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California Air Resources Board
Research Branch
P.O. Box 2815
Sacramento, CA 95812-2815
Submitted to: [CARB Research docket](#)

Subject: Feedback on CARB 2021-2024 Triennial Research Plan and September 16, 2020 Research Roundtable

Southern California Gas Company (SoCalGas) appreciates the opportunity to provide input on the California Air Resource Board's (CARB) engagement with the wider research community and on your Research Program Priorities.

SoCalGas has a Research, Development and Demonstration (RD&D) department that collaborates with customers, businesses, and manufacturers on projects to test new products and technologies that will save energy and reduce air pollution emissions. These projects not only help meet State and federal requirements for reducing greenhouse gas (GHG) and air pollution emissions, but can create cost savings for our customers. SoCalGas consistently looks for opportunities to reduce our environmental impact as well as the impact of our customers. As such, we would appreciate additional interactions with CARB's Research Division. Since your Research Roundtable on September 16, 2020, SoCalGas has developed a list of ten research concepts (see Attachment 1) that are based on five fields. These are: 1) Area of Interest; 2) Project Title; 3) Project Concept; 4) Project Importance; and 5) the CARB Research Initiatives into which each project best fits.

SoCalGas also understands that indoor air quality is becoming an increasing focus of CARB. We would like to introduce you to our Energy Resource Center (ERC) located in Downey, California, which has been designated by the U.S. Environmental Protection Agency as an "Energy Star®" Building. We believe the ERC serves as a model of advanced, energy-efficient and environmentally sensitive building technology. Featuring more than 60 resource-efficient technologies and materials, the ERC advances energy efficiency and environmental innovation, not only in the technologies it exhibits, but also in the design and construction of the building itself. By incorporating the latest in energy-efficient lighting, cooling and architectural design techniques, the ERC minimizes energy, water and materials consumption while creating a high-quality, high-performance space. Further, the ERC holds a Food Service Equipment Center, with a state-of-the-art kitchen, which is the largest test kitchen for natural gas fired equipment in the

country. We would like CARB to consider a visit to the Food Service Center to discuss the possibility of conducting ventilation studies in partnership with SoCalGas as we believe improved ventilation is the key to better indoor air quality.

Additionally, the California Energy Commission (CEC) recently submitted their Public Interest Energy Research Natural Gas Research & Development Investment Plan to the California Public Utilities Commission for approval. Within the investment plan, the CEC identified indoor air quality and ventilation as an area to which they plan to dedicate funds in the next research cycle. SoCalGas has expressed interest in partnering with the CEC on a pilot program focused on improving indoor air quality in older homes through ventilation retrofits. As most single-family and multi-unit dwellings in California were constructed before CEC's 2009 building code cycle that included ventilation requirements, indoor air improvements through ventilation will not occur through Title 24 standards. As stated above, SoCalGas believes ventilation is the key to indoor air quality and we are ready to collaborate and work with State agencies, including CARB, to study ventilation requirements in existing buildings.

Given CARB's focus on GHG and their link to energy usage, it would be optimal for there to be greater coordination with the CEC, who currently provides more than \$200 million each year to accelerate new scientific and technology solutions. To provide an opportunity for additional coordination on prioritizing projects, SoCalGas asks that CARB host joint research forums/roundtables with the CEC, other State agencies, universities, and other stakeholders, such as utilities with research budgets. This could provide a forum for dialog regarding priorities, efficient use of research funds and prevent overlap of projects that all have the goal of a cleaner, safer, more affordable, and resilient energy system for all Californians.

SoCalGas appreciates this opportunity to provide input and we hope CARB will collaborate on energy research with us as well as other stakeholders in California. If you would like to schedule a meeting to discuss our attached research projects, or the other matters included herein, please contact me at TCarmichael@semprautilities.com or Mr. Ron Kent at RKent@socalgas.com, Manager of Technology Development, who can discuss in greater detail the projects listed in Attachment 1. Thank you for your time and consideration.

Sincerely,

Tim Carmichael

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Southern California Gas Company