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Questions for Stakeholders

Gas R&D Program FY 2024-2025 Proposed Budget Plan

The California Energy Commission (CEC) has prepared initial research initiatives for the Gas R&D Program for Fiscal Year (FY) 2024-2025, and CEC presented these initiatives at a public workshop on December 15, 2023. The workshop recording and slide deck are available here: <https://www.energy.ca.gov/event/workshop/2023-12/fy-2024-25-gas-rd-budget-plan-workshop>

To help inform next steps in refining these initiatives, CEC invites stakeholders and the general public to provide written comments, which can be submitted through **January 19, 2024** at:

<https://efiling.energy.ca.gov/Ecomment/Ecomment.aspx?docketnumber=23-ERDD-02>

CEC will consider these comments in preparing the FY 2024-2025 Proposed Budget Plan Report, which is due to the California Public Utilities Commission by March 29, 2024.

General Questions for Stakeholders:

- How can equity considerations be centered in these initiatives?
- What are recommended research approaches or resources?
- What use cases or opportunities would benefit from these initiatives?
- What are example performance metrics or targets for project success?
- Are there other priority areas that the Gas R&D Program should consider? If so, please explain.

Gas Decommissioning:

- How can equity considerations be centered in the gas decommissioning initiative?
- What interventions or strategies are successfully encouraging conversion from piped fossil gas to clean energy alternatives, in any sector?
- What studies are analyzing gas interval meter data to understand changes in patterns of gas use, including end use conversion?
- What non-pipeline alternatives appear most effective in conversion away from piped gas use?
- What could help manage utility rates and related uncertainties on user decisions to retain or transition from piped fossil gas?

Gas System Safety:

- How can equity considerations be centered in the well and transmission pipe integrity initiative?
- What are the risks and systemic impacts associated with current well inspection practices?
- What are some promising non-intrusive inspection and monitoring technologies that could help mitigate these risks and impacts while ensuring well integrity?

- What are the economic and environmental benefits of non-destructive technologies for verifying transmission pipeline material properties?
- What improvements are needed in in-line inspections of narrow-diameter transmission lines?
- Are there other promising innovations that this initiative should target to improve safety, affordability, and equity of gas system operations and maintenance?

Renewable Generation:

- How can equity considerations be centered in the fuel-flexible initiative?
- How would project siting and/or a community benefits plan help address equity considerations?
- What are the most promising innovations, applications, and technology priorities for fuel-flexible distributed generation?
- To what extent will combustion versus non-combustion technologies be part of fuel-flexible distributed generation in the near and medium term?
- What gaps exist in private sector investment for advancing fuel-flexible generation that could better be addressed by the state?

Clean Renewable Hydrogen Distribution:

- How can equity considerations be centered in the hydrogen de-blending and purification initiative?
- Should this research be pursued in the near term? Or should it wait for clearer policy direction regarding hydrogen blending on a broader scale?
- Is there a more critical need for an initial technoeconomic analysis or should there be equal focus on research, development, and demonstration?
- Is there additional demand for this technology beyond the use cases discussed in the slides?
- What are resources that can help further inform this research initiative?
- What are promising innovations that could further improve separation efficiency, durability, and performance with low hydrogen concentrations?

Building Decarbonization

- How can equity considerations be centered in the networked geothermal initiative?
- What existing studies, geological surveys, or other relevant resources for drilling geothermal wells in California exist outside of known geothermal resource areas?
- What are the major obstacles that prevent wider adoption of geothermal heating in California?
- Is there interest from hospitals, universities, existing district heating system operators, or other sites in heat (>120°F) sourced from geothermal resources?
- What type of business models (e.g., gas utilities) could best leverage these (>120°F) geothermal heating resources?
- Should this initiative include drilling of test wells to evaluate geological and economic feasibility?