Clean Energy to Communities: Gap Region Outreach Project

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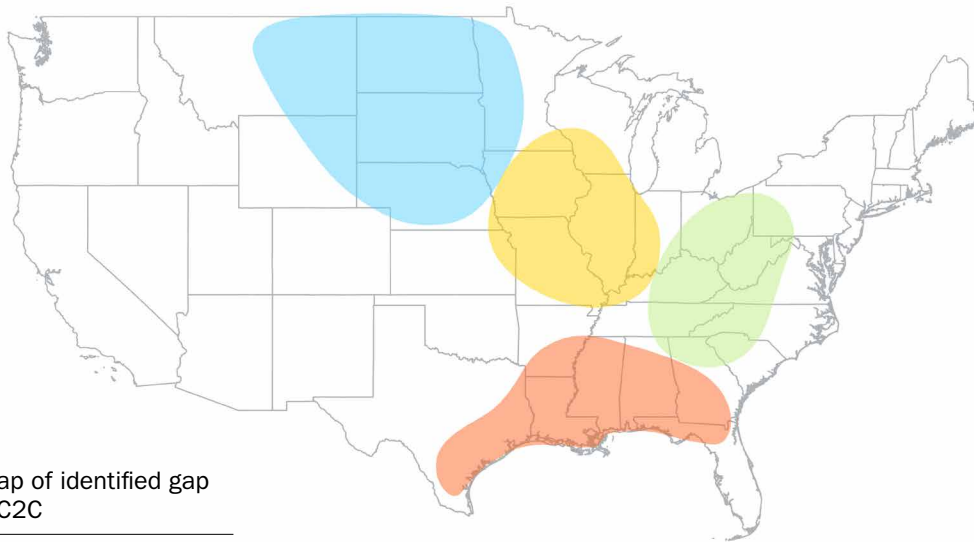*National Renewable Energy Laboratory*

Figure 1. Map of identified gap regions for C2C

1 Background

The **Clean Energy to Communities (C2C)** (nrel.gov/c2c) program provides expertise and tools to local and regional governments, Tribes, community-based organizations, and electric utilities to help them achieve their clean energy goals. The U.S. Department of Energy (DOE) launched C2C in 2022, following engagement with more than 150 stakeholders representing 95 communities in 40 states and 6 Tribes. The program offers three levels of support: **expert match** (nrel.gov/c2c/expertmatch), **peer-learning cohorts** (nrel.gov/c2c/cohorts), and **in-depth partnerships** (nrel.gov/c2c/indepth).

1.1 Geographic Gaps in C2C Participation

In its first year, C2C worked with over 150 communities. To ensure broad participation, the National Renewable Energy Laboratory (NREL)

conducted a regional analysis, which identified four underrepresented areas in program participation: Gulf South, Appalachia, Midwest, and Northern Plains (Figure 1).

In response, NREL led an initiative to understand the barriers faced by potential participants from these regions and to develop strategies to facilitate participation. This report presents findings from this effort and offers recommendations for program improvements.

1.2 Engagement Design

To develop recommendations for addressing C2C regional gaps, NREL gathered data and insights through 51 one-on-one conversations, nine small group listening sessions, and two engagement workshops (Figure 2).

NREL connected with representatives from municipalities and community-based organizations in the four priority regions through existing

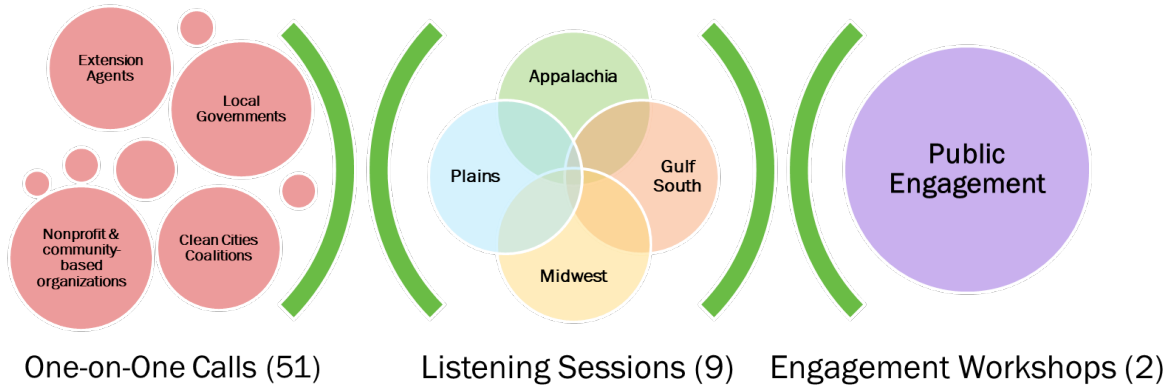One-on-One Calls (51)   Listening Sessions (9)   Engagement Workshops (2)

Figure 2. Visual representation of the engagement process

networks, referrals, and research into potential new stakeholders. In total, NREL engaged 143 individuals from 115 unique organizations (60 community-based organizations and 55 government agencies) (Figure 3). These participants were evenly distributed across the four priority regions. All were new to C2C, and 40% had never applied for a federal clean energy grant, prize, or technical assistance (TA) program.

2 Findings and Recommendations

NREL used the engagement findings to identify relevant topic areas for C2C program offerings, develop new programmatic structures, and explore outreach and engagement strategies to better reach entities in the gap regions. Key themes that emerged are summarized below.

2.1 Capacity Barriers

2.1.1 Findings

Across all four regions, capacity is the greatest barrier to engagement with federal opportunities related to clean energy. Staff, funding, time, mission alignment, application barriers, and skills and knowledge all affect an organization's ability to participate in programs like C2C. In Figure 4, we outline how each of these facets plays a role in the overall capacity of a given organization to engage.

2.1.2 Recommendations

- **Tailor programming towards energy generalists:** TA or trainings should be accessible to team members without existing energy knowledge. Entities in the gap regions, especially in rural areas, often operate with small teams. Individual team members serve multiple roles and have limited available time, which means they may not have a dedicated energy expert to champion these types of engagements. TA could help
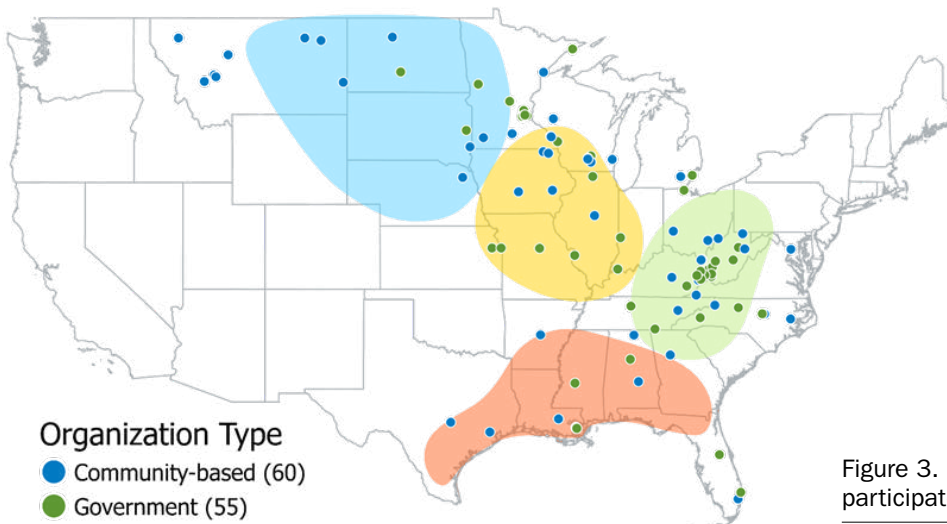

Organization Type
- Community-based (60)
- Government (55)

Figure 3. Map of organizations that participated in the engagement process

STAFF
- Insufficient staff to participate in a TA program
- Barriers related to staff hiring, onboarding, retention, and turnover.

SKILLS AND KNOWLEDGE
Barriers related to obtaining the knowledge, skills, or information required to effectively engage in TA programs.

TIME
Insufficient time to participate in meetings or other requirements for TA programs.

CAPACITY CONSTRAINTS

FUNDING
- Insufficient funding for materials, a space, or a staff to participate in a TA program
- Hesitance to participate in a TA program that does not prepare you to receive funding

MISSION ALIGNMENT
- Barriers related to communicating the value of participating in a TA program to leadership
- Inability to connect clean energy work to the organization's primary goals.

APPLICATIONS
- Barriers related to a sense of "overwhelm" in completing TA or grant applications
- Challenging application requirements (e.g., application length, timeline, or required partnerships).
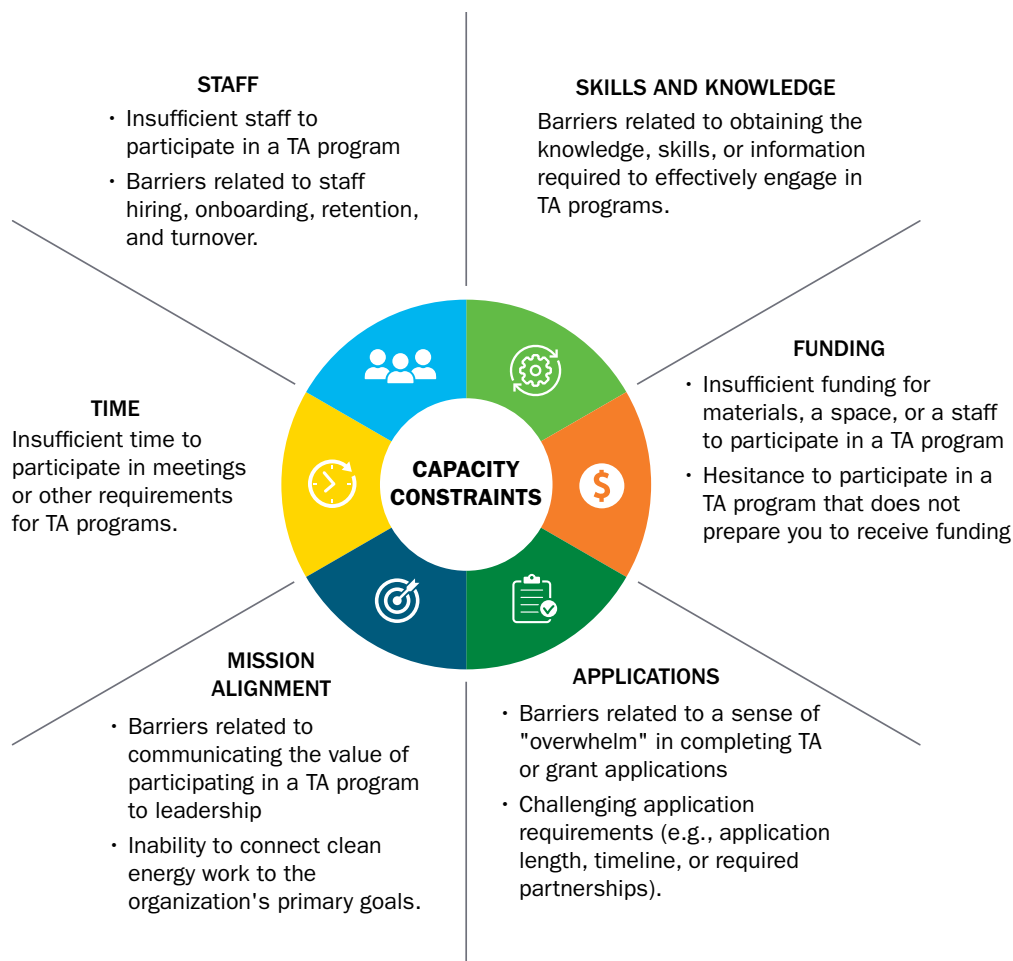
Figure 4. Framework representing the six facets of capacity identified during the listening sessions

to develop new energy generalists by building knowledge around multiple energy topics. An example of this could be a "Renewable Energy 101" educational opportunity or resource.

- **Make the connection between clean energy to other local priorities:** C2C offerings should help participants understand how clean energy technologies can support other local priorities, such as economic opportunities, public health, and cost of living. These connections can enable participants better communicate with colleagues, residents, and partners about the benefits of clean energy and the ways it aligns with their mission. By communicating clear mission alignment, C2C can make it easier for entities in gap regions to make the case for participation and equip them with tools to reframe local conversations about clean energy.

- **Facilitate funding opportunities:** Entities in these regions often face funding and staffing constraints and expressed that C2C offerings would be more attractive if they included follow-on implementation funding. Similarly, C2C could

align TA topics with upcoming federal funding opportunities and time these efforts so they are directly useful for those opportunities.

2.2 Areas of Interest

2.2.1 Findings

2.2.1.1 Areas of Interest by Region

NREL identified several region-specific areas of interest through analysis of listening session data:

- **Appalachia**
  - **Coal to "X":** Support for coal communities interested in equitable transitions from a coal-based economy to clean energy sources like solar and nuclear, or affordable housing developments.

- **Gulf South**
  - **Energy resilience in extreme events:** Support for communities facing increased frequency and severity of extreme events like hurricanes, floods, and heat waves that impact their energy systems.

- **Midwest**
  - **Utility engagement:** Support for communities working to engage with municipal, co-op, and investor-owned utilities to improve grid resilience, deploy energy efficient technologies, and set clean energy goals.
- **North Plains**
  - **Clean energy for rural communities:** Support for small, rural communities looking to develop locally relevant, community-driven clean energy projects.

2.2.1.2 Overall Areas of Interest

Gap region interviewees generated more than 100 clean energy topic ideas through one-on-one calls and listening sessions. NREL asked engagement workshop participants to provide feedback on and rank those topics. The highest priority topics include:

1. Deploying public electric vehicle (EV) charging infrastructure
2. Establishing community resilience hubs
3. Increasing rural EV readiness
4. Reducing residential energy burden with energy efficiency
5. Adding renewables to the grid to improve resilience and reliability
6. Achieving community benefits through clean energy projects
7. Understanding best practices for clean energy siting
8. Financing and resource navigation for community-led clean energy projects
9. Deploying municipal fleet electrification
10. Implementing renewables to reduce residential energy burden.

2.2.2 Recommendations

C2C TA should prioritize the topic areas described in section 2.2.1 when tailoring content to participants from the four gap regions. Additionally, the following recommendations could be applied to clean energy TA to increase relevance to entities in gap regions.

- Provide support that connects clean energy and other topics including energy justice, community benefits, climate, energy, and community resilience

- When designing C2C peer-learning cohorts focus on tailored, nuanced topics for specific audiences instead of broad topics open to many audiences. For example:
  - Energy efficiency workforce development for trade school education coordinators
  - Best practices in clean energy siting for municipal utility staff
  - Brownfield solar in coal country for community-based organizations in Appalachia
- Structure TA around clear, actionable outcomes that will help an early-stage applicant gather buy-in from leadership, a board, or other stakeholders for participation, and help them build a local coalition around actionable next steps.

2.3 Program Structure

2.3.1 Findings

NREL gathered feedback on potential adjustments to C2C program structures and TA delivery mechanisms. Across all regions, participants emphasize interest in implementation funding following C2C TA. Other popular ideas include:

- Peer-Learning Cohorts: Regional cohorts, more specific cohort audiences, and shorter cohort timelines (e.g., less than the current 6-month timeline)
- Expert Match: TA directly related to federal funding opportunities and clearer options for available technical assistance.

2.3.2 Recommendations

The following adjustments to C2C program structure could respond to the feedback gathered from participants. These strategies could be deployed alone or combined with others on the list to increase impact.

- **Peer-Learning Cohorts**
  - **Regional cohorts** would allow participants to network with others in their region going through similar challenges and take advantage of similar opportunities, such as local grants and programs.
  - **Asynchronous learning**, such as recordings or forum-based work, would enable participants with limited capacity to benefit from the cohort structure.

- **Smaller cohorts (e.g. less than the typical 15 participants)** would create a more intimate setting for participants where they could build deeper, more lasting relationships with other participants, increasing the likelihood that participants continue to communicate and collaborate after the cohort ends. Additionally, smaller cohort size could increase the one-on-one support and coaching participants receive from resident experts.

- **Access to follow-on implementation funding** could include funding for capacity building or project roll-out and would increase the value of the TA for participants in these regions.

- **Three-month cohorts** would require a shorter commitment and reduce scheduling burden for participants.

- **More precise descriptions of eligible entities** would connect participants from highly aligned backgrounds and contexts to network and exchange strategies. For example, a cohort could be accessible only to education coordinators for trade schools that provide clean energy workforce training, or toward town managers in jurisdictions with under 10,000 residents.

- **Expert Match** 🟢 ⇄ 🔵

  - **Offer TA leading up to federal funding opportunities:** Leverage C2C expert match to provide analysis and other TA that strengthen applications for upcoming DOE and other federal funding opportunities. With early notice, the C2C expert match team could prepare appropriate experts and promote capabilities to potential applicants leading into the application period.

  - **Provide a menu of options for all topic areas:** The expert match team could develop a detailed menu of options for the types of TA and deliverables that can be provided within each topic area. This could reduce the perceived burden on applicants to develop full concepts before submitting requests, reduce time spent scoping, and help applicants to understand possible outcomes from the start.

2.4 Outreach and Communication Strategies

2.4.1 Findings

Gap region research participants noted difficulties in effectively framing clean energy initiatives within politically sensitive contexts, which could indicate a need for communication strategies that are tailored to local values and contexts. They expressed challenges with receiving and digesting emails from many sources, and that they rely on regional partners to consolidate opportunities in their newsletters. When asked about the best strategies to connect opportunities with local entities across their regions, they suggested it is best to leverage other networks and regionally respected actors, such as soil conservation districts, university extensions, and religious organizations. This highlights the importance of collaborating with trusted messengers and leveraging existing relationships to enhance engagement.

2.4.2 Recommendations

Below is a summary of potential actions that can be taken by the NREL C2C administration team to address general outreach and communication needs for all C2C offerings, supporting improved communications across regions.

- **Expand networked outreach with trusted regional partners:** C2C should develop and enhance relationships with regional partners that already have the trust and respect of local entities. This should take place not only when the lab has something to share, but through bidirectional and co-beneficial engagements. This will facilitate connections with local partners through established communication networks when opportunities arise.

- **Incorporate more one-on-one outreach to specific organizations:** C2C should engage individuals in gap regions more authentically and thoroughly by using one-on-one calls, outreach presentations at regular meetings, information-sharing at conferences, and tailored email communications. This approach allows for more space to address questions, confirm individual eligibility, and gather feedback.

- **Refine programmatic communications to be more inclusive to energy communities, rural communities, and communities where clean energy is not a top priority:** Revisit communications to consider how language can resonate with high priority topics in the gap regions. Make it easier for potential applicants to see the connections between TA topics and their organization's priorities.

2.5 Program-Wide Recommendations

Based on the full body of findings and the C2C program structure, NREL recommends the following five strategies to better align C2C with gap region priorities. These recommendations should be implemented across the C2C program, through program:

1. Build & maintain bidirectional relationships with regional partners. Build trust, gather input to improve and evolve your program offerings, and leverage existing networks for outreach.

2. Refine new and existing web content and outreach language to reduce jargon and simplify language.

3. Refine public-facing program language to be more inclusive for Energy Communities, rural communities, and communities where "clean energy" is not a top priority. Examples include using "new energy economy", "energy innovations", or "next generation energy" instead of "clean energy" in outreach emails, or by aligning clean energy deployment with other community priorities such as costs, workforce development, housing, or public health, in public communications and programmatic design.

4. Simultaneously provide broad educational resources as well as tangible next steps to ensure TA is accessible but actionable: Integrate 101 information/resources alongside outcomes like roadmaps or strategies.

The engagement from this project resulted in **35** participants submitting a C2C application (**18** expert match requests, **17** cohort applications).

3 Conclusion

In summary, key takeaways from this work emphasize the importance of understanding local contexts when providing TA. TA programs cannot generalize across all regions or communities. Instead, NREL should recognize that each community has specific needs and priorities that require a nuanced approach. It is crucial to prioritize local insights and defer to community priorities when designing and implementing TA programs. Additionally, centering regional strengths and needs in program development will enhance the relevance and effectiveness of our support.

Building sustainable relationships with trusted local networks and messengers is essential for engaging new participants. The engagement from this project resulted in 35 participants submitting a C2C application (18 expert match requests, 17 cohort applications). This emphasizes the value of tailored outreach to specific regions and organization types to overcome engagement barriers.

While this report focuses on C2C, the findings and recommendations can also inform other DOE technical assistance efforts seeking broad representation in their programs. Beyond these regions or these themes, this program assessment approach can provide a replicable methodology to identify opportunities for improvement. By applying these principles, and grounding program assessment in more localized context, C2C can enhance its TA approach and reach a broader, more nationally representative set of communities.

C2C: Clean Energy _to_ Communities
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