

May 8, 2023

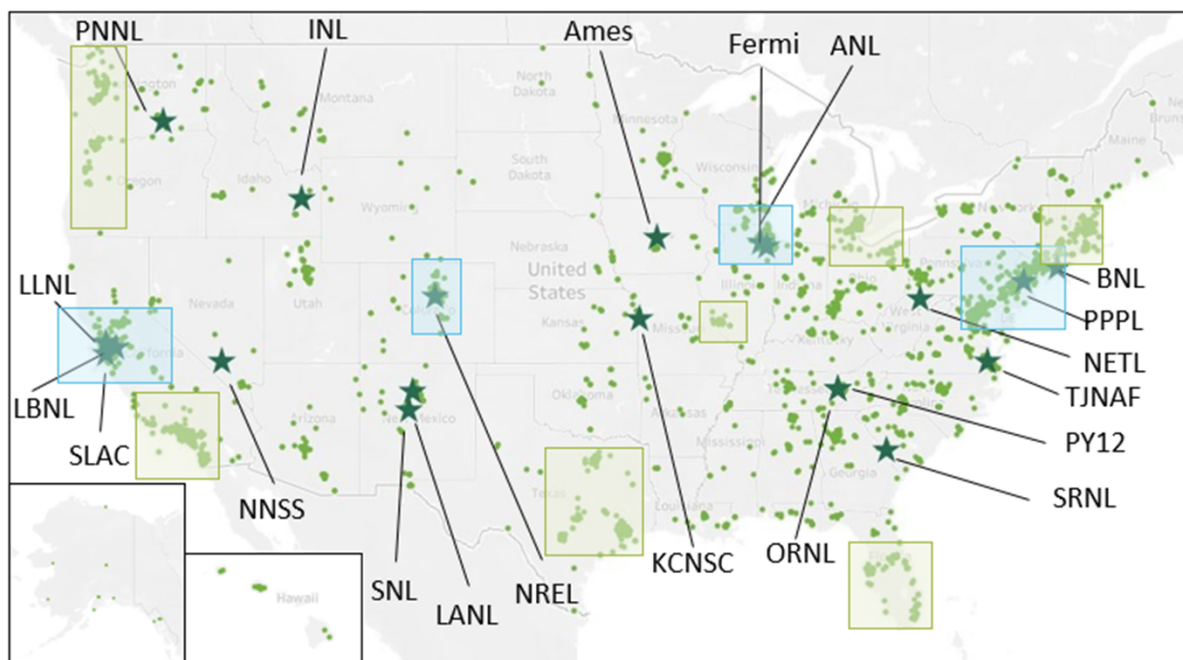
Clean Energy Innovation & Regional Economic Development

Carla Frisch, Acting Executive Director and Principal Deputy Director
Office of Policy, U.S. Department of Energy

Presentation for the National Academies of Science Innovation Policy Forum



DOE National Labs and partners deliver innovation



FY17-FY21 National Lab & Partner Locations

Data collected internally by DOE Office of Technology Transitions

Area with high density of projects with a national lab (or labs) in close proximity

Area with high density of projects but no national lab in close proximity

- Each dot represents the location of a National Lab partner



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Successful innovation ecosystems rely on key building blocks

Talent An educated and skilled workforce, as well as training programs to create and sustain this talent.	Infrastructure For research, commercial, industrial, and residential purposes— inclusive of physical spaces/facilities, utilities, transportation, and other features required for residential, industrial, and commercial purposes.
Technology Accessible scientific and technical knowledge throughout the RDD&D continuum for commercialization and manufacturing.	Capital Access to financial resources (i.e., venture capital, private equity, angel investors, etc.) and technical resources (i.e., scientific and manufacturing equipment).
Social Capital Local networking to incentivize and support the existence, development, and growth of innovation programs and companies.	Policy Local and regional policies and incentives that support innovation-driven enterprises, economic development, and planning within a regional innovation center.
Collaboration with Industry Mutually beneficial partnerships between public and private sectors to facilitate knowledge exchange, accelerate technology commercialization, workforce development, awareness of promising research and needs.	Community Structure that supports the development, accessibility, inclusivity, environmental sustainability, and engagement with the local community in an equitable way.

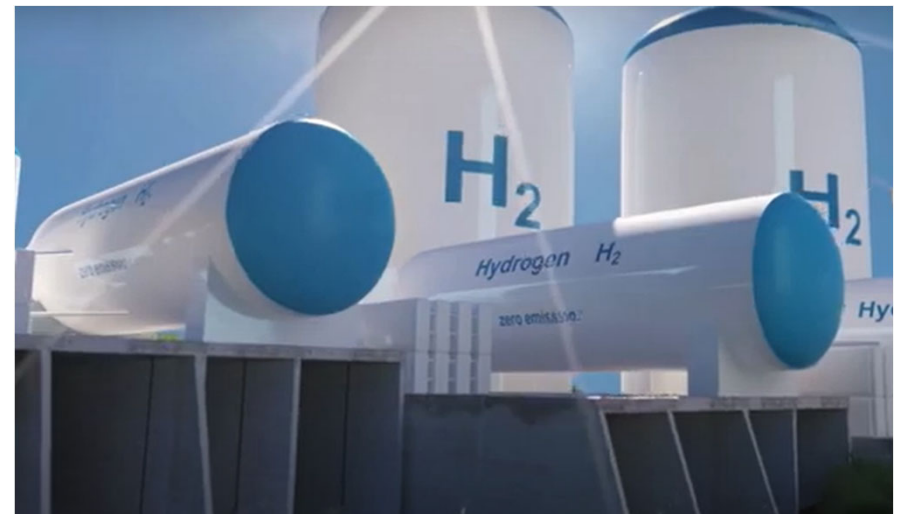


Investing in America accelerates the building blocks

1. **Bipartisan Infrastructure Law** (Nov 2021) makes the largest long-term investment in our nation's infrastructure in nearly a century
2. **CHIPS and Science Act** (July 2022) invests in cutting-edge science and innovation to boost American competitiveness, including for semiconductors, and to bring jobs and supply chains home
3. **Inflation Reduction Act or IRA** (Aug 2022) breathes life into our clean energy economy by incentivizing deployment of clean technologies and lowering energy costs for American families

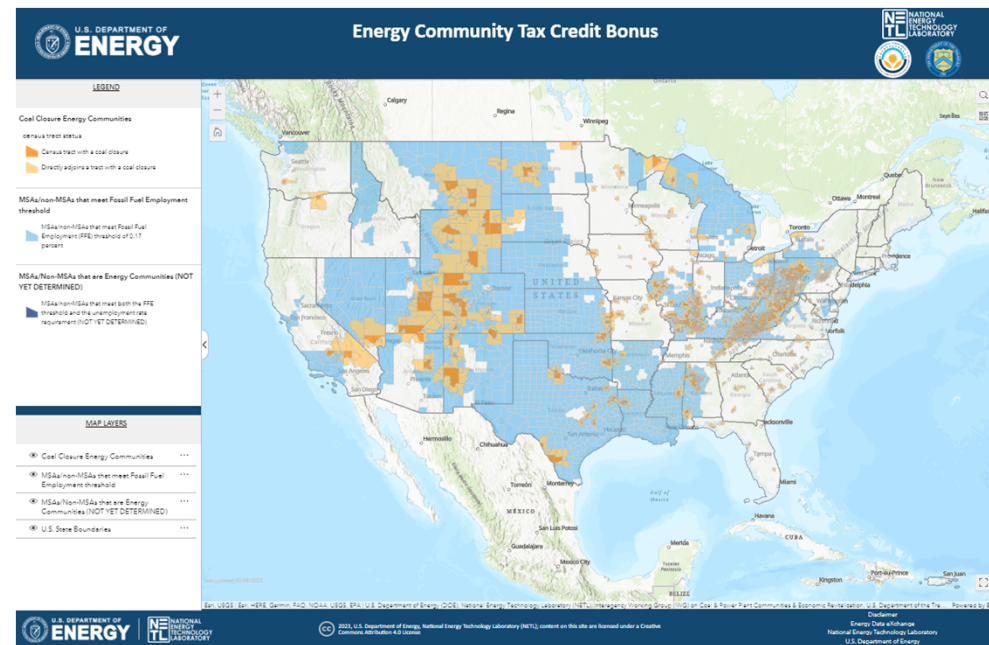
Example: Supporting regional hydrogen innovation

- Regional Clean Hydrogen Hubs program—or H2Hubs
- Includes up to \$7 billion to establish 6 to 10 regional clean hydrogen hubs across America, supported by funding from BIL



Example: Energy tax policy supports communities

- Strong incentives for prevailing wages and apprenticeships
- Electricity ITC/PTC: 10% adder for energy communities
- 48C Manufacturing Tax Credit: \$4B set aside for coal communities



energycommunities.gov

Manufacturing is coming back throughout America

American-Made Batteries

New U.S. Battery Manufacturing and Supply Chain Investments Announced Under President Biden



Over \$95 billion
announced so far



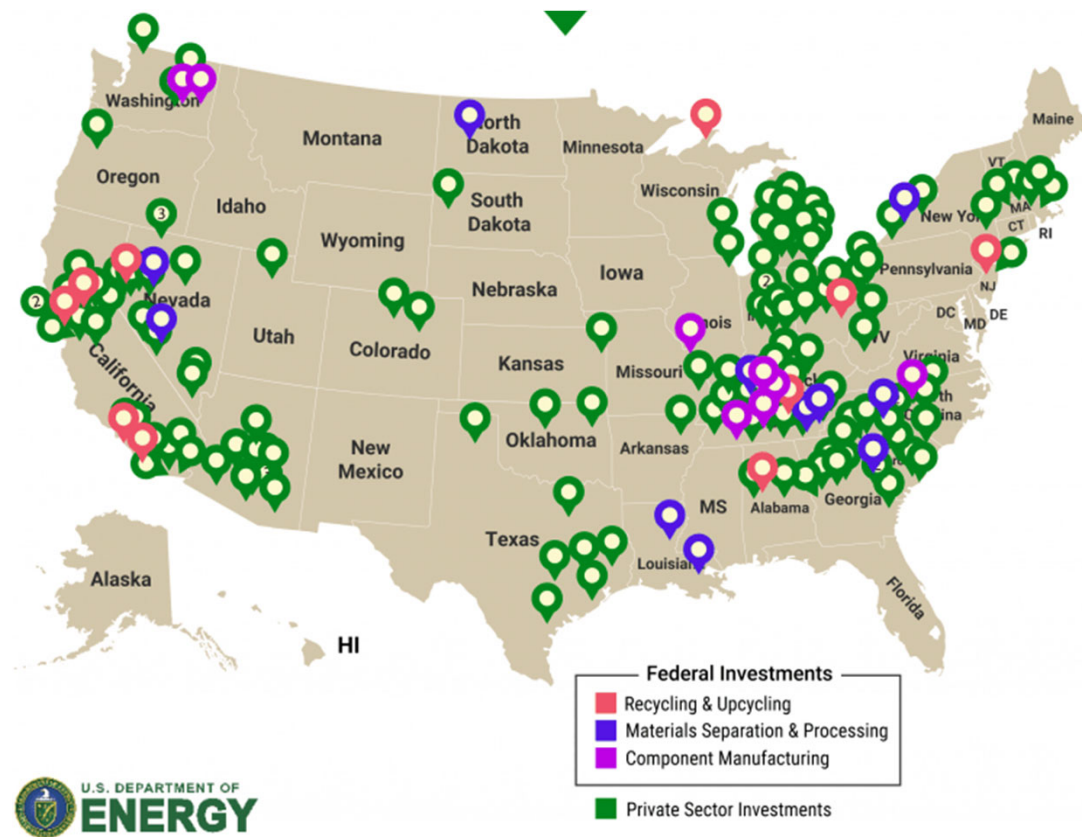
Over 160 new or
expanded minerals,
materials processing and
manufacturing facilities



Enough to power
10 million EVs
each year



Over
70,000 new
jobs



Based on publicly available information. Many facilities are conditional on financing, funding, site control, and other factors.



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Manufacturing is coming back throughout America

American-Made Solar

New U.S. Solar Manufacturing Announcements
Under President Biden



Over \$5
billion
planned
investment



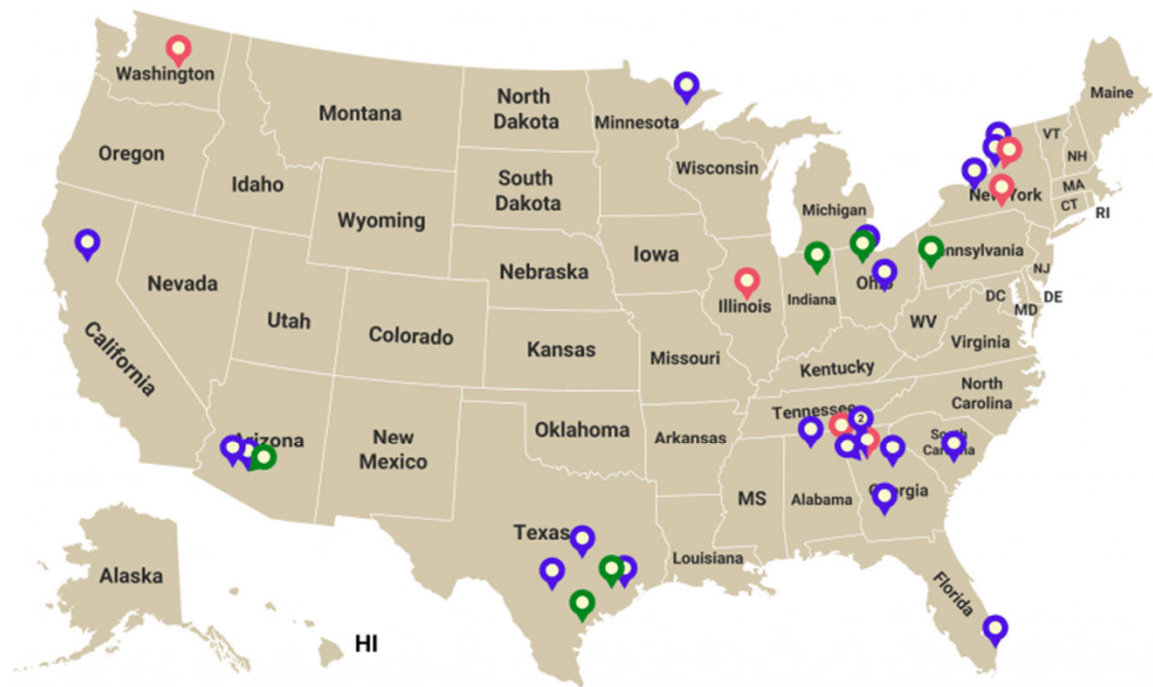
51 new and expanded
manufacturing plants
(32 in map; 19 locations TBD)



Enough to power 8 million
additional homes each year



Thousands of
new jobs



Based on publicly available information. Many facilities are conditional on financing, funding, site control, and other factors.



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Manufacturing is coming back throughout America

American-Made Offshore Wind

New US Offshore Wind Manufacturing Facility, Port, and Vessel Investments Announced Under President Biden



Nearly \$3.5 billion
announced manufacturing
and port investments



Investments in 11
manufacturing
facilities and 13 ports



17 new vessels
being built in 7
different states



Thousands of
potential new
jobs



Port Manufacturing Vessel Construction

Based on publicly available information. Many facilities are conditional on financing, funding, site control, and other factors.

Not included in the map are facilities announced as explicitly conditional on winning a power-sales contract. Numbers within a single pin denote multiple investments or facilities at a single location.



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More innovation opportunities coming soon: EXAMPLE: MAKE IT Prize - Manufacture of Advanced Key Energy Infrastructure Technologies

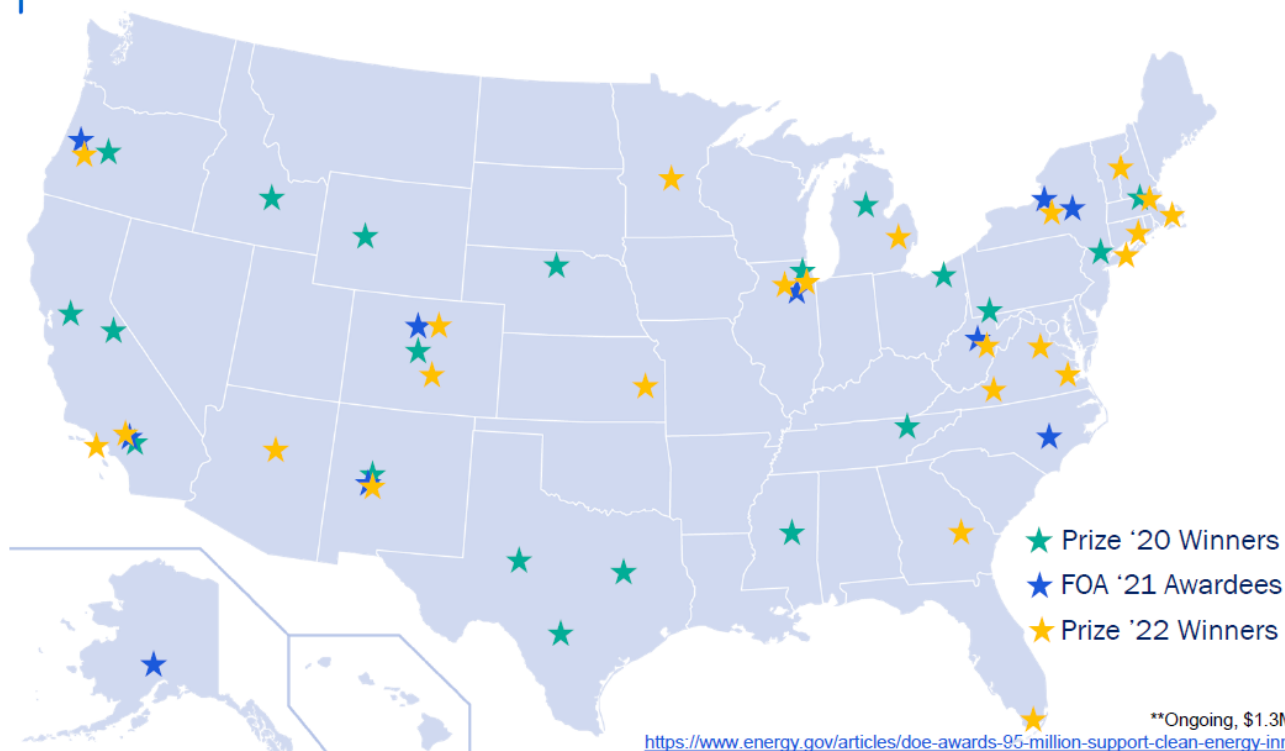


\$30M in cash prizes

- **Catalyze domestic manufacturing** and commercial liftoff of clean energy demonstration projects:
- Moving manufacturing facilities from planning to shovel-ready
- Enabling communities to prepare strategies for vibrant manufacturing activity in their area



Example: Energy Program for Innovation Clusters



- \$5M in annual appropriations starting FY20
- Program to boost regional energy innovation & jobs with targeted funding for incubators & accelerators
- Aligns with CHIPS Act Sec. 10713. National clean energy incubator program.

EPIC Prize R1: Oct. 2020

- \$1M
- 20 winners @ \$50,000

EPIC FOA: June 2021

- \$9.5M
- 10 awardees

EPIC Prize R2: Oct. 2022

- \$5M*
- 40+ winners

**Ongoing, \$1.3M awarded to date, does not include PD of staff



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Thank You!

Learn more about investments in the clean energy by visiting:

energy.gov/BIL

energy.gov/save

americanmadechallenges.org



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