



Clean Energy Investing in America

December 2022



Overview

In the last three months, over \$40 billion in domestic clean energy investments have been made – an amount equal to the total investment estimated for all clean energy projects installed in 2021.

In the same period, 20 new clean energy manufacturing facilities were announced, leading to nearly 7,000 new American jobs.

Clean energy is set to transform the makeup of American manufacturing and investment. That transformation is already underway.

In just the last three months, signs of rapid growth for maturing American clean energy industries are beginning to emerge. U.S. wind manufacturing plants that closed in recent years are bringing back workers. Plans for new solar, battery, and offshore wind plants are being drawn and developed. The U.S. is in position to secure our energy independence and lead in the global energy transition.

New incentives approved by Congress offer companies significant opportunity to invest in new utility-scale wind, solar, and storage projects and manufacturing facilities while passing on savings to Americans. However, to realize this clean energy future and ensure the full potential of these projects, ACP urges the Administration and Congress to continue improving trade policies, supporting next-generation technologies, enacting common-sense permitting reform, and finalizing effective tax implementation.

If completed, these investments and projects will enhance our energy independence, improve air quality, support one million American clean energy jobs, and put us on track to produce enough affordable domestic clean electricity to power the equivalent of every American home by 2030.

Since August 16, 2022...

20 new clean energy manufacturing facilities (or facility expansions) have been announced:

- +** **12 new solar** manufacturing facilities
 - **Over 300%** increase in U.S. solar module manufacturing capacity
 - **22 gigawatts (GW)** in new solar module or cell manufacturing capacity
- +** **6 new grid-scale battery storage** manufacturing facilities (or facility expansions)
- +** **1 reopening & 1 expansion of wind power** manufacturing facilities

Over \$40 billion of capital investment into clean energy projects

Over 13 gigawatts (GW) of new clean energy capacity announced

Over 15 million Americans serviced by utilities who announced consumer savings

Nearly 7,000 new manufacturing jobs associated with new facility announcements

METHODOLOGY: The information in this analysis was collected from public sources and contains announcements made between the passage of the Inflation Reduction Act on August 16 and November 30, 2022. Investments were calculated from announcements by utility and independent power producers. Capital investment values for planned capacity announcements, when not provided, were estimated using NREL ATB data.

Manufacturing Facilities

20 New Facilities
(or facility expansions) for utility scale clean energy announced




Technology	Company	Expected Online Date	Note	State	Congressional District
 Battery Storage	American Battery Factory	TBD	Lithium-iron-phosphate battery cells manufacturing facility	AZ	TBD
	Form Energy	2025	Long duration iron-air batteries	TBD	TBD
	FREYR	TBD	Giga America clean battery manufacturing facility in Georgia	GA	GA-3
	LG Chem	2024	Expansion of existing facility	MI	MI-2
	Piedmont Lithium	2025	Largest lithium hydroxide processing facility constructed in the U.S.	TN	TN-3
	Zinc8	TBD	Flow battery manufacturing	NY	NY-19





Photo credit: AES

Manufacturing Facilities (continued)

Technology	Company	Expected Online Date	Note	State	Congressional District
 Solar	Canadian Solar	TBD	Considering US factory	TBD	TBD
	Enel	2024	New solar panel and cell manufacturing plant	TBD	TBD
	Enphase Energy	2023	3 U.S. facilities planned	TBD	TBD
	First Solar	2025	Building new facility in Alabama	AL	AL-4
	Hanwha Q Cells	TBD	Scouting location for a 9 GW Qcell module manufacturing facility	TX, SC, or GA	TBD
	Heliene	2023	Doubling existing facility capacity	MN	MN-8
	Meyer Burger	TBD	Expansion of existing facility	AX	TBD
	Mission Solar	2024	Expansion of existing facility	TX	TBD
	PV Hardware	2023	Solar tracker manufacturing	TX	TBD
	Seraphim Energy Group (SEG)	2023	New PV module manufacturing plant	TX	TBD
	SolarEdge	2023	Optimizer and inverter manufacturer	TBD	TBD
Toledo Solar Inc.	2027	Expansion of existing facility	OH	OH-9	
 Wind	CS Wind	~2024	Expansion of existing facility	CO	CO-3
	TPI Composites	2024	Reopening of closed facility	IA	IA-2

Projects

13GW of clean energy project capacity announced

Technology	Company	Note
 <p>Battery Storage</p>	Alliant Energy	Alliant announced plans for the company’s first two utility-scale batteries at solar farms in Wisconsin. The company accelerated its plans for building the two facilities following the passage of the IRA, which will help finance the installation of battery storage facilities. Read more
	CSI Energy Storage	CSI Energy Storage won a contract to provide up to 2.6 GWh of battery solutions for the buildout of energy storage projects managed by UBS Asset Management’s Real Estate & Private Markets business in North America. The multi-year agreement will support UBS Asset Management’s expansion of its energy storage projects pipeline. Slated for commercial operation in 2024 and 2025. Read more
 <p>Solar</p>	Acciona Energy	Acciona Energy plans to spend \$1.3 billion on four U.S. solar facilities in Texas, Ohio, and Illinois. The projects will have a capacity of 1.3 GW and are expected online by 2023. Read more
	National Grid	National Grid is partnering with New York’s state government to develop more than 120 MW of solar projects to provide energy to underserved communities. The state’s community solar and clean energy program, known as the Expanded Solar for All program, aims to achieve 10 GW of distributed solar power capacity by 2030 with projects under 5 MW, including rooftop installations and community solar projects. Read more
	Xcel Energy	The Minnesota Public Utilities Commission approved the 460-MW Sherco Solar Project, the largest solar project in the Upper Midwest. The project will be developed jointly by Xcel Energy and National Grid Renewables. The savings created by the IRA will be passed along to consumers, generating 30% customer savings. Read more

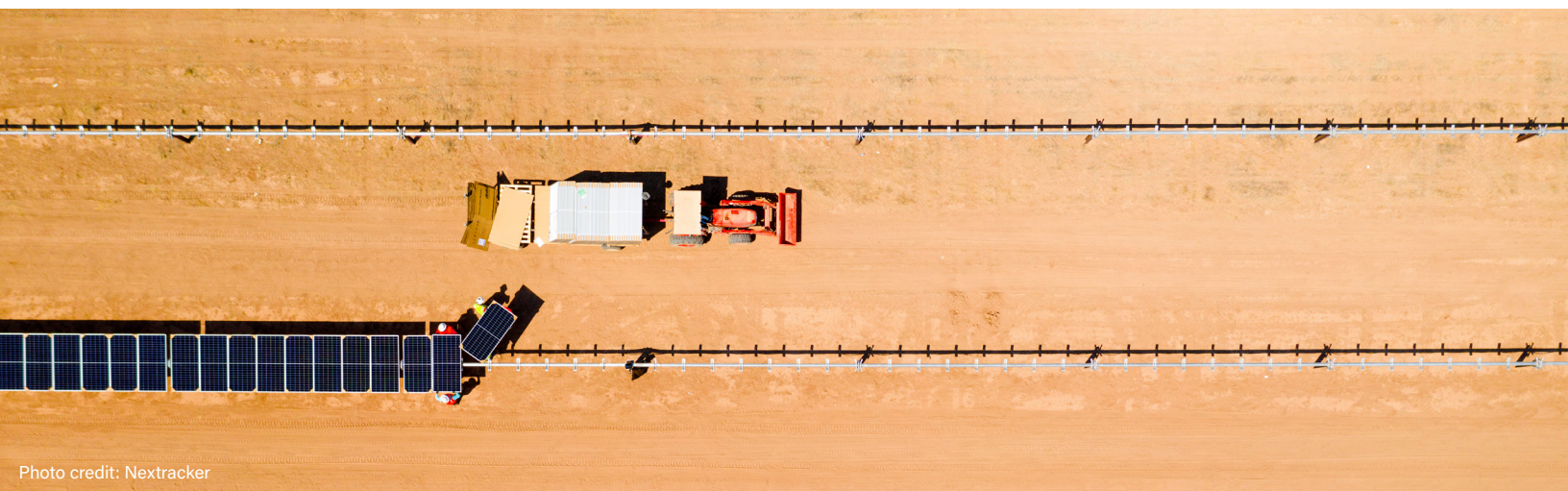


Photo credit: Nexttracker

Projects (continued)

Technology	Company	Note
Multi-Tech	EE North America & Elio Energy Group	EE North America & Elio Energy Group have partnered to develop 2 GW of solar and battery storage capacity in Arizona and surrounding states. EE North America aims to develop 10GW of renewable energy capacity in the country by 2026. Read more
	Engie North America	Engie acquired a 6 GW portfolio across ERCOT, PJM, MISO, and WECC. The portfolio comprises 33 projects including about 2.7 GW of solar paired with 700 MW of battery storage, and 2.6 GW of standalone battery storage. Read more
	Entergy Texas & New Fortress Energy	Entergy Texas and New Fortress energy are partnering to develop green hydrogen and renewable energy infrastructure in southeast Texas, including a 120 MW green hydrogen plan near Beaumont, Texas. Read more
	Minnesota Power	Minnesota Power will close two coal facilities by 2035 and add significantly more renewable energy than initially planned to its portfolio. The utility has agreed to double the amount of wind power it has planned to 400 MW by 2030, increase solar additions by 50% to 300 MW by 2030, and roll out batteries to store 100-500 MW of electricity by 2026. Read more
	Public Service Company of Oklahoma (AEP)	Public Service Co. of Oklahoma is asking state regulators to approve its proposed acquisition of nearly 1 GW of wind and solar capacity as part of a \$2.47 billion plan that the utility says will help shield customers from volatile natural gas and power prices. Read more
	RWE AG	RWE AG has agreed to acquire Con Edison Clean Energy Business, including an operating portfolio of 3 GW and a development pipeline of more than 7 GW. This transaction is a milestone in RWE's ambitious growth in the U.S. Read more

Consumer Savings

\$2.5 Billion+ Announced

CMS Energy Corp estimates \$60 million in consumer savings

“The extension of tax credits for both wind and solar provide economic certainty and lowers costs for our robust renewable backlog,” said Garrick Rochow, CEO of Jackson, Mich.-based CMS Energy. CMS Energy estimated the new PTC will reduce solar deployment costs by 15 percent, compared to the original estimated cost of the deployment plan. The plan includes 8 GW of new solar development. [Read more](#)

Duke Energy Florida plans to decrease rates, saving customers \$56 million annually

As a result of the Inflation Reduction Act, there is an immediate impact to Duke Energy Florida involving changes to the production tax credits (PTCs) associated with solar investments. “We understand our customers need some relief, and this is an opportunity for Duke Energy to pass tax savings to our customers,” said Duke Energy Florida State President Melissa Seixas. [Read more](#)



Florida Power & Light Company plans to refund customers nearly \$400 million

Florida Power & Light Company (FPL) will refund its 5.8 million customers nearly \$400 million in savings as a result of the PTC for the development of solar energy centers in the IRA. FPL is planning a one-time, \$25 million refund in the month of January 2023. Through 2025, the company plans to phase in nearly \$360 million in additional federal tax savings for future planned solar projects. [Read more](#)

WEC Energy Group projects customer savings of \$2 billion

WEC Energy Group added \$2.4 billion to its five-year capital plan, targeting nearly 3,300 MW in new renewable resources for regulated utility customers – including roughly 1,900 MW of solar, 720 MW of storage and 670 MW of wind. Thanks to the IRA, WEC is projecting long-term customer savings of nearly \$2 billion. [Read more](#)

MidAmerican to deliver Wind PRIME at no net cost to customers

The Wind PRIME project will allow MidAmerican to deliver renewable energy that exceeds 100% of its Iowa customers' usage annually. The project will be delivered at no net cost to customers and has the potential to provide an immediate decrease in bills. [Read more](#)

New Good-Paying Manufacturing Jobs

6,850

New Jobs Announced

Enel North America will create 1,500 clean energy jobs with new 3GW solar manufacturing facility

“Recent policy tailwinds from the Inflation Reduction Act have served as a catalyst for our solar manufacturing ambitions in the US, ushering in a new era of made-in-America energy,” said Enrico Viale, head of Enel North America. “With this announcement, it is our intention to bolster a robust domestic solar supply chain that accelerates and strengthens the US’s transition to clean energy. In doing so, we are creating thousands of new jobs, supporting local economies and providing stability to the solar industry.” [Read more](#)

Wind manufacturer to triple staff to 1,300

The CS Wind turbine manufacturing plant, already the biggest wind tower manufacturing plant in the country, is in serious discussions with the city of Pueblo, CO to triple the size of its operations – making it the largest employer in the city and perhaps one day becoming the biggest manufacturers of wind towers in the world. “These will be good jobs,” the mayor said, with starting salaries of “\$20 an hour with no experience.” [Read more](#)

Battery manufacturing facility expansion to add 1,200 jobs

Expanding LG Energy Solution Michigan Inc.’s original Michigan EV battery plant built in 2010 is expected to add 1,200 jobs, paying an average of \$65,000 per year by 2025. This will allow the company to expand battery production by about 500%. LG Chem will manufacture new long cell design batteries, aimed at maximizing electric vehicle driving range and energy storage. [Read more](#)



TPI Composites’ wind blade production plant to reopen, bringing 700-800 jobs

Wind turbine blade production will resume at the closed TPI Composites plant in 2024 with American workers. Executive director of the Newton Development Corporation said that “by 2024, that could be again, our largest employer, probably around the 700 to 800 range.” TPI Composites said the return was made possible in part due to the support provided by the Inflation Reduction Act. [Read more](#)

First Solar to build new solar manufacturing facility, creating 700+ new jobs

A new solar module manufacturing facility to be built in Alabama will create over 700 new direct manufacturing jobs and will produce an annual capacity of 3.5 GW of solar modules. “The passage of the Inflation Reduction Act of 2022 has firmly placed America on the path to a sustainable energy future,” said Mark Widmar, chief executive officer, First Solar. “This facility, along with its sister factories in Ohio, will form part of the industrial foundation that helps ensure this transition is powered by American innovation and ingenuity.” [Read more](#)

Mission Solar Energy to double staff and triple capacity at solar manufacturing facility

The only solar panel manufacturer in Texas, whose 150 workers build about 300-megawatts’ worth of panels annually, plans to more than triple its capacity to 1 gigawatt annually and double its staff by 2024. Mission Solar Energy credited the manufacturing tax credits in the Inflation Reduction Act with the company’s ability to expand. “The biggest hurdle [to our growth] will be filling these job positions,” Buerkle said. “Because we’ve got no problem selling these modules. Every module that’s being produced today — it has a home and is spoken for.” Earlier this year, they announced a \$500,000, 10-year partnership with the Alamo Colleges and Project Quest “to train job seekers for roles in the solar industry.” [Read more](#)

This report covers public announcements made between August 16 – November 30, 2022. ACP will release future versions of this report to reflect further project and investment announcements through 2023.

American Clean Power is the voice of companies from across the clean power sector that are powering America's future, providing cost-effective solutions to the climate crisis while creating jobs, spurring massive investment in the U.S. economy and driving high-tech innovation across the nation. We are uniting the power of America's renewable energy industry to advance our shared goals and to transform the U.S. power grid to a low-cost, reliable, and renewable power system. Learn more about the benefits clean power brings to America at www.cleanpower.org.



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