Tim Carmichael
Agency Relations Manager

925 L St, Suite 650
Sacramento, CA 95814-3773

tel: 916.492.4248

Email: TCarmichael@semprautilities.com

December 16, 2016

Ms. Rajinder Sahota
California Air Resources Board
1001 "I" Street
Sacramento, CA 95812

Re: Written Comments on the 2030 Target Scoping Plan Discussion Draft

Dear Ms. Sahota:

Southern California Gas Company (SoCalGas) and San Diego Gas & Electric Company (SDG&E) appreciate the opportunity to submit these comments on the California Air Resources Board's (ARB) 2030 Target Scoping Plan (Plan) Discussion Draft (Discussion Draft). We offer comments on the key sectors and specific scenarios identified in the Discussion Draft, including policy comments on the 2030 greenhouse gas (GHG) reduction targets. We will provide additional, more detailed comments on the Plan once ARB provides a direction, evaluation criteria, and GHG abatement cost data.

I. High-Level Policy Comments

SoCalGas and SDG&E support continuation of the Cap-and-Trade Program and the Low Carbon Fuel Standard (LCFS) to help meet California's environmental and economic goals while minimizing unfavorable ratepayer impacts. These market-based mechanisms provide compliance flexibility for regulated industries, as well as access and incentives to identify the lowest cost GHG emission reduction opportunities across the economy. The Cap-and-Trade Program also provides the foundation for collaboration with other states and regions to obtain more substantial GHG emission reductions. Additionally, the State has already invested heavily in the Cap-and-Trade Program, which is successfully driving long-term investment in cleaner fuels and more efficient use of energy.

In furtherance of our work with the State to advance California's clean energy future, we provide the following input on the 2030 GHG reduction targets:

- **Cap-and-Trade and the Low Carbon Fuel Standard should continue post-2020** – ARB should extend current market mechanisms used to encourage GHG reduction. Cap-and-Trade should continue to be one of the primary mechanisms to ensure flexibility in emission reduction approaches. Ratepayers should continue to benefit from free allowances at the current cap adjustment factor that together with the continuation of a gradual consignment schedule will avoid any significant rate shocks. Additionally, the LCFS program should be extended to 2030 or beyond.

- **GHG reductions should be pursued based on cost effectiveness, sector equity and consistency** – Importantly, the Discussion Draft is missing information on the GHG abatement costs of various proposed measures. ARB's decisions must include consideration of cost. While the Discussion Draft provides some good background information and a range of options, it does not provide clear direction or evaluation criteria by which to assess the many proposed options. We recommend that ARB incorporate cost effectiveness, sector equity, and a consistent path to 2050 as key criteria for the adoption of program measures in the Plan. Cost effectiveness as used here means pursuing lower cost options and not simply placing a cost per-metric-ton price tag on a measure.

- **California-funded GHG reductions should be counted** – GHG accounting should indicate clearly that all GHG reductions funded by in-state covered entities, will be counted whether occurring in-state or out-of-state. This would include generation from out-of-state renewables contracted by California electric load-serving entities, in-state renewable generation that is exported during overgeneration events, approved cap-and-trade offsets, and GHG reductions in other linked jurisdictions, if applicable.

- **SLCP 40% Reduction Goals should focus on Organic Sources** – The ARB Short-Lived Climate Pollutant (SLCP) Proposed Strategy set the goal of reducing methane emissions by at least 40% below 2013 levels by 2030. SoCalGas and SDG&E believe that the State should focus on methane reductions from the dairy, agriculture and landfill sectors, as they contribute over 75% of California's methane emission inventory. We support ARB's strategy of capturing methane from these sectors to be used as transportation fuel, injected into natural gas pipelines, and used to generate on-site renewable electricity and heat. Increasing the use of Renewable Gas (RG) as a transportation fuel would not only reduce methane emissions from organic waste streams, but also reduce black carbon by displacing diesel in older, conventionally fueled heavy-duty vehicles.

- **AB 197 Consideration of the Social Cost of Greenhouse Gas Emissions –** To the extent that ARB is incorporating the social cost of GHGs in its cost-effectiveness calculations, ARB should also include the impacts on energy affordability. Low-income and disadvantaged communities in California rely on lower-cost natural gas to heat their water, food, and homes. The health and welfare impacts and associated costs on these communities from a lack of affordable energy choices[1] must be factored into the social

[1] National Energy Assistance Survey, 2011 http://neada.org/wp-content/uploads/2013/05/NEA_Survey_Nov11.pdf

cost calculations for each applicable measure so that the full financial impact of the range of energy choices is given due consideration. In addition, since AB 197 includes the costs of climate adaptation impacts, ARB should include in its social-cost calculations the practical and economic benefits that the natural gas infrastructure brings to the overall resilience of the state's grid.

- **Implement transparency and legislative oversight regarding cost-effectiveness** – An annual report should include a cost-effectiveness evaluation based on a cost per GHG-ton-reduced metric consistent with AB 32's cost-effectiveness requirement. Including this additional information in the annual report will provide the Legislature with an opportunity to assess the benefits that the program is producing and readjust the program if necessary to utilize funding in the most efficient manner possible.

- **Equitable treatment across and within sectors** – All sectors, and entities within sectors, must contribute to and have equitable responsibility for, the GHG emission reduction effort in order to achieve the most efficient and effective net carbon reductions available to Californians. Earlier achieved voluntary reductions should also be recognized. A disproportionate obligation should not be imposed on any one economic sector, or any portion of an economic sector. To achieve sector equity in responsibility for state-wide emissions reductions, ARB should consider incorporating into the Plan "market transformation" mandates like the LCFS in other sectors, in addition to reliance on the Cap-and-Trade Program.

- **Safety valves must be established to protect against unintended consequences** – Safety valves should be included in the Plan to ensure that California's GHG reduction program is continuously monitored based on key variables that will trigger warnings about impacts on California's residents and businesses:

    - **Transportation Sector Progress** – If the transportation sector is not making progress at reducing GHG emissions comparable to the reductions in other sectors, then the Plan's policies and incentives should be revised to hold the transportation sector accountable for its part of the GHG reduction goal, so that other sectors of the economy do not have to be unduly burdened with emission reductions that should be occurring in the transportation sector.

    - **Economic Impact** – If California's economy is suffering, as measured by changes in the cost of electricity and/or the unemployment rate, among other metrics, then this Plan must be revisited. The benefits of reducing GHG emissions need to be balanced against the cost and economic impact of GHG reduction policies, in order to ensure that California's economy stays healthy as these policies are implemented.

    - **Validated CO_2 Reductions In-state** – To prevent emissions and economic leakage, there needs to be a measurement of whether or not California's policies are actually achieving net GHG reductions and not just causing GHG emission sources to move outside the state.

II. Comments on Key Sectors

Low Carbon Energy

1. Electric Sector

An important element of SB 350 is the requirement that the California Public Utilities Commission (CPUC) and California Energy Commission (CEC) put in place an Integrated Resource Planning (IRP) process. This process will enable the electric sector to pursue the most cost effective GHG reductions for the benefit of customers and the state. In order to support this, the Plan needs to develop clear, cost-effectiveness data for both existing and proposed programs and measures. The production of a marginal abatement price for GHG reductions will allow all sectors, not only the electric sector, to pursue the most cost effective reductions.

Additionally, and importantly, SDG&E encourages ARB to refrain from developing any specific programs for the electric sector. The first Scoping Plan Update (May 2014) declined to assess the cost effectiveness of current programs, in spite of requests from numerous stakeholders, and this Discussion Draft appears to be no different. It appears that ARB will continue proposing and enforcing expensive and inefficient mandates on the most heavily regulated sectors, disregarding the clear need to analyze these mechanisms, and rendering the Cap-and-Trade program into an afterthought. Programs such as the 33% Renewable Portfolio Standard (RPS) and rooftop solar have greatly reduced GHG emissions at a cost of $133 - $900 per metric ton, creating less demand for reductions through the Cap-and-Trade Program and resulting in insufficient demand at auction to clear the market at $13 per metric ton. In other words, the cost of RPS compliance is far above that of the Cap-and-Trade Program, and as a result of pursuing RPS compliance, California electricity ratepayers have subsidized the cost of complying with the Cap-and-Trade Program for all sectors in the state. For all measures, even for mandates from the legislature, ARB should calculate their cost effectiveness so that all stakeholders are aware that the costs of GHG emission reductions from complementary-measure mandates are currently far higher than the costs of reductions achieved via the Cap-and-Trade Program and are the reason for low prices in the Cap-and-Trade market.

ARB should also make it clear that this Plan replaces in its entirety the previous scoping plans. Programs proposed in previous scoping plans may have shown some promise in earlier years when GHG reduction targets did not extend beyond 2020; however, with new aggressive 2030 targets, not all previously-proposed programs may continue to make sense. Clarifying this point hopefully will help eliminate discrepancies between existing procurement mandates and any change in policy direction by ARB.

2. Integrating Renewable Gas and Power-to-Gas Technology

Natural gas utilization in ultra-low emitting technology applications will help achieve GHG emission reductions targets and generate air quality benefits. Development and utilization of RG, and its use in ultra-low emission technologies can help further GHG reductions – and not just in trucks and buses using the newly-developed “near zero” engine. For example, use of RG

in ultra-low emitting gas technology like fuel cells, and microturbines, and advanced combined heat and power applications can expand development of distributed generation sources complementing other renewable energy technologies, such as solar and wind.

The power-to-gas process can be used to build load during current low load periods and make use of wind or solar energy that might otherwise need to be curtailed by producing hydrogen gas through the electrolysis of water. This hydrogen can be used in transportation via fuel cells, or methanated and injected into the pipeline for traditional uses. Today, more than 35 power-to-gas facilities in the European Union are being planned, constructed, or operated. These are referred to collectively as a "system solution" because of the added benefits of helping balance the grid and providing substantial energy storage capacity. Decarbonized gas in the form of power-to-gas can play an important role in integrating variable renewable generation by producing gas, and then storing it in the existing infrastructure for when it is needed to serve residential and commercial customers, or for electricity generation. Power-to-gas should be evaluated rigorously by ARB and the state's energy agencies developing the Plan for its potential as a key strategy to reduce GHGs.

Industry

The Discussion Draft includes a discussion on measures to achieve the State's 2030 target related to the industrial sector. Under "Section Measures" (pg. 47), the 5th bulleted item states: "Evaluate and implement prescriptive regulations to reduce GHG, criteria, and toxic air contaminant emissions…" SoCalGas recommends revising the text to read, "Evaluate and consider development of prescriptive regulations to reduce GHG, criteria, and toxic air contaminant emissions…" In addition, this statement suggests that ARB will implement regulations to reduce criteria and toxic air contaminants. While we encourage ARB to take credit for co-benefit reductions in criteria pollutants, the Plan should not direct the development of regulations for stationary criteria-pollutant sources, as that is the role of the local air districts.[2]

Under "Potential New Measures" (pg. 47), the 2nd bulleted item states: "Increased utilization of renewable natural gas" may have "legal, technological, feasibility, cost and regulatory barriers". SoCalGas recommends that this item be revised to read: "Support legislation and/or regulations that will increase utilization of renewable natural gas". Page 71 makes a similar statement, "For the energy sector, however, renewable natural gas faces significant safety, feasibility, and cost issues." SoCalGas believes any safety, feasibility or cost issues can be overcome with research, investment, and maturity. In fact, SB 1383 requires ARB, the California Department of Resources Recycling and Recovery (aka CalRecycle), and the California Department of Food and Agriculture to work with stakeholders to identify and address technical, market, regulatory and other challenges to putting California's waste resources, including diverted landfill organics and diary manure, to beneficial use. SoCalGas plans to work with these groups to overcome barriers and address these concerns, and help meet the goals of the Plan and SB 1383.

We are concerned that the Discussion Draft as written currently dismisses the full potential of renewable gas.

[2] *See* Health & Safety Code Section 40001.

Transportation Sustainability

1. Renewable Gas and Transportation

SoCalGas and SDG&E agree with ARB's determination that to "close the gap" between current GHG reduction strategies and legislative emission targets, additional reductions from existing sectors will be needed to achieve these targets, particularly the one set for 2030. Further, we believe that one of the most opportune places for these additional reductions is within the transportation sector as conveyed in the Discussion Draft. However, we would emphasize that while transportation electrification can achieve a great deal in terms of reducing emissions, other solutions within the transportation space should not be discounted. In our comments on the California Sustainable Freight Action Plan[3], we discuss the utilization of ultra-low emitting technology with RG in the transportation sector as a strategy to reduce GHG and criteria pollutant emissions to reach the State's emissions targets more expeditiously than a pure electrification scenario. This is applicable especially as ARB has itself confirmed that electrification of heavy-duty trucks will not be available in the shorter time frame needed to achieve criteria air pollutant reductions.

As detailed in *Game Changer Technical Whitepaper* by Gladstein, Neandross & Associates, a heavy-duty natural gas engine is now commercially available that meets ARB's lowest-tier optional low-NOx emission standard at 0.02 g/bhp-hr NOx.[4] When paired with RG, this technology will provide a commercially-proven, broad-based, and affordable strategy to achieve immediately major reductions in emissions of criteria pollutants, air toxins, and GHGs. As ARB has recognized that heavy-duty electric and fuel cell electric vehicles will not be available in the next several decades,[5] RG provides the single best opportunity for California to achieve its air quality and climate change goals in the on-road heavy-duty transportation sector. Equally important, major reductions of cancer-causing toxic air contaminants can be realized immediately in disadvantaged communities adjacent to freeways and other areas of high diesel-engine activity, where relief is most urgently needed.

SoCalGas and SDG&E strongly support the LCFS program, which identifies RG from existing organic sources like dairy waste, landfills, and waste water treatment as the lowest carbon intensity fuels available. A review of the LCFS reporting tool shows that RG as a percentage of total natural gas used in the transportation sector has increased dramatically in the past year. We believe the LCFS will help meet California's environmental and economic goals: it has been instrumental in creating price parity between alternative fuels and fossil fuels, thereby spurring the development of low carbon fuels in California—such as RG—that will yield substantial future GHG reduction benefits.

---

[3] SoCalGas comments on Air Resources Board's Multi-Agency "California Sustainable Freight Action Plan," July 6, 2016

[4] Game Changer Technical White Paper, Gladstein, Neandross & Associates, May 3, 2016. http://ngvgamechanger.com/pdfs/GameChanger_FullReport.pdf.

[5] See ARB Technology Assessment: Medium and Heavy Duty Battery Electric Trucks and Buses, October 2015, available at http://www.arb.ca.gov/msprog/tech/techreport/bev_tech_report.pdf and ARB Technology Assessment: Medium and Heavy-Duty Fuel Cell Electric Vehicles, November 2015, available at http://www.arb.ca.gov/msprog/tech/techreport/fc_tech_report.pdf.

Natural and Working Lands Including Agricultural Lands and Waste Management

1. Reduce, Reuse, Recycle… Methane

The majority of California's methane emissions are shown to come from organic sources including agriculture, livestock, and dairies.[6] By comparison, the relative methane emissions from the oil and gas sector are significantly smaller, 13% compared to the combined 55% of organic sources for 2013, and 15% compared to the combined 54% projected for 2030. However, the policy drivers for reducing GHG emissions are inequitably targeting the oil and gas sector – aimed at reducing fugitive and vented emissions and improving monitoring, while the total volume of potential capture pales in comparison to other unregulated sources. We believe that greater reductions could be achieved by focusing, instead, on GHG emissions from the greatest share of the inventory. Specifically, developing and utilizing methane capture technologies can achieve co-benefit reductions from both organic methane sources as well as the oil and gas sector.

In our Short-Lived Climate Pollutants (SLCP) comment letter,[7] SoCalGas and SDG&E conveyed our support for ARB's strategy of utilizing organic waste streams to reduce GHG emissions and criteria pollutants and detailed the benefits of utilizing biogas for air quality and climate change purposes.

The LCFS sets a provisional carbon intensity for dairy biogas that included a benefit from avoided emissions. Further, the LCFS identified RG from existing organic sources as the lowest carbon intensity standard pathway available, even lower than the current electricity mix or hydrogen. When sourced from dairies and organic waste diverted from landfills, RG is rated as "carbon-negative" due to avoided methane emissions from dairies and landfills. That is, compared to electric vehicle technologies, which can at best provide zero carbon emissions, RG sourced from dairy and other organic waste removes more carbon from the atmosphere than it produces. Further, when used as a transportation fuel, for electricity generation, or injected into the pipeline, RG can significantly mitigate atmospheric methane emissions while also providing a flexible and reliable renewable energy source. Currently, SoCalGas supports and has been engaged in the proposed Dairy Biogas for Freight Vehicles project in the San Joaquin Valley. The cluster of dairies involved in the project could generate 1.5 to 2.5 million diesel-gallon equivalents of vehicle fuel per year using dairy waste, and each dairy is also capable of generating renewable electricity on site with any excess biogas.

However, for organic sources like dairies to be used most effectively as sources of RG, they need to be connected to the electric grid or natural gas pipelines for injection. There are several challenges to interconnecting these distributed sources of renewable energy. High project startup costs, including the costs of connecting to the pipeline system, are cost impediments to RG project development, regardless of feedstock. Interconnection to the pipeline system gives RG access to the broadest market possible, facilitating the most diverse and flexible utilization

[6] Slide 63. "Methane by Source in California." ARB Public Workshop on the Energy Sector to Inform Development of the 2030 Target Scoping Plan Update. Aug. 23, 2016.
[7] SoCalGas comments on Air Resources Board's Proposed Short-Lived Climate Pollutant Reduction Strategy, May 26, 2016.

opportunities and hence most dynamic and effective incentive strategies to encourage methane capture. Therefore, policies providing for energy infrastructure investment by California regulated utilities are necessary to accept and transport RG to end-use customers, and such investment should be seen as a public benefit and recoverable in rates from all classes of ratepayers.

Additionally, competition for feedstock with other fuel sources has the potential to impact negatively the successful development and deployment of RG technologies. Currently, ARB has a proposed "Low-Emission Diesel Requirement" in their Mobile Source Strategy that intersects with South Coast Air Quality Management District's proposals in their Draft Final Air Quality Management Plan to incentivize the diversion and capture of biogas for use as renewable gas in near-zero heavy-duty trucks. Specifically, they have several proposed control measures addressing biogas generated at landfills, municipal solid waste facilities, and wastewater facilities as well as non-refinery flares and targeting that renewable gas for use as a transportation fuel, and for pipeline injection.[8]

The objective of ARB's measure is to replace 50% of diesel demand with low emission diesel by 2031, which establishes a state policy that could bias significantly the growth of the biofuels industry and limit innovation in the alternative fuels markets[9]. This measure could also frustrate the efforts of the local air districts that are leaving no stone unturned to reduce nitrous oxide emissions in order to attain rigorous federal ozone standards. However, to reach the production levels anticipated in these plans for both renewable diesel and RG, the industry will require substantial financial support. Because there is a finite amount of investment funding available, it is critical to consider the implications of these policies on the growth and innovation of the biofuels industry. To inform a policy assessment of the growth of the renewable fuels industry, the respective biofuels technologies, costs, energy consumption, feedstock impacts and near- and long-term environmental health benefits should be examined.

It is essential to remember that production of RG from dairy biogas relies on methane that normally would be released into our atmosphere and converts it into clean fuel for our freight vehicles. It's a double environmental win: California will reduce emissions from the agriculture sector while generating a renewable energy source for other applications.

Methane emissions (primarily from agriculture, dairies, and landfills) will continue to be a part of the state's GHG inventory as they have been historically, even with aggressive control technology. Capture and management of these methane emissions will have a proportionately greater impact than efforts to control CO_2 emissions because of the higher global warming potential of methane. Combustion of methane, i.e. conversion to CO_2, reduces its global warming potential by a factor of more than 20 times. Therefore, combustion of captured or recovered methane emissions, such as RG, will play an important role in current and future plans to reduce global warming.

[8] "Draft Final Air Quality Management Plan," South Coast Air Quality Management Plan (December 2016), Appendix IV-A, p. IV-A-23 (CMB-01), p. IV-A-53 (CMB-03).
[9] "Mobile Source Strategy," California Air Resources Board (May 2016), p. 153 *available at*: http://www.arb.ca.gov/planning/sip/2016sip/2016mobsrc.pdf

III. Comments on Scenarios

We are supportive of ARB's draft 2030 Target Scoping Plan Scenario that includes the known commitments and a Cap-and-Trade program to minimize disruption to California's residents and businesses and provides ARB with the best tools to reach the ambitious GHG reduction goals set by SB 32. We do not support either Alternative 1 or 2 for the reasons discussed below.

Alternative 1 – No Cap-and-Trade

The Alternative 1 scenario proposes enhanced and new measures, including sector-specific GHG reduction targets as an alternative to Cap-and-Trade. This would require establishing a baseline annual GHG emissions level for each regulated entity in permits, and frequent program evaluation and adjustments. Implementing and enforcing such a regime would have a large impact on ARB resources, beyond the cost-effectiveness of resulting GHG reductions. Given the data difficulties, it is likely to lead to significant loss of business and jobs in the state and substantial emissions leakage. ARB's economic analysis of this option should consider the likelihood of the impact of getting the achievable reductions wrong. In addition, this would not include a statewide limit on GHG emissions, and could possibly require further measures if the 2030 target is still not achieved.

As emphasized in the staff presentation to the ARB Board on June 23, 2016, the objectives of the Plan include providing a flexible framework for implementation, and promoting resilient economic growth. However, requiring California's industries to meet facility emissions caps would not allow the same compliance flexibility to achieve GHG reduction goals at lower overall costs when compared to the Cap-and-Trade Program. Further, this command-and-control type regulation does not provide an incentive for industry to innovate by going beyond required reductions, and exposes the state to uncertain future reduction measures to bridge any shortfall in emissions reductions.

In addition, Alternative 1 lacks a mechanism for generating revenue that can be focused towards carbon reducing projects and programs, including climate mitigation activities in disadvantaged communities.

1. **Renewable Gas Standard**

The Discussion Draft includes a 5% renewable gas standard (RGS) for residential, commercial, and industrial end users in the Alternative 1 scenario. SoCalGas recommends that ARB include an RGS equivalent to 5% of core volume, with costs recoverable from all ratepayers. We support a limited purchase mandate and authority for gas corporations to recover in rates infrastructure needed to interconnect biomethane facilities with the pipeline network. California will not achieve the 2030 and 2050 limits without the expanded utilization of methane sources.

Alternative 2 – Carbon Tax

The Alternative 2 scenario proposes a carbon tax in lieu of the Cap-and-Trade Program. As SoCalGas has commented previously in response to the Concept Paper, we do not believe a carbon tax can reduce GHG emissions any more cost effectively than the Cap-and-Trade Program. Putting aside the tremendous burden on compliance entities to unwind their positions in allowances and offsets, and the resources devoted by ARB to develop and administer the Cap-and-Trade Program since its inception, a carbon tax would make the achievement of ARB's GHG reduction goals more uncertain.

A carbon tax requires legislators to set the financial cost of carbon regulation with no idea if the tax rate is sufficient to attain the necessary reductions. A Cap-and-Trade Program adopts a cap and the economic cost of the program is whatever price becomes necessary to meet that cap, based on supply and demand. In addition, a carbon tax would not be able to protect energy-intensive trade-exposed industries. For those businesses, a carbon tax could be the final straw that drives businesses out of the state, creating emissions leakage.

Lastly, ARB currently lacks the legislative authority to develop a new carbon tax initiative. A supermajority vote in California's legislature would be required to gain such authority. It is a risky endeavor for the Plan to be dependent on an unknown legislative outcome.

1. **Sustainable Freight Strategy**

The Discussion Draft includes the Sustainable Freight Strategy as part of the 2030 Target Scoping Plan scenario and Alternative 2. SoCalGas supports the California Sustainable Freight Action Plan, and inclusion of sustainable freight pilot projects to show proof of concept of innovative technologies that can reduce emissions and further our freight system efficiencies. Specifically, SoCalGas supports and has been engaged in the proposed Dairy Biogas for Freight Vehicles project in the San Joaquin Valley.[10] This project would help address technical, market, regulatory, and other challenges and barriers to the development of dairy methane emissions reduction projects, as mandated by SB 1383.

At SoCalGas, we are conducting education and outreach for biogas project developers to help accelerate RG projects in this and other sectors. SoCalGas has assisted project developers with assessing high-level costs and feasibility for projects like the Dairy Biogas project, which would help advance the development of California's sustainable freight transportation system. This cluster of dairies could generate 1.5 to 2.5 million diesel-gallon equivalents per year using dairy waste, with each dairy also capable of generating renewable electricity on site with any excess biogas. It could be the first operating dairy biogas to pipeline interconnection project in California. SoCalGas believes that this project achieves several key objectives, such as demonstrating measureable progress towards freight targets within the 2030 timeframe; has system transformation potential; presents opportunities for integrated State agency support; and has potential for scalability throughout the state, particularly in the Central Valley.

[10] https://www.arb.ca.gov/gmp/sfti/sfpp/sfpp-037.pdf

In addition, the project would directly benefit the economically disadvantaged communities adjacent to these dairies and transportation corridors traveled by trucks fueled with RG by reducing SLCP emissions, improving air and water quality, and boosting economic growth. Extending natural gas infrastructure to these disadvantaged communities in conjunction with dairy-RG pipeline interconnections could also present an opportunity to transition diesel and propane end-uses to cleaner burning natural gas appliances and vehicles, with the potential added benefit of NOx emission reduction.

It is essential to remember that this Dairy Biogas project relies on methane that would normally be released into our atmosphere and converts it into clean fuel for freight vehicles. It is a double environmental win - California will reduce emissions from the agriculture sector while generating a renewable energy source for other applications.

IV. Conclusion and Supporting Comments

This is an exciting time in the energy industry with many new technologies and tools being developed and adopted, including those related to the use of natural gas, low- and no-carbon gas supply, and the statewide gas grid and its energy storage assets. The State should continue to acknowledge the GHG reduction potential of natural gas, the immediate availability of the natural gas system, and the benefits to all Californians as we move forward in the process. For the electric sector, cost effectiveness, equity across sectors, and consistency in approach should be key considerations for the adoption of program measures in the Plan. This includes avoiding the adoption of new procurement mandates while the IRP process is still being developed. Whatever policy is adopted, it should be flexible enough to allow the best ideas to be deployed, and not lock in prescriptive mandates or specific technologies that may seem attainable, but are ultimately unachievable in the required timeframe and/or cost prohibitive.

As an innovation leader, California has always been at the forefront of improving our environment. While climate change policies are necessary to secure the continued health of our environment for future generations, California must move forward with not only policy leadership on GHG emissions reductions, but also policy leadership on how to accomplish reductions in a manner that continues to grow our economy.

SoCalGas and SDG&E are eager to help implement what we hope to be a cost-effective, sustainable, and flexible strategy to reach the State's ambitious goals.

Sincerely,

Tim Carmichael
Agency Relations Manager
SoCalGas and SDG&E