

DNV Mindful Gas Decommissioning

Virtual Community Workshop Two Summary

October 2, 2024, from 6:00 PM to 8:00 PM

Table of Contents

1. Workshop Overview.....	2
Agenda	2
Workshop Objectives.....	3
2. Project and Workshop One Reviews.....	3
Brief Project Refresher	3
Key Priorities and Challenges of Our Project	4
Project Research Focus	4
Community Engagement Schedule.....	5
Community Feedback Review	5
Engagement Activity – What does Gas Decommissioning Mean to You	6
Beta Tool Overview	7
What is the Beta Tool and how will it be used?	7
How was the Beta Tool built?	7
How are the Data synthesized?	7
Live Beta Tool Demonstration.....	10
Question and Answers	11
Case Study Overview	12
Interactive Case Study Engagement	13
Feedback summary from Workshop 2.....	13
Beta Tool Application in the City of Oxnard.....	14
Wrap up and Next Steps	15
Appendix A: Participants	16
Appendix B: Feedback from Workshop Engagement Activities	17

1. Workshop Overview

The Mindful Gas Decommissioning Community Workshop Two was held via Zoom on October 2, 2024, from 6:00 PM to 8:00 PM. The workshop focused on sharing how community feedback is being incorporated, providing project updates, a high-level demonstration of the beta version of the tool, and gathering additional community feedback on the place-based case studies that will refine the tool. This workshop is part of an ongoing effort to engage with communities that can share insight into the decommissioning risks and benefits related to the economic, environmental, health, safety, and equity impacts within their areas.

Agenda

1. Getting to know you poll – where are participants joining from?
2. Project team introductions
3. Project and Workshop 1 Reviews
 - a. Project Priorities, Challenges and Research Focus
 - b. Community Engagement Schedule
 - c. Community Engagement Feedback Review and Incorporation
 - d. Engagement Activity: “What does Gas Decommissioning Mean to You?”
4. Beta Tool Overview
 - a. What is it?
 - b. How was it built?
 - c. How will it be used?
 - d. What data is included in the tool?
 - e. Live Beta Tool Demonstration
 - f. Q&A
5. Beta Tool Application to a Case Study and Discussion
 - a. Case Study Overview
 - b. Interactive Case Study Engagement
 - i. Reference Questions
 - ii. Case Study Framework for Oxnard
 - iii. Examination of Equity Index
 - iv. Application of Beta Tool to Explore Oxnard

The workshop was kicked off by welcoming remarks from Martine Schmidt-Poolman, Sustainability and Health Unit in the Energy Research and Development Division at the California Energy Commission who is overseeing this project. She emphasized that the project team, along with the Energy Commission and the state, values this work highly as the State collectively moves toward a decarbonized energy system. The goal is to ensure that this transition is safe, intentional, just, and cost-effective. Ms. Schmidt-Poolman also noted that creating a workshop that fosters a collaborative and constructive atmosphere was very important, and participants were encouraged to ask questions whenever needed.

Workshop Objectives

As reviewed by the project team, this workshop had three primary objectives:

1. Report back on how community feedback has been incorporated;
2. Provide project updates; and
3. Hear more feedback and questions as the team applied the beta tool to a place-based case study.

The project team acknowledged that this project is highly technical and complex. They emphasized that one of the goals of the workshop was to make it as accessible as possible and encouraged participants to ask questions if further clarification was needed. Throughout the session, the team paused for questions while balancing these with the need to cover all topics and gather feedback. Recognizing the complexity of the information presented, the project team noted that they understood that participants might need time to fully digest it. The team explained that questions were designed to prompt thought, discussion, and inquiry, and that immediate feedback was welcome but not required.

In addition to the workshop, the project team noted that they had set up multiple avenues for participants to provide ongoing feedback about the project, including case study engagement and forms on the Resource Hub.

2. Project and Workshop One Reviews

Brief Project Refresher

The Mindful Gas Decommissioning Project aims to develop a statewide tool to support the identification of promising sites for future gas distribution system decommissioning projects in alignment with the state's goal to decarbonize energy by 2045. Meeting this goal will require the strategic decommissioning of over 100,000 miles of gas infrastructure statewide.

To meet this objective, UCLA and DNV teams co-developed an interactive mapping, data-driven, actionable tool that will provide state agencies, local governments, investor-owned utilities (IOUs), and other stakeholders with valuable information for assessing the technical, social, and economic feasibility of decommissioning specific segments of the gas system. The tool, which is currently in beta or test mode and is referred to as the "beta tool," incorporates several primary metrics grouped into respective indicator categories that evaluate equity, gas assets, and gas decommissioning readiness by census tract. These indicators are described in greater detail in the "Beta Tool Overview" section below. Along with this effort, the project team has also been conducting place-based case studies, in which they work with local community-based organizations to ground-truth the tool's metrics and make sure that it accurately represents residents lived experiences.

Key Priorities and Challenges of Our Project

An essential component of this project is an assessment of the anticipated impacts that gas pipeline decommissioning efforts have on communities, particularly those affected by environmental and socio-economic challenges. Gas pipeline decommissioning must be safe, intentional, environmentally just and cost-effective.

During the October 2nd workshop, the project team also emphasized that it was important to start the conversation by clarifying what gas pipeline decommissioning might mean for communities. The term "gas decommissioning" – as defined for use during this project - refers to shutting down or retiring parts of the gas pipeline network based on investigation. While the state has yet to determine how to retire gas pipelines, gas decommissioning can directly impact communities as it may involve:

- Switching gas-powered appliances (e.g. stoves, furnaces) to alternative energy-powered appliances (e.g. induction stoves, heat pumps)
- Improve comfort and indoor air quality
- Potentially reduce energy bills (e.g., energy efficiency measures)
- Reduce dependency on fossil fuels

Throughout the research process, the project team has faced several data-related challenges, including gaps in publicly available data, limited access to pipeline-level gas distribution sources, and the difficulty of processing and quantifying qualitative community feedback. Additionally, engaging experts across diverse interests and domains, along with managing the statewide scope and data security requirements, underscores the scale and complexity of the project.

Project Research Focus

The project team noted that the project centers on three key focus areas, or “indices,” guiding research and data collection to help the state assess promising sites for gas infrastructure decommissioning. Each area includes specific indicators, or “sub-indices,” which will be covered in detail throughout this workshop.

These indices include the following:

- Gas Assets Index – considers safety benefits, GHG reductions, regulatory drivers, gas demand, rate-payer costs, IOU contributed data
- Decommissioning Readiness Index – considers building readiness to switch to alternative energy use (residential buildings are still under development)
- Equity Index – considers socioeconomic vulnerability, pollution burden, climate risk, environmental risk, energy burden, sensitive populations, access to critical services

The project team indicated that they would also examine how these indices interact when overlayed and reviewed primary metrics collected for each sub-index. For instance, this

includes examining implications for locations where gas asset scores are low, but equity and readiness scores are high.

Community Engagement Schedule

At the October 2nd workshop, the project team was about halfway through the project's anticipated community engagement activities. The team indicated that additional advisory meetings and a community workshop were planned for 2025, followed by a public webinar in 2026 to share updates on the tool's final version before submission to the state. The team stated that they envisioned continuous engagement opportunities between these events to gather and incorporate ongoing feedback.

Community Feedback Review

The project team is working to deepen their understanding of communities' concerns and gather feedback through a variety of ways, including case studies, workshops, and the Community Resource Hub. Feedback will be collected in various ways and incorporated into the tool, when feasible, but all feedback will be documented and shared with the state. The team is co-developing place-based case studies with community partners to validate data with local knowledge and lived experience.

The Project Team reiterated that the information presented at the workshop is complex, and immediate feedback from community members is not expected. Participants were given the time and resources to review and consider the material at their own pace. Questions were designed to prompt reflection, foster discussion, and encourage active engagement. Feedback was welcomed throughout the process, with the project team emphasizing that participants should share their input whenever they felt ready and comfortable. To support this, engagement to date has been designed in a multi-modal way, including one-on-one meetings, presentations at community forums, input forms, and case study meetings.

Review of Workshop One

Workshop One, held on October 30, 2023, introduced the project, and gathered input and feedback from communities to inform metrics and context layers in the tool and provide additional framing for the case studies. The project team held a brief review of the project's development, scope, objectives, and expected outcomes, discussing how it incorporates equity, safety, electric grid readiness, and cost considerations. Workshop One participants also provided input on the metrics used to identify locations for equitable gas decommissioning, and the project team discussed community impacts and equity data.

Community Feedback Incorporated from Workshop One

The community provided valuable feedback on the tool, highlighting the importance of understanding what decommissioning means for local communities. Feedback included prioritizing socioeconomic vulnerability when identifying case study locations, as well as including context layers for federally recognized tribal lands, California building climate zones,

and additional climate risks like wildfire. Community members also suggested incorporating unique local characteristics, such as agricultural economies, power plant locations, building types, and climate/environmental history. Concerns were raised about how the tool's scores would influence the planning and prioritization of gas decommissioning in communities.

Community Feedback Currently Under Review

The project team is actively working to integrate feedback from Workshop One and the ongoing case studies into updates for our resources, case studies, and Beta Tool. Key feedback under consideration includes revising FAQs and resources, conducting a comparative analysis of local data sources, and enhancing the process to ensure broader inclusion of community members.

For the Beta Tool, the team has received feedback on adding context for federally non-recognized tribes, adjusting the weighting of metrics related to pollution burden, environmental risk, and socioeconomic vulnerability, and incorporating additional primary metrics such as soil and lead contamination, superfund sites, more granular flood data, updated EPA block group-level data, and pipeline location data. The project team will examine which of these requests are desirable and feasible to incorporate into the tool during this project. Any feedback that cannot be feasibly incorporated into the tool will be documented in the Final Project Report which will be made public through the Energy Commission.

For all community feedback that has been incorporated to date or is currently being considered, please see slide 18 and slide 19 on the Workshop 2 slide deck. This includes feedback from Workshop One as well as ongoing case study work.

Engagement Activity – What does Gas Decommissioning Mean to You

Workshop 2 participants were asked to reflect on their understanding of gas decommissioning and what it may mean for them and their communities.

Several key themes emerged from participant responses:

- **Infrastructure Removal:** Many participants emphasized the importance of the physical aspects of decommissioning, such as dismantling pipelines and associated equipment, to ensure public safety and environmental protection.
- **Environmental Considerations:** Participants highlighted the need to properly and safely handle residual gases and contaminated materials to prevent further pollution and mitigate environmental impacts.
- **Community Engagement:** Several responses highlighted the importance of involving local communities in the decommissioning process. This includes transparent communication, addressing community concerns, and ensuring that decommissioning efforts do not disproportionately affect vulnerable populations.

To provide insight into community views and preference around moving away from gas, participants were also asked: "**Do you view gas decommissioning as an opportunity?**"

- **Gas decommissioning opportunities included:** Reducing reliance on fossil fuels, improving air quality, creating safer and healthier communities.
- **Gas decommissioning concerns included:** Creating Financial burdens for communities, and inequitable management of the transition.

The complete list of community responses is included in [Appendix B](#).

Beta Tool Overview

What is the Beta Tool and how will it be used?

After hearing from participants, the DNV and UCLA teams presented a high-level overview of the Beta Tool. Ultimately, the beta tool is an interactive website with a "map first" interface that supports dynamic interactions with spatial data resources. The tool has been designed to help the state identify promising locations to pursue gas system decommissioning efforts in alignment with the state's goals to decarbonize energy by 2025.

The goal of this project is to support an approach to gas decommissioning that is data-driven, equity-focused, and considers safety, environmental impact, as well as key factors related to decommissioning readiness and existing gas assets. The tool will primarily show how the dynamic interactions between various data sources contribute to scoring. It will allow for easy identification on a map, highlighting areas for potential focus or screening.

How was the Beta Tool built?

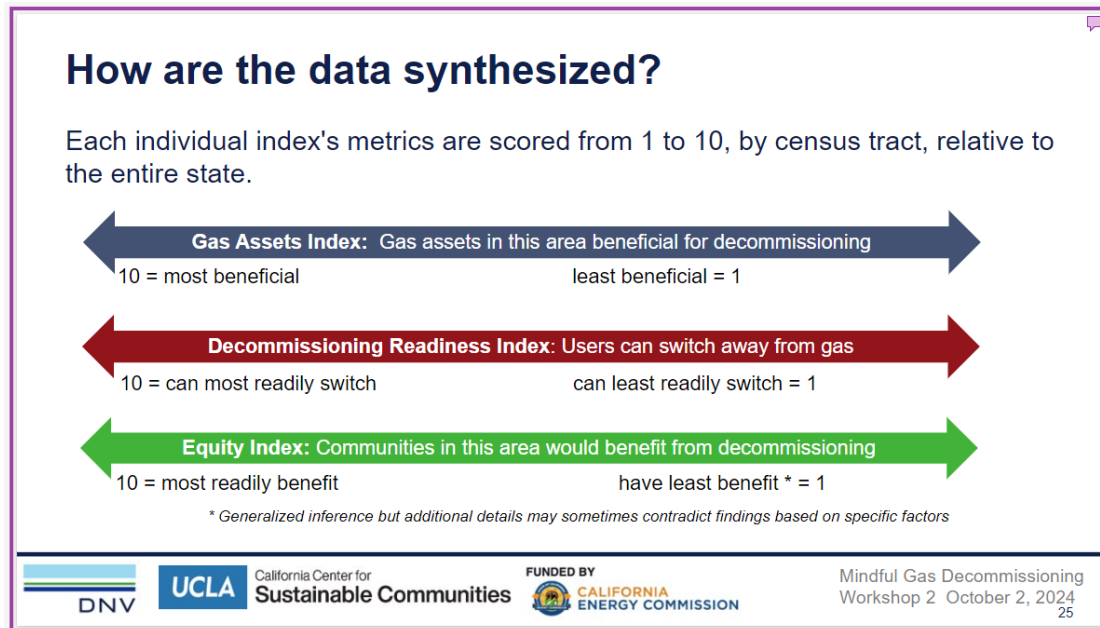
The Beta Tool was built using data from various sources to create different index layers; the gas asset index, decommissioning readiness index, and equity index. Each index is made up of multiple layers of data, organized and categorized based on how the data in the layers may impact decommissioning. These layers are then combined into one overall layer, with code used to identify potential locations for decommissioning that the state can consider.

How are the Data synthesized?

Each individual index and sub-index are scored from 1 to 10, by census tract, relative to the entire state. As shown in Figure 1, in the Gas Assets and Decommissioning Readiness Indices, a score of 10 signifies that it is most beneficial and most ready to switch while a score of 1 signifies that this area would benefit less and faces greater challenges to switch energy sources. In the Equity Index, a score of 10 illustrates the highest pollution burdens and levels of socioeconomic vulnerability, for instance, indicating an area that potentially would most benefit from gas pipeline decommissioning.¹

¹ Equity scores are not necessarily a one-to-one reflection of the benefits of gas decommissioning. However, they do represent community challenges on the ground so that the state can understand potential benefits and secondary impacts or unintended consequences of gas decommissioning.

Figure 1- How is the Data Synthesized



As described by the project team, when the different indices are considered individually, they may yield one score, such as a score of 10 for gas assets. However, when viewed collectively from a holistic perspective, the combined indexes may result in a different overall score.

Overview of the Indices

Gas Assets

The Gas Asset Index evaluates California's gas infrastructure, focusing on older, higher-risk pipelines and areas that could benefit from decommissioning. With over 100,000 miles of pipelines in the state, the index assesses factors like safety, environmental impact, customer cost savings, and regulatory and demand issues as well. The index considers pipeline leak data, installation year, materials, population density around pipelines, current gas consumption, and upcoming replacement needs. The index also addresses potential cost burdens for customers who remain on the gas grid as others transition to alternative energy sources. Through use of the tool, areas where decommissioning might be a viable option rather than replacing aging infrastructure will also be identified.

Decommissioning Readiness

The Commercial Decommissioning Readiness Index evaluates the geographic distribution of non-residential customers and considers factors that may make a transition away from natural gas more or less complex. The index is developed by gathering utility data on gas usage by several types of commercial businesses, analyzing how much gas is used for various activities, and ranking the relative difficulty of substituting gas for each activity. This process generates

the scores used in the index, to indicate how “ready” an area may be to shift away from natural gas use.

The project team noted that the vision for the Decommissioning Readiness Index is to assess both commercial and residential readiness separately, as they have different needs. Currently, however, the index focuses on commercial readiness, using utility data on gas use by various commercial sectors, gas consumption activities and end uses. The residential readiness component is still in development.

The commercial Decommissioning Readiness Index includes 12 types of commercial activities and two types of industrial activities, each rated on a scale from 1 to 10. These scores are combined to create an overall readiness score. Figure 2 illustrates an example map focusing on warehouse sector activities. Darker areas represent regions with high readiness for decommissioning, indicating minimal or no warehouse activity. In contrast, lighter areas denote lower readiness, highlighting regions with a higher concentration of warehouses where decommissioning would be more challenging

Figure 2 – Commercial Decommissioning Readiness

Commercial Decommissioning Readiness Scores (Sub-Indices)

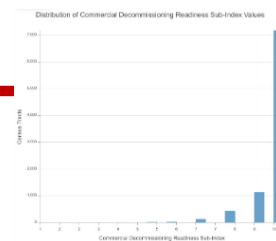
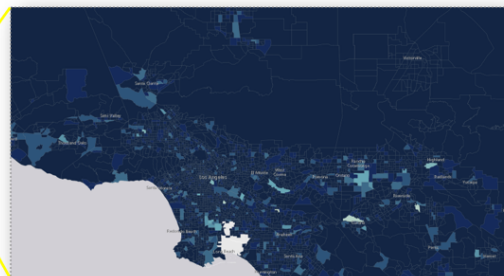
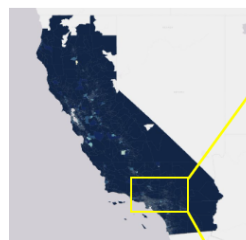
Commercial Sub-Sectors

- Colleges
- Food Stores
- Healthcare
- Hotels
- Mining
- Miscellaneous
- Offices
- Refrigerated Warehouses
- Restaurants
- Retail
- Schools
- **Warehouses**

Industrial Sub-Sectors

- Durable Goods Manufacturing
- Non-durable Goods Manufacturing

Warehouse Sub-Index Example Illustration



The project team noted that as they work to finalize the tool, they plan to add residential considerations to the Decommissioning Readiness Index. Potential factors include household preferences for appliances, affordability of replacing gas equipment, current gas dependence, and the electrical grid’s readiness to handle increased demand if gas appliances are replaced with electric ones. During Workshop 2, the team noted that they will continue to welcome feedback on data sources or methods that could enhance this residential readiness assessment.

Equity

The project team explained that one of three main indices is the Equity Index, which is highly comprehensive, incorporating various individual equity-focused variables grouped into seven sub-indices. Each primary metric represents a unique variable rolled up into these sub-indices. This layered approach ensures a thorough assessment of equity factors, which the team further detailed through specific case studies. As shown below in Figure 3, the equity index considers socioeconomic vulnerability, pollution burden, climate risk, environmental risk, energy burden, sensitive populations, and access to critical services.

Figure 3 – Equity Index

Equity Index:

Metrics that potentially represent community impacts related to gas decommissioning

Sub-Index	Primary Metrics Included	Data Source
Socioeconomic Vulnerability	Poverty line, disability, age, education, language, housing, rent burden, unemployment, mobile home, people of color, single parent, renter status	1
Energy Burden	% heated with non-grid fuels, energy burden ratio, number and duration of grid outages	1 & 2
Pollution Burden	Pm 2.5 and ozone concentrations, particulate matters, air toxic respiratory and cancer risks, RMP proximity, diesel particulate matter	3
Environmental Risk	Hazardous waste and underground storage tanks proximity, wastewater discharge, lead paint risk	3
Sensitive Populations	Heart disease incidence, asthma incidence, cancer incidence, % low life expectancy, % babies low birth weight	3 & 4
Access to Critical Services	Access to health insurance and broadband service	3
Climate Risk	Coastal flood, earthquake, heat wave, riverine flood, wildfire, winter weather risk	5

1. 2021 5 Year ACS 2. DOE LEAD Tool 3. EPA EJ Screen 4. Cal Enviro Screen 4.0 5. FEMA National Risk Index

Live Beta Tool Demonstration

The UCLA team walked participants through a live demonstration of the Beta Tool, highlighting the different context layers and the scores by index and sub-index layer.

As illustrated by the UCLA project team, the main feature of the tool is a map interface that overlays custom index layers (like decommissioning readiness and equity) with contextual layers from external sources, such as natural gas pipelines, climate zones, tribal lands, and disadvantaged communities. Each census tract receives a combined index score (from 1 to 10) based on various sub-indices, which can be viewed individually for more detailed insights into factors like environmental risk or gas infrastructure condition. Users can also explore satellite imagery, view data tables, and filter by specific locations to focus on high-priority areas.

The tool includes an option to create custom indices, allowing users to adjust the weights of different indicators to match specific needs, identify “hotspots” of interest, and export data for additional analysis. A supplementary feature provides access to primary metrics—such as pipeline materials, gas sales per customer, and pipeline age—to aid in informed decision-making. Comprehensive documentation supports users in understanding the data sources, the calculation methods for each index, and the detailed breakdown of sub-index components. Overall, this tool is designed to enable quick identification of promising sites for decommissioning projects, with flexible criteria to reflect unique priorities and concerns.

Question and Answers

After the demonstration, the project team opened the floor for a Q&A session, captured below. The project team responded to each participant comment or question directly during the Workshop 2 session:

1. “I think it is important to make this tool publicly available. Excited to learn more and see the tool develop further.”

Team response: The plan is to hand the final version of the tool over to the state in 2026 along with a report documenting all community feedback and comments gathered throughout the project. The state will then review and test the tool to explore areas that may be deemed promising to decommission. The state will thereafter determine if or when the tool will be publicly available.

2. “What would you consider the biggest challenge while developing the Beta Tool?”

Team response: The biggest challenge has been obtaining detailed data about the gas infrastructure, such as pipeline location, conditions, maintenance, and usage. Most of this information is held by the utilities, and currently, only census tract-level data is publicly available. More detailed data would be required for planning actual projects but ensuring customer privacy and safety while obtaining this data is also a priority as well as a challenge.

Another major challenge is that California is one of the first states to attempt to conduct gas decommissioning research on a statewide level. While smaller, localized studies exist, handling the scale and complexity of data across the entire state is difficult. Integrating vast amounts of information from various sources and making sense of it in a meaningful, multidimensional way adds to the challenge.

3. “Is there going to be a grouping feature where neighborhoods can be scored or just facility by facility?”

Team response: The tool is built to score areas by census tracts, and the scores aggregate across those areas based on the various indices. It allows a holistic view, but not individual facility-level scoring at this point.

4. “Could fuel substitution incentive offering availability be added as criteria?”

Team response: This is a possibility for future updates of the tool. The project team is continually exploring factors that could be integrated into the tool for greater accuracy and use in planning.

5. “What is the relationship between this tool and the recently passed SB 1221?”

Team response: The project team is aware of SB 1221 and how it allows decarbonization pilot projects, but since the bill passed recently, the full integration of the tool with SB 1221 is still being discussed. The team is still determining how the tool can best support the state's decarbonization efforts under this new law.

Additional Comments

One participant shared that while the presentations were appreciated, the “information presented was too technical and complex”. They stated that they found it challenging to understand where to begin with the tool and suggested simplifying the explanations, particularly for community members who may not have a technical background. The feedback emphasized the importance of accessible language and guidance to ensure meaningful community engagement.

Case Study Overview

The project team introduced the mindful gas decommissioning case studies, which are collaborative narratives co-developed with community partners, applying their lived experience and knowledge to ground truth the equity data identified, collected and incorporated into the tool.

These case studies are being developed to ensure that community impact data in the tool accurately reflects the unique challenges, needs, and interests of specific California communities. This approach highlights community feedback and the data will inform tool users of potential unintended consequences or secondary impacts related to gas pipeline decommissioning.

Focus areas include regions with top equity metric scores identified by the Beta Tool, with input from project team members who have lived experience and community insights across California. These regions span diverse settings, such as urban, rural, tribal, and coastal areas, and involve engaged community partners. Case studies are only being developed in collaboration with a community partner.

Case study engagement is in progress at the following locations:

- Blue Lake Rancheria Indian Tribe of California
- Sacramento
- Richmond
- San Francisco
- North Fair Oaks

- Stockton
- Oxnard
- Wilmington
- La Jolla Band of Luiseno Indians
- Central Valley

Interactive Case Study Engagement

The project team guided participants through a case study that was co-developed with the community of Oxnard to illustrate what it looks like to ground truth the metrics of the Beta Tool with the lived experiences and knowledge of a community.

The project team guided participants through the existing case study framework for the city of Oxnard, detailing the unique background and context of the city. This information was gathered by the project team working with Haley Ehlers at Climate First: Replacing Oil & Gas (CFROG). The team then highlighted which census tracts in Oxnard scored the highest according to the beta tool Equity Index, and then subsequently analyzed the Gas Assets and Decommissioning Readiness scores of those tracts to show workshop participants how the Beta Tool would be used to evaluate a community's potential readiness for gas decommissioning.

Guided by three reference questions (see below), participants provided feedback on this process through use of a Miro board. The team emphasized that these reference questions were posed to start participants thinking about responses, not necessarily to solicit immediate feedback as the material is highly complex. Feedback from participants will be gathered through a flexible and adaptive process, allowing them to share insights once they feel informed and ready. The team encouraged participants to ask questions and voice concerns as part of reaching that informed perspective.

Feedback summary from Workshop 2

During workshop 2, participants provided written feedback using a Miro board in response to a series of questions posed by the project team. These questions and answers are summarized below:

1. What community context are we missing from our case study framework?

- Histories of government discrimination, broken trust or promises which is necessary for community to buy into a policy

2. Do the identified equity indicators, their associated primary metrics, and scores accurately represent challenges in your community that might relate to decommissioning?

- A participant highlighted the importance of incorporating public health improvements, affordable housing, and job creation as critical outcomes when decommissioning gas infrastructure, particularly in marginalized communities with poor health outcomes.

- **Follow up from project team:** The Beta Tool's equity index includes those areas within their primary metrics. It captures some of these community challenges, such as health issues, unemployment, and housing in its primary metrics, based on publicly available data.
- A participant suggested the inclusion of fuel substitution incentive offering availability be added as a metric.
 - **Follow up from project team:** It would be great if such data existed across the state by census tract. While the current focus is on other equity-related components, this would be a valuable addition, particularly in terms of conceptualizing readiness and offsetting costs associated with transitioning from natural gas end-uses.
- A participant suggested the National Institute of Health (NIH) as a data source for information on lead poisoning, whether related to air or water contamination.
- Participants highlighted the importance of adding culture as one of the considerations. Many small food businesses rely on gas to make cultural foods which would cause a major negative impact if they had to switch to gas.

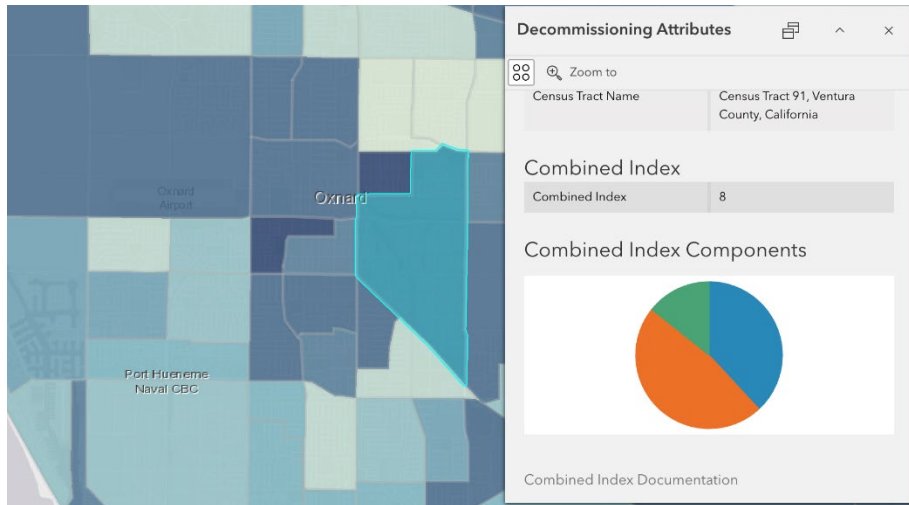
3. *What are important considerations for you and your community when deciding to no longer use gas in your home?*

- Concern around pushback in city council meetings regarding the switch from gas to electricity.
- Perception of government-mandated changes to household energy use
- Cultural preferences for gas, particularly in cooking.
- Transition of costs, with many needing to understand who would bear the financial burden of switching to electric appliances.

Screenshots of the Miro Board can be found in [Appendix B](#).

Beta Tool Application in the City of Oxnard

The case study activity during the workshop concluded with a demonstration of the application of the Beta Tool within the Oxnard area, led by UCLA. UCLA focused on one census tract, the Five Points Northeast area, first examining the composite index score and subsequently highlighting the elements that factor into that score and the story informs us on potential implications of gas decommissioning in this area.



Wrap up and Next Steps

The second workshop provided a platform for meaningful engagement, where participants were able to hear project updates and how community feedback has been continuously incorporated, share additional feedback toward the development of the Beta Tool and contribute content and structural input to the case studies. Participants were also able to view a live demonstration of the Beta Tool and understand how it could be applied to specific locations (e.g., Oxnard).

Participants identified opportunities for better understanding and access to the complexities of the project, particularly in terms of translating technical aspects into understandable terms so that community feedback comes from the most informed perspective possible. The feedback highlighted the importance of addressing equity, public health, and cultural considerations in the gas decommissioning process. The project team is committed to incorporating participant feedback into the Beta Tool to the extent that information can be quantified. Qualitative information that is not feasible to quantify will be documented in the final report.

All workshop materials, including input and feedback forms, will be made available on the Community Resource Hub using this link: <https://mindfuldecommissioning.dnv.com/workshops.html>. The team will continue to engage with community members and organizations to expand and refine their case studies.

Insights from the workshops play an essential role in representing and uplifting community voice to validate data that informs the beta tool and help the project team and state understand community challenges related to exploration of promising candidate sites for gas pipeline decommissioning.

Appendix A: Participants

The workshop was attended by **42 participants**, representing community members, local organizations, and stakeholders from various regions across California. Participants joined the event representing the following regions and organizations:

- 350ContraCostaAction (Contra Costa County)
- 359 CONTRA COSTA (Contra Costa County)
- Alviso Neighborhood Group (Alviso, Santa Clara County)
- Blue Lake Rancheria Tribe (Humboldt County)
- CBE- Communities for a Better Environment (Richmond)
- CFROG - Climate First: Replacing Oil & Gas (Oxnard, Ventura County)
- CalNRG (Ventura County)
- Center for Business and Policy Research (Stockton, San Joaquin County)
- Central California Asthma Collaborative (Fresno, Central Valley)
- Climate Resilient Communities (San Mateo County)
- Community Environmental Council (Santa Barbara County)
- Cool Davis (Davis, Yolo County)
- County of Ventura (Ventura County)
- EVA Academy (Santa Paula, Ventura County)
- Justice for All Ventura (Ventura, Ventura County)
- Menlo Spark (Menlo Park, San Mateo County)
- PSE Healthy Energy (Oakland, Alameda County)
- RCB Consulting (Richmond, Contra Costa County)
- RMI (Oakland, Alameda County)
- Renaissance Entrepreneurship Center (San Francisco, San Francisco County)
- Rise South City (South San Francisco, San Mateo County)
- Rising Sun Center for Opportunity (Stockton, San Joaquin County)
- Santa Barbara Clean Energy (Santa Barbara, Santa Barbara County)
- Self-Help Enterprises (Visalia, Tulare County)
- The Energy Coalition (Irvine, Orange County)

Appendix B: Feedback from Workshop Engagement Activities

Where are you joining us from? / ¿Desde dónde nos acompaña?

29 20

San Francisco	Contra costa
LA	Ojai, California
San Francisco	San Ramon, CA
Oxnard, CA	Ventura County
South San Francisco ca	Oxnard, CA
Oxnard, CA	Visalia, CA but currently in Pasadena, CA
Santa Monica	Los Angeles
South Lake Tahoe, CA	San Ramon, CA
Rancho Mission Viejo, CA	I live in Berkeley but work in Stockton CA.
Ventura County	Oxnard

What does "Gas Decommissioning" mean to you? / ¿Qué significa para usted "desmantelamiento de gas"?

29 21

Dff	Yes because...
Health and local air quality	Cleaner communities
Healthier and safer homes and environments!	Decarbonization
When gas systems are isolated and we need to find other energy alternatives	Dismantling natural gas infrastructure (pipelines, compressor stations, etc).
I think it can be but I do worry about impacts of people who don't want to switch to electric or can't afford it	Transitioning to clean energy
Environmentally safe discontinuation of fossil fuels	Electrification
Safe energy transitions that prioritize frontline communities	Safer and healthier communities
Better air for our communities	Something absolutely essential to fight climate change
protecting our communities and the Earth by shifting toward alternative and more sustainable energy sources rather than relying on gas	A step toward lessening the impacts of climate change for future generations.
Putting our health and environment first	What gas decommissioning means to me is to reduce the leftover footprint of these chemicals from the environment.
Learning to dismantel what appliances are putting out in our environment.	

Do you view gas decommissioning as an opportunity? Please respond with yes, no, or not sure, and share a few words about why.

A challenge with upgrades.	Yes!
yes, an opportunity to find better energy sources	Yes it's an opportunity to move away from "business as usual" and move forward in a just, equitable, and sustainable way
Yes, chance to clean the air and new jobs for people with difficult work histories	Yes because we are finding and accessing healthy ways for our wellbeing through organizations that care
Yes, it's an opportunity to work toward safer and healthier communities independent of fossil fuel infrastructure.	Yes if done properly it can bring prosperity, if done poorly it can cause financial hardship
Yes, it is an opportunity to address past harm and discrimination by providing essential health benefits to the people who most need them	Yes! Working proactively now offers greater benefits to communities both in process and ultimate outcomes
Yes! A piece of the clean energy transition that can be done in an equitable and responsible way.	Yes
not sure	I'm not quite sure, but I believe it'll raise awareness for many of us as it displays how it affects our environment.
Yes - it is an opportunity to shift the narrative of energy use	It's an opportunity for contractors and electric industry for sure.
Yes, healthy communities are key for future	Yes, it's an opportunity to make a change to our environment and community's health.
Yes! We need to work toward retirement of fossil gas to improve air quality especially for frontline communities	.

Reference Question Discussion

1) What community context are we missing in our case study framework, if any?

community
environmental and
climate history

secondary
impacts of gas
decommissioning

To add to historical context:
region's previous and/or
current policy related to
building electrification

histories of government
discrimination/ broken
trust or promises - relevant
to community buy in

people of color owned small
businesses that may be impacted,
specific areas that are incubators,
like Mayfield Ave. in NFO where
multiple small POC businesses exist
together

could fuel substitution
incentive offering
availability be added as
a criteria?

3 things - can they be visualized somehow?
- public health outcomes; is this going to
improve outcomes in marginalized
communities that experience negative impacts
now
- affordable housing
- jobs; good paying jobs

Reference Question Discussion

2) Do the identified equity indicators, their associated primary metrics and scores accurately represent challenges in your community that might relate to decommissioning?

weigh in on the scores that show up in the tool

considerations around the word "culture" in relation to moving away from gas

National Inst. of Health is + to use for Sac.

community relevance of indicators

black smoke & PM10

Reference Question Discussion

3) What are important considerations for you and your community in deciding to no longer use gas in your home?

affordability

renter or homeowner?

culture

city ordinance (recent city council mandate)

Gas dependency

can grid support electricity demand?

Pipeline age

pushback about switching

cost factor

preference

utility rebate program availability