



Investing in Innovation

Federal Programs from the
Inflation Reduction Act & Beyond

August 15 at 3pm ET



Background Materials

The following slides provide a more extensive overview and list of links for programs discussed in the webinar.



Agenda

- Introductions
- Overview of federal energy innovation programs
 - Inflation Reduction Act
 - Bipartisan Infrastructure Law
 - DOE programs
- Where to find resources
- Panel discussion





CLEAN ENERGY BUSINESS NETWORK[®]

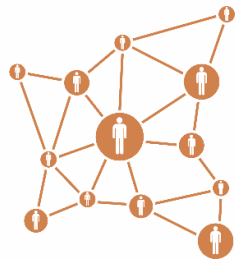
the small business voice for the clean energy economy



Policy
Support



Market &
Technology
Education



Business
Development
Assistance





**Environmental
Defense
Fund**

Environmental Defense Fund's mission is to build a vital Earth. For everyone.

By leveraging our deep expertise in science and economics, EDF delivers bold, game-changing solutions to address the biggest challenge of our time — climate change.

WE WORK TO:

- **Stabilize** the climate.
- **Strengthen** the ability of people and nature to thrive.
- **Support** people's health.

Working in more than 30 countries, we focus on:

- Areas where we can make the biggest impact.
- Slashing pollution from transportation around the world.
- Slowing the warming we're experiencing now by cutting methane pollution.
- Bolstering nature's own capacity to stabilize the climate.

We partner with other organizations

- As well as with businesses, governments and communities.
- To get the world on a rapid path to climate stability.

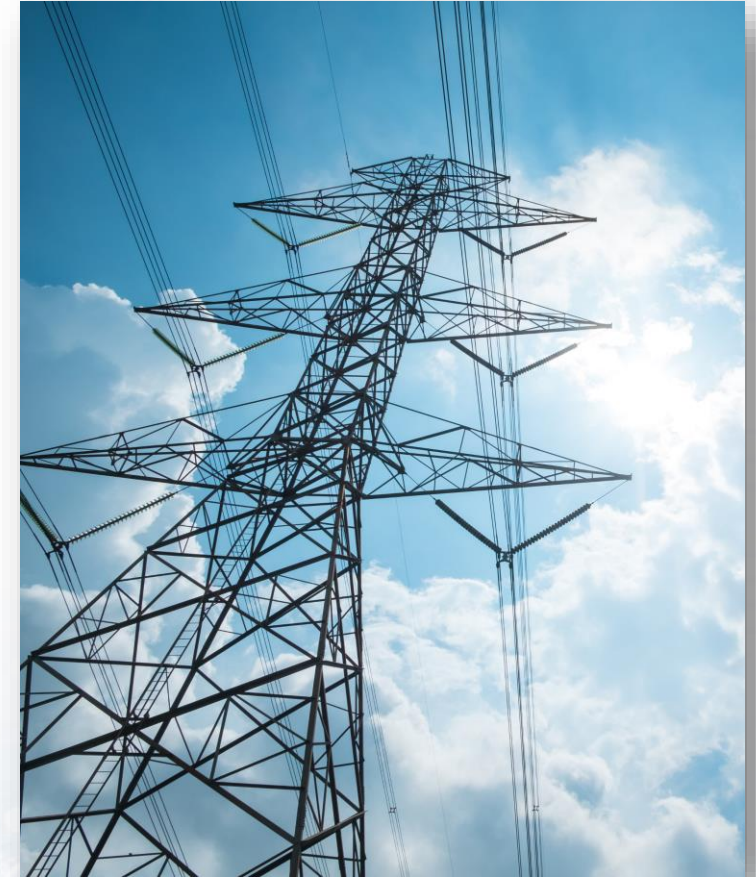
Overview of Federal Energy Innovation Programs



Bipartisan Infrastructure Law (BIL)

\$80B for clean energy, efficiency, and transportation
\$1.2T total for infrastructure

- Electric Vehicle Charging Infrastructure - \$7.5B
- Weatherization Assistance Program - \$3.5B
- Energy Efficiency & Conservation Block Grants - \$550M
- Energy Efficiency Materials Pilot Program for Nonprofits - \$50M
- Energy Improvements in Rural or Remote Areas - \$1B



Inflation Reduction Act (IRA)

**\$370B in clean energy and climate programs
Advances Biden Administration's [Justice40 Initiative](#)**

- Tax credits
- Loan authority
- Rebates for home appliances and efficiency upgrades
- Greenhouse Gas Reduction Fund (National Green Bank)
- Rural programs
- Environmental justice grants



IRA Highlights

Tax incentives:

- Renewable energy, energy efficiency, and clean vehicles
- Technology-neutral credits (2025-2032)
- Bonuses and/or requirements for full credits:
 - Domestic Manufacturing
 - Labor and Apprenticeships
 - Projects in low-income, disadvantaged, and energy transition communities
 - Direct Pay (nonprofits can take payment in lieu of credit)

Greenhouse Gas Reduction Fund:

- National green bank providing [\\$27B in grants](#) to nonprofits and community-based organizations to advance clean energy deployment



IRA: Tax Credits

New, extended, or expanded credits:

- Investment Tax Credit (up to 30%): Fuel cell, solar, geothermal, small wind, energy storage, biogas, microgrid controllers, and combined heat and power properties
- Production Tax Credit (up to 2.75 ¢/kWh): Wind, biomass, geothermal, solar, small irrigation, landfill/trash, hydropower, & marine energy
- Technology Neutral Tax Credits (2025-2032)
- Residential Energy Efficiency Tax Credits (30% up to \$1,200)
- Residential Clean Electricity Tax Credit (30%)
- Clean Vehicle Tax Credit (\$7,500)
- Advanced Manufacturing Tax Credit

Bonuses and/or requirements for full credits:

- Domestic Manufacturing
- Labor and Apprenticeships
- Energy Communities (energy transition)
- Low-income Solar/Wind (10%)
- Low-income Residential Building (20%)
- Direct Pay (nonprofits can take payment in lieu of credit)

White House: [Guide to Clean Energy Tax Credits](#)

CEBN: [Insights into the Inflation Reduction Act](#)

IRA: Greenhouse Gas Reduction Fund

National green bank providing [\\$27B in grants](#) to nonprofits and community-based organizations to advance clean energy deployment

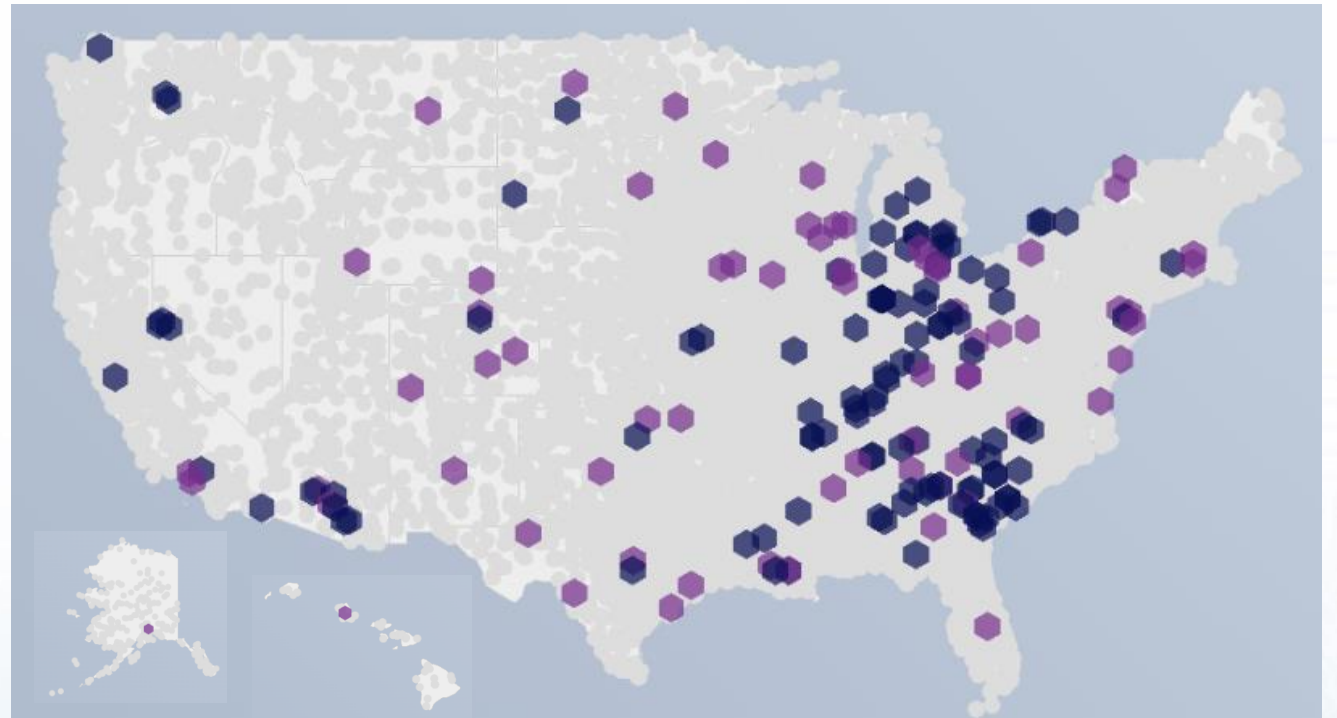
- [National Clean Investment Fund](#): \$14B for projects to reduce GHG emissions
- [Clean Communities Investment Accelerator](#): \$6B for funding and technical assistance in low-income and disadvantaged communities
- [Solar for All](#): \$7B for projects to expand the number of low-income and disadvantaged communities primed for residential solar investment

IRA Impacts

Clean energy and battery/EV investments announced to date:

- \$271B for utility scale clean energy projects
- 83 utility-scale clean energy manufacturing plants
- 29,780 new manufacturing jobs

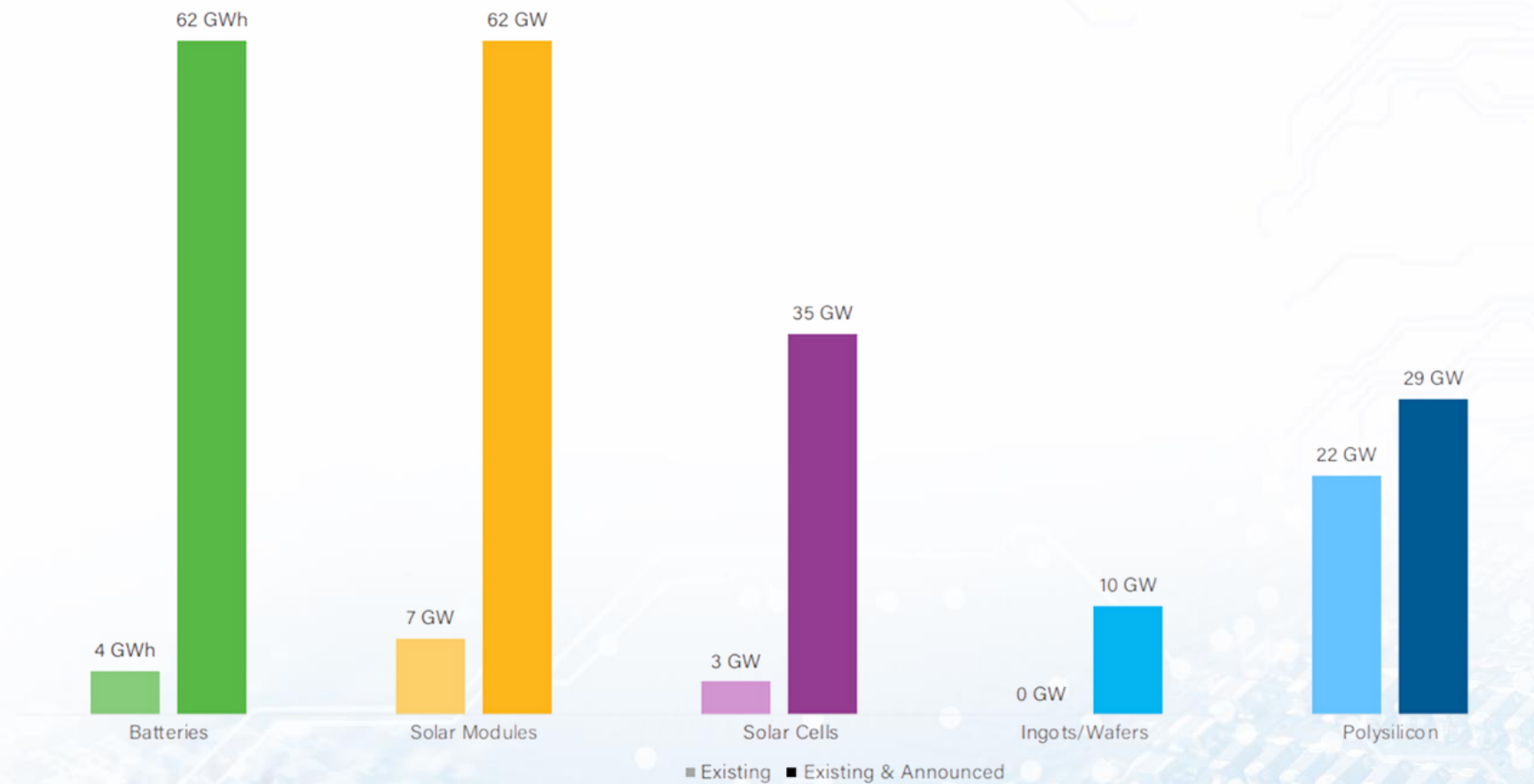
 Clean Energy  Batteries/EVs



Sources: [American Clean Power](#) and [WH](#)

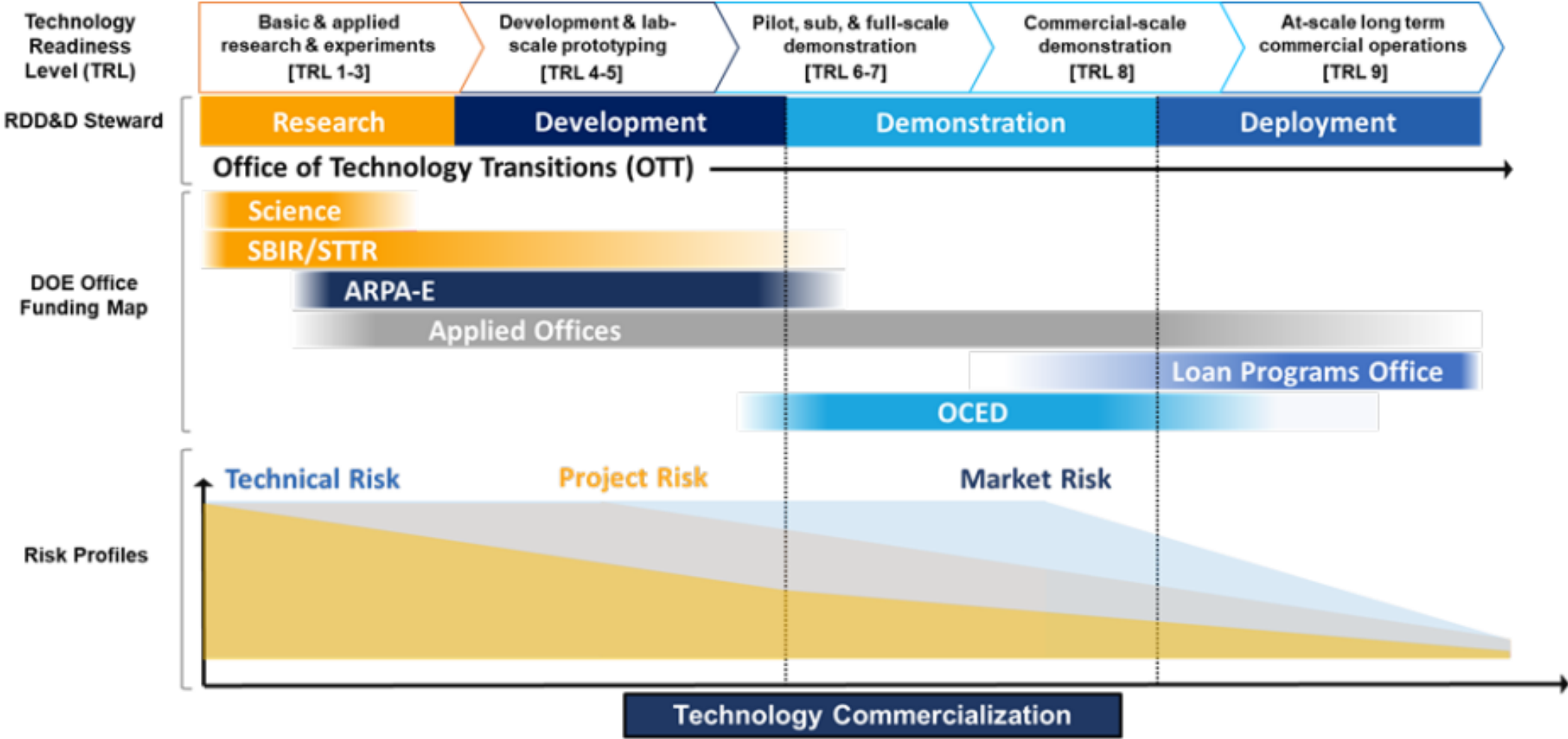
IRA Impacts

Existing and Announced Component Manufacturing Capacity



Source: [American Clean Power](#)

DOE Programs from R&D to Deployment



Source: [Office of Clean Energy Demonstrations Multi-year Program Plan 2023](#)

Small Business Innovation Research (SBIR) & Small Business Technology Transfer (STTR)

Research

Development

Demonstration

Deployment

SBIR/STTR



Largest source of early-stage R&D funding for small businesses, with goal of leading to commercialization

- General overview of [SBIR](#) & [STTR](#)
- [DOE SBIR/STTR Solicitations](#) (typically 2 per year)
- [Other SBIR/STTR Solicitations](#)
- [CEBN Insights into the 11 Small Business Innovation Research Programs](#)

Advanced Research Projects Agency-Energy (ARPA-E)

Research

Development

Demonstration

Deployment

ARPA-E



Advances high-potential, high-impact energy technologies that are too early for private-sector investment

- [ARPA-E overview](#)
- [Current funding opportunities](#)
- [SCALEUP](#): Helps promising ARPA-E technologies transition from proof-of-concept prototypes to commercially scalable and deployable versions
- [OPEN](#): General solicitations issued roughly every 3 years to identify high-potential projects outside of the current portfolio

Office of Technology Transitions (OTT)

Research

Development

Demonstration

Deployment

OTT



OTT

Office of Technology Transitions

Oversees programs to integrate “market pull” and expand public impact of DOE’s research, development, demonstration, and deployment portfolio

- [OTT overview](#)
- [Technology Commercialization Fund \(TCF\)](#):
 - Oversees DOE’s tech transfer funds
 - Supports [EPIC Prize](#), [MAKE IT Prize](#)
- National Lab partnership opportunities:
 - [Lab Partnering Service](#)
 - [Lab Embedded Entrepreneurships](#)
 - [Small Business Vouchers](#)
 - [EnergyWerx](#)

Office of Clean Energy Demonstrations (OCED)

Research

Development

Demonstration

Deployment

OCED



Manages over \$25B to deliver clean energy demonstration projects at scale in collaboration with the private sector to accelerate deployment, market adoption, and the equitable transition to a decarbonized energy system

- [OCED overview](#)
- \$25B for clean energy demonstration projects at scale in collaboration with private sector.
- Typically for larger projects but also supports some American-Made Challenges prizes.
- Contemplating programs to support [small-scale pilot demonstrations](#) (see [CEBN comments](#))

Loan Programs Office (LPO)

Research

Development

Demonstration

Deployment

LPO



Manages \$400B in authority for debt financing for large-scale, innovative energy infrastructure and advanced automotive manufacturing projects

- [LPO Overview](#)
- Typically for larger-scale projects (\$150M+)

American Made Challenges

Research

Development

Demonstration

Deployment

AMC (Tech Prizes)

AMC (Community Prizes)



Incentivize innovation through prizes, training, teaming, and mentoring, and by connecting entrepreneurs and innovators to national labs and the private sector

- [AMC overview](#)
- Current prizes:
 - [Solar Data Bounty Prize](#)
 - [Heliostat Prize](#)
 - [Manufacturing of Advanced Key Energy Infrastructure Technologies \(MAKE IT\) Prize](#) - *Learn more about CEBN's support for teams*
 - [Wind Turbine Materials Recycling Prize](#)

Where to Find Resources



Plugging into Federal Programs

Recommended newsletters/mailling lists:

- [U.S. Department of Energy](#)
 - [ARPA-E email updates](#)
 - [OTT email updates](#)
 - [DOE email updates](#)
 - [AMC email updates](#)
- [Clean Energy Business Network](#)
 - [CEBN email list](#)
 - [Email us](#)
- [Environmental Defense Fund](#)
 - [EDF Innovation newsletter](#)





U.S. Cleantech Funding Database

- [Subscribe](#) for weekly or monthly updates

Weekly newsletter

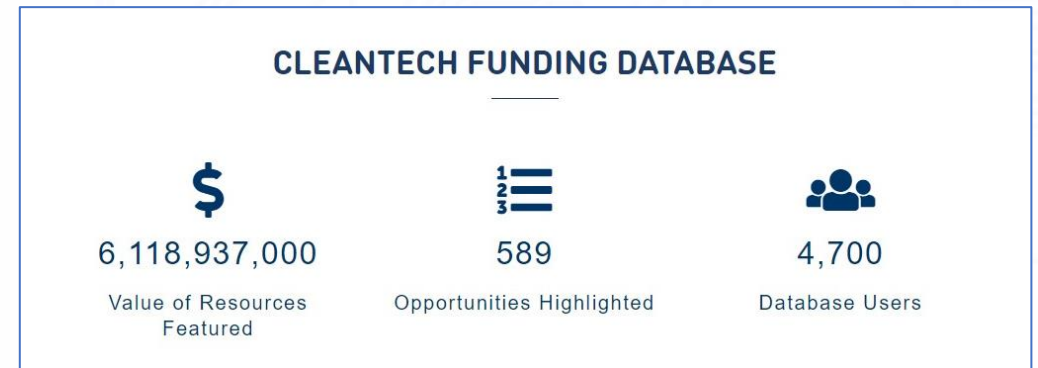
- Clean energy policy, events, news

Monthly email digests

- Inclusive Energy Economy Update
- Energy Innovation Update

Blog series

- Breaking Down the Bipartisan Infrastructure Law
- Insights into Federal Programs
- Insights into Inflation Reduction Act





- [Understanding the Inflation Reduction Act](#)
- [Inflation Reduction Act Tracker](#)
- [Climate Innovation Funding Tracker](#)
- [Green Biz – Victoria Mills, AVP, Climate Policy Leadership](#)



INFLATION REDUCTION ACT TRACKER

Columbia Law School | COLUMBIA CLIMATE SCHOOL
SABIN CENTER FOR CLIMATE CHANGE LAW



GreenBiz

Analysis Events Peer Networks Webcasts



Victoria Mills
AVP, Climate Policy Leadership
Environmental Defense Fund





Our mission—build modern infrastructure for public funding to massively improve the efficiency and equity of those funds—is what drives us every day.

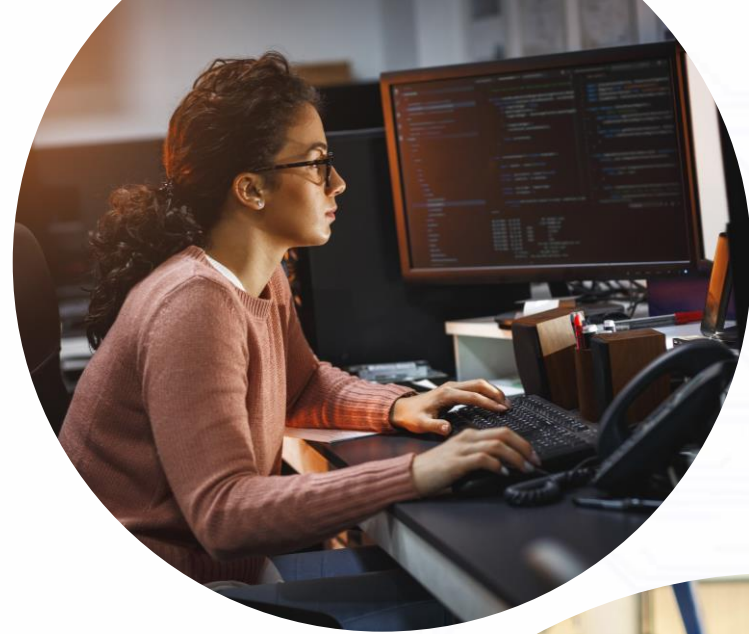
Sedale Turbovsky, CEO



Get Ready

Register in these federal systems NOW to avoid delays when you apply for grants:

- [SAM.gov](https://sam.gov)
- [PAMS.gov](https://pams.gov)
- [Grants.gov](https://grants.gov)
- [EERE Exchange](#)
- See tutorials from [Dawnbreaker \(SBIR/STTR\)](#)



Get Help

Technical assistance programs:

- [American-Made Network](#) (DOE) and [Growth Accelerator Fund Competition](#) (SBA)
 - Connect with entrepreneur support organizations across the nation
- [Dawnbreaker](#)
 - DOE's free Phase 0 program for first-time applicants to SBIR/STTR
- [Federal and State Technology \(FAST\) Partnership Programs](#)
 - State-based help for SBIR/STTR
- [Small Business Development Centers \(SBDCs\)](#)
 - Business consulting and grant assistance



Panel Discussion



Panelists



Dr. Marina Sofos

Program Director
**Advanced Research
Projects Agency-Energy**



Victor Kane

*Dep. Director of
Commercialization Program*
**DOE Office of
Technology Transitions**



Eric Byington

American-Made Network Lead
American-Made Challenges



Sedale Turbovsky

CEO
OpenGrants