

VISIÓN (VOICES IN SOLIDARITY AGAINST OIL IN NEIGHBORHOODS)
CALIFORNIA ENVIRONMENTAL JUSTICE ALLIANCE
CENTER ON RACE, POVERTY & THE ENVIRONMENT
CENTRAL CALIFORNIA ASTHMA COLLABORATIVE
CENTRAL VALLEY AIR QUALITY COALITION
PHYSICIANS FOR SOCIAL RESPONSIBILITY – LOS ANGELES

March 29, 2021

Department of Conservation
801 K Street, MS 24-02
Sacramento, CA 95814
Email: CalGEMRegulations@conservation.ca.gov

Submitted via electronic mail and Federal Express mail

**Re: Public comment regarding the standardized regulatory impact assessment
for CalGEM's proposed public health rulemaking**

We, the undersigned public health and frontline environmental justice organizations, respectfully submit the enclosed comment letter regarding the California Geologic Energy Management Division's (CalGEM) forthcoming standardized regulatory impact assessment for the proposed public health rulemaking.

CalGEM expressed an interest in receiving community input on how the agency can improve its standardized regulatory impact assessment to provide a comprehensive and holistic accounting of the costs and benefits associated with promulgating a 2,500-foot statewide oil and gas setback. The enclosed comment letter, which augments the November 30, 2020 supplemental comment letter submitted by Voices in Solidarity against Oil in Neighborhoods (VISIÓN), evaluates several regulatory impact assessments conducted by other California agencies that represent a reasonable baseline of analysis that CalGEM should employ when conducting a regulatory impact assessment for the proposed public health rulemaking.

In addition, we recommend implementation of two cost-benefit methodologies that will enhance the agency's ability to meaningfully quantify and monetize both the quantitative and qualitative benefits of a 2,500-foot setback. We encourage CalGEM to review the regulatory impact assessments discussed in our comment letter and adopt the recommendations provided therein.

Thank you for considering these comments, and please do not hesitate to contact us if you have any questions.

Sincerely,

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Encl: Joint comments from VISIÓN, CEJA, CRPE, CCAC, CVAQ, PSR-LA

ATTACHMENT: COMMENTS FROM VISION (VOICES IN SOLIDARITY AGAINST OIL IN NEIGHBORHOODS), CALIFORNIA ENVIRONMENTAL JUSTICE ALLIANCE, CENTER ON RACE, POVERTY & THE ENVIRONMENT, CENTRAL CALIFORNIA ASTHMA COLLABORATIVE, CENTRAL VALLEY AIR QUALITY COALITION, AND PHYSICIANS FOR SOCIAL RESPONSIBILITY – LOS ANGELES

I. Introduction

This comment letter was prepared in response to CalGEM’s request for community input on how the agency can improve its analysis of the quantitative and qualitative benefits associated with a 2,500-foot oil and gas setback. This letter provides a brief overview of the legal and regulatory requirements of a standardized regulatory impact assessment (SRIA); identifies examples of SRIsAs conducted by sister agencies that provide meaningful evaluations and discussions of qualitative and quantitative health and environmental benefits; and finally offers two recommendations that CalGEM should employ when preparing the SRIA for the proposed public health rulemaking.

II. Legal and regulatory background

The California Legislature requires that state agencies “proposing to adopt, amend, or repeal a major regulation . . . shall prepare a standardized regulatory impact analysis . . . pursuant to [Government Code] Section 11346.36.”¹ When preparing standardized regulatory impact assessments, agencies must include, among other considerations, benefits related to “health, safety, and welfare of California residents, worker safety, and the state’s environment and quality of life.”²

The state’s Department of Finance is responsible for implementing regulations that “assist [] agencies . . . in assessing and determining the benefits and costs of the proposed regulation, expressed in monetary terms to the extent feasible and appropriate.”³ These regulations require that state agencies, in their standardized regulatory impact assessments, account for the value of non-monetary benefits “such as the protection of public health and safety, worker safety, or the environment, the prevention of discrimination, the promotion of fairness or social equity, the increase in the openness and transparency of business and government and other nonmonetary benefits consistent with the statutory policy or other provisions of law.”⁴

The procedural requirements for preparing standardized regulatory impact assessments can be found in the California Code of Regulations.⁵

¹ Gov. Code, § 11346.3(c)(1).

² *Id.*, § 11346.3(b)(4)(F).

³ *Id.*, § 11346.36(b)(1)

⁴ *Id.*

⁵ Cal. Code Regs., tit. 1, §§ 2002, 2003.

III. Examples of state regulatory impact assessments that provide meaningful analyses and discussions of quantitative and qualitative health and environmental benefits.

a. California Air Resources Board: Clean Miles Standard and Incentive Program (August 7, 2020)

This regulation sets electrification and greenhouse gas (GHG) emission targets for transportation network company fleets. The rule will take effect in 2023, with increasing stringency for emission targets until 2030.

i. Reduction in criteria pollutants (NOx and PM2.5)

In this standardized regulatory impact assessment, the California Air Resources Board (CARB) used the U.S. EPA's PM 2.5 risk assessment model, which examines the effect of short and long-term PM 2.5 exposure, to assess impacts on: cardiopulmonary mortality; hospitalizations for cardiovascular illness; hospitalizations for respiratory illness; emergency room (ER) visits for respiratory illness; and ER visits for asthma.”⁶

Applying the Willingness-To-Pay approach, CARB estimated \$194.93 million in statewide health benefits (i.e., avoided premature mortality, cardiovascular hospitalizations, acute respiratory hospitalization, and ER visits) from criteria pollutant emission reductions between 2023 and 2031.⁷

Table 16: Statewide Valuation from Avoided Health Outcomes from 2023 to 2031

Outcome	Avoided Incidents	Valuation (Million 2018\$)
Avoided Premature Mortality	20	\$194.57
Avoided Cardiovascular Hospitalizations	3	\$0.17
Avoided Acute Respiratory Hospitalizations	4	\$0.18
Avoided Emergency Room Visits	11	\$0.01
Total		\$194.93

ii. Reduction in GHG emissions

To account for the health benefits associated with the rule's GHG emission reductions, CARB used the U.S. EPA's social cost of carbon measurements and estimated that the proposed rule's public health benefits (or avoided damage) ranged from more than \$18 million to \$84 million,

⁶ California Air Resources Board. (2020). Clean Miles Standard and Incentive Program: Standardized Regulatory Impact Assessment at 36, https://www.dof.ca.gov/Forecasting/Economics/Major_Regulations/Major_Regulations_Table/documents/Clean_Miles_Standard_SRIA.pdf.

⁷ *Id.* at 39.

depending on the discount rate applied.⁸ The proposed rule’s avoided social costs included, but were not limited to: “changes in net agricultural productivity, energy use, human health, property damage from increased flood risk, as well as nonmarket damages, such as the services that natural ecosystems provide to society.”⁹

Table 12. Avoided Social Cost of CO₂

Year	GHG emission reductions (MMT)	Avoided SC-CO ₂ (Million 2018\$)		
		5% discount rate	3% discount rate	2.5% discount rate
2023	0.00	0.06	0.20	0.29
2024	0.02	0.23	0.76	1.12
2025	0.04	0.54	1.79	2.64
2026	0.09	1.24	4.02	5.92
2027	0.13	1.90	6.10	8.97
2028	0.17	2.60	8.29	12.16
2029	0.21	3.33	10.51	15.39
2030	0.25	4.08	12.75	18.61
2031	0.26	4.27	13.27	19.25
Total	1.17	18.25	57.68	84.35

b. CARB: Amendments to the Small Off-Road Engine Exhaust and Evaporative Emission Regulations (August 7, 2020)

This regulation accelerates adoption of zero emission small off-road engines.

i. Reduction in criteria pollutants (NO_x and PM_{2.5})

CARB again used U.S. EPA’s PM_{2.5} risk assessment model and the Willingness-To-Pay approach to quantify and monetize avoided health outcomes associated with: cardiopulmonary mortality;

⁸ California Air Resources Board. (2020). Clean Miles Standard and Incentive Program: Standardized Regulatory Impact Assessment at 35; United States Interagency Working Group on the Social Cost of Carbon. (2013). Technical Update of the Social Cost of Carbon for Regulatory Impact Analysis – Under Executive Order 12866, <https://obamawhitehouse.archives.gov/sites/default/files/omb/inforeg/scc-tds-final-july-2015.pdf>; See also United States Interagency Working Group on the Social Cost of Carbon. (2016). Technical Update of the Social Cost of Carbon for Regulatory Impact Analysis – Under Executive Order 12866, https://www.epa.gov/sites/production/files/2016-12/documents/sc_co2_tsd_august_2016.pdf. The Biden administration has reconvened the Interagency Working Group, which was disbanded under the previous administration. The working group is tasked with publishing final calculations for the social cost of carbon, social cost of methane, and social cost of nitrous oxide by January 2022. See Exec. Order No. 13,990, 86 Fed. Reg. 7,037 (Jan. 21, 2021). In the interim, the Biden administration, using a 3 percent discount rate, calculated the interim social cost of carbon, methane, and nitrous oxide to be \$51, \$1,500, and \$18,000, respectively. See United States Government Interagency Working Group on Social Cost of Greenhouse Gases. (2021). Technical Support Document: Social Cost of Carbon, Methane, and Nitrous Oxide - Interim Estimates under Executive Order 13990 at 5-8. https://www.whitehouse.gov/wp-content/uploads/2021/02/TechnicalSupportDocument_SocialCostofCarbonMethaneNitrousOxide.pdf.

⁹ *Id.* at 34.

hospitalizations for cardiovascular illness; hospitalization for respiratory illness; and emergency room visits. CARB estimated the proposed rule will result in \$7.81 billion in statewide health benefits due to criteria pollutant emission reductions between 2023 and 2040. The proposed rule’s monetized health benefits will derive primarily from dramatic reductions in premature mortality (\$7.8 billion) and hospitalizations and emergency room visits (\$15.2 billion).¹⁰

Table B-5. Statewide Valuation from Avoided Health Outcomes Under the Proposed Amendments

Outcome	Avoided Incidents	Valuation (Million 2018\$)
Avoided Premature Mortality	791	\$7,798.8
Avoided Cardiovascular Hospitalizations	125	\$7.3
Avoided Acute Respiratory Hospitalizations	149	\$7.6
Avoided Emergency Room Visits	391	\$0.3
Total	1456	\$7,814

ii. Reduction GHG emissions

To account for associated GHG emission reductions, CARB again applied the U.S. EPA’s social cost of carbon measurements used in its “Clean Miles Standard” rulemaking and estimated that “total benefits ranged between \$280 million to \$1.21 billion for 2023 through 2040, depending on the discount rate.”¹¹

Here again, the avoided social costs included, but were not limited to: “changes in net agricultural productivity, energy use, human health, property damage from increased flood risk, as well as nonmarket damages, such as the services that natural ecosystems provide to society.”¹²

¹⁰ California Air Resources Board. (2020). Amendments to the Small Off-Road Engine Exhaust and Evaporative Emission Regulations: Standardized Regulatory Impact Assessment at 23, https://www.dof.ca.gov/Forecasting/Economics/Major_Regulations/Major_Regulations_Table/documents/CARB_SRIA_Small_Off-Road_Engines.pdf.

¹¹ *Id.* at 26. See also Table B-7, which provides inflation adjusted amounts in 2019 dollars.

¹² *Id.* at 24.

Table B-7. Avoided Social Cost of CO₂ (Million 2019\$)

Year	GHG Emissions Reductions (MMTCO ₂ e)	5% Discount Rate	3% Discount Rate	2.5% Discount Rate
2022	0.0	\$0.0	\$0.0	\$0.0
2023	0.0	\$0.0	\$0.0	\$0.0
2024	0.0	\$0.0	\$0.0	\$0.0
2025	0.0	\$0.8	\$2.7	\$4.0
2026	0.2	\$2.7	\$9.1	\$13.4
2027	0.3	\$5.3	\$16.8	\$24.6
2028	0.4	\$7.6	\$24.7	\$35.7
2029	0.5	\$9.6	\$31.5	\$46.3
2030	0.6	\$12.3	\$38.3	\$55.9
2031	0.7	\$14.0	\$44.5	\$64.6
2032	0.7	\$16.4	\$50.1	\$72.3
2033	0.8	\$17.7	\$55.2	\$79.2
2034	0.9	\$19.9	\$59.8	\$85.3
2035	0.9	\$20.9	\$64.0	\$90.8
2036	0.9	\$23.0	\$67.8	\$95.7
2037	1.0	\$23.8	\$71.3	\$101.3
2038	1.0	\$25.7	\$74.4	\$105.2
2039	1.0	\$26.2	\$77.3	\$108.7
2040	1.0	\$28.0	\$80.0	\$111.9
Total	10.9	\$253.8	\$767.6	\$1,094.9

c. CARB: Heavy-Duty Engine Emission Standards (January 23, 2020)

This regulation reduces oxides of nitrogen (NO_x) emissions for heavy-duty trucks.

i. Reduction in criteria pollutants (NO_x and PM_{2.5})

Once again, CARB employed U.S. EPA's PM_{2.5} risk assessment model and the Willingness-To-Pay approach to quantify and monetize avoided health outcomes associated with: cardiopulmonary mortality; hospitalizations for cardiovascular illness; hospitalization for respiratory illness; and emergency room visits.

CARB estimated that due to the criteria pollutant emission reductions, the proposed rule would result in \$3.15 billion in "total statewide health benefits . . . with \$3.14 billion resulting from reduced premature mortality and \$5.7 million resulting from reduced hospitalizations and emergency room visits."¹³ Notably, "the valuation of the estimated total statewide health benefits . . . are nearly three times higher [than the project costs of the proposed regulation], at \$3.15 billion."¹⁴

¹³ California Air Resources Board. (2020). Proposed Heavy-Duty Engine and Vehicle Omnibus Regulation and Associated Amendments: Standardized Regulatory Impact Assessment at 42, https://www.dof.ca.gov/Forecasting/Economics/Major_Regulations/Major_Regulations_Table/documents/CARB%20SRIA%20Heavy%20Duty%20Engine%20Standards.pdf

¹⁴ *Id.* at 89.

Table B-7. Statewide Valuation from Avoided Health Outcomes Under the Proposed Regulation

Outcome	Avoided Incidents	Valuation (Million 2018\$)
Avoided Premature Mortality	334	\$3,144.20
Avoided Cardiovascular Hospitalizations	48	\$2.71
Avoided Acute Respiratory Hospitalizations	57	\$2.82
Avoided Emergency Room Visits	160	\$0.13
Total	599	\$3,149.86

d. Department of Industrial Relations: Revisions to Occupational Lead Standards (May 13, 2019)

This regulation amends the occupational lead standards to protect employees from harmful lead exposure.

i. Reduction in lead exposure

In this rulemaking, the Department of Industrial Relations quantified avoided health outcomes for “mortality (all-cause), hypertension, non-fatal heart attacks, and depression” due to lead exposure.¹⁵

To monetize the health benefits of these avoided outcomes, the department used morbidity and mortality costs.¹⁶ Premature deaths were monetized using the U.S. EPA’s value of a statistical life estimate (\$9.0 million). For direct and indirect morbidity costs, the department examined “spending associated with diagnosis, treatment, recovery and accommodation of a lead- 40 caused illness and indirect costs include productivity loss and personal time loss associated with a specific lead-caused illness.”

Based on the analysis using these methodologies, the department estimated the “annual health benefits from the proposed regulation to be \$27.9 million in year 1 increasing each year until they reach \$1.3 billion by year 45.”¹⁷ The department also noted that the value of the regulation’s health

¹⁵ California Department of Industrial Relations. (2019). Revisions to Occupational Lead Standards: Standardized Regulatory Impact Assessment at 36, https://www.dof.ca.gov/Forecasting/Economics/Major_Regulations/Major_Regulations_Table/documents/Lead%20Standards%20SRIA_DIR_5-13-19.pdf

¹⁶ *Id.* at 39-40.

¹⁷ *Id.* at 41.

benefits would outweigh the cost of the proposed rule in the seventh year after the rule takes effect.¹⁸

Additionally, the proposed rule’s monetized health benefits only “represent[s] on a fraction of the total potential benefits because [the Department of Industrial Relations has] not quantified many of the other health benefits likely to accrue from the proposed regulation.”¹⁹

Table 17: Annual Estimated Avoided Health Costs Per Year (Millions 2017 \$)			
Years after proposed regulation enacted	Construction (Employees)	General Industry (Employees)	Total*
1	9.0	18.9	27.9
5	45.0	94.6	139.6
10	90.1	189.2	279.3
20	180.1	378.4	558.6
30	270.2	567.7	837.8
45	405.3	851.5	1256.7

e. CalRecycle: Organic Waste Methane Emissions (November 19, 2018)

This regulation requires regulated entities to implement a broader and more prescriptive suite of programs related to organic waste disposal, collection, and recycling.

i. Reduction of criteria pollutants (NO_x and PM_{2.5})

In this rulemaking, CalRecycle quantified avoided health outcomes for pulmonary disease, respiratory infections, and lung cancer due to ozone and PM_{2.5} exposure.

CalRecycle relied on CARB’s incidents-per-ton methodology, which “quantif[ies] the health benefits of directly emitted (primary) and secondary PM reductions due to regulatory controls,” to estimate the monetary value associated with avoided incidences in mortality (\$4.8 million), hospitalizations (\$2.2 million), and ER visits (\$65,000) between 2019 and 2025.²⁰

¹⁸ See *id.* at 41-42.

¹⁹ *Id.* at 42.

²⁰ CalRecycle. (2019). Proposed Regulation for Short-Lived Climate Pollutants: Organic Waste Methane Emissions: Standardized Regulatory Impact Assessment at 36, https://www.dof.ca.gov/Forecasting/Economics/Major_Regulations/Major_Regulations_Table/documents/Final_Sria_11-16%20.pdf; see also California Air Resource Board. (2010). California Air Resources Board. (2010). Proposed Amendments to the Truck and Bus Regulation, the Drayage Truck Regulation and the Tractor-Trailer Greenhouse Gas Regulation, Staff Report – Appendix J: Methodology for Estimating Ambient Concentrations of Particulate Matter from Diesel-Fueled Engine Emissions and Health Benefits Associated with Reductions in Diesel PM Emissions from In-Use On-Road Heavy-Duty Diesel-Fueled Vehicles, <https://ww3.arb.ca.gov/regact/2010/truckbus10/correctedappj.pdf>.

Table 12: Cumulative Statewide Avoided Incidence from 2019 to 2025

	Health Outcomes	Valuation (2015 \$USD)
Mortality	530 (420 - 650)	\$4.8 B (3.8 B – 6.0 B)
Hospitalizations (all)	79 (10 - 180)	\$2.2 M (380 K – 7.4 M)
ER visits	220 (140 - 310)	\$65 K (40 K – 87 K)

Values in parentheses represent the 95% confidence interval.

ii. Methane reduction

CalRecycle also estimated that the social cost of reducing methane would range from \$40 million to \$100 million in 2030, depending on the discount rate applied. “[F]or one year of waste over the lifetime of waste decomposition, CalRecycle estimated that the social cost of methane ranges from \$270 million to \$390 million using the 2.5 percent discount rates, \$200 million to \$300 million using the 3 percent discount rates, and \$90 million to \$150 million using the 5 percent discount rates.”²¹ The agency also emphasized that these monetized benefits did not capture the proposed rule’s total benefits because it “does not include the impacts associated with non-methane reductions.”²²

iii. Qualitative benefits

CalRecycle also identified the proposed regulation’s qualitative benefits. For instance, the agency found that “[e]dible food rescue programs resulting from these regulations will increase the recovery of edible food for human consumption resulting in decreased food insecurity and healthier communities.”²³ Additionally, CalRecycle took note that “another key health benefit [of the proposed rule] is reduced exposure of farmworkers to pesticides and fertilizers, the use of which can be reduced when compost is used in agriculture.”²⁴

IV. Recommendations for improving analyses of health and environmental benefits.

The standardized regulatory impact assessments (“SRIAs”) examined in the preceding section offer specific examples of how CalGEM can improve its evaluation and analysis of quantitative and qualitative health benefits associated with a statewide oil and gas setback.

CARB consistently uses the U.S. EPA’s PM 2.5 risk assessment model and Willingness-To-Pay approach to both quantify and monetize avoided health outcomes and damage associated with the proposed regulatory action. The SRIAs prepared by CalRecycle and the Department of Industrial

²¹ *Id.* at 38.

²² *Ibid.*

²³ *Id.* at 13.

²⁴ *Ibid.*

Relations also provide useful examples of how CalGEM can discuss the qualitative health and environmental benefits of an oil and gas setback.

These SRIAs serve as a starting point for developing a more comprehensive and holistic assessment of the public health, safety, and environmental benefits of an oil and gas setback. Below are two recommendations CalGEM should employ in its forthcoming SRIA for the proposed public health rulemaking, to advance the analysis already implemented by other state agencies.

a. CalGEM should incorporate weighted cost-benefit analysis to assess the distributional effects of a 2,500-foot oil and gas setback.

While the SRIAs discussed in this letter offer a reasonable baseline of analysis that CalGEM should immediately adopt in its forthcoming SRIA in the proposed public health rulemaking, the methodologies employed by these agencies fail to consider and account for the distributed impacts (or benefits) that a 2,500-foot oil and gas setback would have for communities that have been disproportionately affected oil and gas extraction.²⁵

Even though the costs and benefits of a proposed rule are unevenly distributed across different communities, the SRIAs discussed here fail to examine for those differences.²⁶ For example, CARB's SRIAs are insensitive to "distributional equities—the question of who benefits from a decision to regulate (or not), and who is burdened."²⁷ The agency acknowledges this omission, stating that "health studies have shown that populations with low socioeconomic standing are more susceptible to health problems from exposure to air pollution" yet "the models currently used by U.S. EPA and CARB do not have the granularity to account for this impact."²⁸

The exclusion of "granularity" or distributional weighted analysis is critical "because the utility of a reduction in risk . . . depends greatly on the initial position of the individuals experiencing the benefits and losses."²⁹ Applying a distributional weighted cost-benefit analysis, therefore, will allow CalGEM to examine and discuss the regulatory utility and benefits an oil and gas setback rule, which will primarily accrue to those communities bearing the disproportionate impacts and risks associated with oil and gas development and production activity.

Without this level of "granularity," CalGEM's analysis will inevitably underestimate the qualitative and quantitative benefits of a 2,500-foot setback, which could ultimately lead to weaker

²⁵ See Adler, M. (2016). Benefit-Cost Analysis and Distributional Weights: An Overview. *Review of Environmental Economics and Policy* 10:2, https://scholarship.law.duke.edu/cgi/viewcontent.cgi?article=5813&context=faculty_scholarship.

²⁶ See generally Earthjustice. (2020). Comments Regarding Proposed Rule: Increasing Consistency and Transparency in Considering Benefits and Costs in the Clean Air Act Rulemaking Process at 31.

²⁷ See Earthjustice. (2020). Comment Letter Regarding Proposed Rule: Increasing Consistency and Transparency in Considering Benefits and Costs in the Clean Air Act Rulemaking Process at 29.

²⁸ California Air Resources Board. (2020). Clean Miles Standard and Incentive Program: Standardized Regulatory Impact Assessment at 37.

²⁹ Luttrell, M & Jorge Roman-Romero. (2020). Regulatory (In)Justice: Racism and CBA Review. *Yale Journal on Regulation: Notice & Comment*. <https://www.yalejreg.com/nc/regulatory-injustice-racism-and-cba-review-by-melissa-j-luttrell-and-jorge-roman-romero/>.

protections and continued subsidies to oil and gas companies at the expense of the health and wellbeing of frontline environmental justice communities.³⁰

Distributional weighted cost-benefit analysis has also garnered consensus among welfare economists, recognizing “the income and [utility] relationship is ... curvilinear ... with a decreasing marginal utility for higher levels of income” and wealth.³¹ The federal government recently adopted this approach when President Biden signed an executive memorandum aiming to improve and modernize regulatory review. The memorandum directs the Director of the Office of Management and Budget, in consultation with staff from other executive departments and agencies, to develop procedures that account for distributional weights “to ensure that regulatory initiatives appropriately benefit and do not inappropriately burden disadvantaged, vulnerable, or marginalized communities.”³²

Not only does distributional weighted cost-benefit analysis not satisfy foundational welfare economics principles of efficiency, unlike population-average cost-benefit analysis, it also produces more precise information about affected stakeholders. More, distributional weighted analysis improves risk-reduction policy analysis and allows policymakers to engage in reasoned decision-making.³³

If the agency chooses not to apply distributional weighted approach in its cost-benefit analysis, the agency should limit its cost-benefit analysis to the “three counties (LA, Orange, and Kern), which have 95% of the population living within 2,500’ of extraction operations, . . . with the assumption that the findings can be generalized to the rest of the state.”³⁴ Failing to apply even this modified county-based approach, undermines any effort by CalGEM to quantify and monetize the true

³⁰ See Bono, J., Brown, C., Walsh, J. (2020). Comment Letter Regarding Recommendations to CalGEM for Assessing the Economic Value of Social Benefits from a 2,500 Buffer Zone Between Oil & Gas Extraction Activities and Nearby Communities at 20.

³¹ Diener, E., Sandvik, E., Seidlitz, L., Diener, M. (1993). The Relationship Between Income and Subjective Well-Being: Relative or Absolute. 28 *Social Indicators Research* at 204; See also Veenhoven, R. (1991). Is Happiness Relative? 24 *Social Indicators Research* at 7 (“[W]e not only see a clear positive relationship, but also a curvilinear pattern, which suggests that wealth is subject to a law of diminishing happiness returns.”).

³² United States Presidential Memorandum Regarding Modernizing Regulatory Review (Jan. 20, 2021), <https://www.whitehouse.gov/briefing-room/presidential-actions/2021/01/20/modernizing-regulatory-review/>.

³³ Adler, M. (2016). Benefit-Cost Analysis and Distributional Weights: An Overview. *Review of Environmental Economics and Policy* 10:2 at 264-285.

https://scholarship.law.duke.edu/cgi/viewcontent.cgi?article=5813&context=faculty_scholarship (Professor Adler examines models that incorporate weight variables into cost-benefit analysis).

³⁴ Bono et. al. at 15. Further, CalGEM should evaluate the benefits of improve air quality using the research and statistical methods deployed by Stanford researchers analyzing the effects of extractive industries and health equity. See id. at 11-13 (“We think that [the Gonzalez et al.] research can be useful to CalGEM because it uses California data, it estimates the increase in pollution from one additional well by using panel data over 21 years, and it uses a rigorous statistical method.”).

health, environmental, and community benefits of a 2,500-foot setback, particularly in communities disproportionately burdened by the state's toxic legacy of oil and gas development.³⁵

b. CalGEM should use the Willingness-To-Accept approach (in lieu of Willingness-To-Pay) to monetize health and environmental benefits.

The SRIAs discussed above monetize regulatory benefits by relying heavily on the Willingness-To-Pay approach, which is “a statistical construct based on the aggregated dollar amount that a large group of people would be willing to pay for a reduction in their individual risks of dying” or other adverse health outcomes.³⁶ This approach aggregates the maximum amount a person would be willing to pay to avoid adverse health outcomes.³⁷

The problem with using Willingness-To-Pay is that its analysis is limited by the amount of spending power each individual possesses. As a result, this approach “inherently gives more weight to [individuals] with bigger budgets” or spending power, even though the risk-reduction benefits of a proposed regulation (in this case a 2,500-foot oil and gas setback rule) are mainly targeted towards non-white, low-income individuals and communities in proximity to fossil fuel extraction.³⁸

The Willingness-To-Accept approach offers a more equitable assessment by aggregating “the minimum monetary amount required for an individual to forego some good, or to bear some harm.”³⁹ This approach allocates more bargaining power to affected communities because:

“When converted to dollars, the willingness-to-accept measure invariably yields much larger values ... [than] the willingness-to-pay measure. People have limited resources to draw upon in deciding how much they can pay to reduce risks, but there is no limit to the amount that they can demand to accept those risks.”⁴⁰

³⁵ Even so, this county-based analysis alleviates only some of the problems associated with using an unweighted cost-benefit methodology, and any benefits derived from this approach represent conservative value estimates.

³⁶ California Air Resources Board. (2020). Clean Miles Standard and Incentive Program: Standardized Regulatory Impact Assessment at 39.

³⁷ See Martin-Fernandez, Jesus *et al.* 2010. Differences between willingness to pay and willingness to accept for visits by a family physician: A contingent valuation study. *BMC Public Health* 10:236. <https://bmcpublichealth.biomedcentral.com/articles/10.1186/1471-2458-10-236> [defining willingness to pay].

³⁸ Richardson, H. (2000). The Stupidity of the Cost-Benefit Standard. *The Journal of Legal Studies* 29:S2 at 973; see also Brown, T. & Robin Gregory. (1999). Why the WTA-WTP disparity matters. *Ecological Economics* 28:3.

³⁹ See Martin-Fernandez, Jesus *et al.* 2010. Differences between willingness to pay and willingness to accept for visits by a family physician: A contingent valuation study. *BMC Public Health* 10:236. <https://bmcpublichealth.biomedcentral.com/articles/10.1186/1471-2458-10-236> [defining willingness to accept].

⁴⁰ McGarity, T. (2002). Professor Sustain's Fuzzy Math. 90 *Georgetown Law Journal* at 2370.

V. Conclusion

CalGEM should refer to the SRIAs discussed in this comment letter when it conducts its standardized regulatory impact assessment for the proposed public health rulemaking. These SRIAs have meaningfully quantified and monetized qualitative and quantitative health and environmental benefits that are pertinent to this public health rulemaking and were raised in the November 30, 2020 supplemental comment letter submitted by Voices in Solidarity against Oil in Neighborhoods (VISIÓN).

Additionally, we recommend that CalGEM adopt distributional weighted cost-benefit analysis and the Willingness-To-Accept approach, which will improve on the existing frameworks and models already in use by other California agencies. Implementation of both approaches will provide a nuanced and holistic understanding of benefits associated with a 2,500-foot health and safety buffer, particularly for affected frontline environmental justice communities.

ATTACHMENT: COMMENTS FROM VISION (VOICES IN SOLIDARITY AGAINST OIL IN NEIGHBORHOODS), CALIFORNIA ENVIRONMENTAL JUSTICE ALLIANCE, CENTER ON RACE, POVERTY & THE ENVIRONMENT, CENTRAL CALIFORNIA ASTHMA COLLABORATIVE, CENTRAL VALLEY AIR QUALITY COALITION, AND PHYSICIANS FOR SOCIAL RESPONSIBILITY – LOS ANGELES

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