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**Project Canary Comments - CEC OIIP Gas Decarbonization  
Workshop**

*Additional submitted attachment is included below.*



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June 22, 2022  
VIA Electronic Filing

Commissioner Siva Gunda  
Vice Chair, California Energy Commission  
Docket No. 22-OII-02  
715 P Street  
Sacramento, CA 95814

**RE: Gas Decarbonization Proceeding – Consideration of Responsibly Sourced Gas**

Dear Vice Chair Gunda,

Project Canary appreciates the opportunity to provide late-filed public comments on the June 3, 2022 California Energy Commission (“CEC”) Lead Commissioner Workshop to Launch Gas Decarbonization Proceeding under the 2022 Integrated Energy Policy Report Update. Project Canary welcomes the CEC’s leadership in this arena and supports the continued analysis as California moves to decarbonize its energy system. Project Canary provides these comments to support the state’s gas planning process to achieve California’s energy goals and offers additional information regarding the use of responsibly sourced gas (“RSG”) or certified low emission gas, as an available resource to make an immediate impact on climate change today through increased methane measurement, monitoring, quantification, and environmental certification of upstream and midstream natural gas facilities.

The Project Canary comments focus in three primary areas.

1. The greenhouse gas (“GHG”) emissions measurement and monitoring market has changed rapidly in the last two years. Continuous, real-time emissions measurement and quantification is readily available and affordable.
2. Regulation plays a critical role in the support for and acceptance of responsibly sourced or certified natural gas. Wider adoption of RSG makes an impact in fugitive methane emissions today.
3. The CEC should consider responsibly sourced or certified natural gas in this gas decarbonization proceeding.

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Project Canary provides these comments to educate and put on the record that other options exist on the supply side that can impact greenhouse gas emissions today. The responsibly sourced gas market, while nascent, is becoming a viable option to meet carbon reduction goals in the near term.

## **About Project Canary**

Project Canary (or the “Company”) is a technology and data company that offers a suite of services designed to help lower the environmental impact of natural gas production, transportation, and distribution, including the rigorous, independent monitoring and environmental certification of responsibly sourced gas throughout the energy value chain. Project Canary also offers a robust, independent certification regime for operations throughout the energy value chain that can identify and track RSG from wellhead to burner tip using both quantitative and qualitative metrics to measure impacts on air, water, land, and communities. By significantly reducing the fugitive methane associated with natural gas,<sup>1</sup> RSG offers a valuable opportunity to fully realize the promise of natural gas as a reliable, affordable, and environmentally friendly fuel source for heating and electric power generation. RSG, also referred to as Certified Low Emissions Gas or Certified Gas, is natural gas that an independent third party has verified using specific standards and practices in all phases of operations to minimize methane and other greenhouse gases and climate and other environmental effects

## **The GHG Emissions Monitoring Market Has Changed**

The technology is now available to provide at an affordable cost real-time, continuous monitoring services to measure, reduce, and even eliminate fugitive methane and other harmful emissions from the natural gas production process. Similar to renewable natural gas, RSG is produced at lower methane intensity and the reduction in methane emissions can be monitored, quantified, and compared to the average of the basin the gas was produced in. Contrary to the concerns noted in the Short-Lived Climate Pollutant Reduction Strategy (“SLCPRS”), published in 2015, the Greenhouse Gas Protocol published by the U.S. Environmental Protection Agency (“EPA”) in 2015, and even the Securities and Exchange Commission (“SEC”) in their Proposed Rule on Enhancement and Standardization of Climate Related Disclosures for Investors, that suggest direct measurement of GHG emissions at the source may not be possible<sup>2</sup> or that they are frequently difficult to measure<sup>3</sup>, the deployment of continuous monitoring technology has accelerated rapidly since 2015 and is now widely available and cost-effective.

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<sup>1</sup> Methane has a relatively high Global Warming Potential (“GWP”). As a result, reduction of fugitive methane emissions is a powerful tool for reducing total equivalent greenhouse gas emissions.

<sup>2</sup> Securities and Exchange Commission, Proposed Rule for the Enhancement and Standardization of Climate-Related Disclosures for Investors, File No. S7-10-22. <https://www.sec.gov/comments/s7-10-22/s71022-20126528-287180.pdf>

<sup>3</sup> California Air Resources Board, Short-Lived Climate Pollutant Reduction Strategy, 2017, page 34.

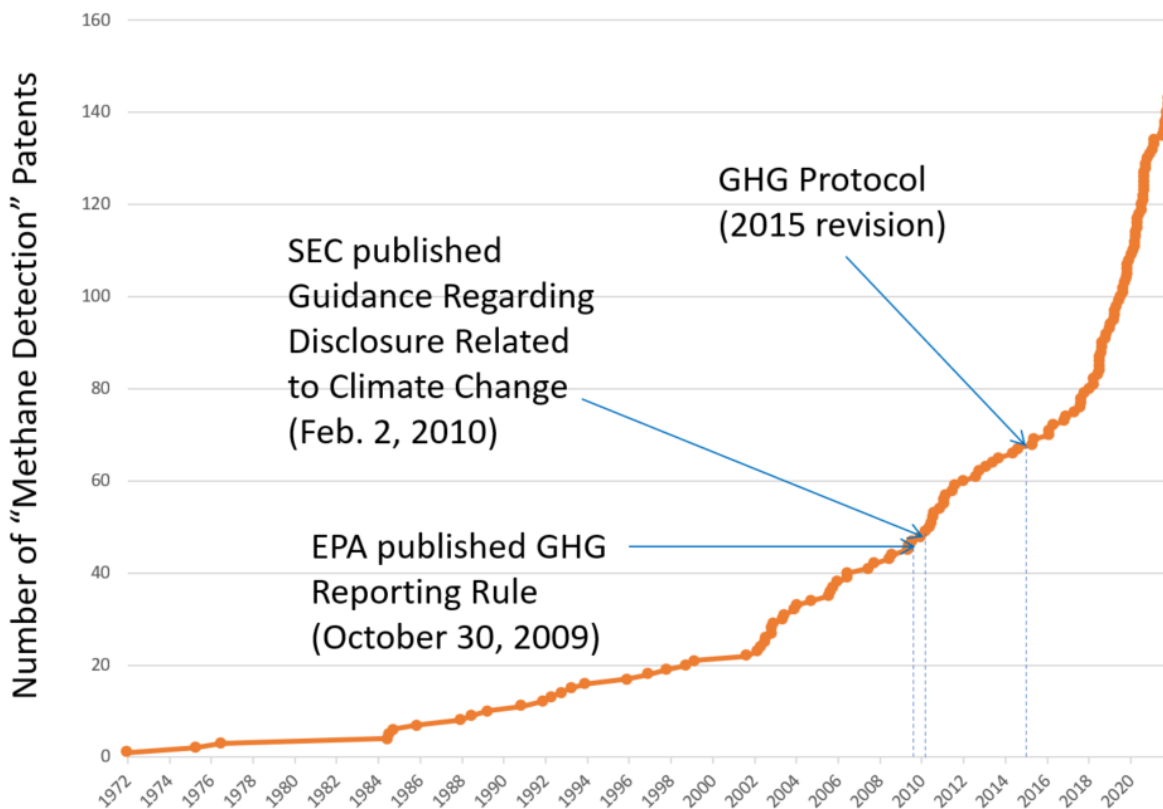
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The proliferation of continuous monitoring technology is particularly notable in the energy sector, where there has been a pronounced convergence of regulatory and market pressures focused on GHG emissions reductions. A recent U.S. Government Accountability Office investigation found that entities in the oil and gas industry are voluntarily taking actions to reduce methane emissions from oil and gas development, including by using continuous monitoring technologies to detect methane emissions.<sup>4</sup> Project Canary alone has installed over one thousand five hundred continuous monitoring units (with hundreds more under contract) across the United States, Canada, and the United Kingdom at over five dozen major oil and gas and midstream companies.

Technological advancements have drastically expanded the availability and cost-effectiveness of direct, continuous monitoring of GHG emissions. In 2014, the U.S. Department of Energy’s Advanced Research Projects Agency–Energy (ARPA-E) launched a \$30 million R&D program called Methane Observation Networks with Innovative Technology to Obtain Reductions (MONITOR), to address the shortcomings of then-existing emission detection technologies that were labor-intensive, insufficiently precise, episodic, and costly. The MONITOR program facilitated transformational improvements resulting in low-cost, highly sensitive, automated technologies that can provide continuous and remote monitoring of emissions. Further evidence of this rapid technological progress can be found in the number of “methane detection” patents filed, a number which has doubled since the GHG Protocol was last revised in 2015 and tripled since the SEC published guidance regarding climate change disclosures and the U.S. Environmental Protection Agency published its GHG Reporting Rule.

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<sup>4</sup> U.S. Government Accountability Office, *Oil and Gas: Federal Actions Needed to Address Methane Emissions from Oil and Gas Development*, at 15–16 (Apr. 2022), <https://www.gao.gov/assets/gao-22-104759.pdf>.



Source: U.S. Patent and Trademark Office, Patent Public Search Version 1.0.4 (2022).

The gas sensing technology in Project Canary’s systems also has developed rapidly to provide increased detection accuracy and opportunities for the miniaturization and portability of devices.<sup>56</sup> In short, the industry is no longer constrained by technological limitations that drove regulators to call for indirect calculation rather direct measurement of GHG emissions.

Similar to renewable natural gas, RSG is produced at lower methane intensity and the reduction in methane emissions can be monitored, quantified, and compared to the average of the basin the gas was produced. As part of its services, Project Canary offers monitoring systems and data analytics to ensure that energy development operations minimize fugitive methane emissions<sup>6</sup>. As Project Canary recently explained in comments proceeded to the EPA, Project Canary’s continuous monitoring technology has the potential to “enhance methane emissions reductions by between 8 and 88 times more than other techniques”. Project Canary is able to sample the air every second and provide minute-by-minute updates to its cloud-based platform, supplying actionable data for operators. Significantly, advanced systems, such as Project Canary’s, go beyond detection and provide actual quantifications of releases, and

<sup>5</sup> Shan Lin et al., *Improvement of the Detection Sensitivity for Tunable Diode Laser Absorption Spectroscopy: A Review*, *Frontiers in Physics* (Mar. 1, 2022), <https://www.frontiersin.org/articles/10.3389/fphy.2022.853966/full>.

<sup>6</sup> See *Collect*, Project Canary, <https://www.projectcanary.com/collect/>

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do so at the well-pad and in the midstream sectors of the supply chain. Methane avoidance, reduction, and mitigation should be a recognized tool utilities can utilize to meet the goals of the state of California.

### Regulation Plays a Critical Role

California has taken many key steps to fight the climate crisis. The SLCPR specifically calls out fugitive methane and identifies many sources of emissions but does not consider the mitigation of methane during the production of natural gas as a tool<sup>7</sup>. The CEC, the California Air Resource Board (“CARB”), and the California Public Utilities Commission (“PUC”) should consider responsibly sourced gas as a tool in the toolbox. While 90% of the natural gas consumed in California is produced outside of the state<sup>8</sup>, the buy-side has the power in the market. California agencies can require that natural gas purchased for consumption or generation in the state be responsibly sourced or certified. Responsibly sourced gas grew from essentially nothing in 2021 to approximately twenty percent of the U.S. natural gas market in early 2022.<sup>9</sup> This product is readily available today in every basin in the United States and is expected to continue to grow as a percentage of daily production. While most natural gas is imported, there are still approximately 1,500 active natural gas wells in the state of California<sup>10</sup>. By measuring and quantifying methane emissions, operators can address leaks immediately, making an impact in fugitive emissions today.

Other states are also taking action. State legislatures around the country have recognized the importance of responsibly sourced gas and the role it plays in the downstream market. For example, under Virginia law, natural gas utilities may include in their portfolios supplemental forms of gas sources, such as low-emission natural gas, if certain requirements are met; with one such requirement being validation by an independent third-party to provide transparency for audit and reporting purposes.<sup>11</sup> Additionally, legislation introduced in New Mexico earlier this year encouraged the use of responsibly sourced gas, and specified that in the absence of a federal standard, an “independent organization” with “nationally recognized expertise” would provide certification of responsibly sourced gas.<sup>12</sup> Similarly, the New York Public Service Commission recently approved a Pilot for Orange and Rockland Utilities to conduct a pilot using RSG,<sup>13</sup> and Con Edison has requested a similar pilot in its pending rate case.<sup>14</sup> Other utilities and end users have made public commitments to purchase RSG as part of their natural gas portfolios.

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<sup>7</sup>California Air Resources Board, Short-Lived Climate Pollutant Reduction Strategy, 2017, page 56.

<sup>8</sup> California Air Resources Board, Short-Lived Climate Pollutant Reduction Strategy, 2017, page 79

<sup>9</sup> S&P Global, Right time, right place for Haynesville Shale to meet global call for cleaner natural gas, May 9, 2022.

<https://www.spglobal.com/commodityinsights/en/market-insights/latest-news/natural-gas/050922-right-time-right-place-for-haynesville-shale-to-meet-global-call-for-cleaner-natural-gas>

<sup>10</sup> California Air Resources Board, Short-Lived Climate Pollutant Reduction Strategy, 2017, page 78.

<sup>11</sup> Virginia, 2022 Session, SB 565 Natural gas, biogas, and other gas sources of energy, available at <https://lis.virginia.gov/cgi-bin/legp604.exe?221+sum+SB565>.

<sup>12</sup> New Mexico, 2022 Regular Session, HB 4 Hydrogen Development Act, available at <https://www.nmlegis.gov/Legislation/Legislation?Chamber=H&LegType=B&LegNo=4&year=22>.

<sup>13</sup> New York Public Service Commission, Case No. 21-G-0073 Proceeding on Motion of the Commission as to the Rates, Charges, Rules and Regulations of Orange and Rockland Utilities, Inc. for Gas Service.

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Currently, there is no universally accepted certification standard, but there is a growing consensus around the key components that are necessary for any credible certification program. The Environmental Defense Fund, for example, recently released a white paper on responsibly sourced gas, titled “Certification of Natural Gas with Low Methane Emissions: Criteria for Credible Certification Programs”. The Oil and Gas Climate Initiative defines methane intensity as a total volume of methane emissions divided by a total volume of marketed gas and sets that percentage at 0.20% for responsibly sourced gas.<sup>15</sup> This developing standard should not stop the CEC, CARB, or the PUC from considering regulation that requires the purchase of RSG and from piloting RSG as a tool that can be included in gas supply portfolios to accomplish the state’s energy goals. Project Canary anticipates standards will continue to evolve that will firm-up definitions in this space, but the product and the market will rise to meet those standards, responsibly sourced gas is not going away. At minimum, as the various regulating agencies and stakeholders should monitor, track, and validate alternative gas availability through existing and upcoming proceedings, and the presence of RSG in these filings should be welcomed and given strong consideration.

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<sup>14</sup> New York Public Service Commission, Case No. 22-G-0065 Proceeding on Motion of the Commission as to the Rates, Charges, Rules and Regulations of Consolidated Edison Company of New York, Inc. for Gas Service.

<sup>15</sup> EDF White Paper at 11 (citing OGCI, “Oil and Gas Climate Initiative Reporting Framework” (Nov. 2021), available at <https://www.ogci.com/portfolio/oil-gas-climate-initiative-reporting-framework-resource/>).



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## Conclusion: Responsibly Sourced Gas Should be Included in the Decarbonation Process

The SLCPRS recognized that innovation and emerging technologies will play a role in the clean energy future. Project Canary recognizes and appreciates the efforts being undertaken by the CEC to gather and analyze critical energy system data and encourage the development of interagency energy policy in California. Certification companies like Project Canary have emerged in response to the increasing focus on ESG obligations and transparency in general, and emission reductions, to provide independent, third-party validation of energy companies' operational practices. Responsibly sourced gas can and should play a role the decarbonization of California's natural gas infrastructure regardless of where the natural gas is produced. It is an affordable and an available solution that when used with other methodologies can protect consumers, minimize risk, take advantage of existing infrastructure, and do so in a manner that is already within the expertise of the regulating agencies of California.

Project Canary encourages the CEC to include responsibly sourced gas as a mechanism in the gas system decarbonization and encourages the agencies in the state to promote pilots and regulation that include all methods of removing methane from the atmosphere. The Company appreciates the opportunity to provide these late-filed comments in this proceeding and looks forward to further participation.

Sincerely,

Michelle Moorman Applegate  
Project Canary  
Sr. Director of Policy