LCRI LOW-CARBON RESOURCES INITIATIVE

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EXECUTIVE SUMMARY

Community Engagement Considerations for Low-Carbon Fuel Projects

PRIMARY AUDIENCE

The primary audience for this work includes industry stakeholders such as project developers, utilities, and other energy companies. Both technical professionals (e.g., engineers, grid planners) as well as those responsible for community engagement and communications within their organization could benefit from understanding topics addressed in this paper. Furthermore, social scientists, community engagement practitioners, regulatory agencies, policy makers, community leaders, educational institutions, and community-based organizations (CBOs) could gain valuable insights as well.

KEY RESEARCH QUESTIONS

This research aims to identify leading practices for community engagement for low-carbon fuel projects. The key research questions for this work include:

1. **Unique Factors for Community Engagement**: What unique factors could be considered for community engagement in low-carbon fuel projects compared to other energy and infrastructure projects like those in the renewable energy sector?
2. **Community and Stakeholder Concerns**: What questions and concerns are being raised by communities and other stakeholders regarding low-carbon fuel projects?
3. **Knowledge Gaps and Communication Needs**: What knowledge gaps and communication needs regarding low-carbon fuel projects are experts highlighting as inadequately addressed by current community education and engagement efforts?
4. **Leading Practices and Key Insights**: What are some leading practices and key insights from community engagement for low-carbon fuel projects?

RESEARCH OVERVIEW

Low-carbon fuel projects are gaining interest for their potential environmental and economic benefits. However, communities may express concerns due to the potential local impacts and trade-offs associated with such projects. Effective community engagement and communication strategies are essential to help address these concerns, foster meaningful engagement, promote informed decision making, and work towards sustainable, equitable, and value-aligned projects. This paper highlights key insights and leading practices for community engagement in low-carbon fuel projects, based on a literature review and stakeholder interviews. The stakeholders were from a broad range of backgrounds including industries (e.g., utilities), community-based organizations (CBOs), and researchers.

KEY FINDINGS

Key takeaways from the interviews emphasize the importance of balanced communication, simplified materials, and tailored community benefit plans. Transparent communications that explain both the potential positive and negative impacts are important for maintaining community trust. Educational materials could be accessible and relevant to local impacts, while engagement strategies could be customized to meet the specific needs of different regions and stakeholder groups.

This paper gives examples of interactive activities and educational materials that could increase awareness and understanding of low-carbon fuels and technologies. It also underscores the value of site visits, lab tours, and demonstrations to introduce communities to the technology. Recognizing the varying levels of acceptance within communities, the paper also suggests meaningful engagement opportunities and tailored communication approaches that could address specific concerns. Effectively communicating the role of low-carbon fuels within the broader energy transition is important for fostering community understanding and contextualize the larger picture of the energy system. Developing clear plans for community benefits and identifying, tracking specific metrics, and providing an accessible mechanism for sharing updates are also highlighted as leading practices.

Suggested future work involves identifying or developing tools and methods for tracking and reporting low-carbon fuel metrics, collecting and disseminating case studies, conducting local economic and environmental impact assessments, and providing additional guidance on creating effective community benefit plans. By identifying the leading practices, this research aims to enhance community engagement and communication strategies for low-carbon fuel projects.

WHY THIS MATTERS

Low-carbon fuel and other energy projects have faced challenges related to community engagement and public communications. Additionally, meaningful community engagement and public communication can help enable effective, sustainable, and equitable projects. However, community engagement is a complex process and communicating about low-carbon fuels, their technologies, and their potential impacts can be challenging, leading to a need for more guidance.

HOW TO APPLY RESULTS

To apply results of this study, stakeholders could support the increase of awareness through educational institutions, provide opportunities for community members to interact with the technology, deploy meaningful and interactive engagement activities and strategies, perform a stakeholder mapping exercise during early stages of projects, and support the development of energy transition communication materials. Other suggestions on how to implement leading practices are provided in the full report.

THE LOW-CARBON RESOURCES INITIATIVE

This report was published under the Low-Carbon Resources Initiative (LCRI), a joint effort of EPRI and GTI Energy addressing the need to accelerate development and deployment of low- and zero-carbon energy technologies. The LCRI is targeting advances in the production, distribution, and application of low-carbon energy carriers and the cross-cutting technologies that enable their integration at scale. These energy carriers, which include hydrogen, ammonia, synthetic fuels, and biofuels, are needed to enable affordable pathways to economy-wide decarbonization by mid-century. For more information, visit www.LowCarbonLCRI.com.

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