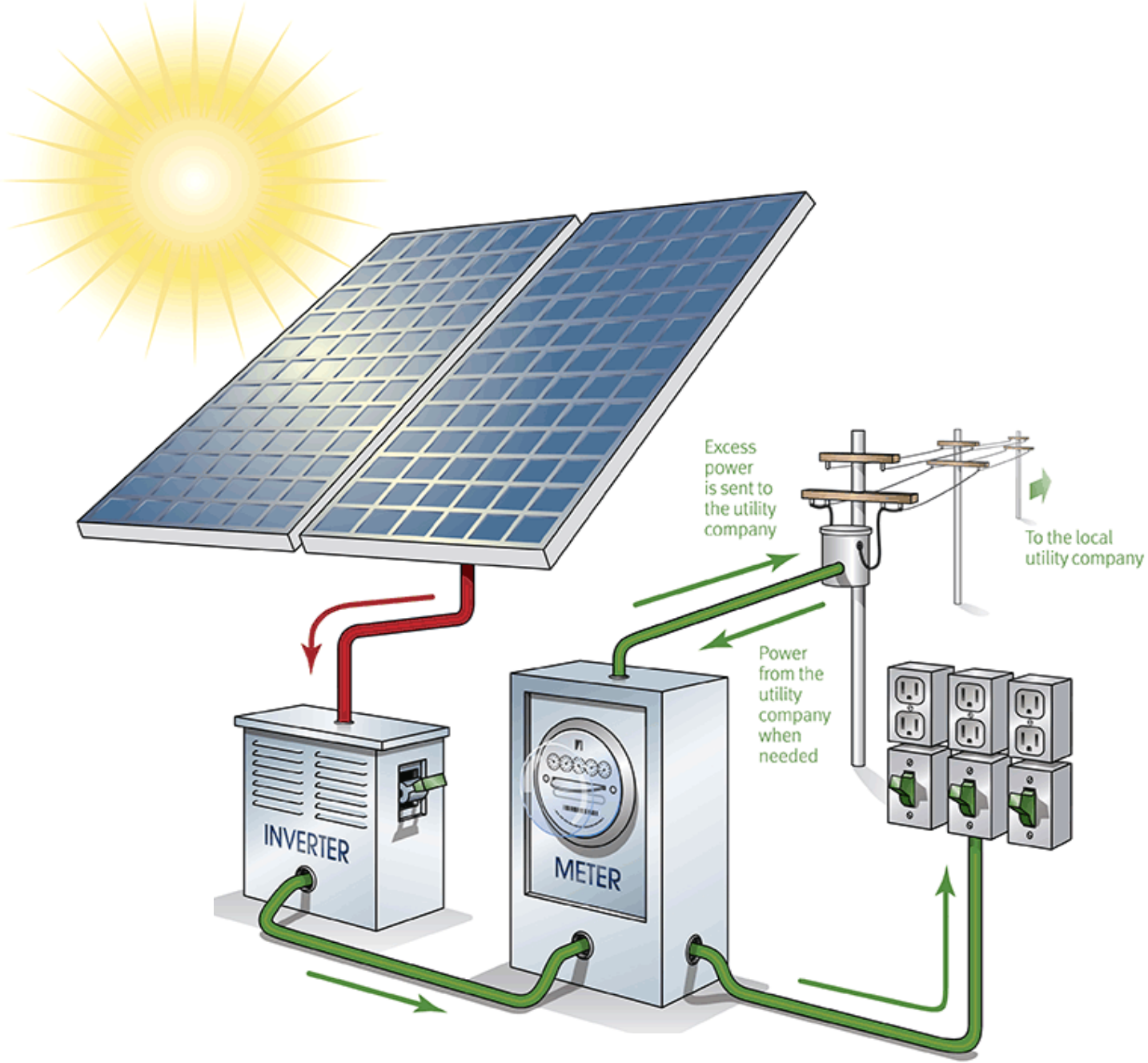


The Future of Energy is Here

SunPeak

Monday, February 26, 2018

What is Solar Power?



“net metering”

Why is Solar Power Making the News?

ne 2017 [$3.95]
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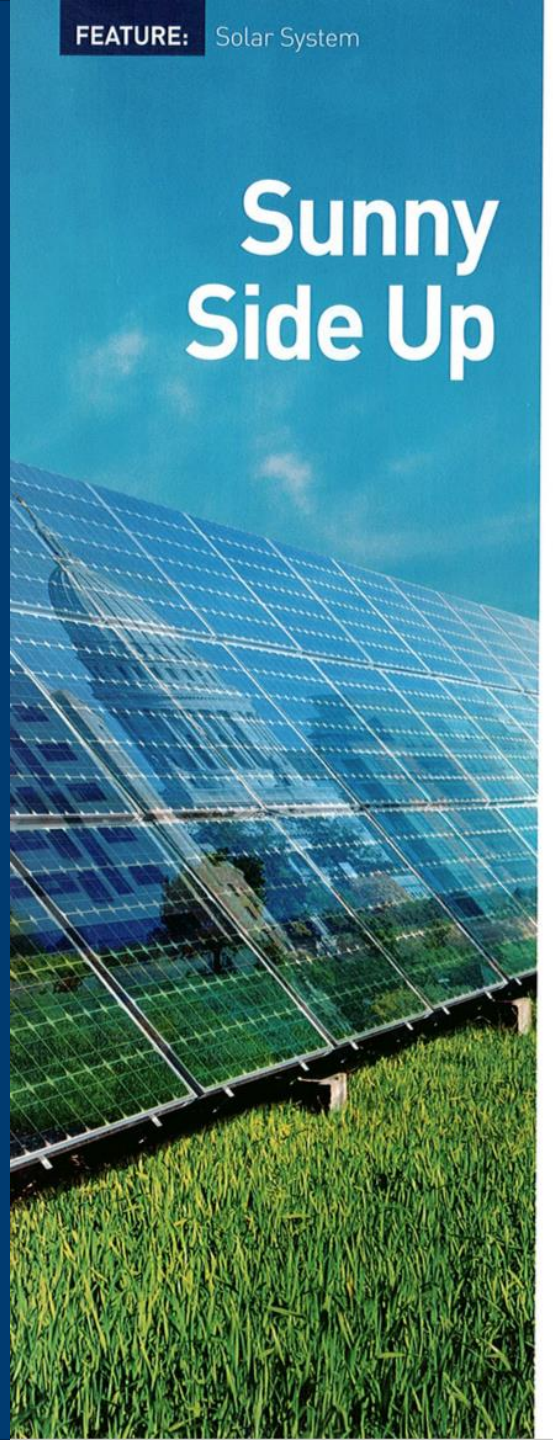
Sunny Side Up

Madison businesses are making a bright investment in solar

PAGE 24

by Jason Busch

Sunny Side Up



As local businesses realize the return on investment for going solar, the future seems bright for Greater Madison's solar economy.

Wisconsin is often better known for its snowy winters and frozen tundra than sunny skies, but the Badger State is actually a lot better for solar energy than people may think.

Greater Madison averages 185 days of sunshine per year, according to the weather data website currentresults.com. In the truest "glass half full" sense, that means just over half of our days are sunny, which is more than enough to make solar power a viable alternative energy source for business and homeowners right here in Dane County.

In fact, the return on investment for local companies that have gone solar can be significant, especially in energy-dependent industries where energy costs are second only to labor expenses and therefore have a huge impact on the bottom line.

Solar also has a sizable impact on jobs in Wisconsin. According to the annual "Solar Jobs Census" published by the Solar Foundation, Wisconsin's solar industry employs 2,813 workers across installation, manufacturing, sales and distribution, project development, and related sector employment.

The census reported 45% growth in Wisconsin solar over 2015 numbers (1,941 jobs), after showing little growth between 2014 and 2015.

Nationally, the industry saw 25% growth with over 260,000 Americans now working in the solar sector, up from 208,859 last year, and comprising the fourth consecutive year with more than 20% growth.

Wisconsin's rankings amongst all states were largely unchanged. The state placed 26th nationally for both the number of solar jobs (same as 2015), and 26th nationally in solar jobs per capita (up one spot from 27th last year).

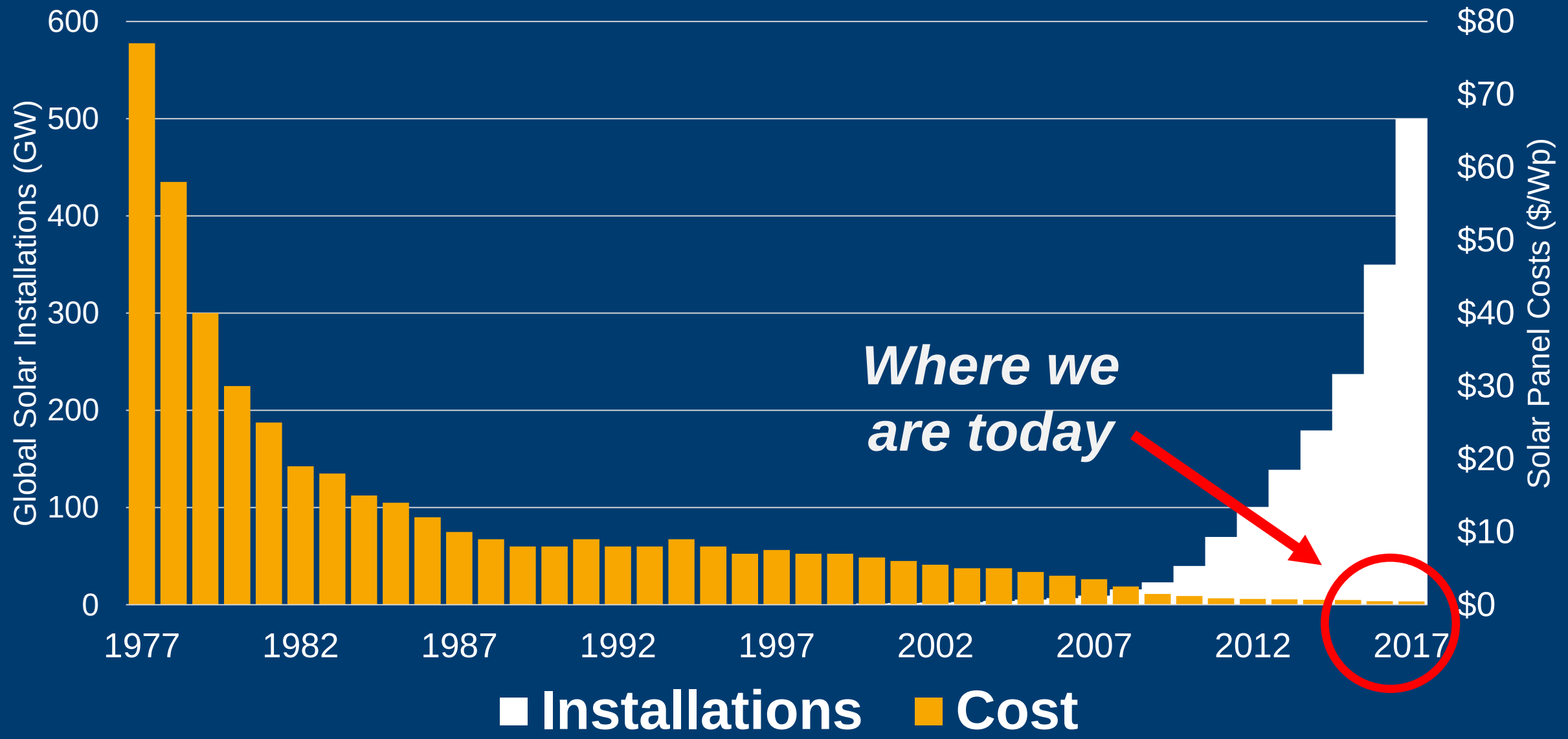
Among some of the key findings of the report:

- The U.S. solar industry now employs twice as many Americans as the coal industry, and approximately as many as the natural gas industry.
- One out of 50 new American jobs in 2016 were in the solar industry.
- The national median wage for solar installers is $26 per hour.
- Solar employs veterans: 9% of the solar industry is comprised of veterans, compared with 7% of the U.S. workforce.

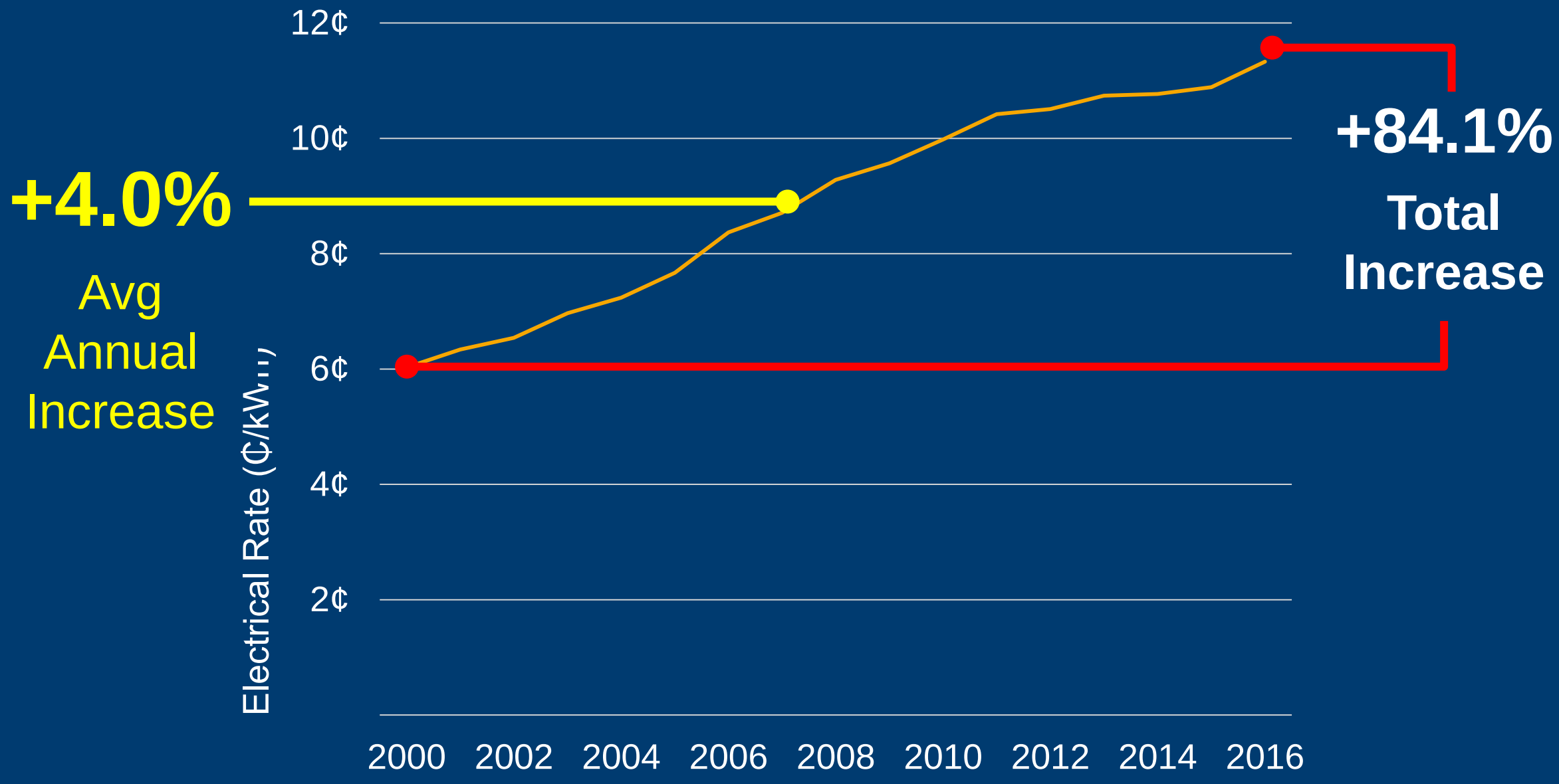
"Solar energy is a growth industry and it is outstanding to see Wisconsin-based businesses adding jobs to meet the demand for increased solar installations in Wisconsin and throughout the country," says Tyler Huebner, executive director of RENEW Wisconsin, a nonprofit organization that promotes clean energy strategies for powering the state's economy. "But Wisconsin's solar energy job growth potential has just begun to be tapped," adds Huebner. "Solar makes up less than 1% of Wisconsin's electricity production."

In looking at the business case for going solar, *In Business*

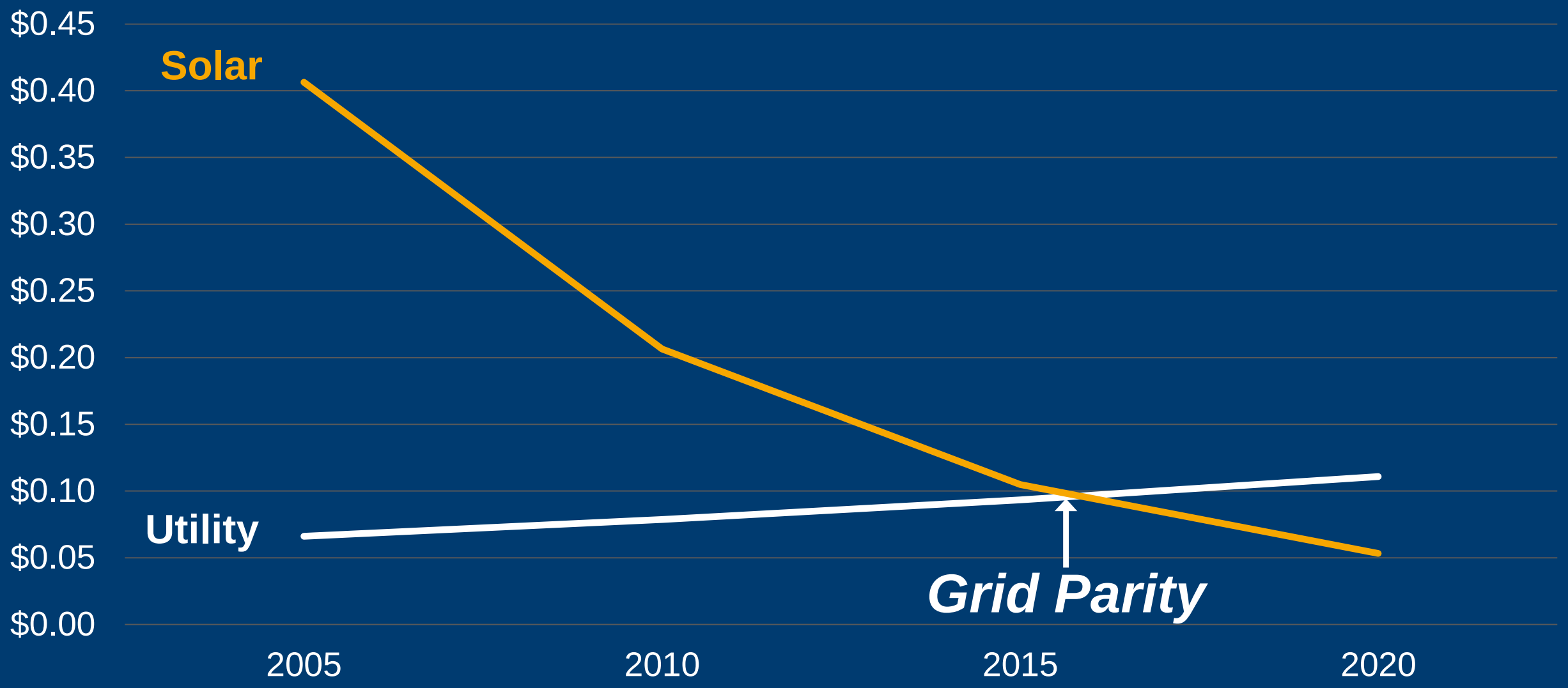
Solar costs plummet. Adoption explodes.



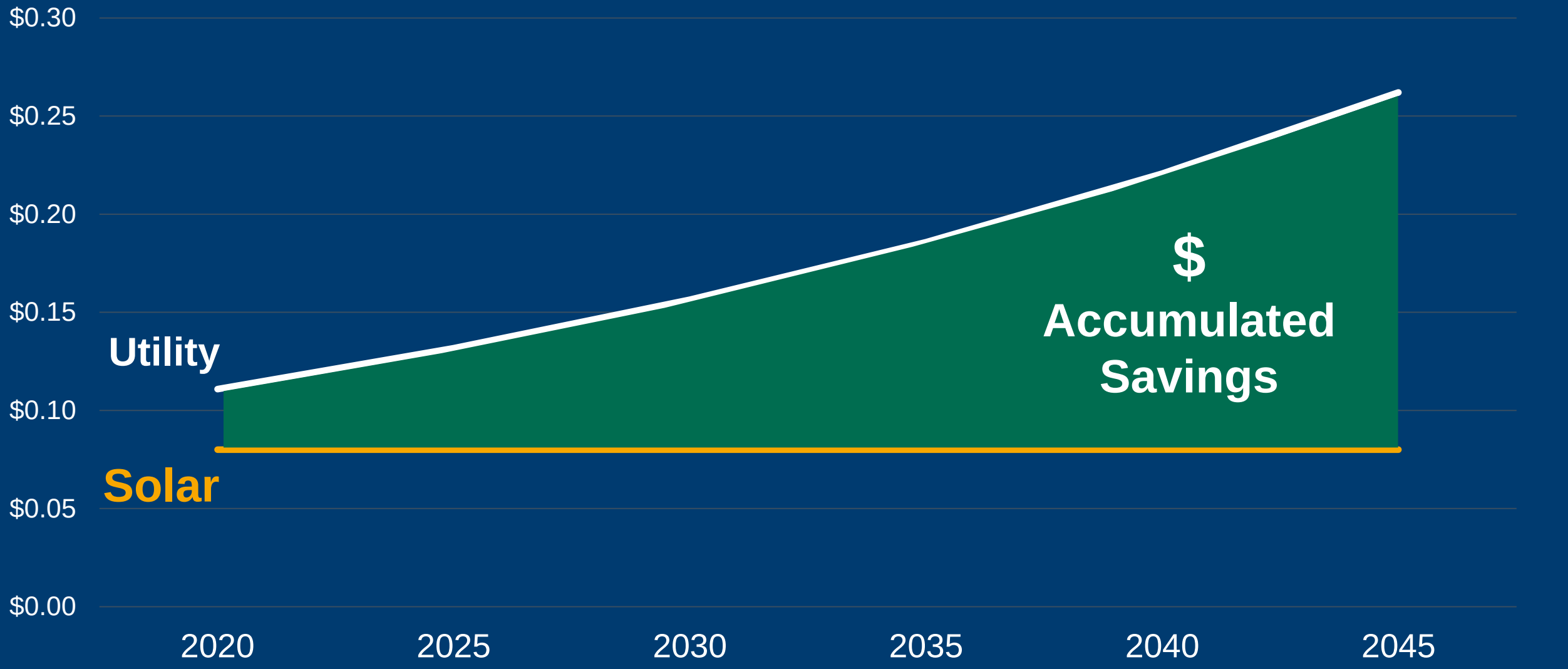
Commercial Electric Rates



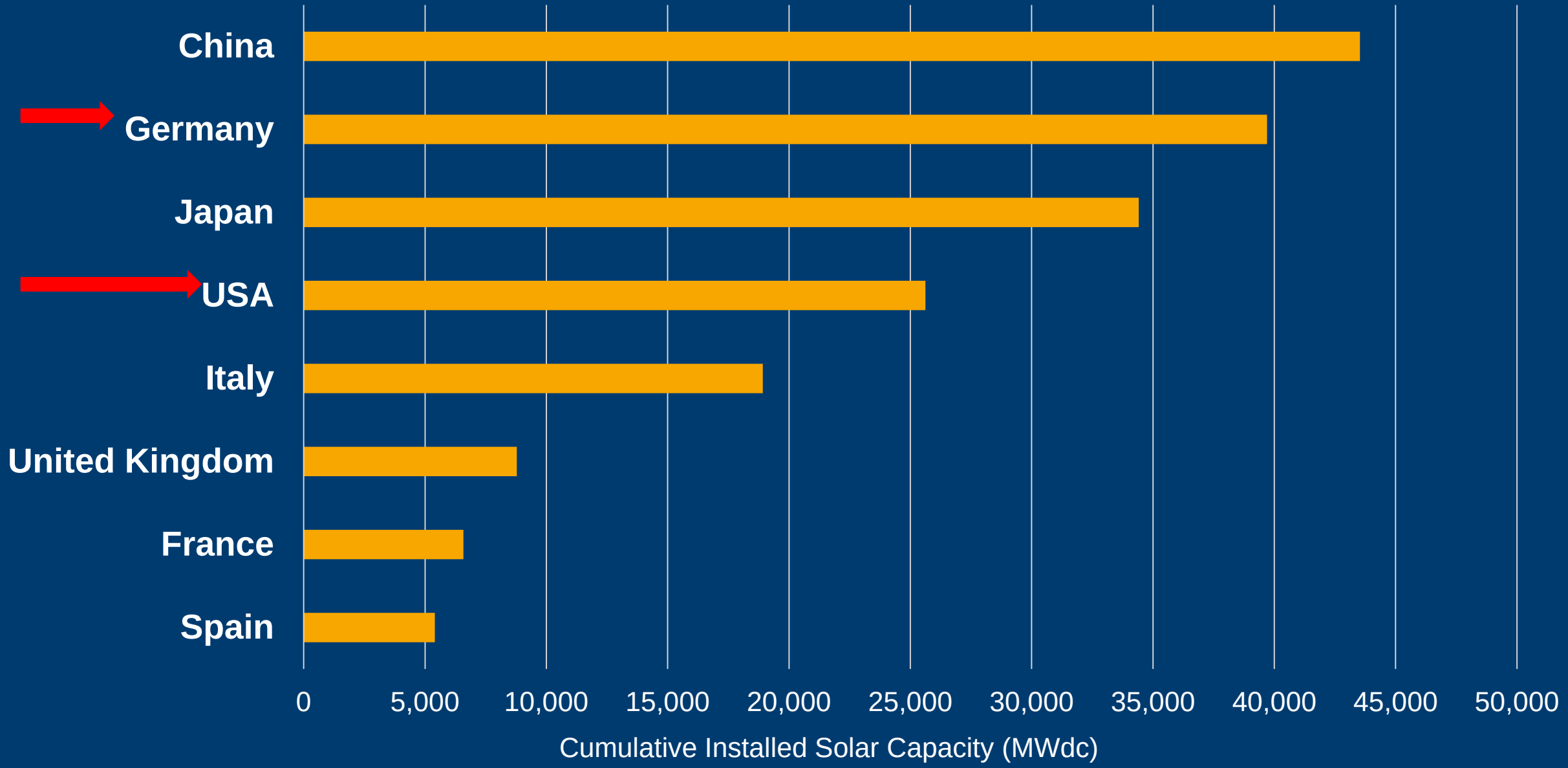
Solar now costs less than utility power…



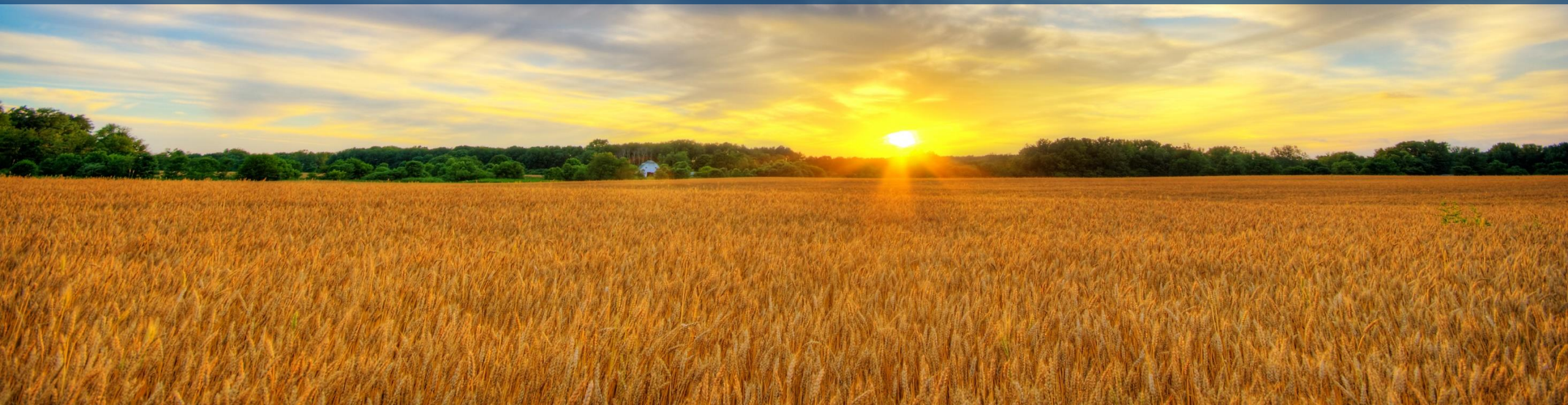
…leading to significant cost savings over time



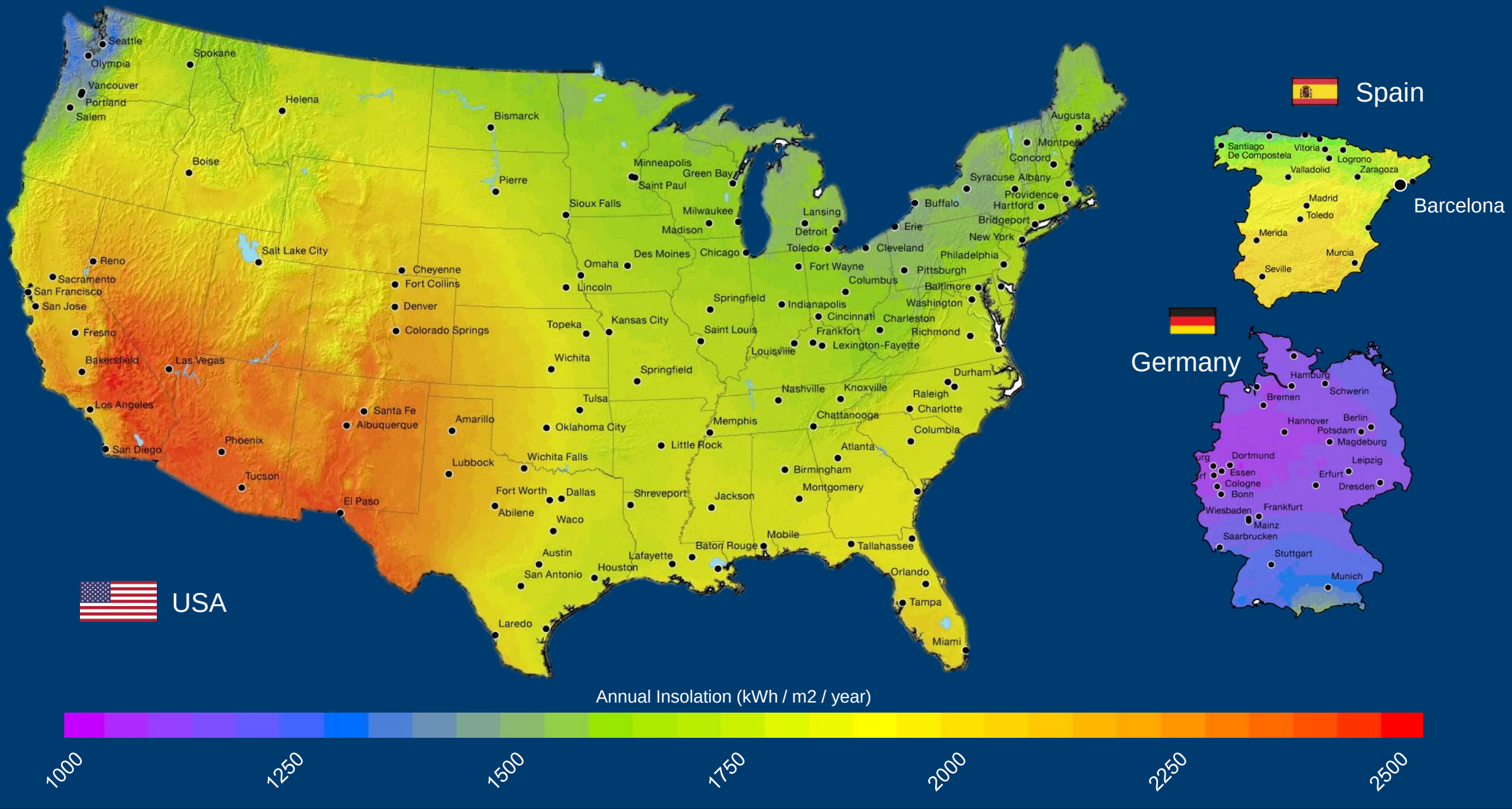
Leading Solar Countries



Does Solar Work in the Midwest?

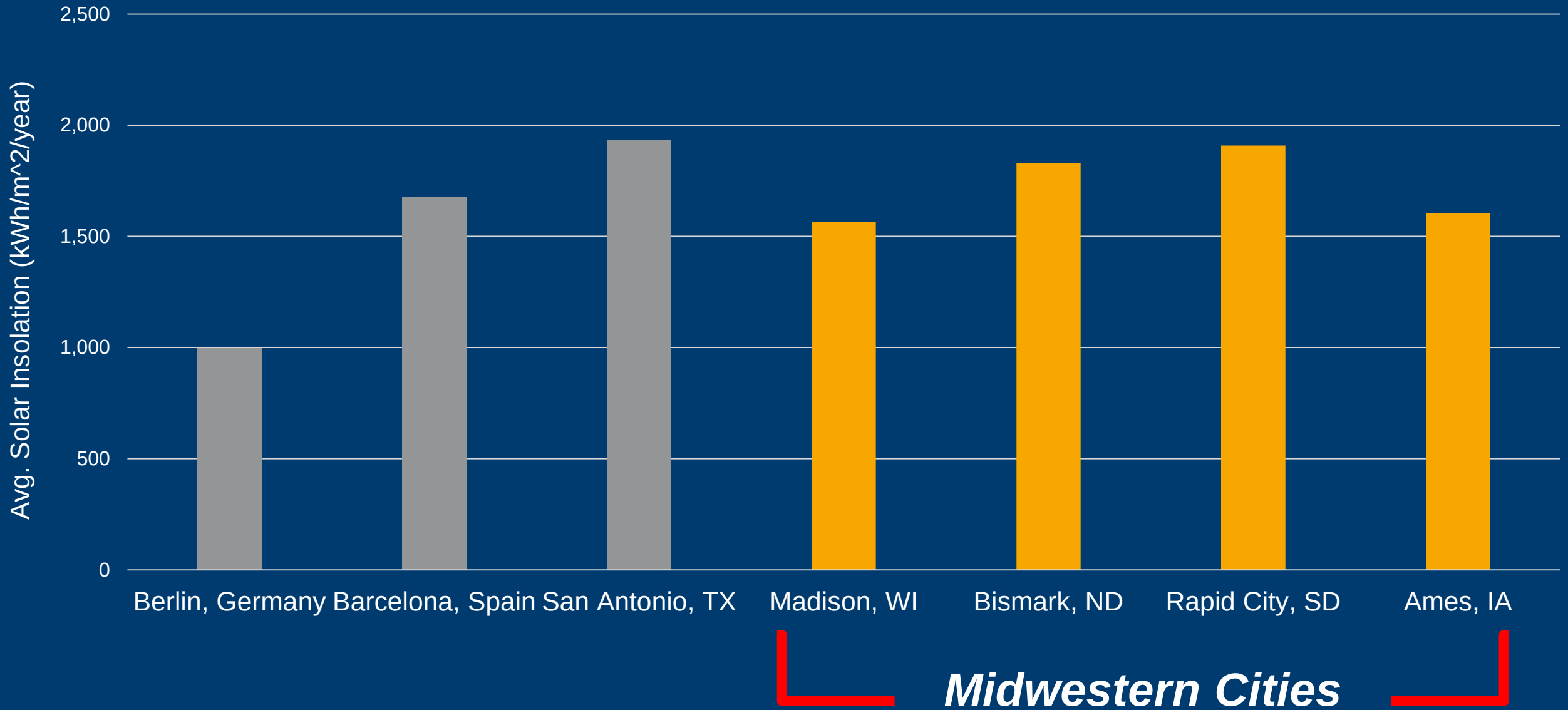


Comparing Solar Resource by Region



Huge Solar Resource in Midwest

Average Solar Insolation for Select Cities

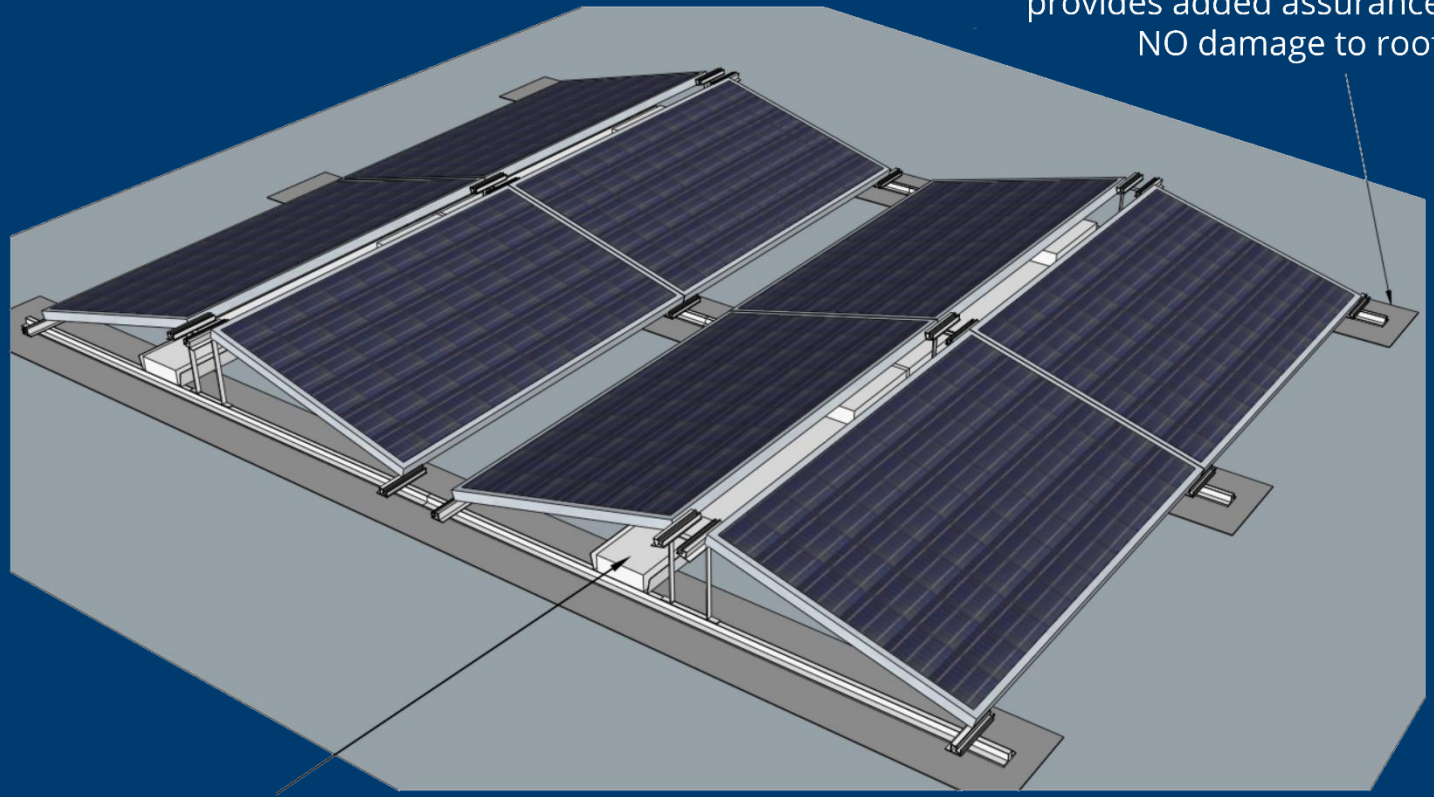


Typical SunPeak Solar PV System

Energy Offset	Up to 100%
Energy Levelized Cost	$0.04 - $0.07/kWh
Incentives Value	30% - 80%
Unlevered IRR	8.5% - 16.5%
Simple Payback	4 – 7 years
System Life	25+ years

DeltaWing: No Module Self-Shading

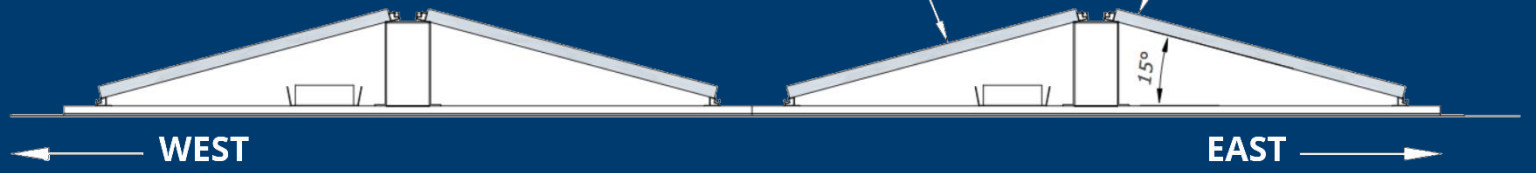
EPDM room protection mat
provides added assurance
NO damage to roof



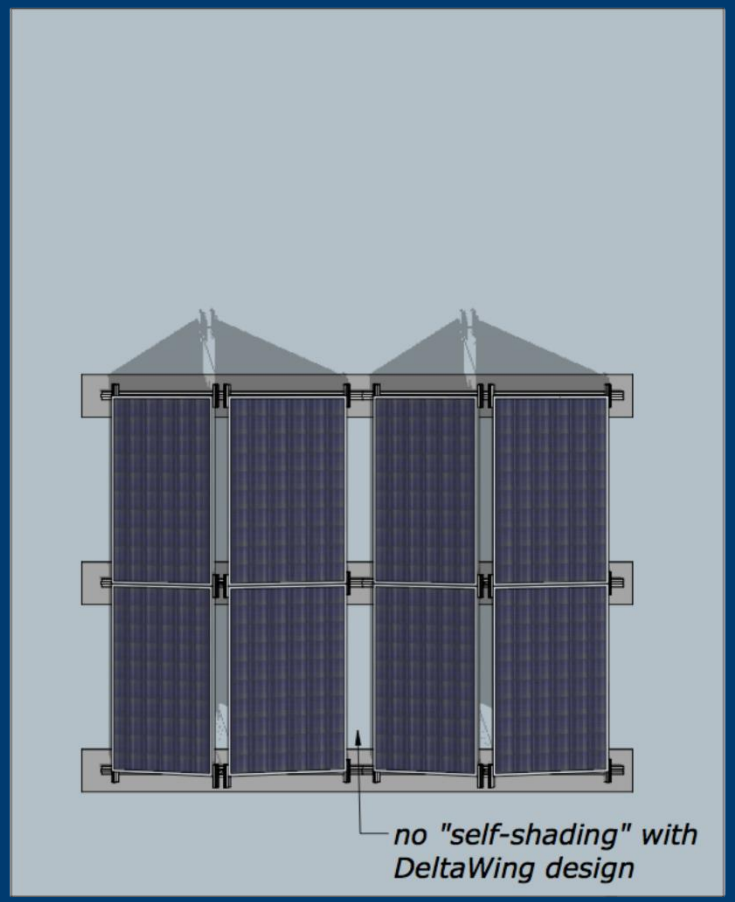
System is weighted to roof
using a concrete ballast,
thus NO roof penetration

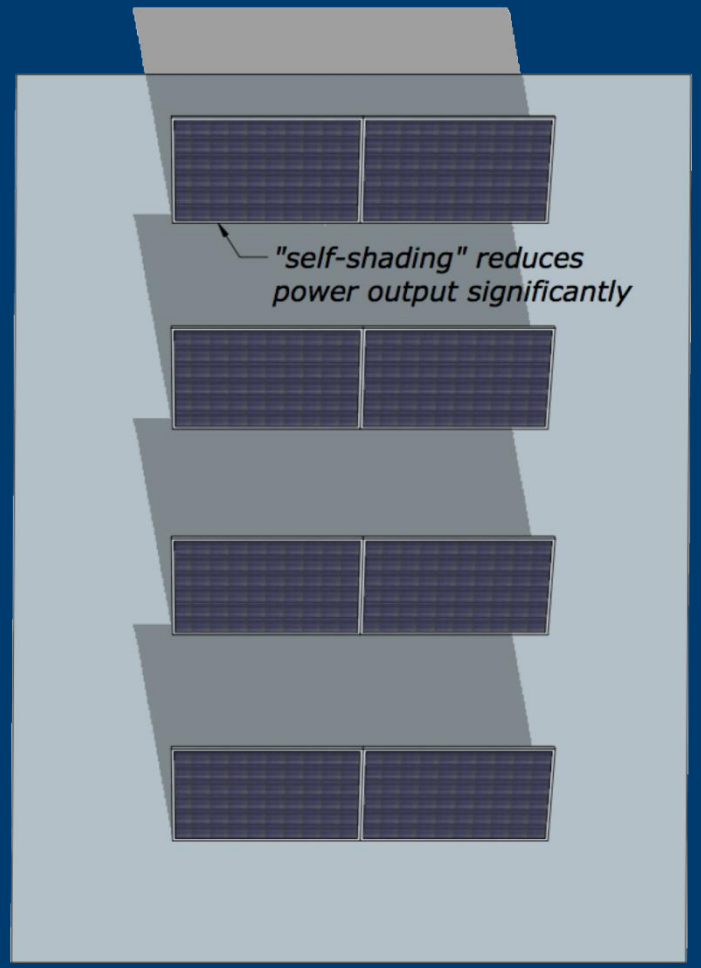
West-facing modules
continue generating
power until sunset

east-facing modules
power up as soon
as the sun rises



DeltaWing: No Module Self-Shading





SunPeak DeltaWing

traditional south-facing design

DeltaWing: Higher Energy Production Density

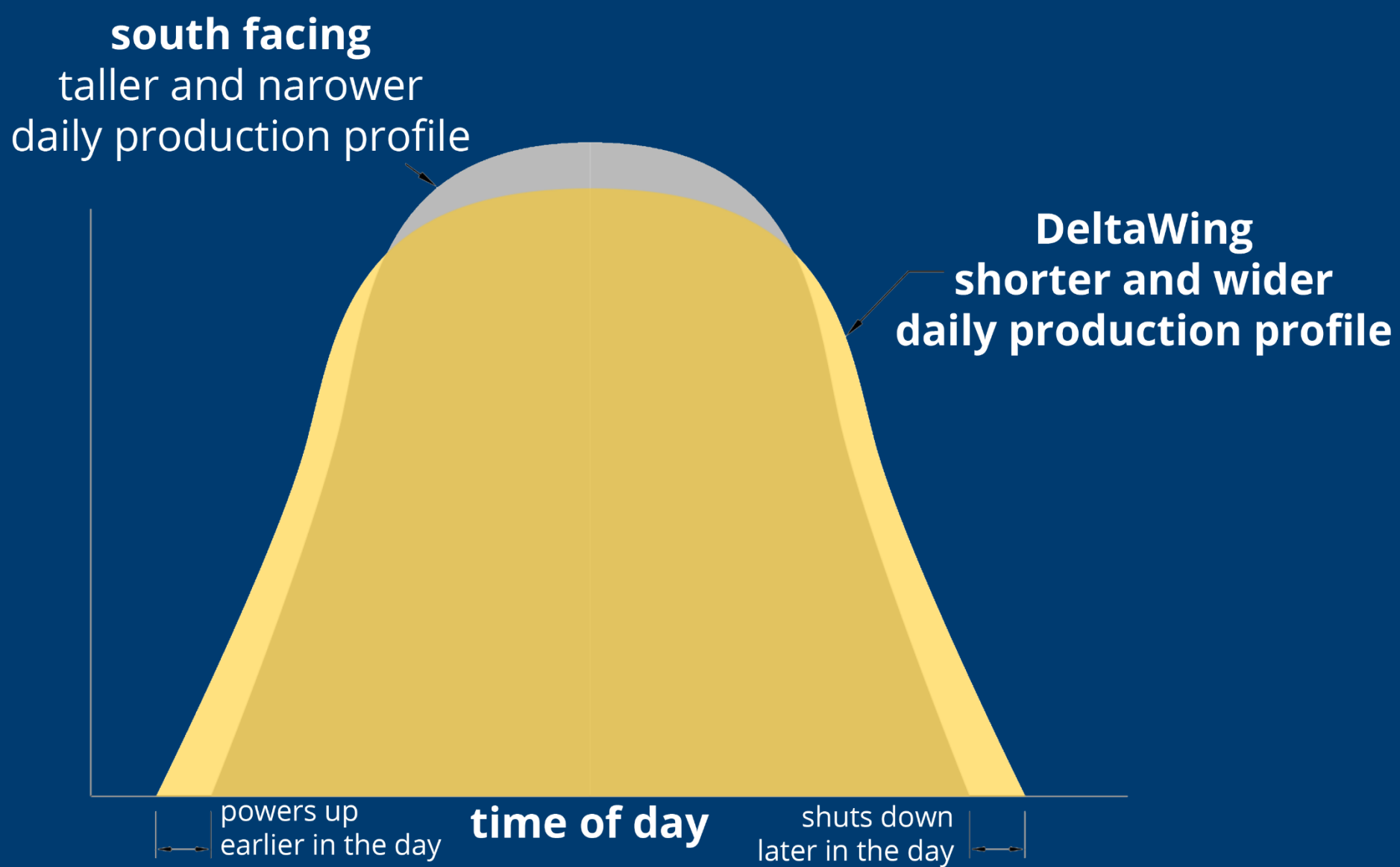
same power capacity
96 modules @ 350 W/module
24 kWdc total array capacity

SunPeak DeltaWing
roof area: 2,139 ft2
Energy density: 13.3 kWh/year/sf

traditional south-facing design
Roof area: 3,074 ft2

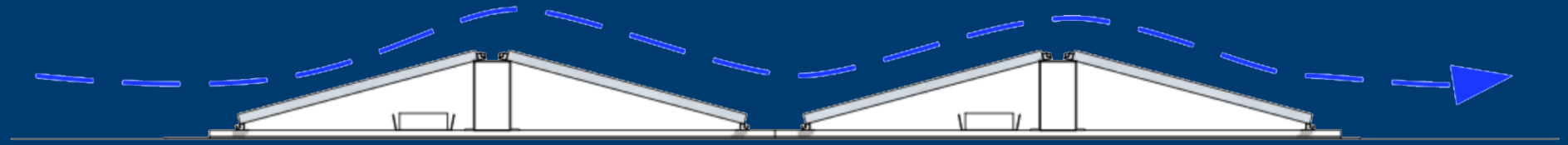
Energy density: 10.3 kWh/year/sf

DeltaWing: Consistent Power Output



DeltaWing: Aerodynamic

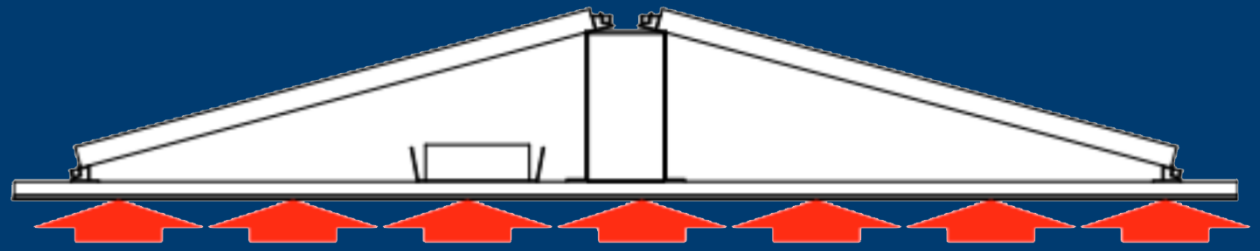
DeltaWing
aerodynamic design reduces wind loading



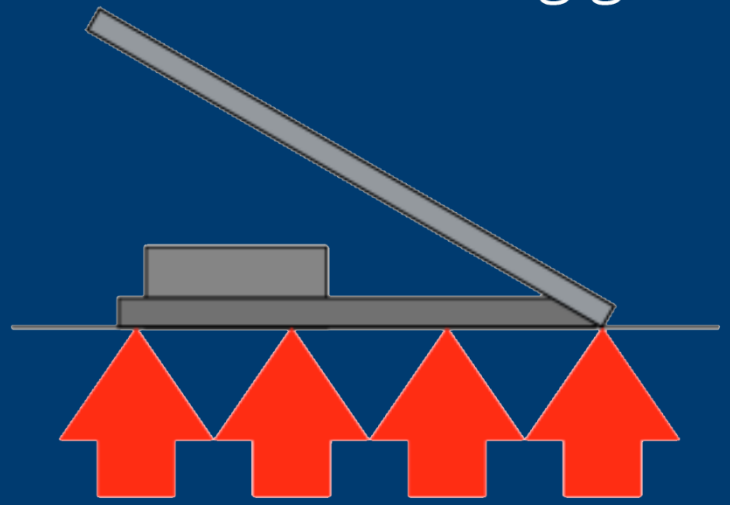
south facing
wind scoop on backside of modules incrases wind loading

DeltaWing: Lower Roof Loading Pressure

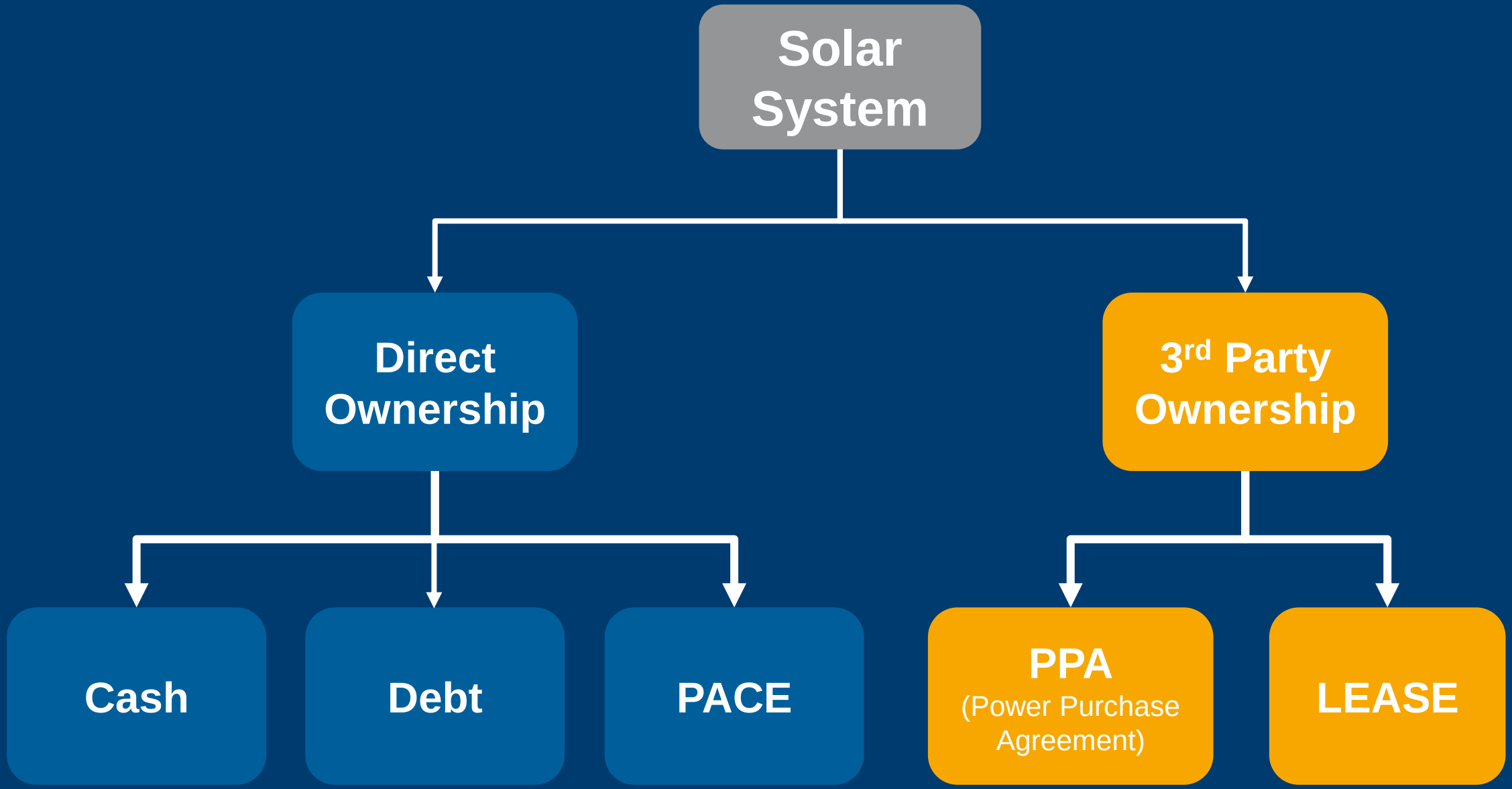
DeltaWing
less ballast weight
reduces roof loading pressure



south facing
larger wind forces require
more ballast, increasing groof load



Financing Solar


Solar System
Direct Ownership
3rd Party Ownership
Cash
Debt
PACE
PPA
(Power Purchase Agreement)
LEASE

Does Solar Make Sense for Me?

Key Information Inputs

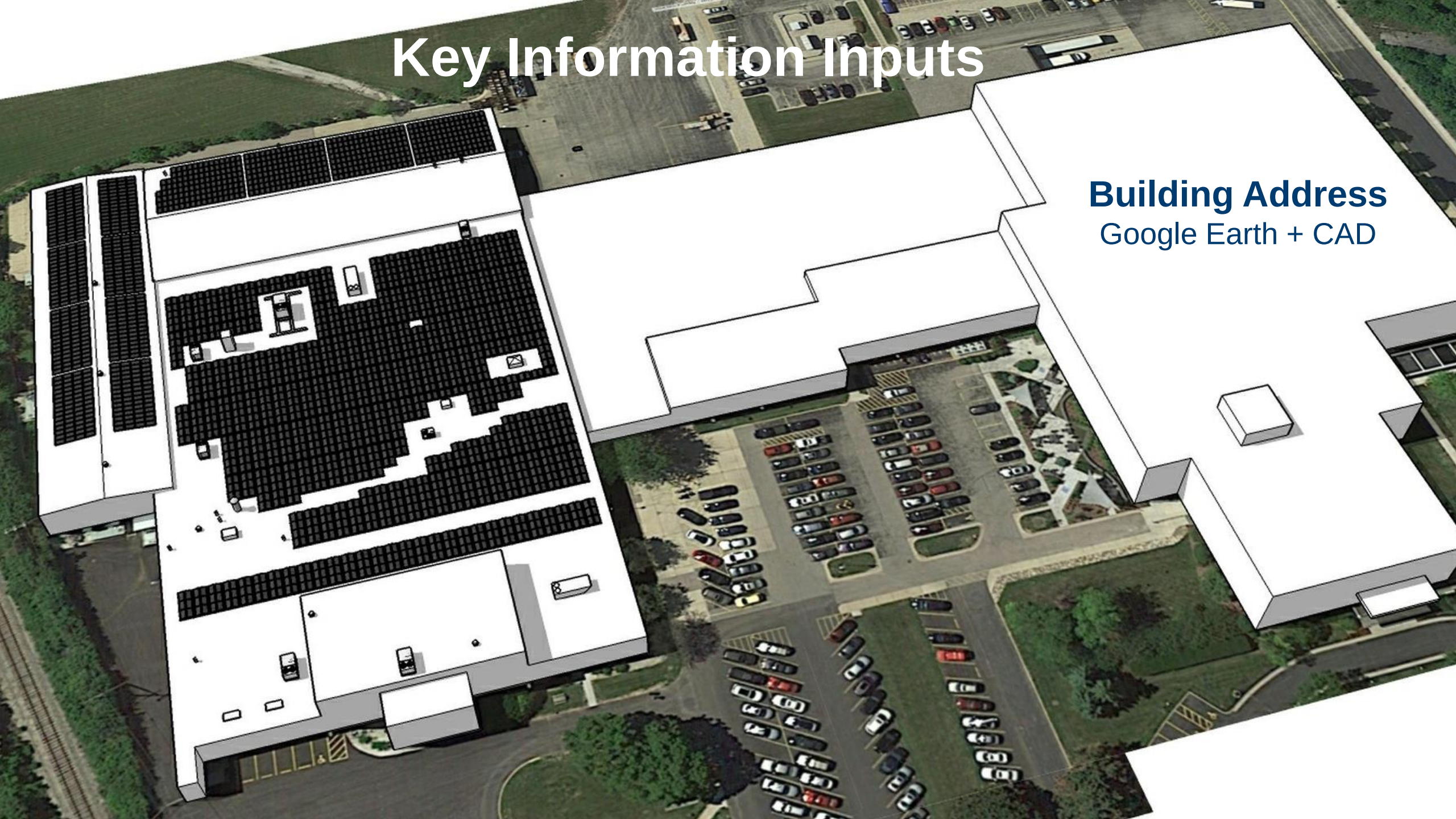
Energy Use

Energy Rate

Subtotal Gas Meter	235624					$	2,226.04
ELECTRIC: COMM & IND LIGHTING AND POWER TIME-OF-USE (CG-2)							
30 05/23 04/23 75784	0	1.000	75784 KWH				
Customer Charge	30	DAYS	AT $	6.27267		$	188.18
State Low-Income Asst Fee	30	DAYS	AT $	5.59211		$	167.76
Distribution Service							
Customer Maximum Demand	241.4	KW/DAY	AT $	.09863		$	714.28
Electricity Service							
Maximum On-Peak Demand	241.4	KW/DAY	AT $	.34652		$	2,509.50
Base Energy All KWH Chg	75784	KWH	AT $	.05500		$	4,168.12
On-Peak 1 (10AM-1PM)	9542	KWH	AT $	.03724		$	355.34
On-Peak 2 (1PM-6PM)	15904	KWH	AT $	.03724		$	592.26
On-Peak 3 (6PM-9PM)	7514	KWH	AT $	.03724		$	279.82
State & County Tax	$8,807.50		AT	5.50%		$	484.41
Subtotal Electric Meter	303452					$	9,459.67
TOTAL CHARGES FOR SERVICE THIS MONTH						$	11,685.71
ACCOUNT BALANCE						$	22,960.10

Blended Energy Rate = $\frac{\textit{Energy Cost}}{\textit{Energy Consumption}} = \frac{\$9{,}459.67}{75{,}784}$ **= $0.1248 / kWh**

Key Information Inputs



Building Address

Google Earth + CAD

Key Incentives

- Investment Tax Credit (ITC)
- Accelerated depreciation
- State incentives
- Net metering
- REAP grants
- Local incentives

Financial Payback – Sample Project

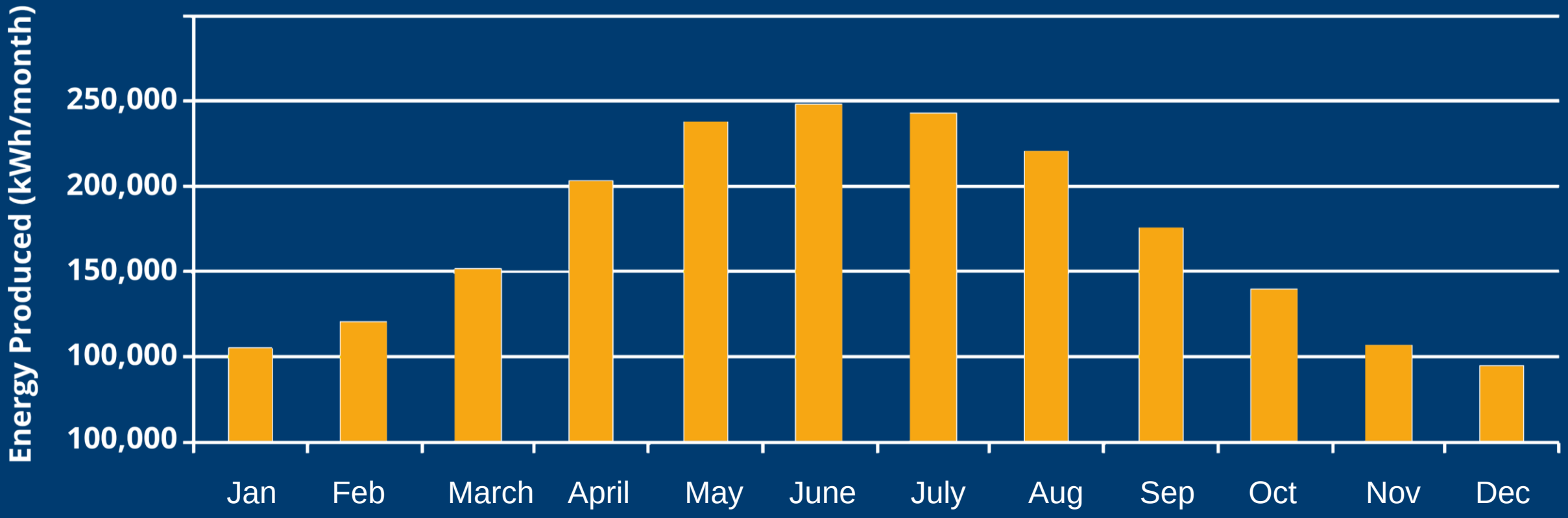
Key Inputs

Current Annual Elec. Consumption	**1.8 million kWh/year**
Blended Energy Rate	**$0.094 / kWh**

System Overview

System Size	**1,306 kWdc**
Energy Production	**1.45 million (81% offset)**
Value of Energy	**$136,270 / year**

Monthly Energy Production



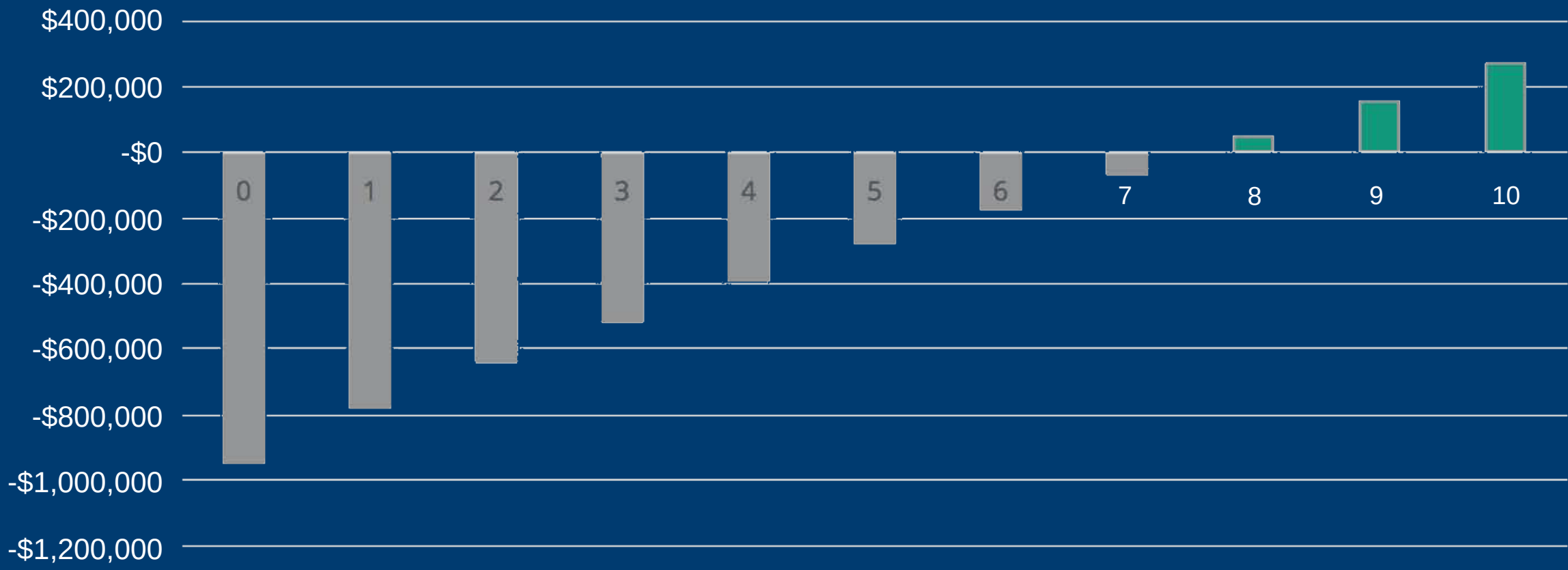
Financial Payback – Sample Project

Return on Investment Metrics

Internal Rate of Return (IRR)	**13.6%**
Lifespan Simple Return on Investment (ROI)	**567%**
Lifespan Value of Electricity Produced	**$6.5 million**
Simple Payback	**7.6 years**
50% Levered “Return of Equity” Payback	**0.8 years**

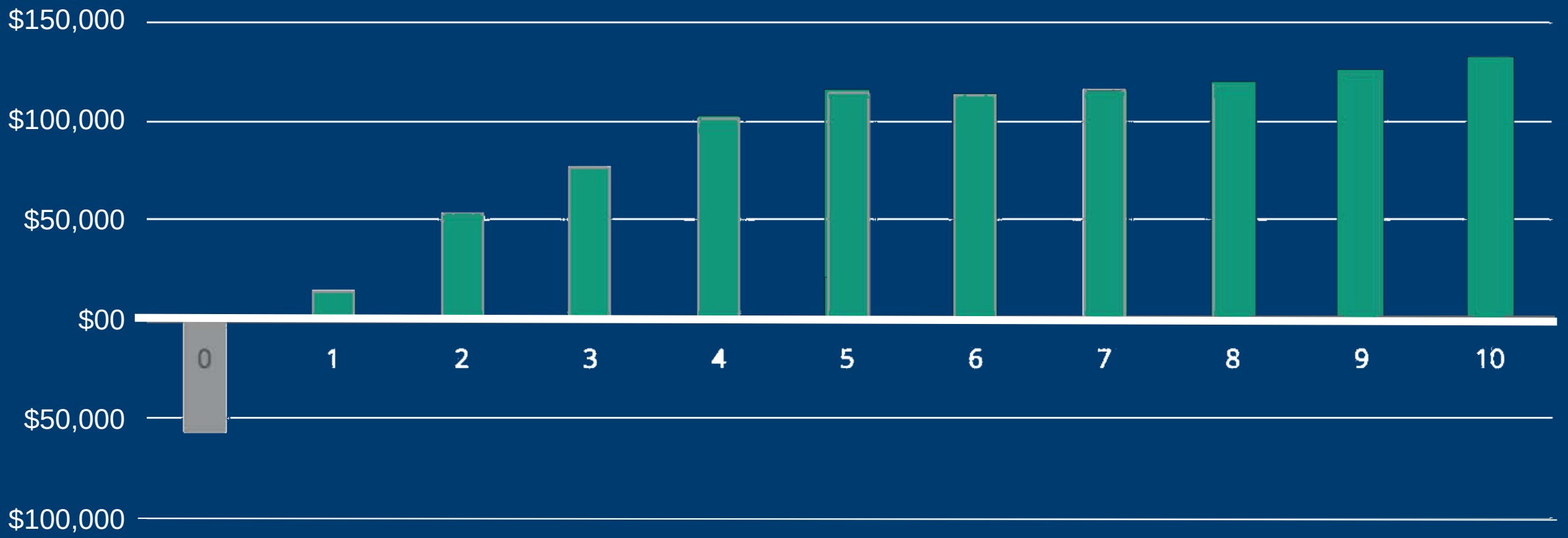
Cash Purchase: 100% Equity

Cumulative After Tax Cash Flow: No Debt



Financed Purchase: 50% Equity + 50% Debt

Cumulative After Tax Cash Flow: 50% Equity + 50% Debt



SunPeak Select Portfolio

American Family Insurance

- Madison, WI
- 1.2 MWdc
- Roof-based
- Largest rooftop PV in WI

CORPORATE HQ

SunPeak

Central Storage

WAREHOUSE

- Refrigerated Warehouse
- 740 kWdc
- Roof-based: flush mount & DeltaWing
- Madison, WI

SunPeak

Ale Asylum

BREWERY

- Madison, WI
- 120 kWdc
- Roof-based: DeltaWing
- ~ 20% annual energy offset (net metered)

SunPeak

Letterhead Press

MANUFACTURING

- Printing / Manufacturing
- 340 kWdc
- Ground-based: ram-driven foundation
- Largest system in Waukesha County, WI

SunPeak

Lakeland Union High School

SCHOOL

- Public School
- 280 kWdc
- Roof-based: DeltaWing
- Largest solar system at school in Wisconsin

SunPeak

Steep & Brew

COFFEE ROASTER

- Roasting facility and headquarters
- 80 kWdc
- Roof-based
- 78% of energy consumption needs

SunPeak

Clasen Quality Chocolate

CONFECTIONARY

- Corporate HQ & supplier of confectionary ingredients
- Madison, WI
- 117 kWdc
- May, 2017

SunPeak

Questions?

Your Commercial Solar Provider

SunPeak

Wednesday, May 31, 2017