

Enhancing Community Acceptance of Hydrogen Fuel & Infrastructure

Project Brief

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Methodology

BACKGROUND RESEARCH

We began the spring 2025 semester by conducting background research on Hydrogen as a fuel source, including existing markets and the technology. After identifying New Day Hydrogen as our industry partner, we were able to focus our background research onto the communities within the range they have been considering for their fueling station to service the Denver area.

ENGAGEMENT

Throughout the summer, our team canvassed many events throughout North Denver, Commerce City, and Thornton. We used custom-made outreach materials to promote our questionnaire. We also met with targeted professionals, like environmentalists, firefighters, and policy makers to better understand the perceptions from some hesitant industries. The team finished the summer by organizing and facilitating an informational public forum that provided space for community members to interact directly with researchers and professionals, and increase their understanding of this emerging technology

Purpose

The purpose of this project was to ensure that the communities along the I-25 corridor are informed, empowered, and included in shaping Colorado's clean energy future. We prioritized education- with a focus on engaging rather than persuading- and identifying barriers preventing site installation. Our goal was to build the foundation for a safe and community-drive transition in infrastructure.

Key Findings & Recommendations

KEY FINDINGS

- Public awareness of hydrogen is moderate and often tied to safety concerns.
- Trust improves through partnerships with local organizations like UCAN.
- Simple, visual, and hands-on materials make hydrogen approachable.
- Early involvement of fire departments and policymakers builds confidence.

RECOMMENDATIONS

- Target outreach near selected fueling sites.
- Use clear, consistent safety messaging (NFPA 2).
- Offer multilingual and kid-friendly materials.
- Incentivize participation to boost engagement.
- Expand digital and social media outreach.
- Maintain community relationships for future projects.
- Engage with Environmental advocacy groups and others that help bridge the gap between policymakers and the community.

Deliverables

OUTREACH GUIDE

The outreach guide is a broad, generic outline for outreach related to fuel cell technology, with an ability to be deployed anywhere across the country. It explains how to engage community members, rather than persuading them, and how to connect with trusted community leaders. The Outreach Guide will also contain templates of our outreach materials, including informational pamphlets and coloring sheets.

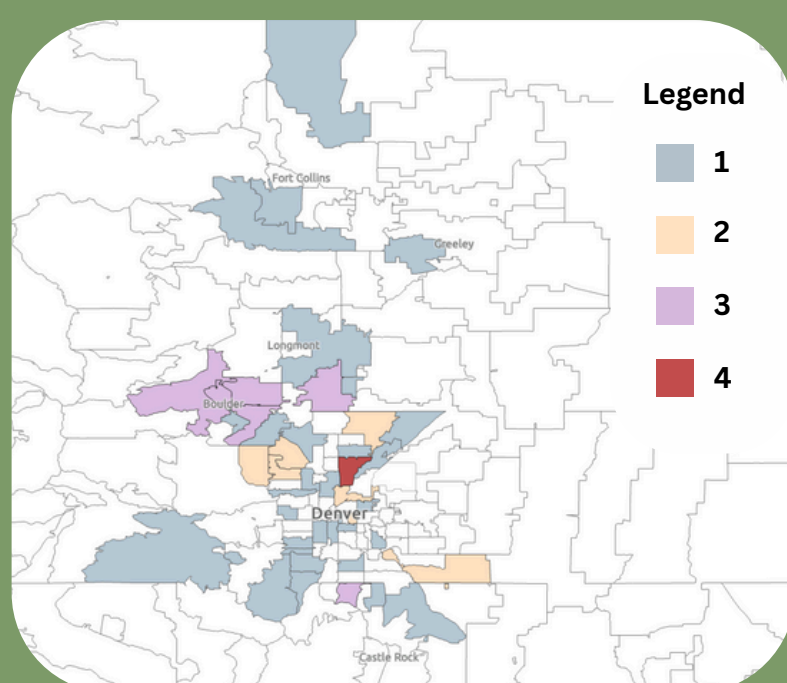
CASE STUDY REPORT

The Case Study Report is specific to our interactions with community members of the Globeville Elyria-Swansea neighborhoods of North Denver, Commerce City, and Thornton. It features our questionnaire results, including a GIS map and other data visualizations. The Case Study Report also lists the methodology behind our recommendations and key takeaways based off of the feedback we received throughout the summer.

OUTREACH MATERIALS AND STAKEHOLDER INFORMATION

Along with the Outreach Guide and Case Study Report, we will be providing NREL with all of our outreach materials, including presentation slide decks from our public forum, Symposium presentation, and our presentation to the Colorado Hydrogen Network. Additionally, information on all professional individuals we connect with throughout the summer will be provided.

Questionnaire responses



Impact

The Hydrogen Outreach Project shows how the success of clean energy technologies relies on the intersection of public acceptance, private enterprise, and research and development. By linking New Day Hydrogen's commercial deployment with NREL's Hydrogen Safety Research and Development team, the project bridged innovation and community trust. Through outreach across northern Denver, the team translated complex research into clear dialogue, helping residents understand hydrogen's safety, benefits, and role in reducing emissions. This collaboration proves that public confidence is not a byproduct of technology but a prerequisite for scaling private investment and turning research into real-world clean energy solutions.

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