



## 2023 JISEA Annual Meeting: Prizes Influencing Research and Technology Innovation

Moderator: Debbie Brodt-Giles, JISEA

Panelists: Sarah Gomach (NREL), Jenny Wiegele (NREL), Eric Byington (NREL), Chris Richardson (ADL Ventures), Alec Schulberg (NREL)

NREL/PR-6A50-86713



Office of  
Research



Stanford  
University





# JISEA

Joint Institute for  
Strategic Energy Analysis

## Prizes Overview

Sarah Gomach

April 26, 2023

# Panel: Prizes Influencing Research and Innovation

Your **fast track** to  
the **clean energy**  
**revolution.**

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# 3 Ways To Fast Track Innovation

1. Prizes and Competitions
2. Network of Support
3. Vouchers and Technical Assistance





# supercharge

A REVOLUTION OF **BOLD IDEAS**

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**\$200M**  
in cash prizes  
and support



**55+**  
prizes



**400+**  
Network  
members

# Let's Dive Into Prizes

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# Prizes and Competitions

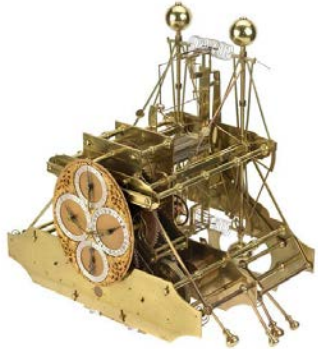


# The Prize Formula





# Government Prizes



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1. Identified a Challenge of their Time
2. Utilized the Prize Formula
3. Motivated Unknown Innovators
4. Resulted in Successful Solutions
5. Underscored the Role for the Government

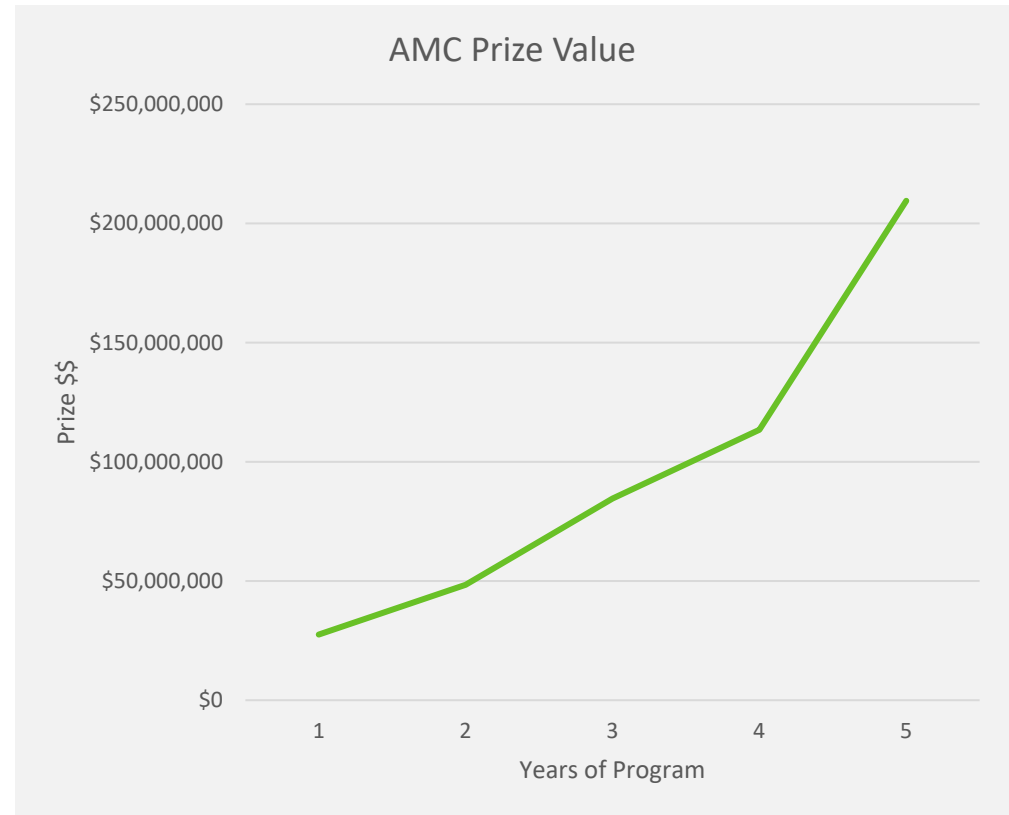
# American-Made Prize Portfolio

## Where We Started

- 1 prize
- \$3M in cash
- 1 DOE office

## Where We are Today

- 59 prizes
- \$209M in cash
- \$16.8M in vouchers
- 18 DOE offices



# The Prize Secret

## TOOLS



Cash Prizes



Demo Day



American-Made  
Network



Teaming and  
Networking Events



Power  
Connectors



Subject Matter  
Mentor



Vouchers



Bonus Prize



Advisory  
Committee



Prototype Testing

## BEST PRACTICES

- Keep It Simple
- Multi-Phase Prize
- Right-Size the Prize Amounts
- Deadlines Matter
- Recruitment
- Competitor Support

# Benefits of a Prize

## Benefits to DOE

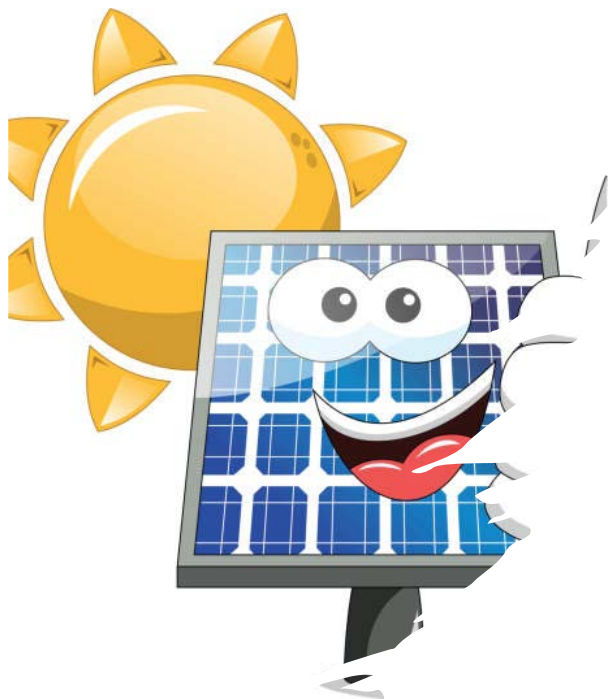
- Reduces Risk
- Strengthens Pipeline

## Benefits to Prize Competitors

- Speed and flexibility
- Non-dilutive, fast, flexible funding
- Access to national labs and a national network of support
- An on-ramp to future funding and success



# From a Competitor...



The American Made Solar Prize helped us *accelerate our time* to launch from 3 years to a little over a year and a half.

The structure of the program made us *focus on both the product's development and business plan* at the same time forcing us to move quickly to compete with the other amazing contestants.

In addition, due to the *non diluting investment* we will be able to retain ownership of the company which will help us stay on mission and will contribute significantly to our success.

Truly, *there is no downside* to the American Made Solar Challenge, and I recommend it to any budding solar startup with a great idea.



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## Improving Diversity in American-Made Challenges

Jenny Wiegele

April 26, 2023

# Inclusive Innovation & Entrepreneurship Roundtable

- Roundtable August 2021, convening:
  - DOE and National Labs
  - Experts in climate and energy justice
  - Organizations supporting entrepreneurs and innovators
- RFI open through August 2021
- Goal to understand barriers to entry for communities historically underserved in funding opportunities
- Identify programmatic measures to reduce barriers.

[Inclusive Innovation & Entrepreneurship Roundtable Report](#)

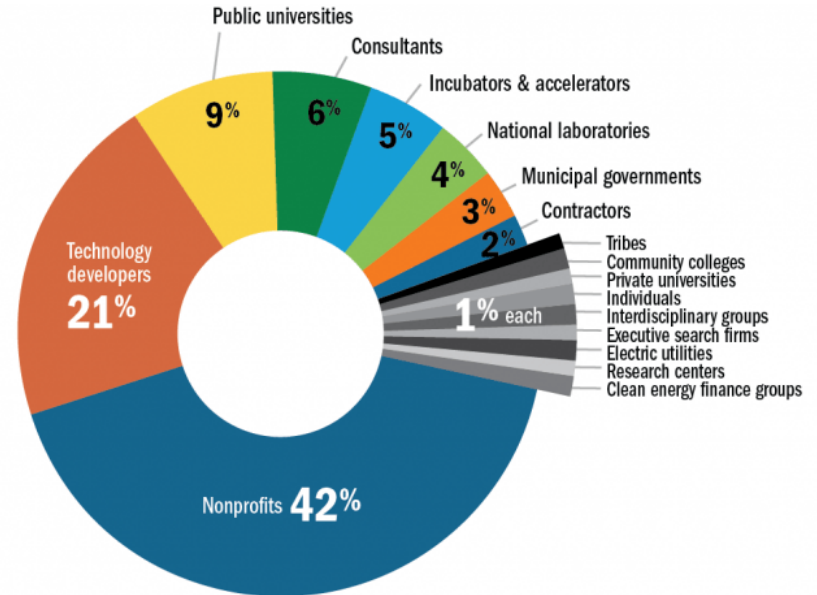
# Inclusive Innovation & Entrepreneurship Roundtable

## Common Barriers

- Resource intensity required for applications creates barriers
- Biases toward familiarity in funding recipients
- Lack of representation in outreach and review process and DOE workforce
- Lack of available trainings to understand the application process

## Implementable Solutions

- Develop outreach strategies to reach new audiences
- Develop programming and training for new applicants
- Increase representation in reviewer pool
- Improve network reach through trusted partners



[Summary Report of Responses to a Request for Information on Inclusive Innovation and Entrepreneurship in Climate Technology](#)



# Inclusive Energy Innovation Prize Launch

- The Inclusive Energy Innovation Prize aims to fund organizations for activities related to climate mitigation and clean energy **that support, build trust, and strengthen relationships and partnerships with disadvantaged communities.**
- Through this prize, DOE seeks to identify and support organizations that are:
  - community-centric and have experience successfully engaging with disadvantaged communities;
  - promote environmental, climate, and energy justice and demonstrate strong community ties;
  - serve as bridges between DOE and disadvantaged communities

Enable **clean energy and climate innovation, and entrepreneurship** programming and capabilities institutions that serve students underrepresented in STEM, including Minority Serving Institutions

Increase participation in clean energy and **climate-smart job training** and job placement/hiring for disadvantaged communities.

Foster **grassroots innovation related to just and equitable clean energy deployment** through activities focusing on community-centric networks and bottom-up solutions

Fund activities that will help **disadvantaged communities access funding** in support of Justice40 goals.

Develop **replicable clean energy transitions** that deliver just and equitable benefits to disadvantaged communities

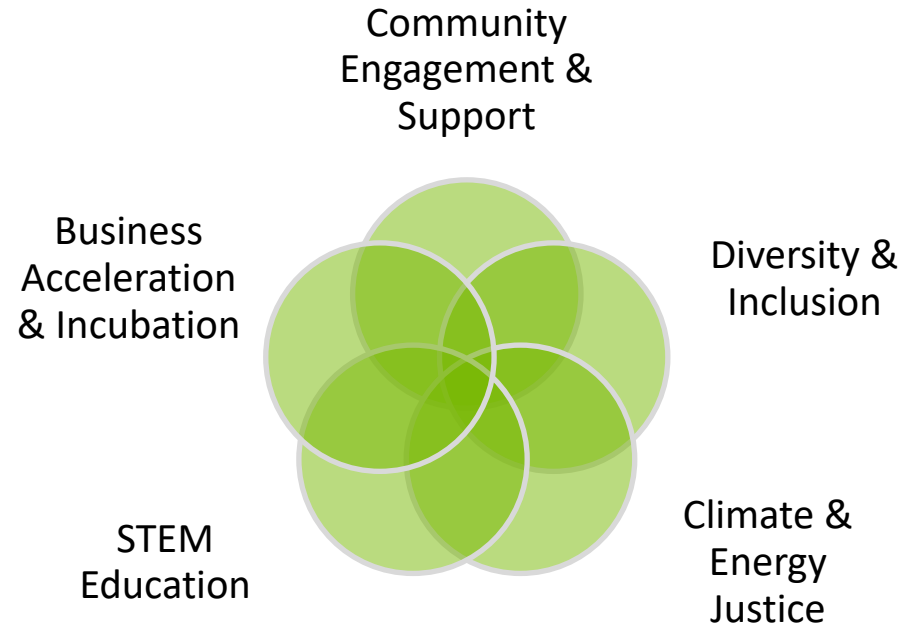
# Strategy for Direct Outreach from DOE/NREL

- Team sent direct, 1:1 messages to:
  - Professional associations that support innovators and entrepreneurs from disadvantaged and underserved backgrounds
  - Respondents to the Inclusive Innovation and Entrepreneurship in Climate Technology RFI
  - Attendees and invited participants to the June PNNL roundtable
  - Relevant incubators, accelerators, and consortia
  - WPTO specific email lists, including professional associations
- With support from tech and program offices, send newsletters to contacts and networks of other EERE programs

# JEDI Stakeholder Engagement

JEDI Stakeholder Group created for a just and equitable prize process, informing outreach, review, and support.

- Honorarium critical to support time of the contributing members
- Implemented for Solar and Inclusive Energy Innovation Prizes
  - Improved diversity and inclusivity of applicant pool and reviewers
- Applicable model for other prizes and at program level



# Summary of Submissions



**1,205** Followers



**202** Total Submissions



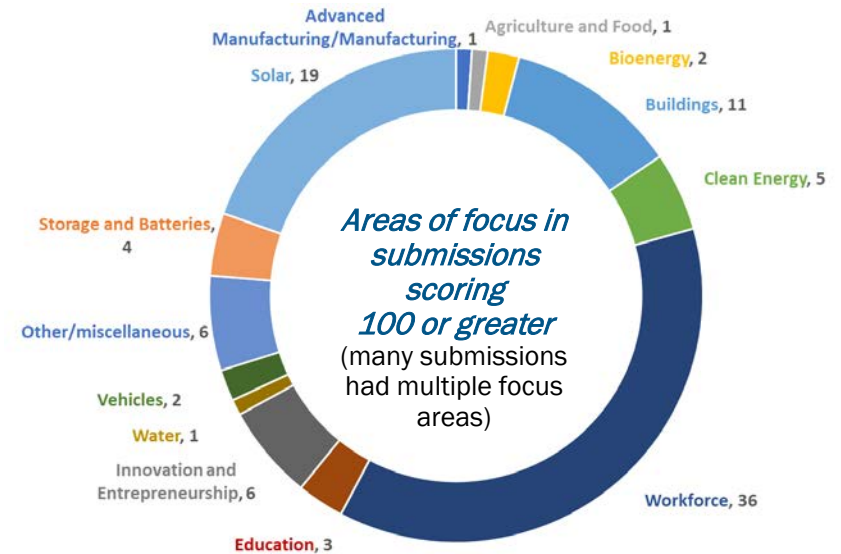
**188** Eligible Submissions



**71** Scored 100 or greater  
*(out of 132 possible points)*

## Quick Facts (of 202 submissions)

First time Applicants	85%
Women/Minority-owned Business	54%
Small business (<100 employees)	79%
Nonprofit/NGO	33%
University	28%



# 18 COMMUNITIES NAMED INCLUSIVE ENERGY INNOVATION PRIZE WINNERS

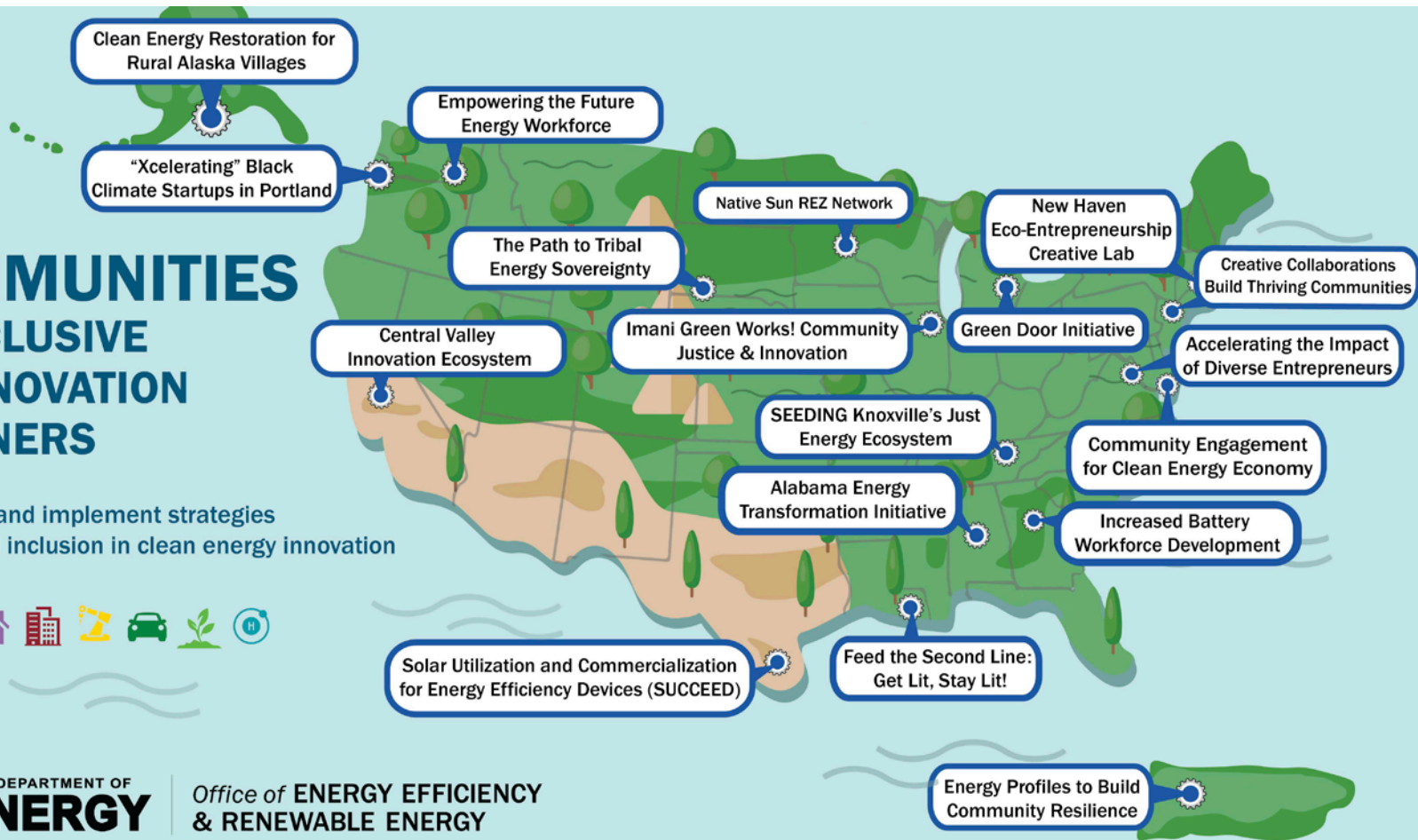
Winners will develop and implement strategies  
to support justice and inclusion in clean energy innovation



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**ENERGY**

Office of ENERGY EFFICIENCY  
& RENEWABLE ENERGY



# Community-Focused Prize Portfolio



## ENERGY

### Inclusive Energy Innovation Prize

PRIZE POOL  
\$2.5 million in prizes

IN PROGRESS, CLOSING ON  
08/31/2023



### Clean Energy Coalition Prize

PRIZE POOL  
\$1.5 million in prizes

IN PROGRESS, CLOSING ON  
11/24/2023



### Buildings UP Prize

PRIZE POOL  
\$22 million in prizes

OPEN TO ALL - ENTER BY  
07/18/2023



### Energizing Rural Communities Prize

PRIZE POOL  
\$15 million in prizes

OPEN TO ALL - ENTER BY  
05/30/2023



### Community Power Accelerator Prize

PRIZE POOL  
\$10 million in prizes

CLOSING ON  
04/19/2023

- Cross-DOE interest, supporting Justice40 goals with a DEI requirement across the program
- Bonus prizes and distinct tracks to ensure equitable distribution of prizes
- Leveraging community development pursued on previous prizes and Power Connector recruitment support
- Bilingual materials and reviews, and direct engagement with communities in person to encourage submissions

Thank You

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JISEA Annual Meeting: American Made Network

Eric Byington  
4/26/2023





# supercharge

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Fast track your ideas for the clean energy revolution



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# American-Made Network



## Power Connectors

- Under Contract for 1-2 years
- Provide specific prize support
- Not eligible for Rec. Rewards
- RFP issued every 12-18 months



## Connectors

- Highly engaged members
- Support multiple teams or prizes
- Active on Network Tool
- Eligible for Rec. Rewards

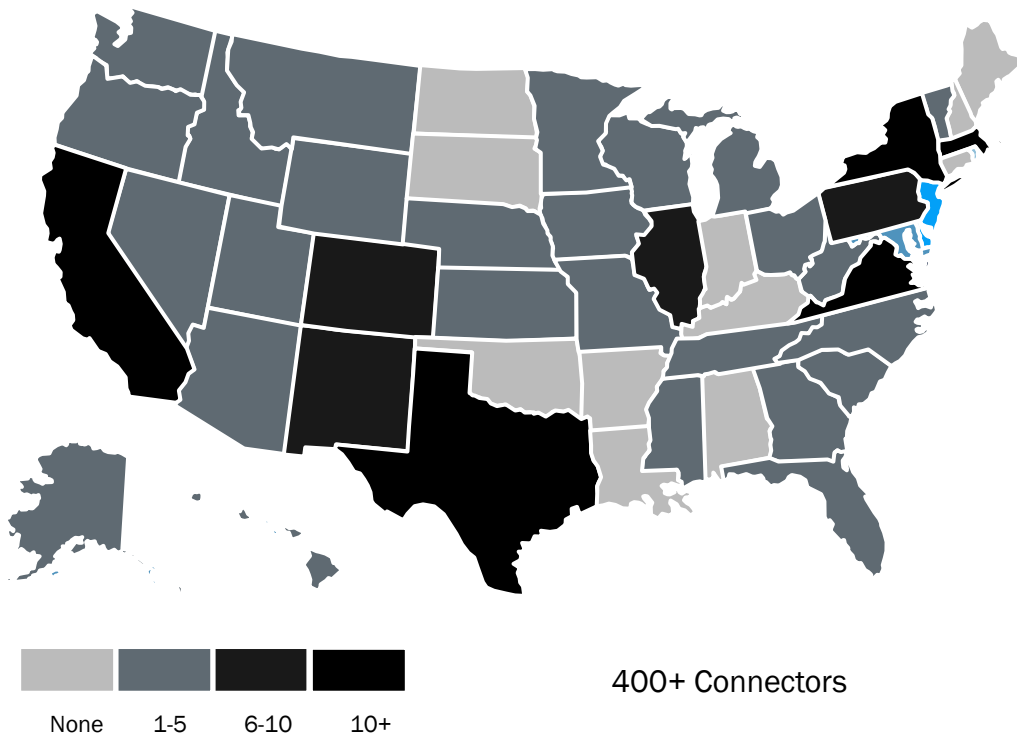


## Community Members

- Want AMC awareness & community
- Support 1 team or less
- Only eligible for Rec. Rewards for singular prize within first year

**New in 2023:**  
Alumni  
Finance/investors  
And more

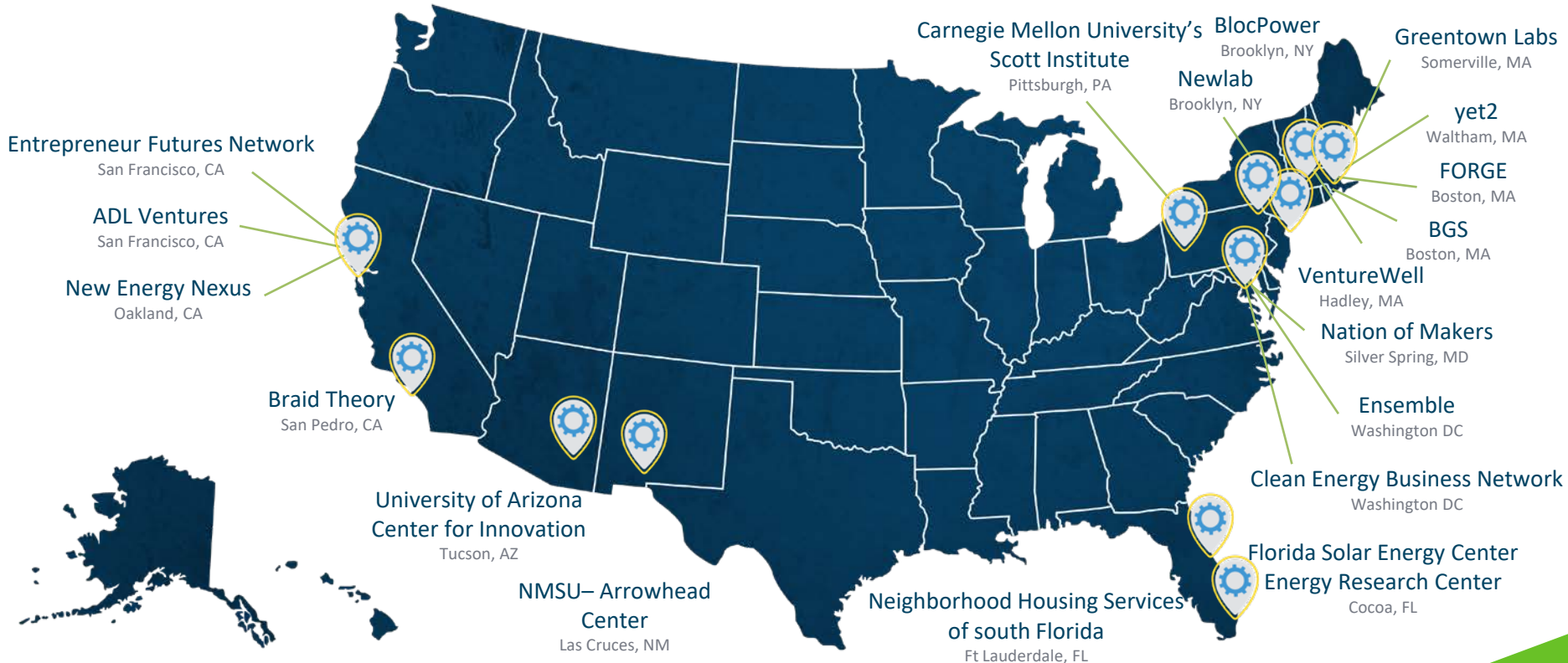
# American-Made NETWORK



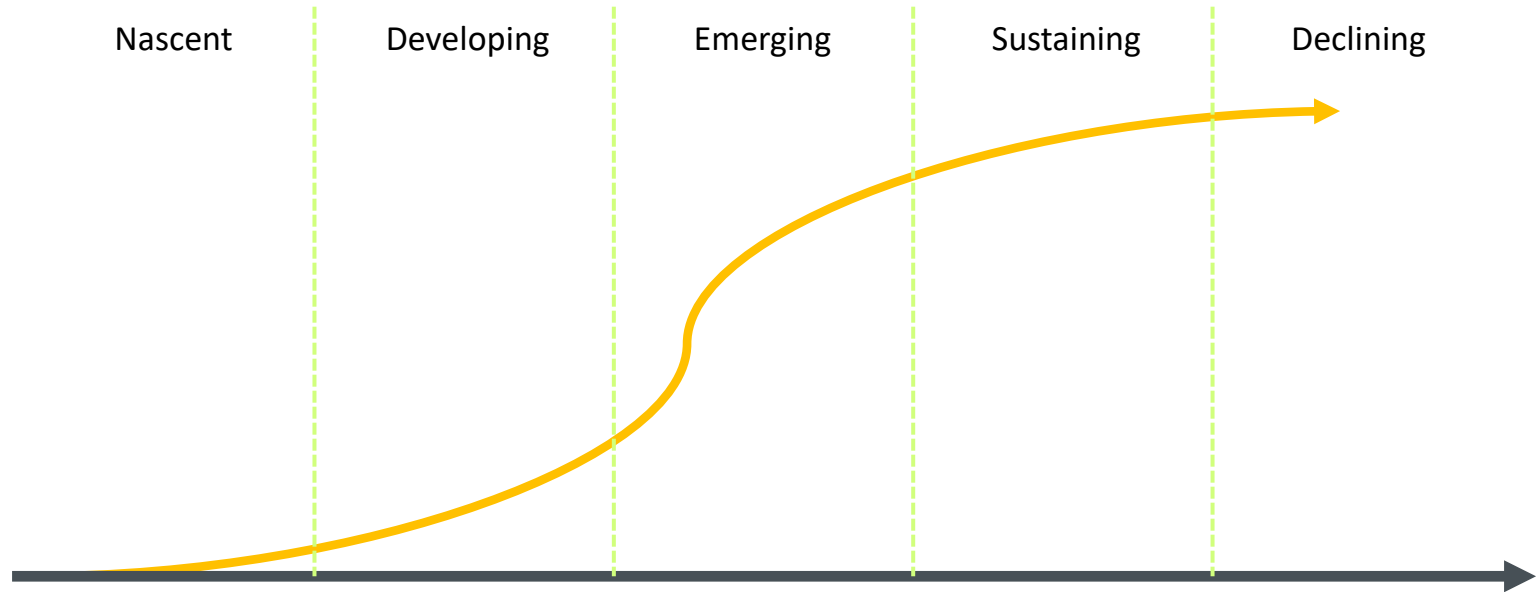
## Connectors support:

- Outreach
- Recruiting innovators and Connectors
- Mentoring
- Technical support
- Business support
- Financial support

# POWER CONNECTORS



# Evolution of an Ecosystem



Ecosystem growth takes time – often measured in years & decades.

# Driving a Successful Ecosystem

**Startup communities are complex adaptive systems that emerge from the interaction of the participants.**

- Desired destination
- Momentum: Success builds success
- Consistent activity
- Fluid exchange of ideas & resources
- Inclusive
- Trust over hierarchies
- Openness, support & collaboration



# A Healthy Network

## Support & Resources

The network provides support in the early stages – supplying resources, ideas, & knowledge.

## Speed & Efficiency

The network helps early-stage companies ideate quickly while identifying opportunities & challenges & helping entrepreneurs find a path to progress.

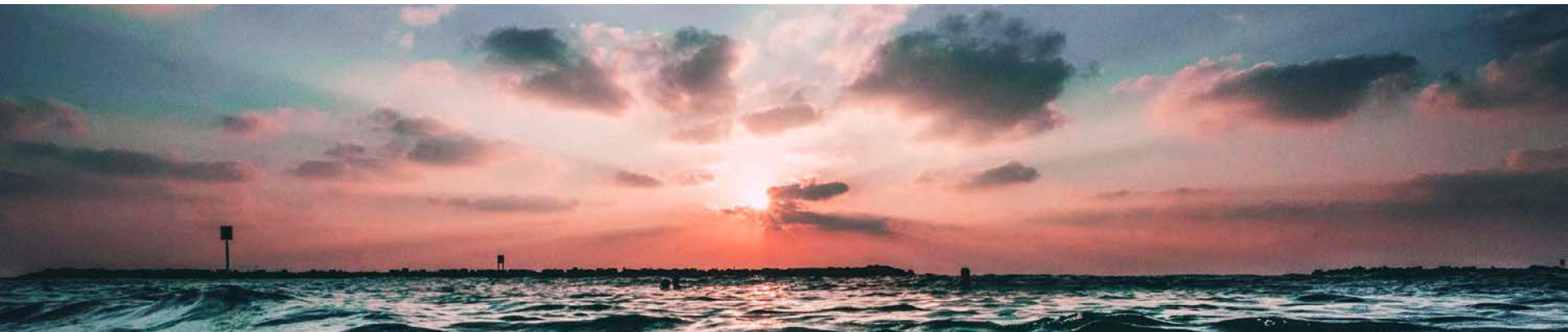
## Ongoing Commitment

A functioning network takes a long-term view and recognizes the journey is not linear.



# Looking Ahead

- A widely known reputation as the premier network for clean energy entrepreneurs.
- Systems that drive momentum and connectivity organically, efficiently & effectively.
- A fully levered network where the AMC/AMN resources are exponentially expanded upon by entrepreneurs, investors, PCs, connectors and members.
- A simple, yet robust tracking system that tells the comprehensive story of the networks scope, scale and impact.





# Thank You

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This work was authored by the National Renewable Energy Laboratory, operated by Alliance for Sustainable Energy, LLC, for the U.S. Department of Energy (DOE) under Contract No. DE-AC36-08GO28308. Funding provided by the Joint Institute for Strategic Energy Analysis. The views expressed herein do not necessarily represent the views of the DOE, the U.S. Government, or sponsors.



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## Power Connector Showcase

**ADL Ventures**

Chris Richardson

# Our mission is to improve 3 critical industries...

*ADL is a **mission driven for-profit** venture foundry committed to building the next generation of companies that will help us build a sustainable society.*



## Buildings & Construction

ADL has resident experts in prefabricated / modular construction, mobile hardware, and digitized building



## Energy & Utilities

Power and water utilities engage ADL to address innovation opportunities and improve program design



## Transportation

Transportation is increasingly intertwined with our energy and buildings networks

... that account for 90% of CO2 emissions

# ADL is energizing and rebuilding a net-zero world

*by rewriting the rules of engagement among legacy corporations, new ventures, and government.*



## Corporates

Help legacy corporates build new revenue streams and partner with disruptive innovators



## Startups

Spin out and assist startups to accelerate operations, fundraising and business development



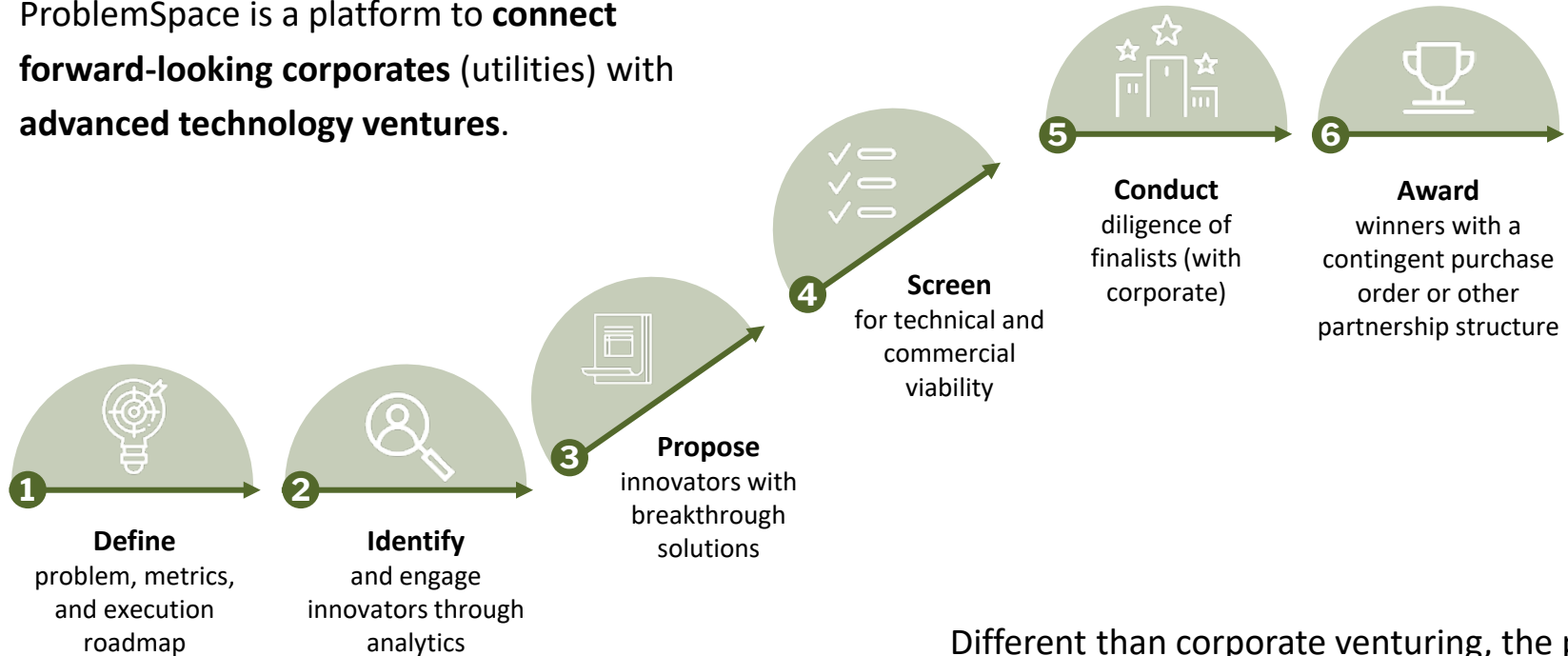
## Government

Assist major government entities with commercialization through operational scaling and recruitment



# ProblemSpace

ProblemSpace is a platform to **connect forward-looking corporates** (utilities) with **advanced technology ventures**.



Different than corporate venturing, the process starts with the **defined customer** (utility) **need**.

The ADL team is a group of **serial entrepreneurs, applied technologists, and investors** who have collectively won **\$100M+** in federal funding and raised over **\$500M+** in VC for organizations that ADL created and supported



**Nolan Browne**  
**Partner**  
 4x Founder  
 Corp Innovation Exec. &  
 Research Director



**Frank Yang**  
**Partner**  
 2x Founder  
 Business Dev. Exec.



**Jeff McAulay**  
**Partner**  
 1x Founder  
 Startup Ecosystem Exec.



**Chris Richardson**  
**Partner**  
 2x Founder  
 Corp Partnerships Exec.



**Diana Fisler, PhD.**  
**EIR**  
 R&D Scientist,  
 Corporate Innovation  
 Exec.



**Mei Shibata**  
**EIR**  
 CEO @ Essence Partners  
 Co-founder, CSO @ ThinkEco,  
 Inc.



**Alyssa Watson**  
**Senior Buildings Associate**  
 BA in Environmental Studies from  
 St. Lawrence University



**Isabelle Gorrivan**  
**Energy Associate**  
 BA in Architecture and  
 Environmental Studies from  
 Middlebury College



**Matthew Paul**  
**Energy Associate**  
 BA in Environmental  
 Studies from Dartmouth



# Services We Provide as a Power Connector



## Applicant Recruitment

- Over the past two years, ADL Ventures has performed as a Power Connector for over **12** different American-Made Challenges totaling **\$37.5M in prize money**
- With the combination of our ProblemSpace open innovation tool and in-depth market study, we have identified and engaged roughly **7,000 entrepreneurs and academics**



## Applicant Support

- For previously supported challenges, ADL hosted a total over 70 office hours to **answer competitors' questions, review their applications materials and provide constructive feedback.**
- With our support, over 30 teams have been selected as semifinalists or finalists of different innovative programs



## Connector Recruitment

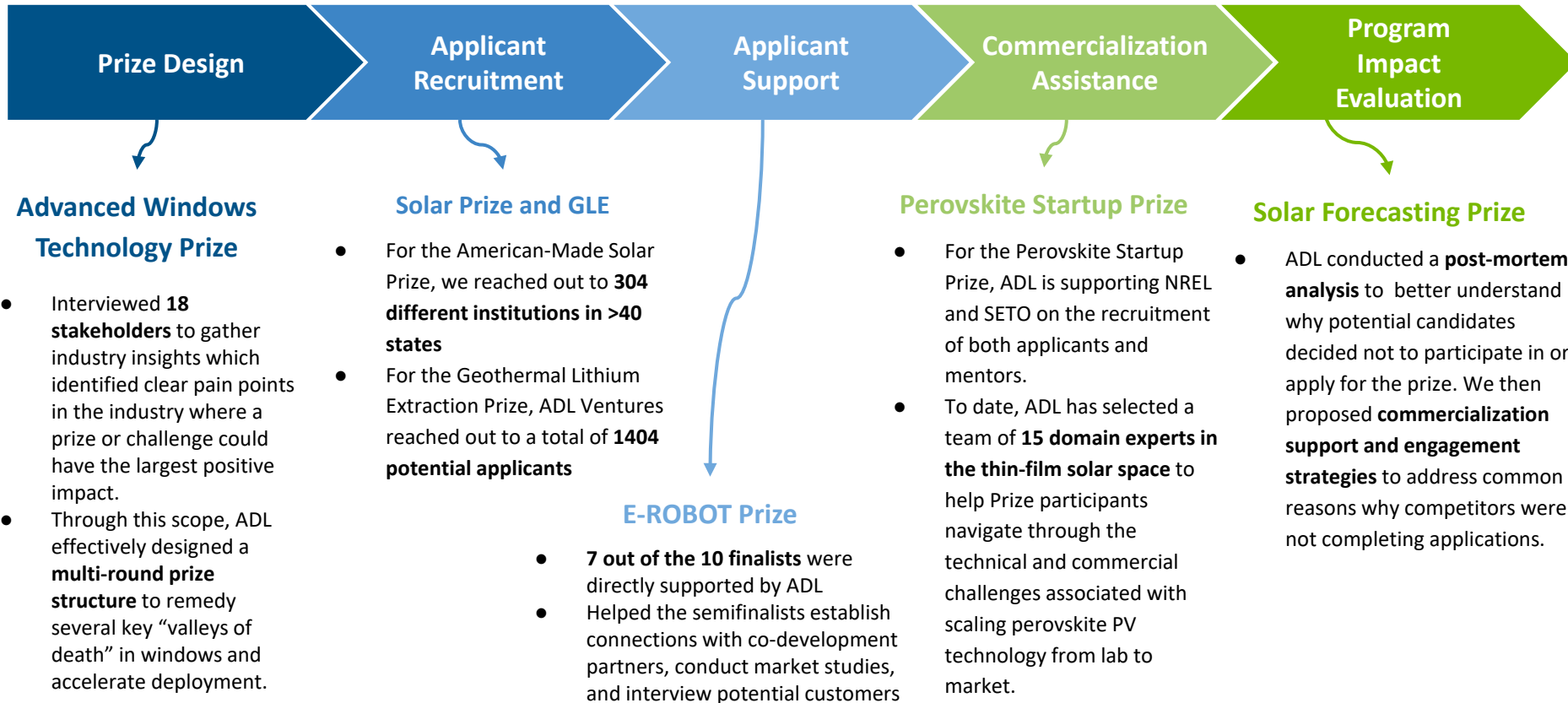
- Over the past two years, ADL Recruited **20+ Connectors** to join the American-Made Network, including groups such as:
  - HBCU Clean Energy Initiative
  - Nokomis
  - EnergySage
  - KB Home
  - Clayton Home



## Prize Design

- ADL recently worked with DOE BTO and NREL to **design and scope an American Made Challenges prize** for highly efficient window technologies.
- ADL managed the program, and executed rapidly to interview 18 stakeholders and gather industry insights which identified clear pain points in the industry where a prize or challenge could have the largest positive impact

# Project Work Highlights







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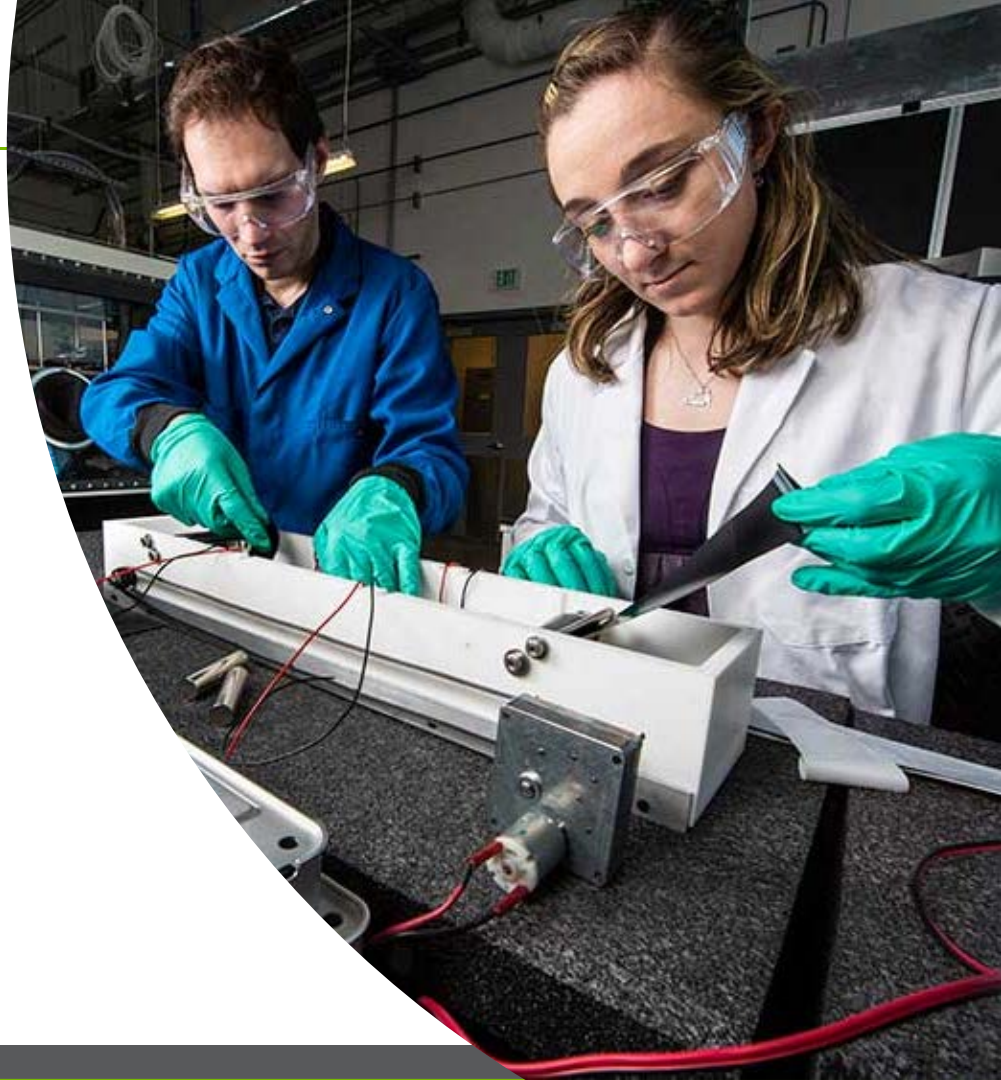
## Vouchers

Alec Schulberg

April 26, 2023

# What is a Voucher?

- **Voucher Benefits:**
- Allows researchers and innovators to gain access to expertise and facilities in a streamlined fashion
- Enables quick technical development to speed innovation
- Supplements other prizes and funding mechanisms
- Sets the stage for additional work with the labs
- Gives lab researchers the chance to work with new innovators that have never worked with DOE before and have the potential to develop game-changing solutions



- Enables speedy connections to state-of-the-art equipment, facilities, and national lab experts.
- Standardized processes are being developed under VELOCITI (a cross-lab program led by NREL and SNL).
- All national labs can participate and provide voucher support.

## Vouchers Accelerate National Lab Access (VELOCITI)

### Office of Science Laboratories

- 1 Ames Laboratory  
Ames, Iowa
- 2 Argonne National Laboratory  
Argonne, Illinois
- 3 Brookhaven National Laboratory  
Upton, New York
- 4 Fermi National Accelerator Laboratory  
Batavia, Illinois
- 5 Lawrence Berkeley National Laboratory  
Berkeley, California
- 6 Oak Ridge National Laboratory  
Oak Ridge, Tennessee
- 7 Pacific Northwest National Laboratory  
Richland, Washington
- 8 Princeton Plasma Physics Laboratory  
Princeton, New Jersey
- 9 SLAC National Accelerator Laboratory  
Menlo Park, California
- 10 Thomas Jefferson National Accelerator Facility  
Newport News, Virginia

### Other DOE Laboratories

- 1 Idaho National Laboratory  
Idaho Falls, Idaho
- 2 National Energy Technology Laboratory  
Morgantown, West Virginia  
Pittsburgh, Pennsylvania  
Albany, Oregon
- 3 National Renewable Energy Laboratory  
Golden, Colorado
- 4 Savannah River National Laboratory  
Aiken, South Carolina

### NNSA Laboratories

- 1 Lawrence Livermore National Laboratory  
Livermore, California
- 2 Los Alamos National Laboratory  
Los Alamos, New Mexico
- 3 Sandia National Laboratory  
Albuquerque, New Mexico  
Livermore, California

