

United States Renewable Energy Market Investment Landscape



U.S. Department of Commerce International Trade Administration

Creates prosperity by strengthening the international competitiveness of U.S. industry, promoting trade and investment, and ensuring fair trade and compliance with trade laws and agreements.

Global Markets - U.S. Commercial Service

Trade and policy professionals located in over 80 countries and 100 U.S. locations; promotes U.S. exports; advances and protects U.S. commercial interests overseas; and attracts inward investment into the United States through **SelectUSA**.

Industry and Analysis

Strengthens U.S. competitiveness by helping shape industry-specific trade policy.

Enforcement and Compliance

Enforces U.S. trade laws and agreements to prevent unfairly traded imports and to safeguard the competitive strength of U.S. businesses.



INTERNATIONAL
T R A D E
ADMINISTRATION



About SelectUSA

Our Mission

SelectUSA's mission is to promote and facilitate *job-creating business investment* in the United States.

SelectUSA operates as a geographically neutral "single window" at the national level for companies to invest in the United States.

Our Clients

SelectUSA serves investors and companies with existing operations in the U.S. or planning to enter the U.S. market and economic development organizations (EDO) at the state, regional, and local levels.

SelectUSA supports greenfield investment.

How SelectUSA Can Help

SelectUSA Services

Market Research

ACTIONABLE INFORMATION on business investment in the United States and developing an FDI strategy.

Events & Services

PLATFORM FOR CONNECTIONS that will provide in-depth, on-the-ground expertise and guidance at a local level.

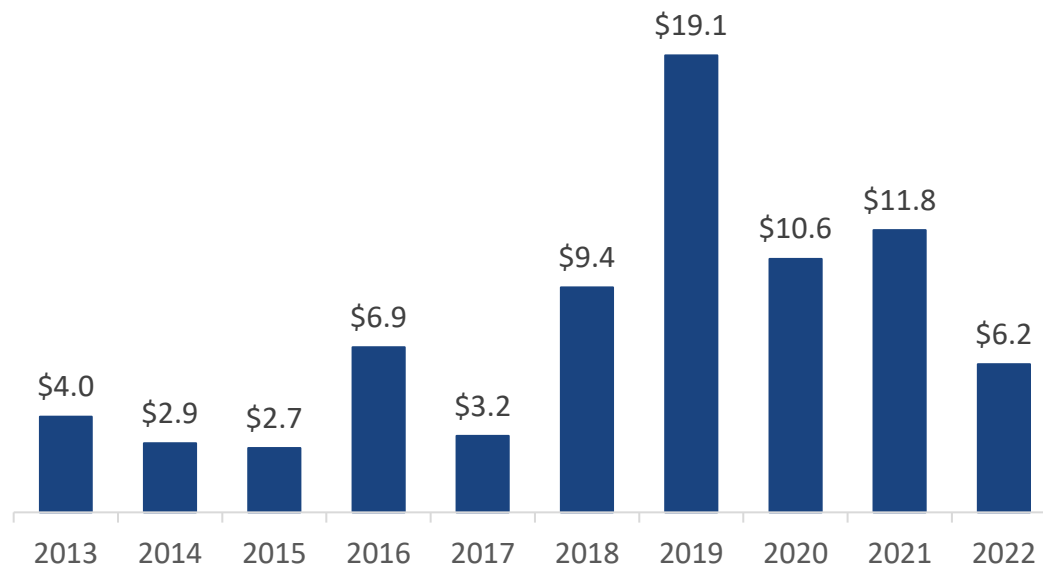
Navigation

NAVIGATING THE FEDERAL SYSTEM to help with questions or concerns about U.S. federal rules and regulations.

Announced Greenfield FDI Projects In U.S. Renewable Energy Market

Estimated Capital Expenditure in the Renewable Energy Industry, in Billions of U.S. Dollars, 2013-2022*

*Data through November 2022

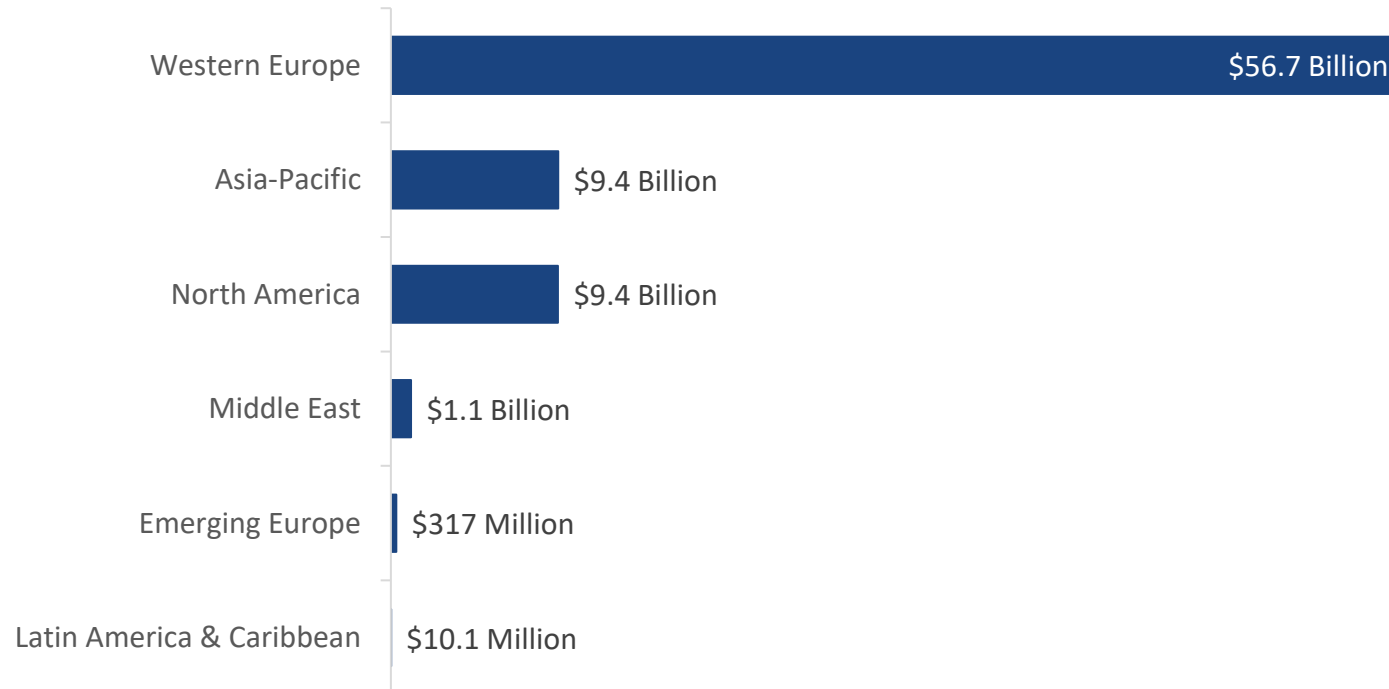


- **407** announced projects
- Estimated total of **\$76.9 billion** in capital expenditure

Sources of Announced Greenfield FDI in the United States Renewable Energy Market

Estimated Capital Expenditure in the Renewable Energy Industry, 2013-2022*

*Data through November 2022

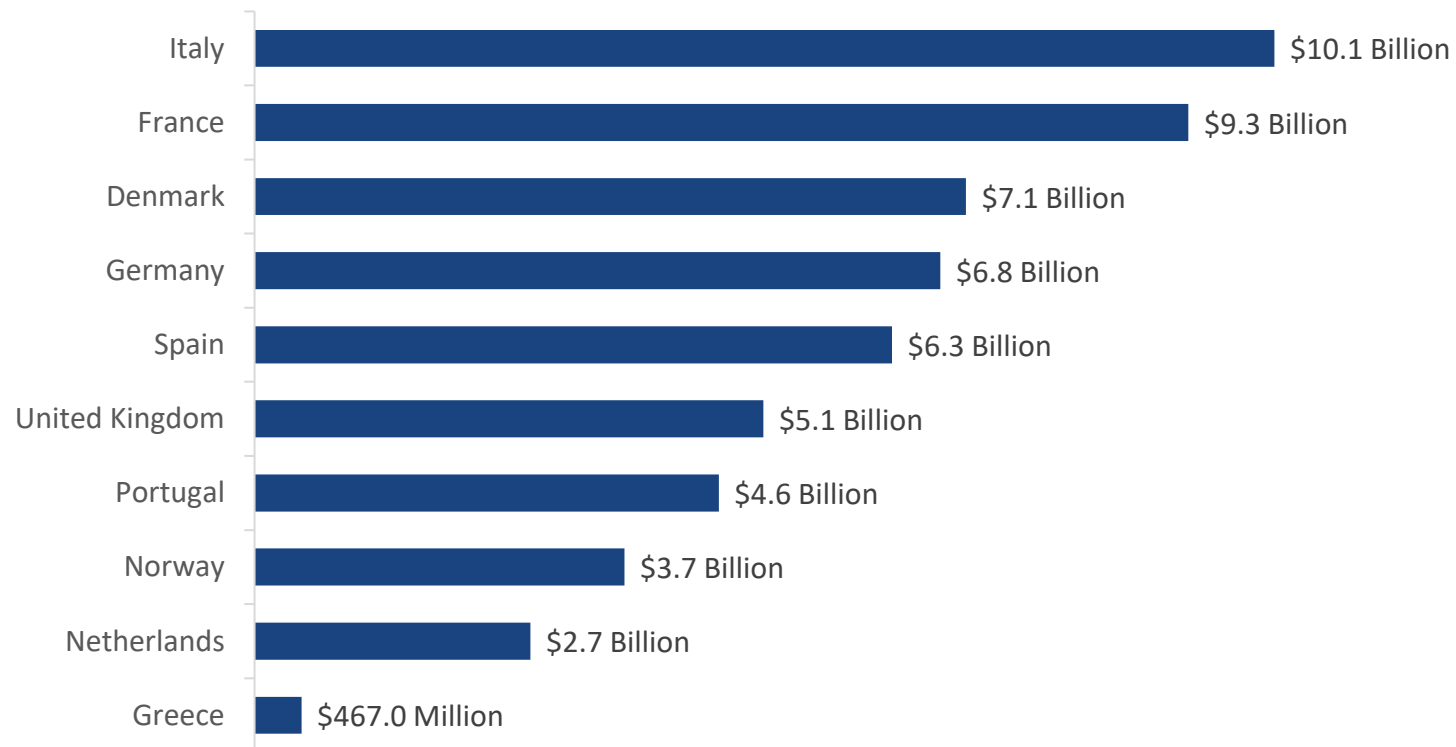


Source: fDi Markets
Accessed: January 2023

Top 10 European Source Markets for Renewable Energy FDI in the United States

Estimated Capital Expenditure in the Renewable Energy Industry, European Source Markets, 2013-2022*

*Data through November 2022

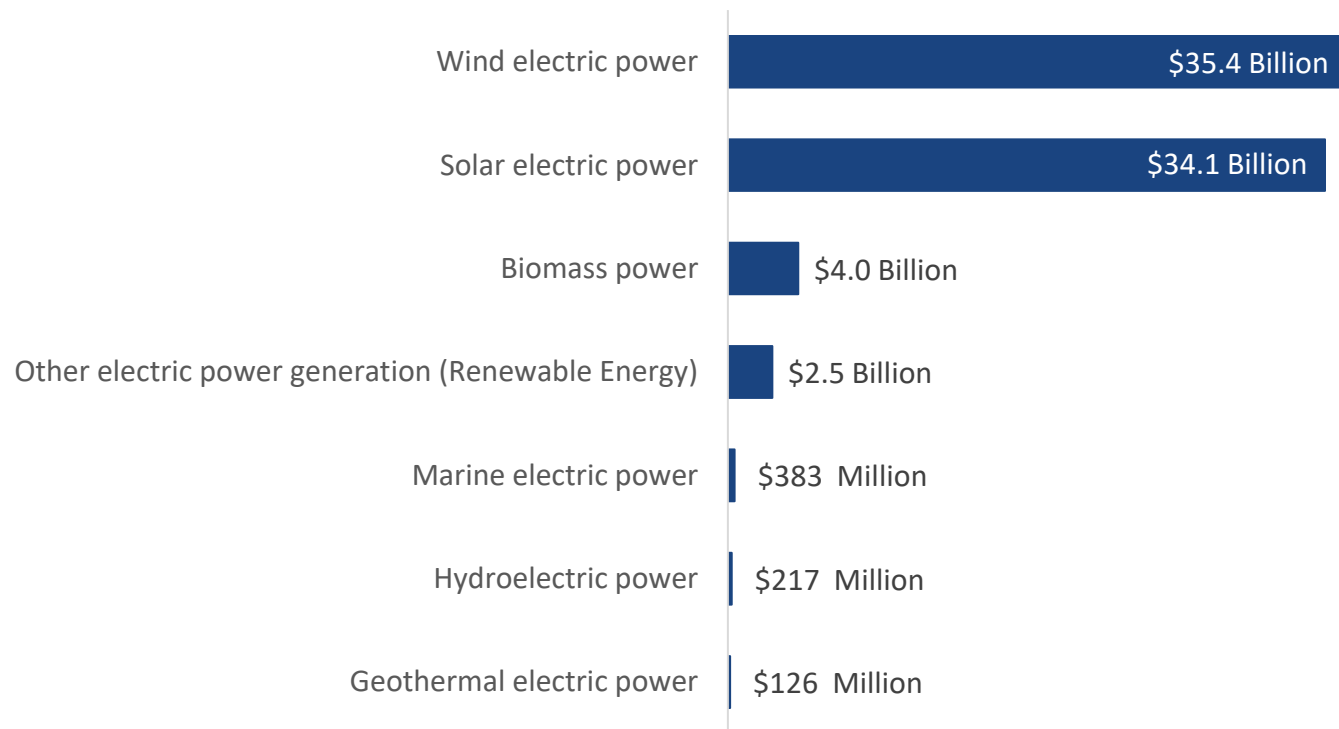


Source: fDi Markets
Accessed: January 2023

Announced Greenfield FDI Projects in U.S. Renewable Energy Subsectors

Estimated Capital Expenditure in the Renewable Energy Industry by Sub-Sector, 2013-2022*

*Data through November 2022



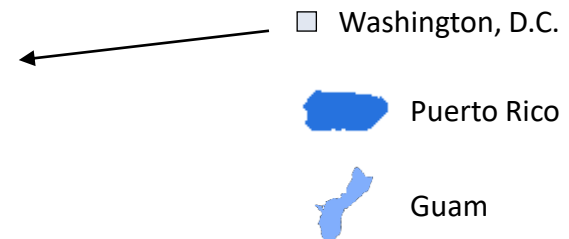
Source: fDi Markets
Accessed: January 2023

Announced Greenfield FDI Projects in Renewable Energy

Estimated Capital Expenditure in the Renewable Energy Industry by Destination, 2013-2022*

*Data through November 2022

- \$2 Billion and Over
- \$1 Billion to \$1.99 Billion
- \$500 Million to \$999 Million
- \$100 Million to \$499 Million
- Less than \$100 Million



Top three states:

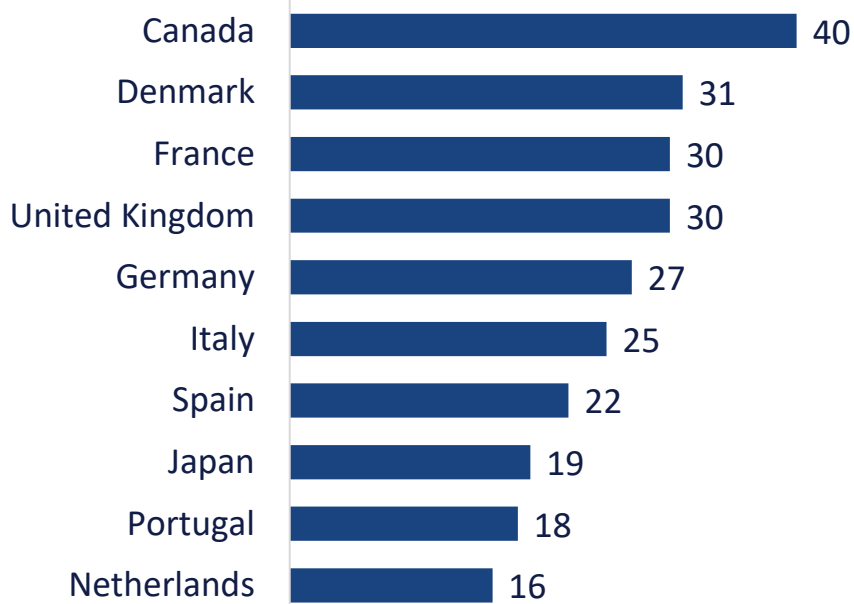
1. Texas, \$18.2 bn
2. California \$7.5 bn
3. New York \$6.0 bn

Greenfield FDI in Renewable Energy: Top Sources

Between November 2017 and October 2022, foreign firms announced **291** total greenfield projects in the U.S. Renewable Energy industry, with an estimated total capital investment of **\$57.0 billion**.

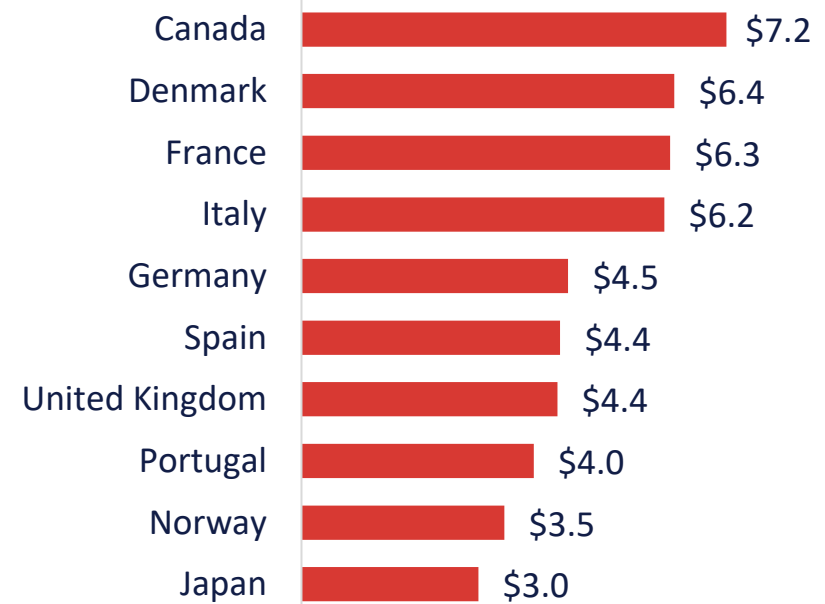
Top Source Markets by Number of Announced Greenfield Projects

November 2017 – October 2022



Top Source Markets by Estimated Capital Investment (in U.S. Billions)

November 2017 – October 2022

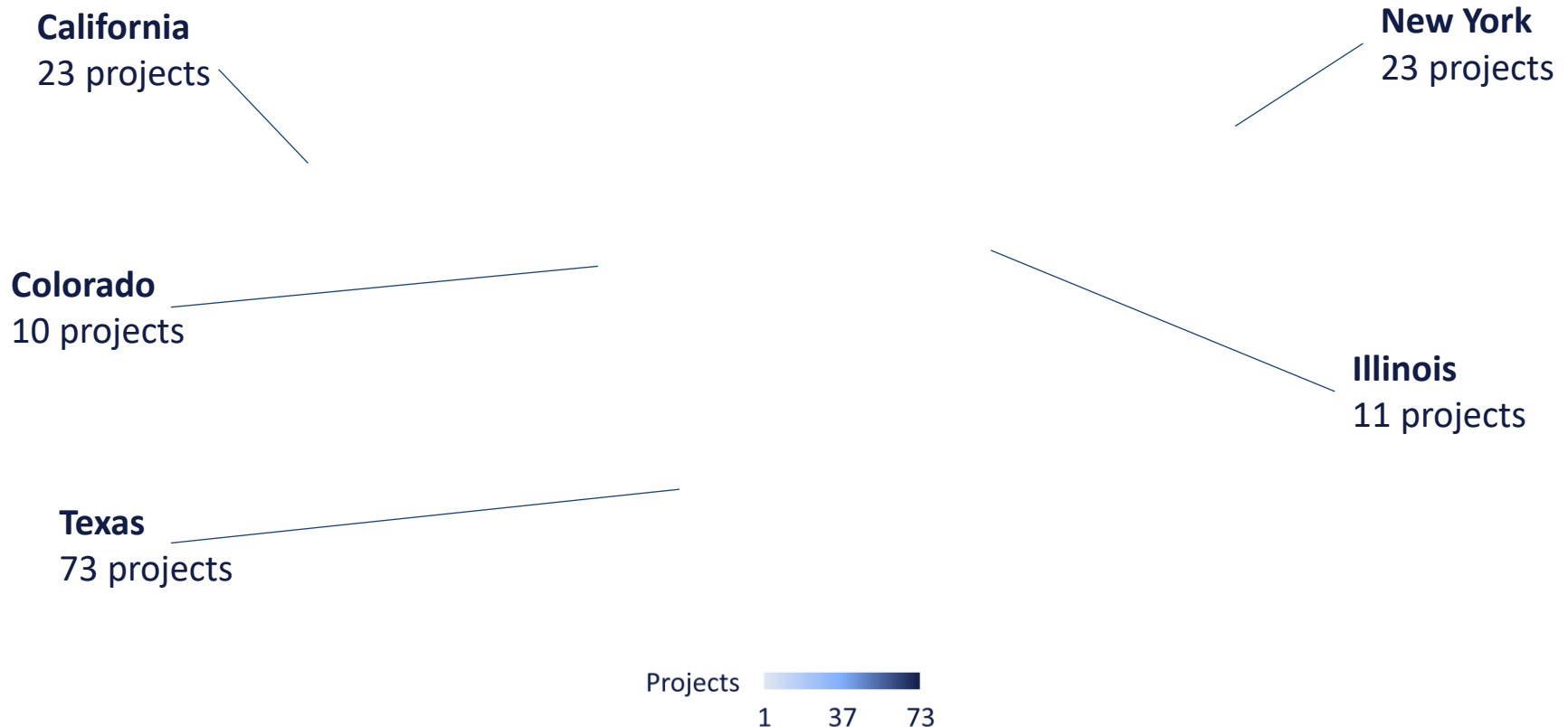


Source: [fDi Markets](#); November 2017–October 2022

Greenfield FDI in Renewable Energy: Number of Projects in U.S. Destinations

States by Number of Announced Greenfield Projects in Renewable Energy

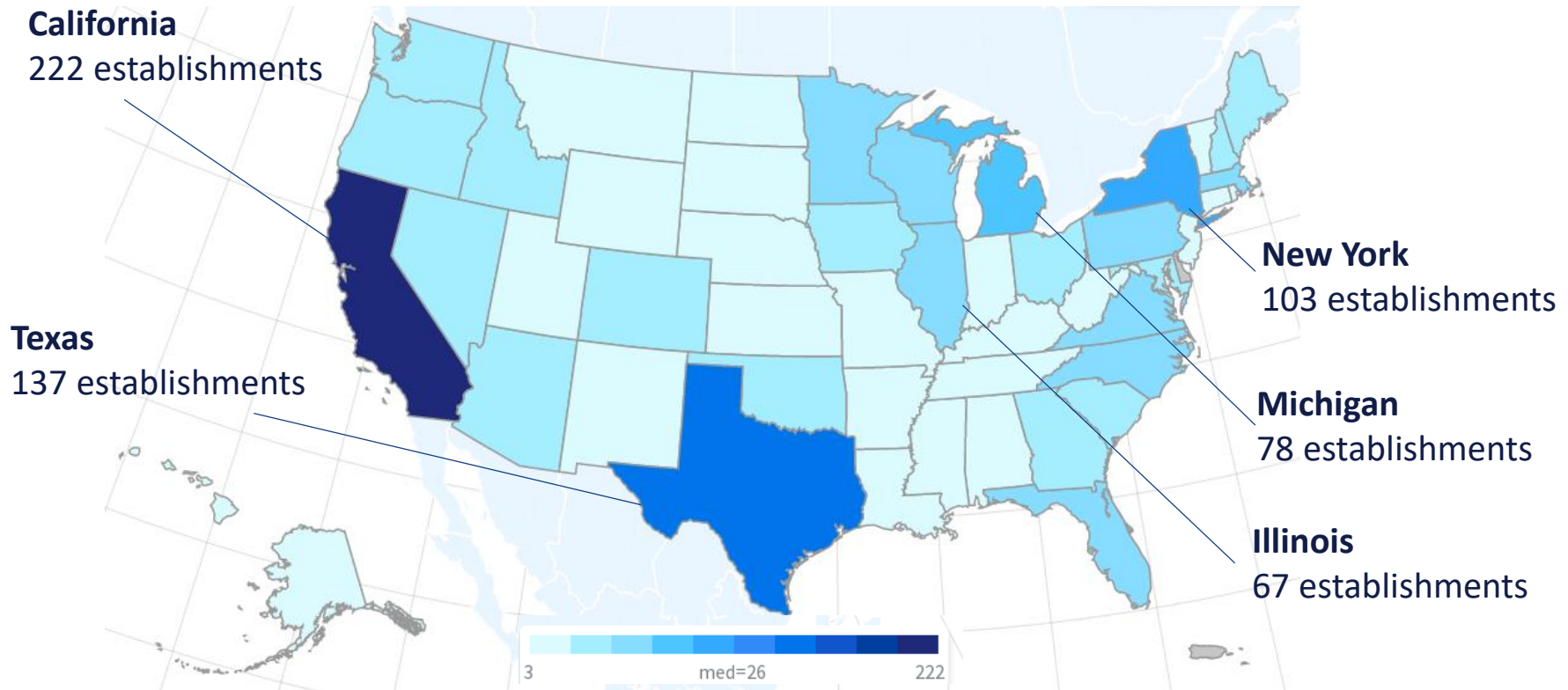
November 2017 – October 2022



Source: [fDi Markets](#); November 2017–October 2022

Clustermapping: Alternative Electric Power Establishments in the U.S.

Establishments in the U.S. Alternative Electric Power Subcluster, 2020

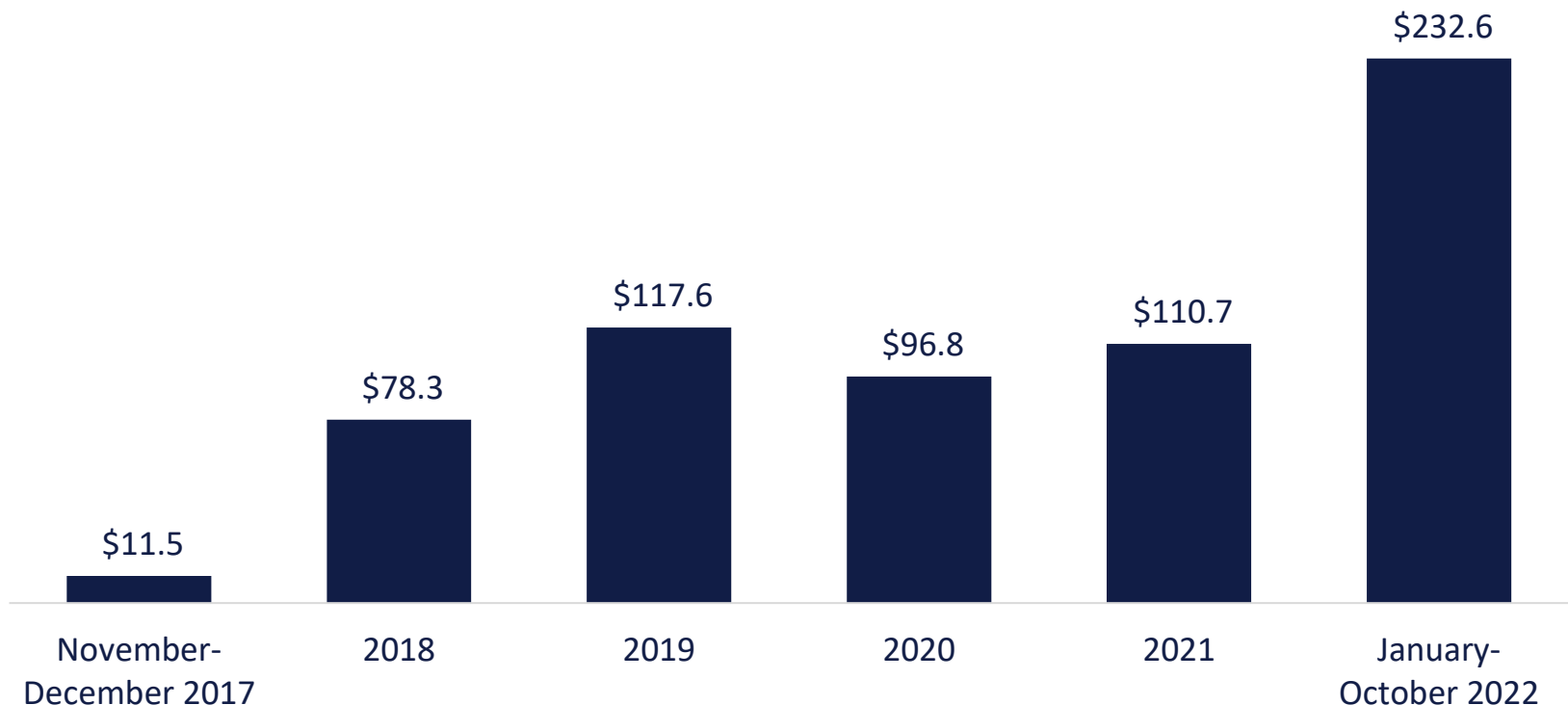


Source: [U.S. Cluster Mapping](#)

FDI In the Global Renewable Energy Industry

Estimated Capital Investment in the Global Renewable Energy Industry (in U.S. Billions)

November 2017 – October 2022

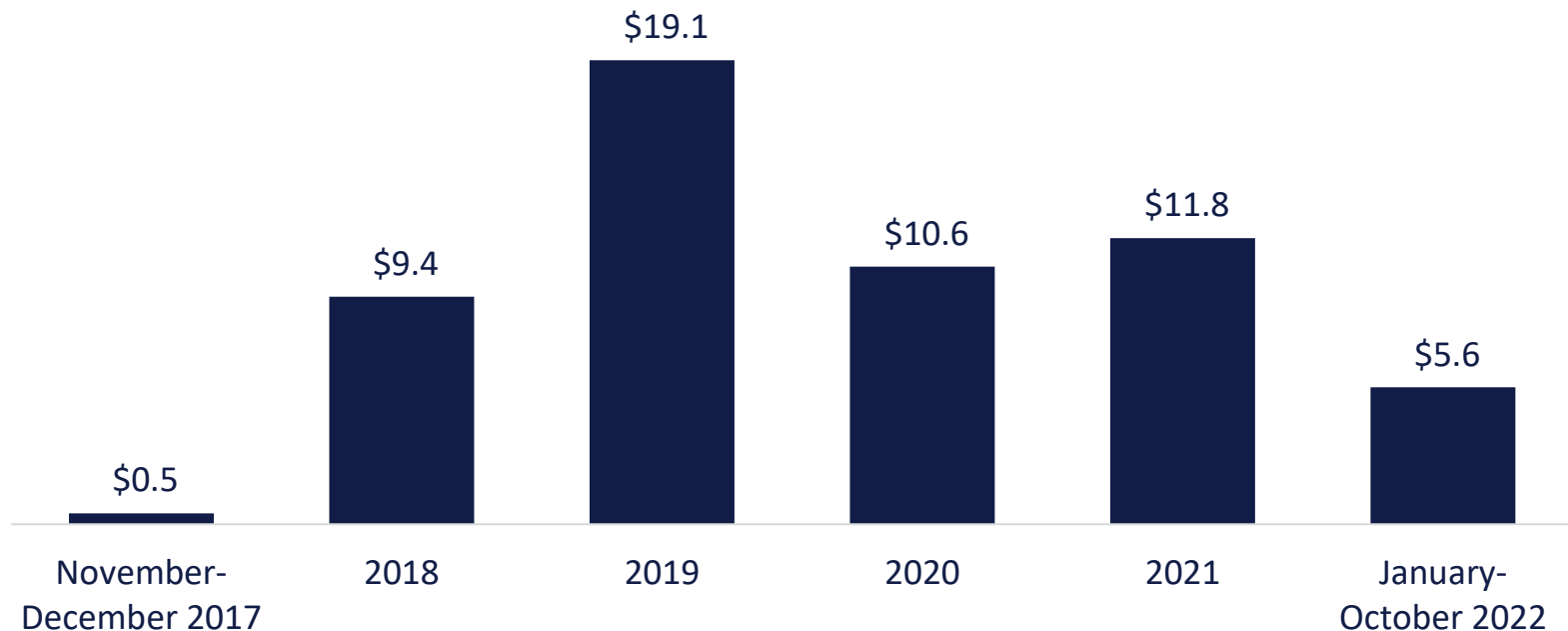


Source: [fDi Markets](#); November 2017-October 2022

FDI in the U.S. Renewable Energy Industry

Estimated Capital Investment in the U.S. Renewable Energy Industry (in U.S. Billions)

November 2017 – October 2022



Source: [fDi Markets](#); November 2017-October 2022

Biden Administration Welcomes Investment and Clean Energy

Inflation Reduction Act – \$369 Billion

August 16, 2022



- President Biden signed the Inflation Reduction Act into law, marking the most significant action Congress has taken on clean energy and climate change in the nation's history

Infrastructure Investment and Jobs Act - \$1.2 trillion

- “The bill is the single largest investment in clean energy transmission in American History”



Secretary Raimondo Outlines Agenda to Increase American Competitiveness – September 28, 2021

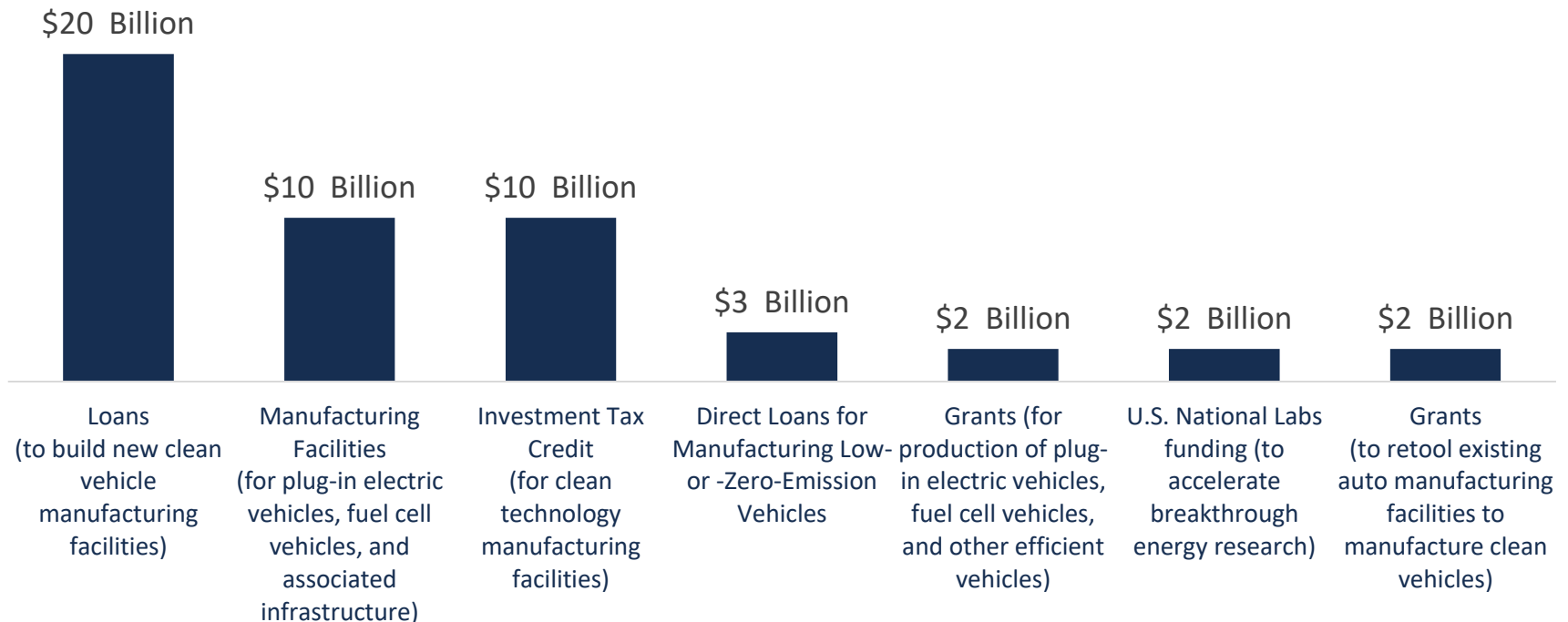
- Prioritizing Investments in Workforce, Businesses, and Innovation – **Particularly working toward a “Clean Energy Future”**

Sources: <https://www.whitehouse.gov/briefing-room/statements-releases/2021/06/08/statement-by-president-joe-biden-on-the-united-states-commitment-to-open-investment/>, <https://www.whitehouse.gov/bipartisan-infrastructure-deal/#electricvehicle>, and <https://www.commerce.gov/news/speeches/2021/09/secretary-raimondo-outlines-agenda-increase-american-competitiveness>

Inflation Reduction Act (IRA) Funding for Clean Tech Initiatives

Budgeted IRA Funding for Clean Tech Programs

(In U.S. Billions)

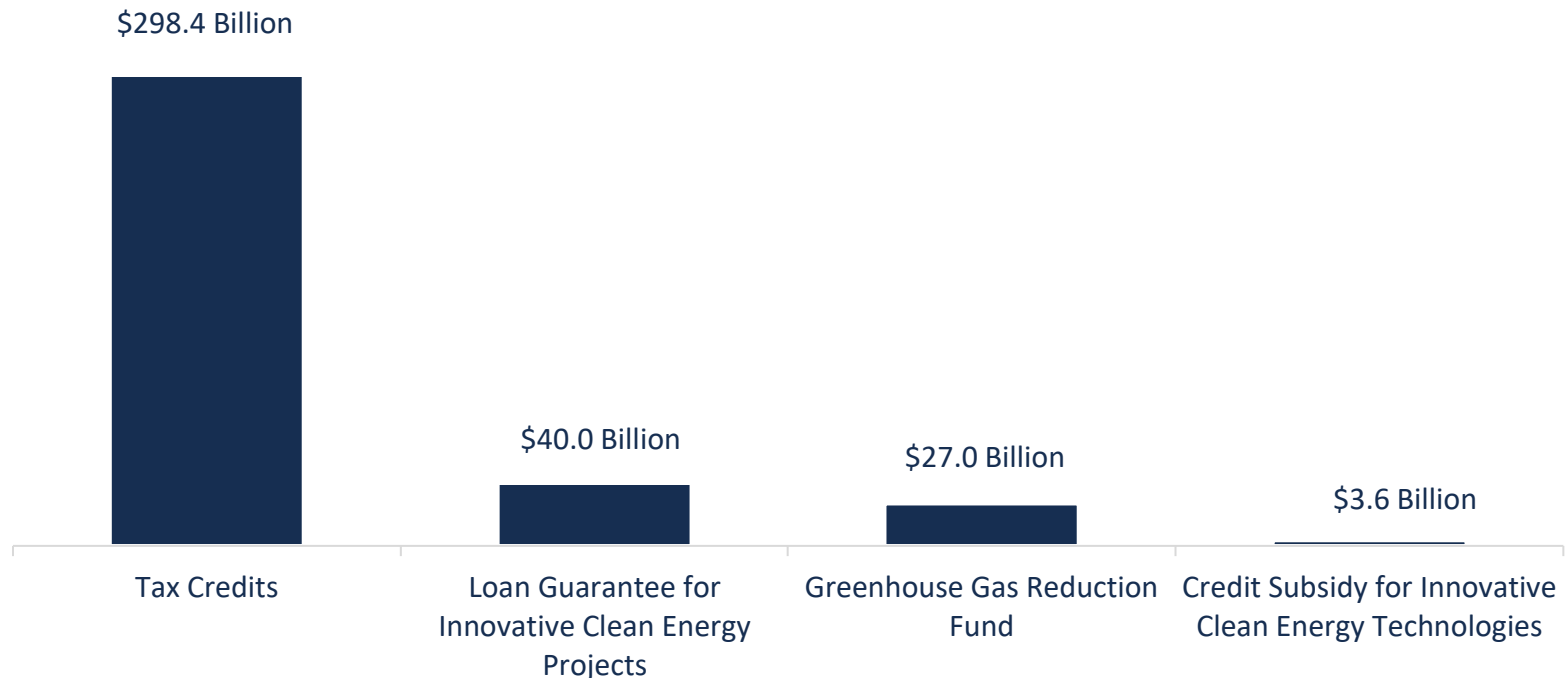


Source: [Department of Energy, Inflation Reduction Act of 2022](#)

The Inflation Reduction Act (IRA) Commits \$369 Billion for Clean Tech

IRA Budget Breakdown for Clean Tech Initiatives

(In U.S. Billions)



Source: [Department of Energy, Inflation Reduction Act of 2022](#)



LPO
Loan Programs Office

Monthly Application Activity Report

December 2022

125

ACTIVE
APPLICATIONS ¹

\$119.0

BILLION
IN LOANS REQUESTED ²

1.4

NEW
APPLICATIONS PER WEEK ³

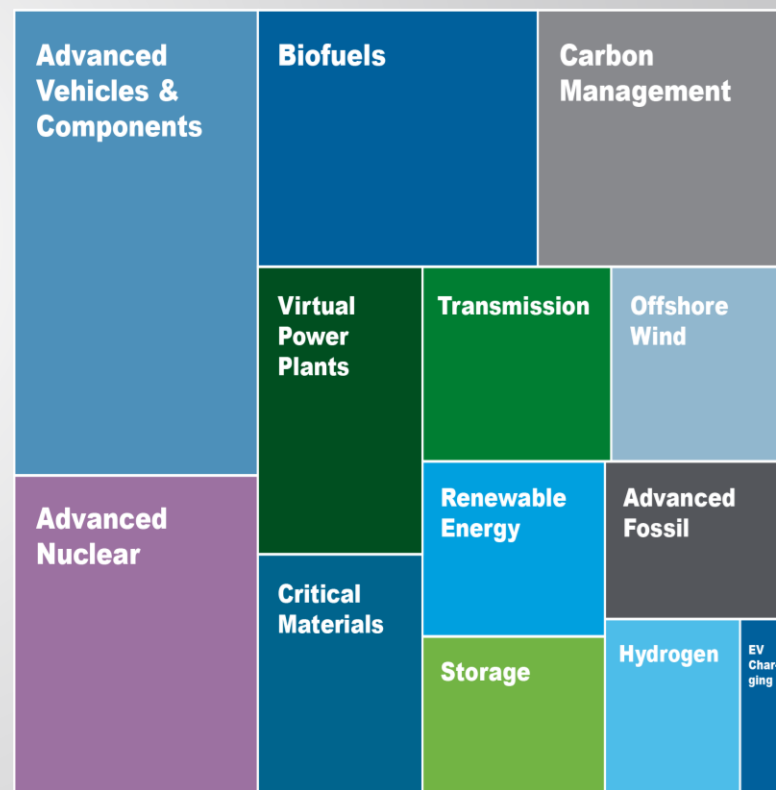
Notes

All data updated through December 31, 2022. For more details and a list of technology areas of interest within each LPO tech sector, see: [Energy.gov/LPO/MAAR](https://www.energy.gov/LPO/MAAR)

- 1) Active applications include applications that have been submitted by the project sponsor(s) through LPO's online application portal and are in different stages of active review and engagement by LPO and the applicant.
- 2) Individual requested loan amounts are estimated and potential, subject to change, and not necessarily representative of final financing terms. Requested loan amounts in current active applications do not affect available LPO loan authority. Figure rounded down to the nearest \$0.1 billion.
- 3) Current rolling average of new active applications per week over the previous 24 weeks. Figure rounded down to the nearest 0.1 application per week.

\$119.0 BILLION

CURRENT AMOUNT OF LOANS REQUESTED BROKEN DOWN BY PROJECT TECHNOLOGY SECTOR



Featured Program (Capital Assistance)



The U.S. Department of Energy Loan Programs Office (LPO) finances innovative clean energy, advanced transportation, tribal energy, energy infrastructure reinvestment, and CO₂ transportation infrastructure projects, serving as a bridge to bankability for breakthrough projects and technologies, derisking them at early stages of commercialization so they can reach full market acceptance.

LPO has over \$36.5 billion in innovative clean energy & advanced transportation commitments and loans

Advanced Nuclear Energy

\$12 Billion

First AP1000 reactor in the U.S. (Vogtle)

Advanced Fossil Energy

\$3 Billion

Two CCUS conditional commitments.
(Lake Charles Methanol, Monolith)

Wind Energy

\$1.7 Billion

Four onshore farms, including one of the world's largest. (Shepherds Flat)

Transmission

\$343 Million

Advanced transmission lines for improved grid reliability. (One Nevada Line)

Hydrogen

\$504 Million

Innovative clean hydrogen storage facility.
(Advanced Clean Energy Storage)

Advanced Vehicles & Components

\$10.52 Billion

Accelerated domestic electric vehicles manufacturing.
(Nissan, Syrah, Tesla, Ultium)

Concentrating Solar Power

\$5.8 Billion

Five CSP plants utilizing diverse technologies.

Geothermal Energy

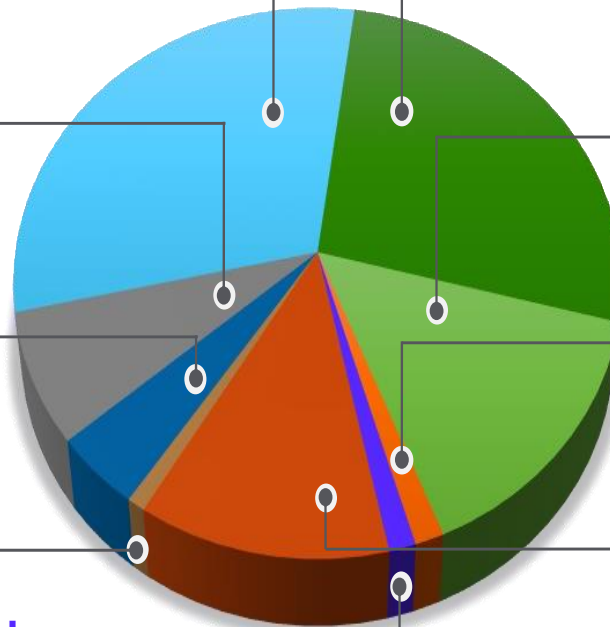
\$546 Million

State-of-the-art thermal extraction, revitalizing the sector.

Photovoltaic Solar

\$4.7 Billion

First five utility-scale PV solar projects larger than 100 MW in the U.S.



The Next Generation of LPO Financing

LPO is working with stakeholders across innovative clean energy and advanced transportation sectors



Major Technology Sectors

Technology Areas of Interest

Include, but are not limited to, the following:

Advanced Vehicles & Components	• Vehicles • Components • Lightweighting • Manufacturing
Biofuels	• Advanced Biofuels • Biodiesel • Cellulosic Biofuels • Renewable Diesel • Sustainable Aviation Fuel (SAF)
Critical Materials	• Extraction • Manufacturing • Mining • Processing • Recovery • Recycling
EV Charging	• Electric Vehicle (EV) Charging Infrastructure Manufacturing & Deployment
Hydrogen	• Generation • Infrastructure • Transportation
Onshore & Offshore Wind	• Offshore Wind • Onshore Wind Infrastructure
Renewable Energy	• Electrification • Geothermal • Hydrokinetics • Hydropower • Solar • Waste Conversion
Storage	• Electric Vehicle (EV) Battery Manufacturing • EV Bidirectional Storage • Newer Battery Chemistries & Flow Batteries • Compressed Air Energy Storage • Pumped Storage Hydropower • Thermal Energy Storage
Transmission	• Grid Efficiency • Grid Reliability • High Voltage Direct Current (HVDC) Systems • Offshore Wind Transmission • Systems Sited Along Rail & Highway Routes
Virtual Power Plants	• Grid Connected Distributed Energy Resources (DERs)
Advanced Fossil	• Carbon Feedstock Waste Conversion • Fossil Infrastructure Repurposing & Reinvestment • Hybrid Generation Hydrogen Generated From Fossil Sources • Industrial Decarbonization • Synfuel
Carbon Management	• Carbon Capture, Utilization & Storage (CCUS) • Carbon Dioxide Removal (CDR)
Advanced Nuclear	• Small Modular Reactors • Micro Reactors • Nuclear Supply Chain • Nuclear Front-End
Tribal Energy	• Energy Storage • Fossil Energy • Renewable Energy • Transmission Infrastructure • Transportation of Fuels

Upcoming SelectUSA Energy Events

SelectUSA Investment Summit
May 1-4, 2023
National Harbor, Maryland

Clean Technology session for clients:
Clean Energy Incentive Landscape

For: Investors and EDOs
<https://www.selectusasummit.us/>
<https://www.selectusasummit.us/Programming/SelectUSA-Tech>



Thank you

For more information about SelectUSA please see

<https://trade.gov/selectusa>

