The Crucial Role of **Just Process** for Equitable Industrial Decarbonization: An **Action Research Agenda**

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Developing and Assessing Ideas for Social and Behavioral Research
to Speed Efficient and Equitable Industrial Decarbonization Workshop

National Academies of Sciences, Engineering, and Medicine

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We Are Action Researchers: Researching *and Doing* the Work of Engaging Communities in Industrial Decarbonization

Georgia Tech Center for Sustainable Communities Research and Education - Feb. 23, 2024

Arizona State Center for Science and the Imagination - *Cities of Light*, 2021

The Research - and Action - Challenge

Framing Questions

1) *LITERATURE REVIEW:* What do social science research AND community literature and activities to date tell us about the successes and pitfalls of **community engagement**, overall and particularly in **infrastructure projects or projects led by powerful actors** (e.g., government, industry, universities)? How is or might this research be **applicable to industrial decarbonization**?

2) *RESEARCH AGENDA:* What **social science research is needed** to develop more inclusive and just processes for community engagement that are most likely to result in *equitable* industrial decarbonization?

Key Takeaways from the Literature to Date

Community engagement and public participation in infrastructure development (mining, oil and gas, renewable energy)

- Deep distrust of infrastructure projects and powerful actors
- Differences in influence and expertise can inequitably distribute risks, harms, benefits
- Procedural justice is key:
  - Government favors industry
  - Community can hold industry more accountable
- **More research needed on how different types of engagement impact outcomes**

Community engagement and public participation in carbon management

- Social science research has been primarily public perception surveys:
  - Storage is most controversial
  - Acceptance is influenced by a variety of factors
- Carbon management is largely opposed by EJ community as “false solution”
- Primary engagement concerns are:
  - Collaborative leadership and decision-making power (incl. right to refuse)
  - Funding going to CBOs
- **Buck (2021) calls for more research on engagement that:**
  - **Integrates future users of research early on**
  - **Facilitates community deliberation**

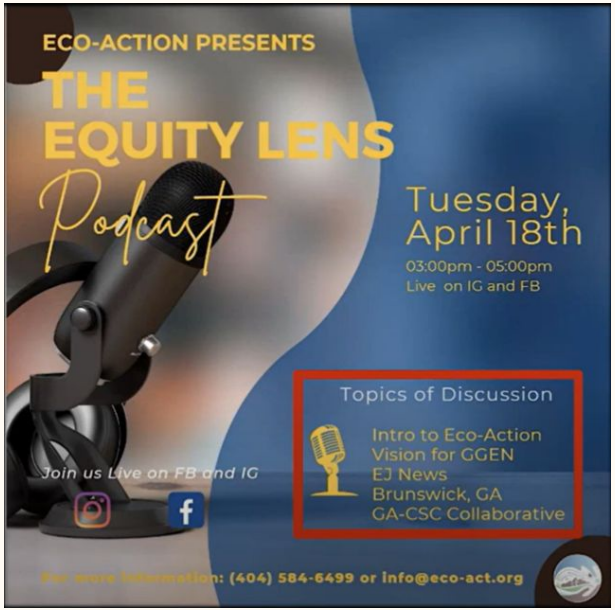
Proposed Research Agenda: Five Questions

POPULATION TO ENGAGE	RESEARCH QUESTION
Historically Marginalized Communities	What are the **benefits, limitations, outcomes, and lessons learned from the varied approaches** being used to engage communities in projects led by more powerful partners? How do they impact outcomes?
Developers, Technologists, Government Actors	What is needed to ensure that **technologists, industry practitioners, and government actors have the competency and literacy** to be effective partners with communities in deep decarbonization?
Social Scientists Participating in Industrial Decarbonization Projects	How can **social science and humanities researchers shape industrial decarbonization projects** as embedded actors?
Project Teams	How can **project teams develop dynamics** that build on the diverse range of team member expertise, especially given the projects' techno-centric nature?
Project Teams - Internal + with Historically Marginalized Communities	How does the **"metrification" of engagement** shape how industrial decarbonization projects are designed, implemented, and evaluated?

Project Teams - Internal + w/ Historically Marginalized Communities	How does the **“metrification” of engagement** shape how industrial decarbonization projects are designed, implemented, and evaluated?

Given that metrics are a poor proxy for fundamental questions of what it means to live a good life - and run the risk of reducing life to numbers:

- What community-centric benefits and harms ought we be tracking?
- What other kinds of strategies are there for tracking engagement and justice, outside of quantitative tables?
- What kinds of justice concerns are not appropriate to measure as metrics, and how might we measure them (e.g., those related to procedural or epistemic justice)?
- What assumptions are embedded into federal screening tools, built from metrics, that forestall more robust understandings of justice, especially as related to internal and external processes?
- What kinds of metrics and data sources are most helpful for tracking community engagement processes and the impacts of processes on project outcomes?



Community Storytelling for Environmental Justice: A Convergent Approach to Forecast Modeling

Developers, Technologists, Government Actors	What is needed to ensure that **technologists, industry practitioners, and government actors have the competency and literacy** to be effective partners with communities in deep decarbonization? (turns Accel Decarb question on its head)

Give that developers and technologists generally have very little knowledge of or experience working with communities:

- How are they being prepared to be *knowledgeable about* community histories and to consider societal implications of industrial decarbonization projects in specific locales?
- What are effective ways to prepare developers and technologists to *engage* in congenial, productive, and successful interactions and collaborations?
- How does training of developers and technologists influence project outcomes?


Sustainable Communities Faculty Fellows Program, Georgia Tech

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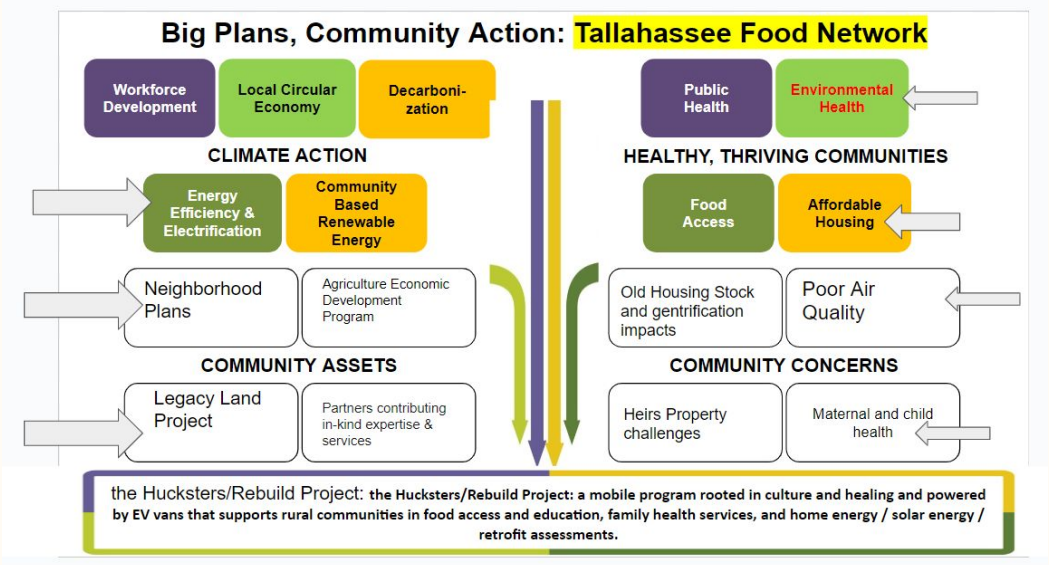
Historically Marginalized Communities	What are the **benefits, limitations, outcomes, and lessons learned from the varied approaches** being used to engage communities in projects led by more powerful partners? How do they impact outcomes?

In large, complex, multi-sited industrial decarbonization initiatives, how do we address **Place and Scale**?



Southwest Network for Environmental and Economic Justice

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CARE Principles for Indigenous Data Governance

The Principles of Environmental Justice (EJ)

1) **Environmental Justice** affirms the sacredness of Mother Earth, ecological unity and the interdependence of all species, and the right to be free from ecological destruction.

2) **Environmental Justice** demands that public policy be based on mutual respect and justice for all peoples, free from any form of discrimination or bias.

3) **Environmental Justice** mandates the right to ethical, balanced and responsible uses of land and renewable resources in the interest of a sustainable planet for humans

10) **Environmental Justice** considers governmental acts of environmental injustice a violation of international law, the Universal Declaration On Human Rights, and the United Nations Convention on Genocide.

11) **Environmental Justice** must recognize a special legal and natural relationship of Native Peoples to the U.S. government through treaties, agreements, compacts, and covenants affirming sovereignty and self-determination.

12) **Environmental Justice** affirms the need for urban and rural ecological policies to clean up and rebuild our

Scaffolding for a Research Agenda to Speed Equitable Industrial Decarbonization

1) Participatory Action Research
   - Communities are co-PIs
   - Questions/benefits are community-driven

2) Community Expertise
   - Community principles, data, sources
   - Research examines role of community expertise and leadership and its impact on outcomes

3) Reflexive Research - “Critical Participation”
   - Particularly important given collaboration with powerful actors

4) Social Science **+ Humanities** Agenda
   - Beyond communication and storytelling
   - We are studying and working with PEOPLE not stakeholders
   - Embed technological challenges within cultural contexts
   - Expand our research agenda to explore broader questions such as, ***“What is the relationship between imagination, power and governance?”*** (Moore & Milkoreit 2020)

Thank You

Credit: National Wildlife Federation and Third Way

Credit: Chicago Community Climate Action Toolkit