



WELCOME

2024 JISEA Annual Meeting
Feb. 26–27, 2024

SYNTHESIS
EDITION
April 8, 2024

NREL/PR-6A50-89595



Office of
Research



Stanford
University





JAM24 Success!



Synthesis Goal and Agenda

Synthesis goal: share and build on what happened, but more importantly on the impact of what happened

- Overall and session-specific themes that emerged
- Priority areas for further engagement with JISEA and partnering on further developing and implementing ideas
- Priority organizations and people for further connecting
- Actions we can take together/next steps.



Meeting Goals and Elements

Identify, frame, and build expertise around emerging, complex energy system challenges



Collaborate in discussion panels on emerging clean energy questions.



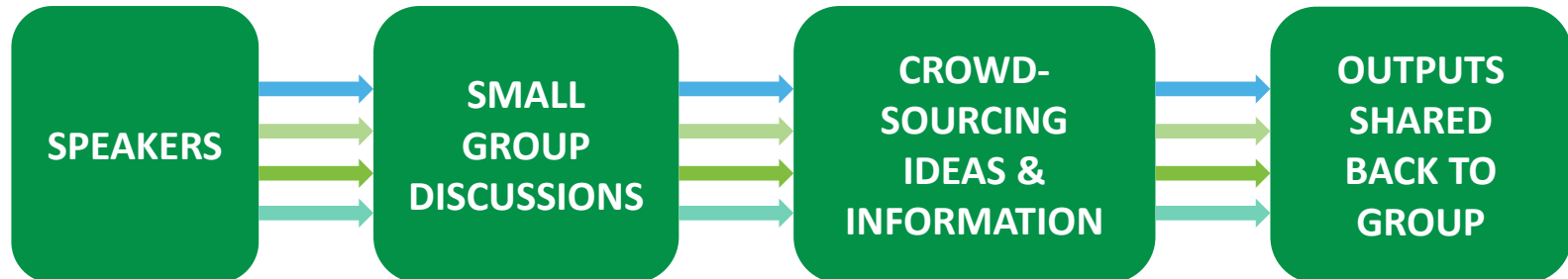
Network with thought leaders from research, universities, nonprofits, and industry.

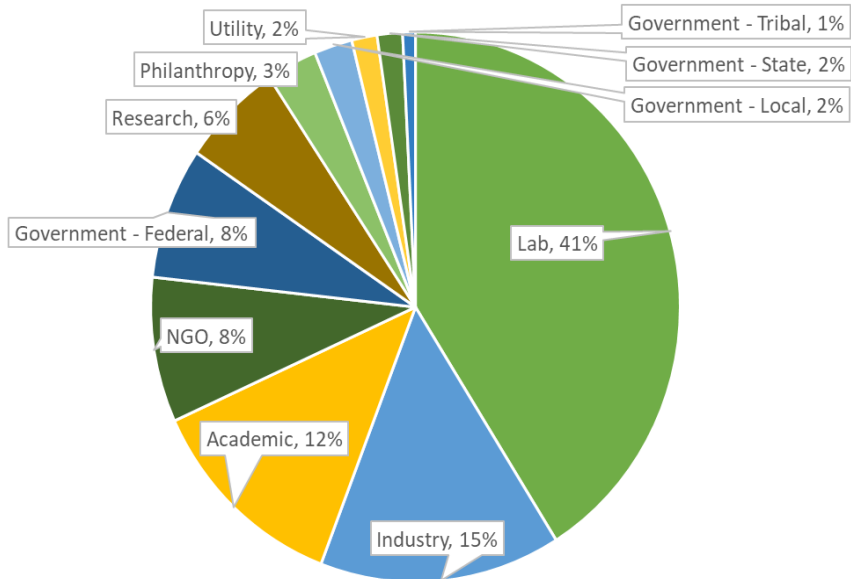


Engage with presentations on the latest high-impact research.



Expand partnerships in research projects and clean energy innovation opportunities.





129 JAM24 Attendees by Organization Type



Bottom Lines Up Front: Discussion Themes, Takeaways



Agenda

Four 3-hour sessions organized around JISEA focus areas:

1. Hard-to-Decarb
2. Tech-Society Interface
3. Climate Adaptation
4. Workforce

Included expert presentations, panel discussions, and interactive solution engineering.



Climate Adaptation and Clean Energy

The effects of climate change on the efficiency, security, and resilience of the energy system.



Hard-to-Decarbonize Industries

Strategically building toward clean energy solutions in the agriculture and industrial sectors.



Technology/Society Interface

The societal implications of the advancement of clean energy technology.



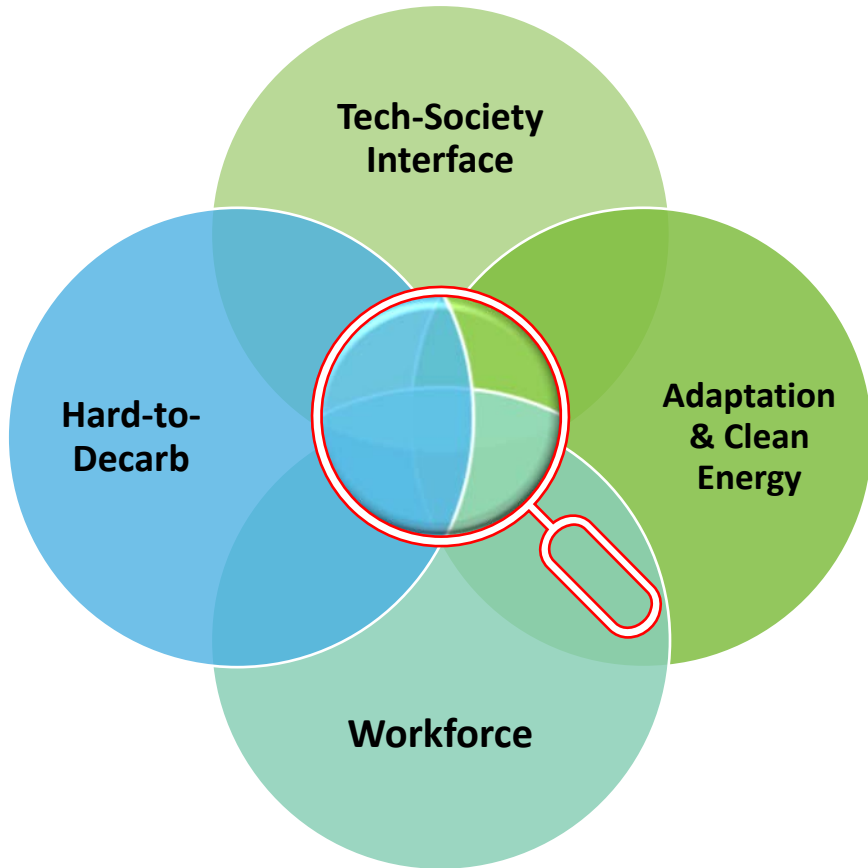
Workforce for the Future

The scale and scope of future clean energy workforce needs.





Key / Recurring Themes



- Deep decarbonization requires integrated solutions;
 - Means careful **stakeholder cultivation** and ...
 - Identifying and **articulating co-benefits** are **key**.
- It takes a village; we are at an inflection point in the energy transition that means **what got us here is not** going to **get us where we need to go**.
- **Equity** came up often, even when unprovoked, suggesting the equity space **is maturing**. We are at a place now where we need to **articulate pathways** to meaningfully **integrate DEI/justice into S&T**.
- We need to work toward **more tactical collaboration** projects that **incorporate** all these **diverse practitioners**.



Industrial Decarbonization: Collaborate to Integrate (Summary & Next Steps)

AVIATION

- Airports are doing what they can to address the **emissions they control**.
- SAF is still the '**silver buckshot**', accounting for the bulk of emissions.
- **Integrated solutions** needed for SAF.
- Audience expressed considerable interest in **signals to inform consumer behavior / choice**.

AGRICULTURE

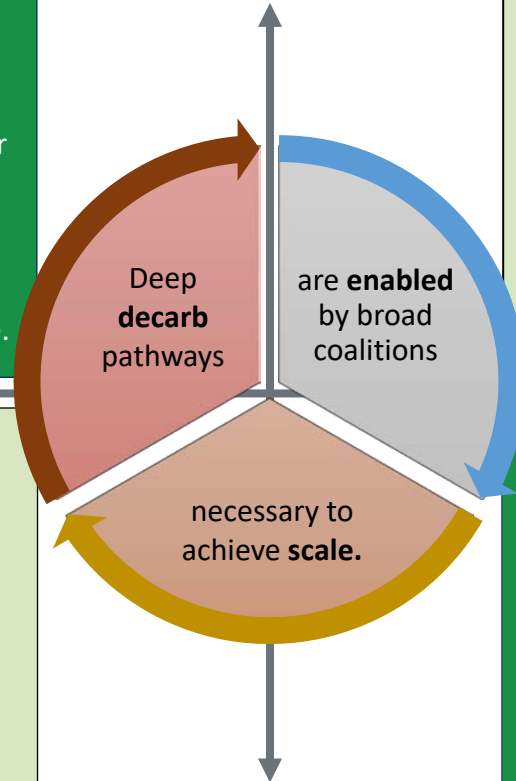
- **Integrated solutions** can turn ag waste (e.g., poop & carbon) into a **useful feedstock**.
- Decarb gap after existing tech is deployed hovers around 30-100 MMT CO₂e.
- Based on measurability and **practical on-farm implementation**, there is opportunity at the intersection of **poop** and crop **production**.

CEMENT & CONCRETE

- Credible standards for measuring and communicating embodied carbon is key.
- Lack of trained **workforce** is a **serious bottleneck** right now, and poor diversity is a challenge, both requiring long-term planning.
- **Innovation** in new tech must happen in tandem with real-world deployment / **adoption** of current alternatives.

STEEL & IRON

- Energy-intensive sectors **co-locate w/** resources such as transport and hydrocarbon.
- Having a **wide aperture** can lead to innovative, integrated solutions for industries like iron.
- Broad **stakeholder engagement** is thus key for these integrated solution to ensure change happens and that supply chains, including human talent, are established and ready.

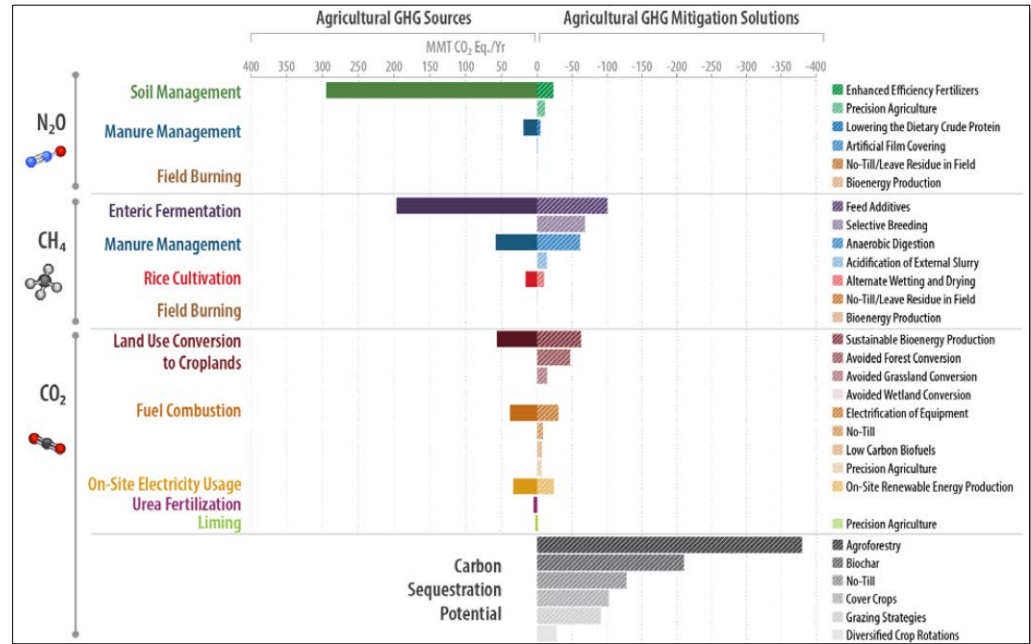




Just Announced ... Sustainable Ag Catalyzer!!

- This month, JISEA launched the Sustainable Agriculture Catalyzer.
- First phase will focus on exploring the cobenefits of various ag decarb strategies in different contexts across the United States.
- Initial report on the different decarb strategies was just published and can be accessed at:

<https://www.nrel.gov/docs/fy24osti/86071.pdf>





Clean Energy Role in Climate Adaptation: Integrating Voices for Research Framing

Desk Research Questions

- Impact RE deployment on climate?
- Climate impact on RE technology?
- Resource stability in climate?
- Infrastructure meets needs of adapting population?

Engagement and Exploration

- Catalyzers: Climate and Atmospheric; Adapting Population and Infrastructure
- 3 exploratory JISEA workshops.

Common Research Areas

Tech Design: Human Centered Clean Energy Technology R&D in Adaptation Context

Training/Education Cross Sector Needs

- Technologists/Technology Developers to Understand Adaptation and Emerging Needs
- Adaptation Practitioners on Energy Systems Structures and Needs.

Understanding Energy Sector Specific Adaptation Needs

- Electricity Infrastructure
- Fuels Infrastructure
- Energy Supply Chain Infrastructure
- Energy / Infrastructure sector interactions.

Goals/Outcomes

Co-developed write up of key areas related to **research needs at the clean energy and climate adaptation intersection.**

Next Steps

- Publication Team: Target + Content
- Migration + Energy Infrastructure Workshop
- Review Session at National Adaptation Forum
- Discussion Group leveraging Resilient Nation Partnership Network film series:
<https://rnpnevents.vfairs.com/en> .

Sign up:

<https://forms.office.com/g/ESWXjy2NGa>



Workforce Session Results & Next Steps

What we expected:

Vibrant discussion about the needs, gaps, and next steps needed to move the needle on workforce development for the clean energy economy.

Themes Explored:

- Increasing Inclusivity and Diversity
- Rural vs. Urban Needs
- Transitioning to the Clean Energy Industry
- Getting Early Career Workers Engaged
- Dept of Energy partnering with Dept. of Education
- AI Benefits and Concerns
- New Curriculum Ideas
- Skilled vs. Unskilled Workers.

Session Structure: Large panel discussing needs, gaps, and successes and open dialog with the audience. Table sessions that enabled brainstorming, and QR code to collect data.

You should know:
More American-Made Prize opportunities are beginning to focus on workforce.

There is a new Solar Workforce Prize open now – and more are coming soon.



<https://americanmadechallenges.org>

Next steps:

- Continue to convene people to talk about this topic
- NREL is implementing numerous projects, need to coordinate, publish, and spread the word
- Build tools to showcase successful programs and coalitions
- Enable connections and partnerships
- Collectively seek funding opportunities
- Ensure we are building pipelines to good paying jobs by engaging industry
- More data is needed!

Hope to see you at:

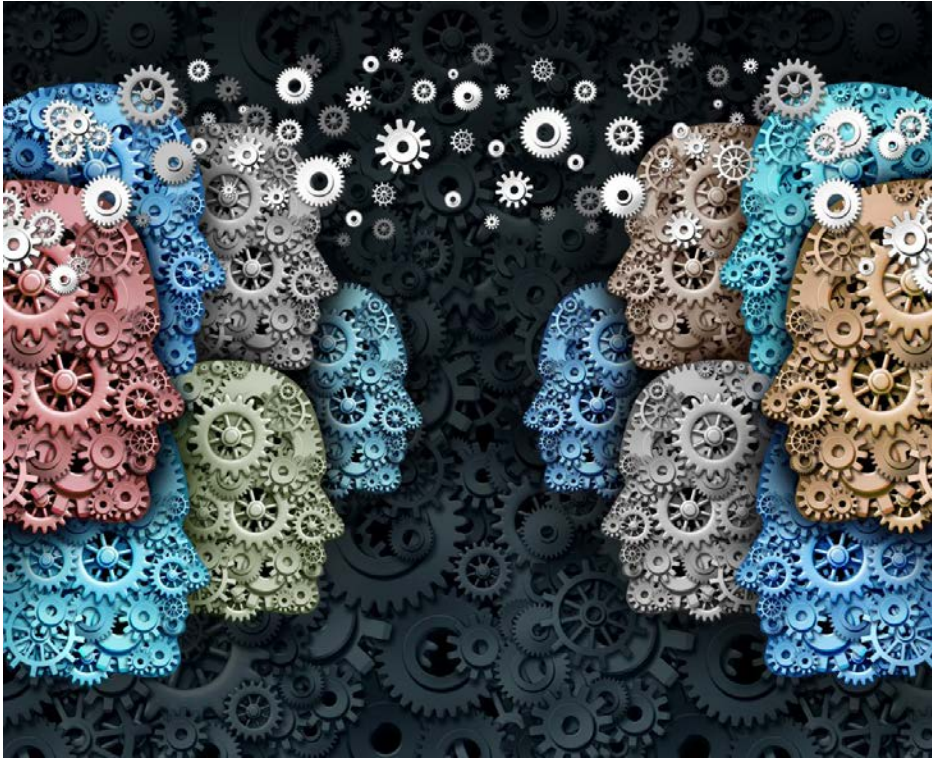
- DOE's Minority Business Enterprise (MBE) Connect Summit; April 16-18, 2024, Downey, CA
- IEEE PES General Meeting (with a workforce session); July 21-25, 2024; Seattle, WA
- RE+; September 8-11, 2024; Anaheim, CA



Resources offered / mentioned by exploratory effort

Business-Higher Education Forum	National consortium of corporate executives and higher education administrators leading new pathways in emerging and in-demand skills	Industry-sponsored program;Nonprofit;Coalition;Training program;Curriculum developer;University/college;Regional program;National group specializing in partnership development, activation, and sustainable best practices to scale and replicate in other regions. ;MSI/HBCU;
NREL University Partnerships Program (UPP) - STAR Program	Clean energy research with Minority Serving Institutions (MSIs)	Training program;University/college;MSI/HBCU;
Browning the Green Space	Nation, northeast	Nonprofit;
KidWind	National	Training program;Curriculum developer;University/college;Trade school;Regional program;Industry-sponsored program;Nonprofit;
Arizona Commerce Authority	Arizona	Industry-sponsored program;Regional program;Coalition;
Colorado Cleantech Industries Association / Colorado CleanRange Consortium	Rocky mtn région	Nonprofit;Coalition;
Just Transition and Workforce Development Working Group of the Maryland Climate Change Commission	Maryland across industries and diverse stakeholders	Working group;
Interstate Renewable Energy Council	Organization	Nonprofit;
See CEBN's Cleantech Ecosystem Resources list- many of the orgs we have compiled include workforce development. Feel free to email me and my colleague Awa Darboe (adarboe@cebn.org) if you'd like the raw data to include in your crowdsource list, and conversely we would welcome any ideas for additional programs we should feature!		
https://www.cebn.org/cleantech-ecosystem/		
Shoshone-Bannock Tribes	Fort hall, ID	Tribal program;Training program;Trade school;
Alliance for Decision Education	Teaching young students how to make better decisions. Integrating decision education into all subjects.	Curriculum developer;Nonprofit;
Alliance for Tribal Clean Energy	Tribal WFD	Tribal program;
Grand Canyon University	Arizona	University/college;Training program;Curriculum developer;Trade school;
JobTrain	Unemployed people, formerly incarcerated people	Training program;Regional program;Nonprofit;
Defy Ventures	National US	Training program;Incarcerated people ;
Workforce Investment Board in FL- Entrepreneur Skills Training	FL	Training program;Regional program;
Oregon Clean Energy Workforce Coalition	Oregon	Coalition;
https://btn.vc/	Pittsburgh	vc;
Work on Climate: Advanced STEM in Cleantech Working Group	New York and Tri-State area	Working Group (NREL is participating)
IEEE Power and Energy Systems Workforce Initiative	National US Ohio - southern, Appalachia: http://electricaltrainingacademy.org/?zone=/unionactive/view_article.cfm&HomeID=848247&page=OUR20APPRENTICESHIPS	Working Group (NREL is participating)
Electrical Training Academy		Training program;Trade school;Union;Regional program;Curriculum developer;

Let's Crowdfund Programs, Partners, and Coalitions



Use this QR Code to help us crowdfund successful workforce development programs across the country! Add as many projects/programs you can think of and share the link with friends to help build the database.



Partnering With JISEA

Convening

- Come to ours (newsletter, web, linkedin)
- Yours (tell us/invite us)
- Co-design convenings (with funds we co-propose OR in parallel with each org having own funds)

Partner on Project Proposals

- You initiate (call us)
- We initiate (watch newsletter)
- Co-apply on funding

Apply for NREL-Engaged Opps

- Prizes
- Vouchers + technical assistance



Crosscutting JISEA Convenings

Title	When	Looking for	Funding
Social Science Topics in Clean Energy Transformation (contact: Kristin)	Summer /Fall 2024	An HBCU/MSI/CC educational partner to form and execute with us	BYO or we look together
Regional American Made Network Events (contact: Debbie)	Ongoing	People in the American Made Network to convene no-host meetings for interested parties in their region with American Made	BYO/we have branding and resources for planning
2-4 short virtual workshops for pub writing + live@NAF (contact: Liz)	Summer 2024	Input on document started at JAM24 (multiple levels of engagement)	BYO (with publication benefit)



JISEA Considering + Looking for Partners for Selected Competitive Opportunities

- **DOE**

- [DE-LC-000L003: FY25 OCED ANALYSIS LAB CALL: TOPIC 3: QUANT OF SOCIOECONOMIC IMPACTS OF OCED PROJECTS/](#) (CONCEPT PAPER DUE JUNE 10, 2025, EXECUTION)

- **Federal Non-DOE**

- [National Science Foundation CIVIC Innovation Challenge](#): Aims to fund ready-to-implement, research-based pilot projects that have the potential for scalable, sustainable, and transferable impact on community-identified priorities.
 - *How: JISEA/NREL subs, 1-2 different partnerships in the works*
 - *Timeline: May 1.*
- [EPA Community Change Grants](#): environmental and climate justice activities to benefit disadvantaged communities through projects that reduce pollution, increase community climate resilience, and build community capacity to address environmental and climate justice challenges.
 - *How: JISEA/NREL as sub*
 - *Timeline: rolling.*

Apply for NREL-Engaged Opps



15 New Prizes!



MANUFACTURING SOLAR

Upskill Prize for the Solar Manufacturin...

Prize Pool
\$5 million in prizes
Open to all - Submission
Deadline
Summer 2024



SYSTEMS INTEGRATION

SOLVE IT Prize

Prize Pool
\$5 million in prizes
Open to all - Submission
Deadline
04/12/2024



SOLAR

Solar Photo Competition

Prize Pool
\$17k in prizes
Open to all - Submission
Deadline
05/17/2024



STUDENTS BUILDINGS

Renew America's Schools Prize

Prize Pool
\$6.9 million in prizes
Open to all - Submission
Deadline
06/13/2024



RECYCLING

E-SCRAP Prize

Prize Pool
\$3.95 million in prizes
Open to all - Submission
Deadline
09/04/2024

<https://americanmadechallenges.org/challenges>



Opps we see for YOU!



C2C apps open!

<https://www.nrel.gov/state-local-tribal/clean-energy-to-communities.html>

- In-depth partnerships
- Peer-learning cohorts
- Expert Match



Current Opportunities

EnergyWerx

<https://www.energywerx.org/opportunities>

- DOE Clean Energy and Manufacturing Workforce Training and Technical Assistance Awards (IAC Program)
- Industrial Assessment Center (IAC) Operations: Technical Assistance Field Managers



Selected Competitive Opportunities to share (DOE)

- **DE-FOA-0003219: [FY24 ENERGY AND EMISSIONS INTENSIVE INDUSTRIES FOA](#)** \$83 million funding opportunity that will decrease emissions in the hardest to decarbonize industrial subsectors. (CONCEPT PAPER DUE JUNE 10, 2025 EXECUTION)
- **INFLATION REDUCTION ACT (IRA) OF 2022: [STATE-BASED HOME ENERGY EFFICIENCY CONTRACTOR TRAINING COMPETITIVE GRANT PROGRAM](#)**
- **[FY 2024 REACHING A NEW ENERGY SCIENCES WORKFORCE \(RENEW\)](#)**: SC SEEKS APPLICATIONS TO DEVELOP TRAINEESHIPS FOR PARTICIPANTS FROM THESE INSTITUTIONS THAT INVOLVE CONDUCTING RESEARCH IN PARTNERSHIP WITH A DOE-AFFILIATED INSTITUTION, INCLUDING DOE NATIONAL LABORATORIES: DUE JULY 23, 2024
- **[Local Government Energy Program: Communities Sparking Investment in Transformative Energy](#)**: This FOA will support eligible local governments and Tribes to implement projects that provide direct community benefits, spark additional investments, meet community-identified priorities, and build local capacity.



Selected Competitive Opportunities to share (Federal Non-DOE)

- **USDA**

- [Agriculture and Food Research Initiative Sustainable Agricultural Systems](#): approaches that promote transformational changes in the U.S. food and agriculture system. Due: June 6, 2024
 - [Agriculture and Food Research Initiative - Education and Workforce Development](#): focuses on developing the next generation of research, education, and extension professionals in the food and agricultural sciences. Due: December 5, 2024
 - Conservation Technical Assistance: [Grazing Lands Conservation Initiative \(GLCI\) Cooperative Agreements](#)
- **DOL**: [Workforce Opportunity for Rural Communities \(WORC\) Initiative](#): designed to address the employment and training needs of the local and regional workforce. Due: June 20, 2024
 - **DOI**: [FY 2024 Energizing Insular Communities Program](#) for sustainable energy strategies that mitigate climate change, reduce reliance and expenditures on imported fuels, develop and utilize domestic energy sources, and improve the performance of energy infrastructure and overall energy efficiency in the territories. Timeline: June 15, 2024
 - **DOT**: [Development and Deployment of Innovative Technologies for Concrete Pavements](#)
 - **NSF**: [National Science Foundation Research Traineeship \(NRT\) Program](#): The program encourages proposals that involve strategic collaborations with national laboratories.



Share opportunities!

- **Do you have opportunities to share with others?**
- **(funding, resources, etc.)**



Partnering With JISEA

Convening

- Come to ours (newsletter, web, linkedin)
- Yours (tell us/invite us)
- Co-design convenings (with funds we co propose OR in parallel with each org having own funds)

Partner on Project Proposals

- You initiate (call us)
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Apply for NREL-Engaged Opps

- Prizes
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What opportunities do you have on your radar?

How can JISEA partner with you?



Partnering Discussion



- What exactly are we talking about?
- Who was at JAM24?
- What connections did you make?
- What additional connections should be made?
- Who was missing from the conversation?
- Ideas for additional convenings?
- How can you get involved today?



Awesome Partnership Example



Positive Deviancy
Platinum Connector



TechFlow
Microgrids, Hydrogen
Hubs, EV charging, and
Community Leader



LEI Foundation won the Concept Phase Winner in the Clean Energy Ecosystem Track of the Community Energy Innovations Prize - \$100K, plus support, and they can continue to progress through the prize!



Who Was at JAM24?

- Accenture
- ACEEE
- Alliance for Affordable Energy
- Alliance for Tribal Clean Energy
- ARPA-e
- BHEF
- Bonneville Environmental Foundation
- Breakthrough Energy
- BW Research Partnership
- CAEL
- City and County of Denver
- Clean Energy Business Network (CEBN)
- Colorado School of Mines
- Colorado State University
- Colorado State University, Center for the New Energy Economy
- Colorado University Denver
- Distributed Sun
- Duke University
- Ecosphere Ventures
- Education Development Center (EDC)
- Encolor
- Enight Energy Consulting
- Environmental and Energy Study Institute
- Fresh Coast Climate Solutions
- Green Latinos
- Holland Consulting
- IEDC and the City of Fort Collins
- Institute for Energy Research, Universidad Nacional Autonoma de Mexico
- IREC
- ISET International
- Jefferies
- Julius Education
- Maryland Department of the Environment
- Minerva Ventures
- MySunshare
- NASEO
- NREL
- NETL
- Oak Ridge National Laboratory
- Ohio Sustainable Ohio Public Energy Council (SOPEC-OH)
- Partnership for Southern Equity
- Positive Deviancy
- RAND Corporation
- RE Forward
- San Diego International Airport
- Shelton Capital Management
- Shoshone Bannock Tribes
- Solar Energy Industries Association (SEIA)
- Southface
- Stanford University
- TechFlow
- Transventure Energy LLC
- University of Arizona Center for Innovation (UACI)
- University of Minnesota - Natural Resources Research Institute
- U.S. Department of Commerce
- US Department of Energy
- Vestas American Wind Technology
- Wells Fargo Foundation
- Women in Climate Tech
- WRI
- Xcel Energy



Institute Week 2025 (featuring JAM25)

SAVE THE DATE: February 25-28, 2025

	Monday	Tuesday	Wednesday	Thursday	Friday
Activity	Travel/ side meetings/opening reception	Learning Day All Day Track Ideas: -Ind Decarb learning (+possible interactive) -international day of learning -Individual Prize Summit (if appl) -NREL and local tours	JAM25 Sessions AM: Adaptation PM: Workforce	JAM25 Sessions AM: Society tech // seeds for emerging challenges PM: American Made Summit	Travel/ side meetings
Goal		Education/info sharing FROM NREL (“what’s NREL doing”)	Interactivity to push forward and develop research teams on emerging areas	Identify new areas with a really diverse set of interested parties	
Partner Asks	Food/Bev sponsor	Submit priority interest areas Food/bev sponsor	Planning Team, speakers, invitations (esp hard to reach) Food/bev sponsors, travel support for hard to reach		



How can you get involved today?

The screenshot shows the JISEA website's 'News and Blog' section. At the top left is the JISEA logo and navigation menu. The main content area features a 'News and Blog' heading, a paragraph about the institute's mission, and a 'Want more?' section with a sign-up link. Below this is a search bar and a 'Sort By' dropdown. Three news items are displayed with images and titles: 'JISEA Launches Sustainable Agriculture Catalyzer To Examine', 'Looking Back at the Impact of the Energy and Atmospheric Systems', and 'Catalyzer Leading Path to Greener Computing'. To the right of the main content is a 'PIVOT' graphic and an 'Annual Report' section with a 'Download PDF' button and a 'More Publications' link. A large green arrow points from this page towards the American-Made Network page.

Register for the JISEA Newsletter and Follow us!
<https://www.jisea.org/news>

The screenshot shows the 'The American-Made Network' website. The header includes the 'AMERICAN MADE NETWORK' logo and navigation links for 'Network Map', 'Challenges', 'Events', 'Prize Winners', 'More', 'Sign In', and 'Sign Up'. The main visual is a banner with a gear pattern. Below the banner, the title 'The American-Made Network' is followed by a welcome message: 'Welcome to America's network built to fast-track renewable energy ideas into reality. This is where creative entrepreneurs and a diverse community of thought leading experts come together to build and accelerate world-changing clean energy ideas and technologies. We're excited you're here - let's get started!'. A 'Join the Network' button is located at the bottom of the main content area. A large green arrow points from this page towards the JISEA News and Blog page.

Join the American-Made Network!
<https://network.americanmadechallenges.org>

Help us make JAM25 awesome!
Join a working group to help us plan, connect us to new organizations who should be invited, help us find sponsors, tell us what you would like to see next year



Helpful links and reminders!

- Meeting Slide Links:
 - [Session 1: Hard-to-Decarbonize Industries](#)
 - [Session 2: Technology-Society Interface](#)
 - [Session 3: Climate Adaptation and Clean Energy](#)
 - [Session 4: Workforce for the Future](#)
- Last call for feedback on JAM24:
<https://forms.office.com/g/4SfYW0AiTJ>
- If you have photos from the meeting you'd like to share, please put them here: <https://app.box.com/s/5ehg6hyy59j14vtfd3xbhwlitnh4k4ml>
- Connect on workforce follow up + Connect on adaptation follow up



THANK YOU for making JAM24
a success

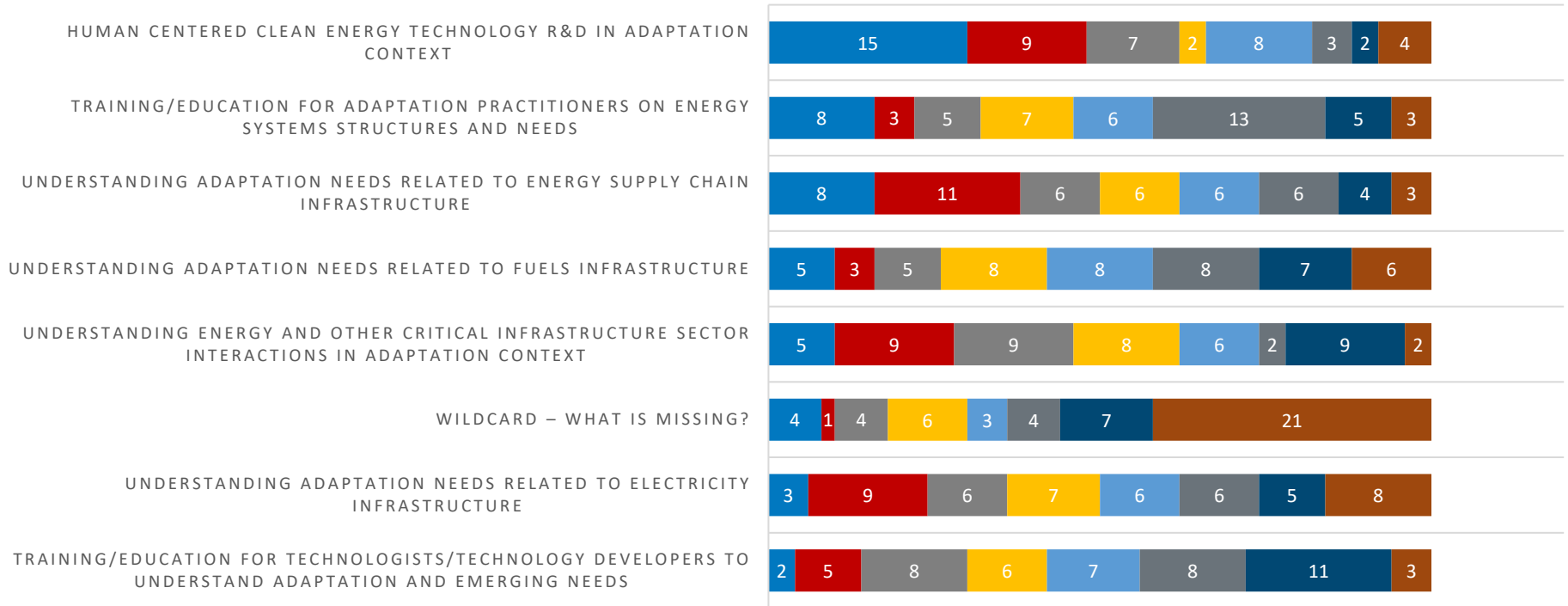
Supplemental



Data from Adaptation Session

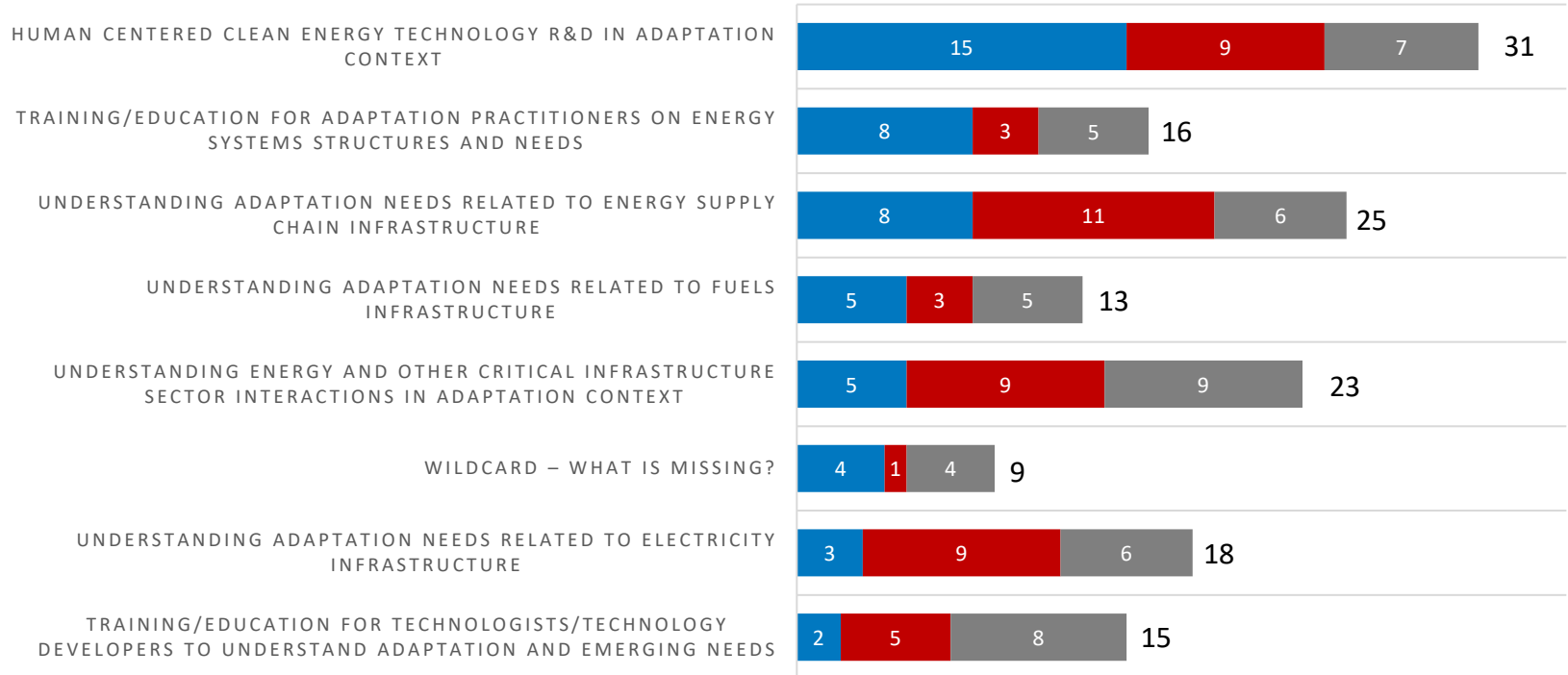
ALL RANKED VOTES (N=50): WHAT IS NOT RECEIVING AS MUCH INVESTMENT AS IT NEEDS?

■ 1 ■ 2 ■ 3 ■ 4 ■ 5 ■ 6 ■ 7 ■ 8



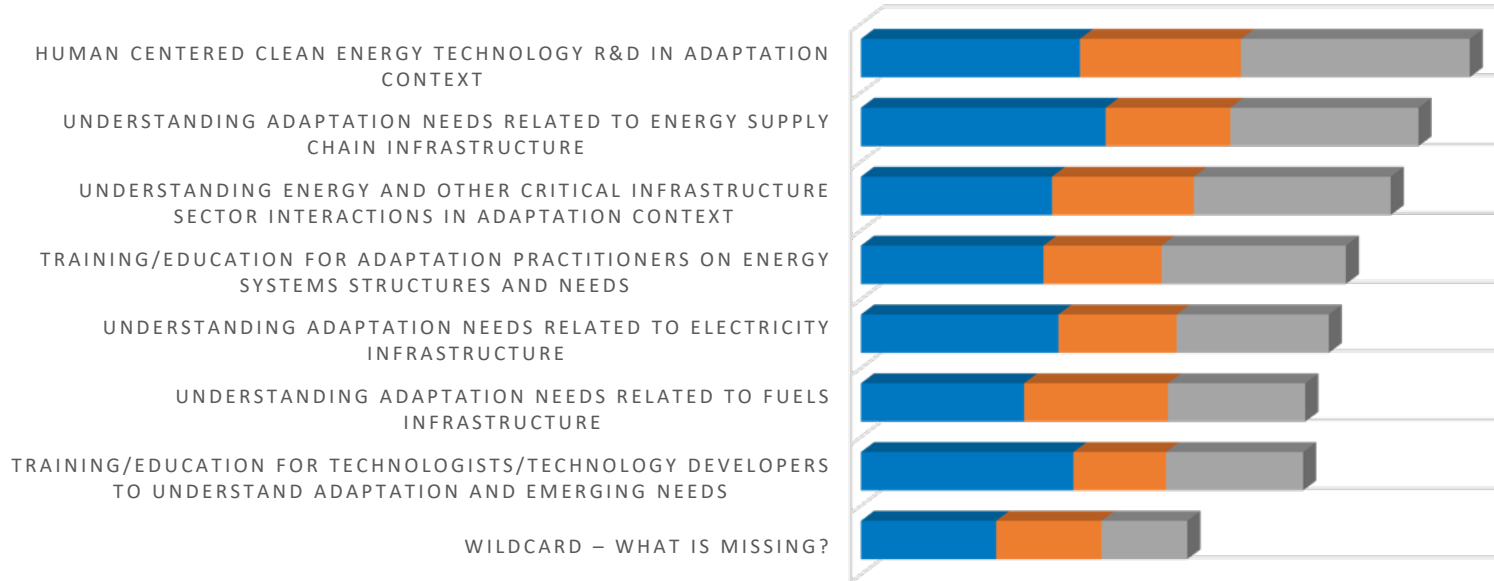
TOP 3 (N=50) WHAT IS NOT RECEIVING AS MUCH INVESTMENT AS IT NEEDS?

■ 1 ■ 2 ■ 3



RELATIVE AUDIENCE ALIGNMENT (WEIGHTED AVG RANKINGS BY AUDIENCE)

■ Not NREL (n=20) ■ NREL (n=13) ■ Did Not Report (n=17)





Staying Ahead of Future Energy Challenges

Through innovative, collaborative methodologies, the **Joint Institute for Strategic Energy Analysis (JISEA)** integrates diverse voices from research, universities, nonprofits, and industry to identify, frame, and build expertise around emerging, complex energy system challenges.



Informing Emerging Challenges for Clean Energy Future

Gather Diverse Perspectives and Expertise From:



Non-governmental organizations, trade, government, industry groups



Educational Institutions



Research leadership, internal funds and , project-based networks



Prize network, competitors, winners

Develop Stakeholder-Informed Research Needs

Catalyzers: Pilot Explorations

Network development

White papers/Journal articles

Prizes

Workshops and relationships developing funders for critical challenges

Supporting expert and community connections in field

Vouchers and commercialization efforts

Complex Scoping and Analysis Informing Scalable Programs

BENCHMARKS OF GLOBAL CLEAN ENERGY MANUFACTURING, 2014-2016

CEMAC Clean Energy Manufacturing Analysis Center
Operated by the Joint Institute for Strategic Energy Analysis

Renewable Energy Focus
Volume 4, June 2015, Page 114

Intersections of disadvantaged communities and renewable energy potential: Data set and analysis to inform equitable investment prioritization in the United States

JISEA Energy and Atmospheric Systems Catalyzer

LA100
The Los Angeles 100% Renewable Energy Study

Energy Systems

Air Quality

Climate

DOE OP Jobs
 Codeveloped multi-industry granular data for workforce in post BIL/IRA economy



Annual Meeting Brings Diverse Networks Together



U.S. DEPARTMENT OF ENERGY

The American-Made program is your **fast track to the clean energy revolution**. Funded by the U.S. Department of Energy, we incentivize innovation through prizes, training, teaming, and mentoring, connecting the nation's entrepreneurs and innovators to America's national labs and the private sector.

Fast track your ideas for the clean energy revolution



\$200M
in cash prizes
and support



60+
prizes



450+
Network
members



Impacts of the Approach

[JISEA] gives us permission and a **charge to collaborate across the lab!** The notes you provide after calls & the external board helps formalize it **so we can all be part of it!**
—NREL MTES Group Manager

Significant contributions to R&D efforts in the offshore wind, atmospheric science, aerodynamics, and controls areas, as well as the materials, manufacturing, and design innovation.
NREL was instrumental in execution of the floating platform prize. —EERE WETO (PEMP)

Excellent job administrating the Net Load Forecasting prize competition in collaboration with EPRI...[T]his prize has **demonstrated the relevance** of the SETO-funded Solar Forecast Arbiter platform and the broad interest in solar forecasting. —EERE SETO (PEMP)

The ability to **impact entire portfolios and sectors of companies quickly** through targeted outreach and support remains a unique opportunity to bring rapid change and disruption to industry innovations, often before corporations and investors are ready and willing. American-Made is a critical bridge to unlocking much larger support for U.S.-based climate startups at scale.” —Partner at a venture group





Research Focus

JISEA focuses on the clean energy implications of emerging trends in climate, technology, and society.

JISEA recognizes the criticality of scaling up early efforts to address these challenges before they evolve into major threats to the energy system transformation.

 jisea.org/our-work



Climate Adaptation and Clean Energy

The effects of climate change on the efficiency, security, and resilience of the energy system.



Hard-to-Decarbonize Industries

Strategically building toward clean energy solutions in the agriculture and industrial sectors



Technology/Society Interface

The societal implications of the advancement of clean energy technology.



Workforce for the Future

The scale and scope of future clean energy workforce needs.



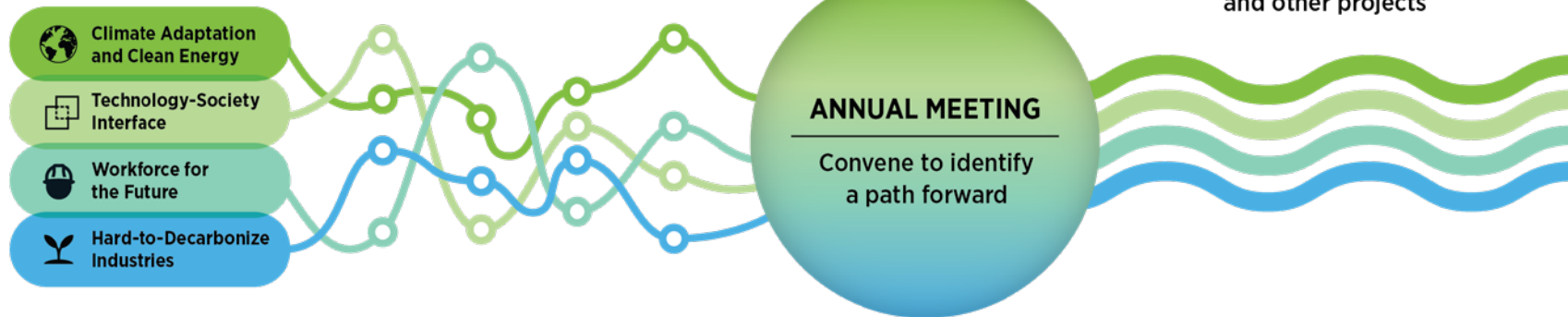
Annual Meeting Brings Diverse Networks Together

CONVENING (FALL/WINTER)

Explore and define research areas

NETWORK COLLABORATIONS (SUMMER/FALL)

Participate in network research activities, catalyzing seed research, and other projects



Join our mailing list: <http://eepurl.com/c9Y1eH>