Meeting Summary

Mindful Decommissioning
Virtual Community Workshop 1

Workshop Overview

Objectives

DNV and the California Center for Sustainable Communities (CCSC) at UCLA, with funding from the California Energy Commission (CEC), organized a workshop to provide an introductory overview on gas distribution pipelines decommissioning (henceforth referred to as gas decommissioning) and to present a data-driven tool DNV has begun developing to inform the decision-making process for gas decommissioning throughout the state. This workshop was the first of the series, which aim to obtain community input on gas decommissioning, collaborate with California communities to gain an understanding of the different impacts of decommissioning, and identify metrics to guide future research and decision-making regarding gas decommissioning. Broadly, the workshop aimed to fulfill the following objectives:

- Introduce the project scope, objectives, and expected outcomes.
- Present on gas decommissioning and potential impacts on local communities.
- Gather input to inform metrics being considered for identifying priority locations for equitable, safe, intentional, and cost-effective gas decommissioning.
- Discuss gas decommissioning in different contexts and gather feedback.

Presentation Overview

DNV's presentation on Gas Decommissioning introduced participants to gas decommissioning and its relation to electrification, highlighting the following:

- The combination of state climate policies and economic trends may lead to a drastic decrease of natural gas volume being sold in the future as building electrification becomes more favorable.
- Gas service cost increases due to the maintenance of aging infrastructure could be offset by a targeted gas decommissioning approach that incrementally reduces statewide gas distribution infrastructure.
- Electrification may involve the removal of or disconnection from gas distribution infrastructure. It is one option to provide the same energy for the replacement of gas.
- The complex, layered, and interdependent structure of the gas network will impact how decommissioning is performed. Factors include but are not limited to customer needs, age and material of construction, critical gas infrastructure, and pipeline threats.

DNV's presentation on the 'Mindful Decommissioning' Project introduced project goals and how it supports the state's goal of decarbonization of energy by 2045, highlighting the following:

- Decommissioning must be safe, intentional, environmentally just and cost effective.
- The project will prioritize and prepare for future decarbonization activities by highlighting how different areas in the state may be affected in differentiated ways by decommissioning (both the benefits and possible negative impacts).
- Community workshops will help shape the selection of metrics used in the tool. The tool seeks to identify the most economical and impactful segments of gas assets to decommission based on costs, greenhouse gas reductions, and community benefits. The tool will be updated as new data emerges and will accommodate data sets from multiple sources and varied levels of resolution to make state-wide assessments.
- Each factor impacting decommissioning will be reflected in a unique map. Eventually, the tool will be used to identify promising sites for decommissioning gas assets (by IOUs, municipalities, communities, state agencies, etc.) as well as identifying those areas where particular challenges may need to be overcome and warrant further research or unique approaches.

Clarifying Questions and Responses

After the presentation from DNV, participants shared the following questions and comments.

Question: Is the project team considering decommissioning pipelines coming from the fracked gas areas of Oklahoma, Texas, and Colorado that bring gas into places like the Playa Del Rey and the Aliso Canyon gas storage facilities? These pipelines are a concern for safety and the amount of gas coming in which contributes to climate change.

- **Response:** These areas are transmission pipelines, and we fully agree that these should be addressed, however, this is outside the scope of this research. The focus of this project is distribution lines, which deliver natural gas to the end user.

Question: Are there examples of mindful decommissioning in other states?

- **Response:** California is currently leading the way in the effort of mindfully decommissioning gas assets. The term "Mindful Decommissioning" is used in a very specific way for this project, to highlight the holistic approach our team has been trying to adopt to consider various sources of both challenge and opportunity with respect to the goal of decommissioning gas infrastructure. While other states are also looking into decommissioning, they have yet to fully adopt an approach. For instance, DNV is exploring alternative technologies in other states such as heat pumps or geothermal loops to provide heat, instead of relying on traditional methods of generating heat. Similarly, Europe is still in the early stages of developing examples of mindful decommissioning.

Question: Is the tool publicly available or available to attendees?

- **Response:** At the moment, the tool is not accessible to the public due to a lack of set features, as it is still in its pre-beta phase. Our aim is to first develop a beta version and showcase the tool to the Agreement Manager at the California Energy Commission, who has funded this work. The tool that was demonstrated in today's presentation was created using data sets from the CPUC, which used data from investor-owned utilities. While the tool demonstrated is not currently available, the data used, which included aggregated statistics related to gas distribution assets at the census tract level, is publicly available at the CPUC. Additionally, there are other publicly available data resources associated with this tool.

Question: I come from an unincorporated community, largely immigrant Spanish-speaking community – what you consider "frontline." How robust is the electric infrastructure, or solar, right now in these communities?

- **Response:** Frontline communities generally have a lower grid capacity compared to more affluent communities, partly because the demand for electricity is lower in smaller and older homes. As a result, the infrastructure in these communities tends to be older and less capable of handling high demand. A community's readiness for and success with decommissioning is influenced by their choices of appliances that will replace gas-fueled equipment which can no longer be used.
- We plan to use data sets on electricity infrastructure to identify the readiness of a community to support decommissioning if the preference is to electrify. Planning for new electricity infrastructure to support this transition is critical. Our research team is interested in developing this tool to help answer questions about where electricity infrastructure investments should go, so that changes to the gas systems can be aligned with planned changes in the electric system. Additionally, there are various considerations and programs at the state level that are focused on increasing equitable access to solar energy and enhancing electricity infrastructure reliability and resilience.

Question: Are you looking at the dangers posed by gas lines and how it affects the fires in California?

- **Response:** This is a very important topic. There is an aspect of the data-driven tool that reviews gas pipelines and weighs different considerations, but it is not looking at wildfire risk. Several factors are being considered in the decision-making of the data-driven tool. We are eager to hear your thoughts on this topic further in the breakout sessions.

Breakout Room Summaries

After the Q&A portion, participants self-selected breakout rooms. The breakout rooms (Groups) focused on the following topics:

Group 1: Informational Session on Gas Decommissioning
Presentation by Dr. Stephanie Pincetl (CCSC) and Samantha Smithies (CCSC)

Group 2: Community Impacts and Equity Metrics
Presentation by Cici Vu (DNV), Maya Ofek (CCSC), and Jacob Moul (DNV)

Group 3: Developing a Data-Driven Tool
Presentation by Dr. Christopher Taylor (DNV), Dr. Eric Fournier (CCSC), and Hari Polaki (DNV)

Group 4: Spanish language discussion on topics 1-3
Presentation by Christian Mendez (K&W)

Group 1: Informational Session on Gas Decommissioning

Attendees heard presentations by Dr. Stephanie Pincetl (CCSC) and Samantha Smithies (CCSC) followed by a discussion, highlighting the following:

- Attendees had a high level of background understanding. They were concerned about the impacts of grid electrification and the coordination required for decommissioning.
- Attendees raised that the tool should integrate fire risk, and community and household adaptability/resilience.
- Attendees were interested in understanding how feedback is being taken into consideration.
- Attendees recommended that FAQs be updated to include more clearly when the tool will be available and to whom; and what community members can do to help empower people to participate in this process, promote the project, and understand day-to-day actions.

Group 2: Community Impacts and Equity Metrics

Attendees heard presentations by Cici Vu (DNV), Maya Ofek (CCSC), and Jacob Moul (DNV) followed by a demonstration of a preliminary geospatial representation of the community impacts relevant to gas decommissioning and discussion, highlighting the following:
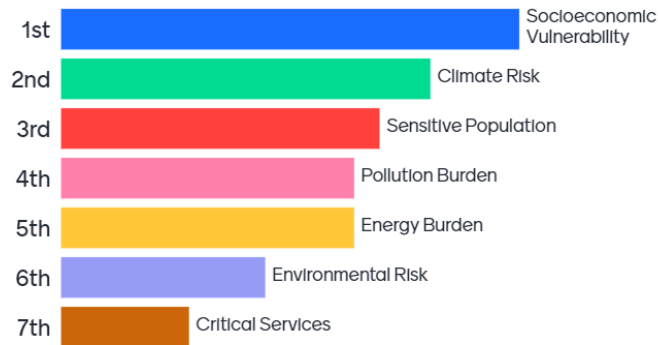
- Several attendees noted that costs were a barrier, especially for retrofitting older housing stock. Other barriers included community reluctance to change, fragmented electrification, and a lack of understanding of terminology.
- Attendees provided the following responses to the community concerns question:
  - the trend of landlords evicting renters to renovate, improve housing stock, and raise rents;
  - the volume of power generation to meet electrification demand; and
  - power shut offs barring access to critical appliances.
- Attendees provided the following responses to the community benefits question:
  - safety from and a reduction of exposure to gas and explosives from appliances and storage processing sites;
  - reduced impacts from climate change.

Attendees were asked to rank the following equity indicators in their perspective of their significance, with '1' being the most important and '5' being the least important:

- Socioeconomic Vulnerability: Demographic considerations such as low income, communities of color, unemployment, age, education, employment and rent burden.
- Pollution Burden: Air quality, wastewater, risk management plan (potential chemical accident management plan) facilities.
- Climate Risk: Risks such as wildfire, flood, heat, freeze, and seismic.
- Environmental Risk: Hazardous waste, underground storage/leaks, lead paint, pesticides.
- Sensitive Population: Low life expectancy, higher cancer rates, asthma, heart disease and low birth weight rates.
- Energy Burden: Impacts such as affordability, high electricity/gas costs, and arrangements.
- Critical Services: Access to renewable/clean energy and broadband services.

Six participants shared their rankings which are averaged below:

What is most important to you?

Rank	Category
1st	Socioeconomic Vulnerability
2nd	Climate Risk
3rd	Sensitive Population
4th	Pollution Burden
5th	Energy Burden
6th	Environmental Risk
7th	Critical Services

Group 3: Developing a Data-Driven Tool

- Attendees heard presentations by Dr. Christopher Taylor (DNV), Dr. Eric Fournier (CCSC), and Hari Polaki (DNV) describing the data driven tool development – Vision, Geographic Information System (GIS) Workflow; GIS Multi-Criteria Decision Analysis (MCDA); Data Layers - Primary, Secondary, & Tertiary; and Weights & Scoring.

It was followed by a discussion, with attendees highlighting the following:

- Safety considerations to account for wildfire impacts.
- Electric grid readiness concerns.
- Concerns regarding upfront costs as a potential barrier to transitioning lower-income families to low-carbon appliances. A participant raised that "plug and play" appliances may simplify installation and reduce the reliance on a specialized workforce.

Following the discussions, attendees were asked to rank the following factors for decommissioning gas pipelines in their perspective of their significance, with '1' being the most important and '5' being the least important:

- Safety: reducing the risks of pipeline related hazards (e.g. leaks) in surroundings and communities.
- Environment: improving environmental quality (e.g. GHG emissions and air quality effects).
- Costs: optimize decommissioning strategy to have the least costs to ratepayers.
- Regulatory Compliance: replacement of aging pipelines & materials.
- Demand: strategize the decommissioning process based on current and future demand of gas supply.

Three participants shared their rankings which are averaged below:

What is most important to you?

Rank	Category
1st	Cost
2nd	Safety
3rd	Environment
4th	Regulatory Compliance
5th	Demand
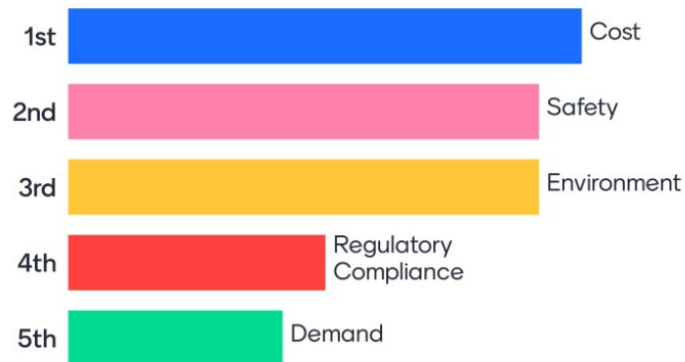
Group 4: Spanish language discussion on topics 1-3

No attendees were present in the Spanish language group.

Next Steps

According to DNV, the workshops are designed around gathering community feedback to support the development of the data-driven tool. DNV intends to use the feedback gathered from the workshops to improve the tool's next iteration and showcase case studies at future workshops. The next public workshop is scheduled to take place in early 2024. Attendees are encouraged to contact the research team and share data sets or learn more about the project via the Community Resource Hub.

The presentation slides and workshop recording are available for online viewing on the Community Resource Hub.

Appendix A. Participants

- Aaron Wolf, California Institute for Sustainable Communities at UCLA
- Abrah Steward, Climate First: Replacing Oil & Gas
- Andrea Vega, Food & Water Watch
- Ann Kloose, City of Fresno
- Cathy Paskin, BHHS Drysdale Properties
- Christine Granger, Cool Davis
- David Newman, Individual
- Eric Fournier, California Institute for Sustainable Communities at UCLA
- Eric Burschinger, Climate First: Replacing Oil & Gas
- George Naugles, Balance2thrive
- Haley Ehlers, Climate First: Replacing Oil & Gas
- Huascar Castro, Working Partnerships USA
- Jessica Tovar, Local Clean Energy Alliance
- Judee Hauer, Individual
- Julie Henszey, Individual
- Leslie Austin, Let's Green CA! Romero Institute
- Liz Lamar, Sierra Club
- Maninder Thind, California Energy Commission
- Marc Costa, The Energy Coalition
- Marcia Hanscom, Ballona Wetlands Institute
- Margot Davis, Westside Clean Air Coalition/Climate First: Replacing Oil & Gas
- Marjaneh Moini, PSR SF Bay
- Matt Sidlauskas, East Side Union High School District
- Michelle Moyer, DNV
- Mike Henchen, RMI
- Mithra Moezzi, Public
- Molly McCoy, Climate First: Replacing Oil and Gas
- Patrick Murphy, PSE Healthy Energy
- Robert Roy Van de Hoek, Ballona Wetlands Institute
- Robert Mayo, Individual
- Rodney Smith, Climate First: Replacing Oil & Gas
- Sooji Yang, Individual
- Susan Wilhelm, California Energy Commission
- Viri Nguyen-Santoyo, Individual
- William Evans, Energy Graduate Group