



Via electronic mail

March 31, 2022

John Ford
Director of Planning & Building
County of Humboldt
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Re: EPIC, Humboldt Baykeeper, CRTP, Northcoast Environmental Center, 350 Humboldt and Earthjustice Comments on Final EIR for the North McKay Ranch Project

Dear Director Ford and Supervisors:

By this letter, our organizations write to place you on notice that the Final Environmental Impact Report (“FEIR”) for the proposed North McKay Ranch project (“Project”) violates the California Environmental Quality Act (“CEQA”). First, the FEIR improperly understates the severity of project impacts by ignoring the energy and public health impacts of continued reliance on gas in buildings. Second, in failing to require all-electric new construction, the FEIR fails to adopt all feasible mitigation to reduce the Project’s significant impacts. All-electric new construction is typically less expensive than mixed-fuel construction, has been built throughout Humboldt County, and will substantially lessen the Project’s significant impacts in accordance

with CEQA. Indeed, in a recent settlement after its failure to properly mitigate its greenhouse gas impacts under CEQA, Tejon Ranch, a planned development consisting of over 35,000 housing units, agreed to conditions that included all-electric new construction. Moreover, the Legislature recently approved the BUILD Program Phase 2, which will provide \$75 million in incentives for market-rate all-electric new construction projects.¹ There is no legitimate basis for the County's refusal to approve this feasible mitigation measure, which both addresses the climate emergency and allows for new construction that in most cases is more economic than mixed-fuel homes due to avoided gas line installation costs. Approval of the Project and the certification of the Project's FEIR places the County in legal jeopardy.

At its March 22nd meeting, the Board directed staff to go back to the Project applicant to negotiate additional conditions related to funding of multimodal transportation infrastructure but seemingly declined to include additional mitigations for the Project's significant greenhouse gas ("GHG") impacts. With final action on the Project currently scheduled for April 5, the Project has not yet been approved and the record remains open. We write to clearly and unequivocally demand additional feasible mitigation measures including a prohibition on gas connections to the Project's buildings that are necessary and required to reduce the GHG, energy, and public health impacts resulting from the Project's current reliance on methane gas. We urge Humboldt County to revisit feasible mitigation measures and to take all necessary steps to minimize and mitigate the impacts from greenhouse gas emissions associated with this subdivision.

I. The EIR Fails to Adequately Analyze Project Impacts

The EIR's failure to require all-electric building is not just a climate concern. It is a public health issue and, with electric heat pump space and water heating many times more efficient than gas alternatives, an energy impact issue under CEQA. Neither of these impacts are properly addressed in the EIR. In addition, while the EIR properly recognizes the Project's GHG impacts are significant, it downplays their severity by ignoring methane leakage that results from building homes connected to the gas system and its corresponding climate impacts.

A. The EIR Ignores the Public Health Impacts of Gas Combustion in Homes

Health and safety effects, including adverse health impacts from air pollutants, may constitute significant environmental impacts for the purposes of CEQA. *See, e.g., Sierra Club v. County of Fresno*, 6 Cal.5th 502, 517–22 (2018); CEQA Guidelines § 15126.2(a). Here, the EIR improperly concludes that the "proposed project would not expose sensitive receptors to substantial pollutant concentrations."² The combustion of gas in household appliances, such as stoves, produces harmful indoor air pollution, specifically carbon monoxide, nitric oxide and nitrogen dioxide ("NO_x"), formaldehyde, acetaldehyde, and ultrafine particles, often in excess of

¹ Public Resources Code § 25403.2; Senate Bill 170 (2021) (Items 3360-105-0001 and 3360-005-0001 of Section 2.00).

² *North McKay Ranch Subdivision Project, Draft Environmental Impact Report* ("DEIR" or "EIR"), § 3.3 Air Quality, at 3.3-12.

the levels set out by the California Ambient Air Quality Standards and the National Ambient Air Quality Standards.³ In particular, the California Air Resources Board (“CARB”) has warned that “cooking emissions, especially from gas stoves, are associated with increased respiratory disease.”⁴ Children in homes with gas stoves are particularly at risk. A meta-analysis examining the association between gas stoves and childhood asthma found that “children in homes with gas stoves have a 42 percent increased risk of experiencing asthma symptoms (current asthma)” and “a 24 percent increased risk of ever being diagnosed with asthma by a doctor (lifetime asthma).”⁵ Other health effects of NO_x in children may include cardiovascular effects, increased susceptibility to allergens and lung infections, irritated airways and other aggravated respiratory symptoms, such as chest tightness, wheezing and coughing, and learning deficits.⁶ For these reasons, CARB has recognized “the conclusion of recent studies that 100 percent electrification of natural gas appliances in California would result in significant health benefits and reduction of greenhouse gas (“GHG”) emissions from natural gas combustion in residential buildings.”⁷ In failing to require all-electric new construction, the Project will have significant public health impacts the EIR fails to acknowledge and mitigate.

B. The EIR’s Energy Impact Analysis Ignores the Superior Efficiency of Electric Appliances.

With regard to the Project’s energy impacts, the EIR erroneously states that the “proposed project would not result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation.”⁸ A key purpose of the evaluation of project energy impacts under Appendix F is “decreasing reliance on fossil fuels[,] such as coal, natural gas and oil.” CEQA

³ See, e.g., Attach. 1, Jennifer M. Logue et al., *Pollutant Exposures from Natural Gas Cooking Burners: A Simulation-Based Assessment for Southern California*, 122 Env’t Health Perspectives 43, 43–50 (2014); Attach. 2, Victoria L. Klug et al., *Cooking Appliance Use in California Homes—Data Collected from a Web-Based Survey*, Lawrence Berkeley Nat’l Lab’y (Aug. 2011); Attach. 3, John Manuel, *A Healthy Home Environment?*, 107 Env’tl. Health Perspectives 352, 352–57 (1999); Attach. 4, Nasim A. Mullen et al., *Impact of Natural Gas Appliances on Pollutant Levels in California Homes*, Lawrence Berkeley Nat’l Lab’y (Dec. 2012); Attach. 5, Dr. Zhu et al., *Effects of Residential Gas Appliances on Indoor and Outdoor Air Quality and Public Health in California*, UCLA Fielding School of Pub. Health, at 12–14 (Apr. 2020).

⁴ Attach. 6, CARB, *Combustion Pollutants & Indoor Air Quality*, <https://perma.cc/J6YH-VVZH> (as of November 19, 2020).

⁵ Attach. 7, Brady Seals & Andee Krasner, *Gas Stoves: Health and Air Quality Impacts and Solutions*, Rocky Mountain Institute, Physicians for Social Responsibility, and Sierra Club, at 13 (2020), <https://rmi.org/insight/gas-stoves-pollution-health/>.

⁶ *Id.*

⁷ Attach. 8, CARB Resolution 20-32, *California Indoor Air Quality Program Update*, at 2 (Nov. 19, 2020), <https://ww3.arb.ca.gov/board/res/2020/res20-32.pdf>.

⁸ DEIR, § 3.6 Energy, at 3.6-5.

Guidelines, App. F, at Sec. I. New projects lock in energy system infrastructure for decades.⁹ As a result, if new projects are continuously powered by carbon-emitting energy sources such as natural gas, “it will be that much more difficult for California to meet its GHG emission reduction goals.”¹⁰ In furtherance of CEQA’s energy conservation mandates, electric heat pumps substantially reduce gas demand due to their superior efficiency and reliance on electric power from an increasingly decarbonized grid. Rather than needing to generate heat through the combustion of fossil gas, heat pumps extract existing heat from the surrounding environment. Because electricity is used to move heat around rather than to create it, the efficiency of heat pump water and space heating is far greater than 100 percent (energy services delivered are much greater than energy input). For example, gas water heaters advertised by Rheem, a major water heating manufacturer, have a uniform efficiency factor (“UEF”) of 0.58 – 0.83.¹¹ In contrast, Rheem’s heat pump water heaters have a UEF of between 3.45 to 3.80, making them four to seven times more efficient than gas alternatives.¹²

As recognized by the CEC, “[u]sing heat pumps for space and water heating, as well as other uses, is cost-effective in the long run simply because electrification technologies can be significantly more efficient than natural gas technologies.”¹³ Given the low inherent efficiencies of gas space and water heating as compared to heat pump options, homes that continue to rely on gas cannot be reasonably construed as “the wise and efficient use of energy” and therefore result in significant energy impacts under CEQA.

C. The EIR Understates the Severity of the Project’s Greenhouse Gas Impacts

While the EIR correctly identifies the Project’s GHG impacts as significant it understates the severity of Project impacts. With regard to the direct emissions from the Project, the EIR fails to account for methane leakage, and appears to limit the analysis to onsite combustion of natural gas. Methane is an extremely potent greenhouse gas with a radiative force 28-36 times more potent than carbon dioxide.¹⁴ Methane’s outsized effect on near-term warming has led the United Nations Environment Programme to conclude that cutting methane “is the strongest lever we have to slow climate change.”¹⁵

⁹ Attach. 9, California Energy Comm’n (“CEC”), *2018 IEPR Update Volume II*, at 18 (Mar. 21, 2019) (“2018 IEPR Update”).

¹⁰ *Id.*

¹¹ Attach. 10, Rheem, *Gas Water Heaters*, <https://perma.cc/M687-98TU>.

¹² Attach. 11, Rheem, *Professional Prestige Series ProTerra Hybrid Electric Water Heater*, <https://perma.cc/5SKF-VEMC>.

¹³ 2018 IEPR Update at 32.

¹⁴ Attach. 12, U.S. EPA, *Understanding global Warming Potentials*, <https://perma.cc/N3P7-RXSD> (last visited Mar. 30, 2022).

¹⁵ Attach. 13, UN Environment Programme, *Cut Methane Emissions to Avert Global Temperature Rise, UN-Backed Study Urges* (May 6, 2021), <https://news.un.org/en/story/2021/05/1091402>.

In the past few years, multiple new studies and findings have shown that the pervasiveness and magnitude of methane leakage upstream from the point of combustion is far worse than previously understood. In 2018, a study found the leakage rate across the U.S. gas supply chain equaled 2.3% – 60% higher than the EPA’s official estimate.¹⁶ In 2019, a study that expanded this analysis to observe leakage in distribution and end-uses found observed emissions were a factor of two to three times larger than those in EPA’s inventory.¹⁷ In 2021, another study found that attribution production-stage methane leakage to the climate intensity of natural gas usage add up to 65% global warming potential to the emissions from onsite combustion of gas (and estimates an average 2.8% leakage rate just for the production-stage of California’s gas mix).¹⁸ Just this year, researchers at Stanford University identified that gas stoves themselves leak a more significant amount of methane than previously assumed—between 0.8 and 1.3% of the gas they use leaks unburnt.¹⁹ The researchers conclude that U.S. stoves could emit as much greenhouse gas annually as 500,000 cars.²⁰ And in another study published this month, measurements by aerial surveys of the Permian basin (the largest oil and gas producing region in the Nation and a substantial source of California’s gas imports) indicate that production-stage leakage have been dramatically under-accounted. Researchers in New Mexico measured a shocking 9.4% leakage rate from oil and gas production in the region—over six times the latest estimates from the EPA.²¹ The EIR’s failure to account for the pervasive methane leakage that will occur to deliver gas to the Project and within Project buildings understates its GHG impacts.

In addition, because the Project would lock-in gas use in new homes, the EIR cannot legitimately conclude that the Project is consistent with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases. Numerous agencies have concluded that all-electric new construction is critical for California to achieve its climate objectives. For example, as concluded in the CEC Report *The Challenge of Retail Gas in California’s Low-Carbon Future*, “[i]f building electrification is delayed, missing the lower-cost

¹⁶ Attach. 14, Ramon A. Alvarez et al., *Assessment of Methane Emissions from the U.S. Oil and Gas Supply Chain*, 361 Science 186, 186–188 (July 13, 2018), <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6223263/pdf/nihms-1506519.pdf>.

¹⁷ Attach. 15, Genevieve Plant et al., *Large Fugitive Methane Emissions From Urban Centers Along the U.S. East Coast*, 46 Geophysical Research Letters 8500, 8500–8507 (July 15, 2019), <https://agupubs.onlinelibrary.wiley.com/doi/epdf/10.1029/2019GL082635>.

¹⁸ Attach. 16, Diana Burns, *Attribution of Production-stage Methane Emissions to Assess Spatial Variability in the Climate Intensity of US Natural gas Consumption*, 16 Environ. Res. Lett. (Apr. 8, 2021), <https://iopscience.iop.org/article/10.1088/1748-9326/abef33>.

¹⁹ Attach. 17, Eric D. Lebel et al., *Methane and Nox Emissions from Natural gas Stoves, Cooktops, and Ovens in Residential Homes*, 56 Environ. Sci. Technol 2529, 2529–2539 (Jan 27, 2022), <https://doi.org/10.1021/acs.est.1c04707>.

²⁰ *Id.* at 2529.

²¹ Attach. 18, Yuanlei Chen et al., *Quantifying Regional Methane Emissions in the New Mexico Permian Basin with a Comprehensive Aerial Survey*, Environ. Sci. Tech. (Mar. 23, 2022), <https://doi.org/10.1021/acs.est.1c06458>.

opportunities for all-electric new construction and replacement of equipment upon failure, there is a greater risk that expensive early retirement of equipment may be needed, or that the climate goals could be missed.”²² Similarly, in its Building Decarbonization proceeding, the California Public Utilities Commission (“CPUC”) has also recognized the problems with continued investment in fossil fuel infrastructure, directing all incentives for the Building Initiative for Low-Emissions Development (“BUILD”) Program to “new residential housing that is at a minimum, all-electric” to avoid “the risk of locking in new natural gas assets that could be unused or underutilized before the end of their life.”²³

The EIR’s reliance on forest offsets to partially mitigate the Project GHG impacts is also misplaced. Offsets, and the counterfactuals against which they are generated, are extremely challenging to verify, and their permanence nearly impossible to guarantee. The environmental integrity of carbon offset projects in general—and forest carbon projects in particular—has been the subject of extreme scrutiny.²⁴ In the past few years, multiple studies have made worrying findings that these projects have vastly overstated their benefits. A review of the California Air Resources Board’s cap-and-trade program found that the offsets generated from forest protection projects have likely only accomplished 18% of the emissions reductions claimed to have been made.²⁵ The underestimate is caused by CARB using substantially lower-than-observed estimates of leakage—in this context, the notion that the prevention of timber harvesting at an offset site simply leads to an increase in harvesting elsewhere. Worse, investigations have found that even forest cover within project sites that continue to generate credits are no longer forested, as preservation has proven challenging to verify and enforce.²⁶ As the climate crisis has worsened, the flaws of relying on forest offsets to allow for continued emissions has become evident. Record-breaking wildfires in the West over the past 5 years have burned over 153,000 acres of forests that have been part of California’s carbon-offset projects.²⁷ The devastating reality is that as tree mortality rises and forest disturbance risk increases, fires and disease

²² Attach. 19, CEC, *The Challenge of Retail Gas in California’s Low-Carbon Future*, at 2 (Apr. 2020), <https://ww2.energy.ca.gov/2019publications/CEC-500-2019-055/CEC-500-2019-055-F.pdf>.

²³ CPUC, D.20-03-027, *Decision Establishing Building Decarbonization Pilot Programs*, at 65 (Mar. 26, 2020), <https://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M331/K772/331772660.PDF>.

²⁴ “While the risks of over-crediting and perverse incentives can be reduced through careful analysis, conservative design decisions, and periodic review of protocol outcomes, uncertainty and risk are inherent to carbon offsets. This is because offsets pay for reductions rather than charge for emissions.” Attach. 20, Barbara Haya et al., *Managing Uncertainty in Carbon Offsets: Insights from California’s Standardized Approach*, at 5 (Aug. 2019), <https://www-cdn.law.stanford.edu/wp-content/uploads/2019/08/Managing-Uncertainty-in-Carbon-Offsets-SLS-Working-Paper-2.pdf>.

²⁵ Attach. 21, Barbara Haya, *POLICY BRIEF: The California Air Resources Board’s U.S. Forest offset protocol underestimates leakage*, at 2 (May 7, 2019), https://gspp.berkeley.edu/assets/uploads/research/pdf/Policy_Brief-US_Forest_Projects-Leakage-Haya_4.pdf.

²⁶ Attach. 22, Lisa Song, *An Even More Inconvenient Truth – Why Carbon Credits For Forest Preservation May Be Worse Than Nothing*, ProPublica (May 22, 2019), <https://perma.cc/V54B-ZQTZ>.

²⁷ Attach. 23, Winston Choi-Schagrin, *Wildfires are ravaging forests set aside to soak up greenhouse gases*, NY Times (Aug. 23, 2021), <https://perma.cc/VH69-JYFU>.

worsened by climate change are very likely to turn some forests in the West into a net source—rather than sink—of carbon.²⁸ Accordingly, forest carbon offsets cannot be relied upon to allow for continued, avoidable emissions of greenhouse gas from the Project.

II. The EIR Fails to Adopt All Feasible Mitigation Measures for the Project’s Significant Impacts

A. CEQA Requires Adoption of Feasible Mitigation Measures for Significant Impacts

CEQA mandates that government agencies must deny approval of a project presenting significant adverse effects when feasible alternatives or feasible mitigation measures can substantially lessen such effects. Pub. Resources Code § 21002. Only when feasible mitigation measures have been exhausted may an agency find that overriding considerations exist that outweigh the significant environmental effects. *Id.* § 21081; *see also* CEQA Guidelines 15091(a). This mandate—to avoid, minimize and mitigate significant adverse effects where feasible—has been described as the “most important” provision of the law. *Sierra Club v. Gilroy City Council*, 222 Cal. App. 3d 30, 41 (1990).

To effectuate this “most important” provision, the government is tasked with investigating the potential adverse effects and all feasible alternatives and mitigation measures that decisionmakers may adopt. Pub. Resources Code § 21100; CEQA Guidelines 15126. CEQA likewise requires alternatives and mitigation measures to be sufficiently detailed to “foster informed decision-making and public participation.” *Save Round Valley Alliance v. County of Inyo*, 157 Cal. App. 4th 1437, 1456, 1460 (2007).

Feasibility, as used by CEQA and the Guidelines, is where a mitigation measure is “capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, social, and technological factors.” Public Resources Code § 21061.1; CEQA Guidelines § 15364. “In keeping with the statute and guidelines, an adequate EIR must respond to specific suggestions for mitigating a significant environmental impact unless the suggested mitigation is facially infeasible. While the response need not be exhaustive, it should evince good faith and a reasoned analysis.” *Los Angeles Unified School District v. City of Los Angeles*, 58 Cal. App. 4th 1019, 1029 (1997) (internal citation omitted).

The ultimate determination of the sufficiency and feasibility of mitigation measures is the province of the action agency. These determinations must be supported by findings supported by substantial evidence. *See Federation of Hillside & Canyon Associations v. City of Los Angeles*, 83 Cal. App. 4th 1252 (2d Dist. 2000); *Concerned Citizens of South Los Angeles v. Los Angeles*

²⁸ Attach. 24, Oriana S. Chegwidden et al., *Risks to Forest Carbon in a Changing Climate*, (carbon)plan (May 20, 2021), <https://perma.cc/8JCF-8AFH>.

Unified School District, 24 Cal. App. 4th 825 (2d Dist. 1994). Averments by project developers concerning the financial feasibility of mitigation are not dispositive of the question; rather, that is one piece of information that may be considered by the action agency.

B. The EIR Should Be Revised to Require All-Electric New Construction, Electric Vehicle Charging and Provision of Free Bus Passes to Residents of the Project's Multi-Family Homes

Because the project is anticipated to result in significant GHG emissions, Humboldt County is obligated to adopt all feasible mitigation measures. Humboldt has yet to adopt feasible mitigation measures to reduce project-related GHG emissions.

Our organizations have repeatedly placed the county on notice. In numerous public comments submitted on both the notice of preparation and the DEIR, our organizations raised the necessity to mitigate GHG emissions below a threshold of significance and the adoption of all-electric development as a feasible mitigation measure. *See* June 29, 2020 letter from EPIC et al. recorded as letter O3 in the FEIR; June 19, 2019 letter from Earthjustice. The DEIR and the FEIR failed to consider all-electric development as a mitigation measure. Instead, the FEIR admits the county only considered transportation-related mitigation measures for greenhouse gas emissions. *See* FEIR at 2.8. Again before the Board of Supervisors, on multiple occasions, our organizations raised the necessity of considering all-electric development as a mitigation measure for greenhouse gas emissions from the project. *See* Public Comments by Tom Wheeler, EPIC and Colin Fiske, CRTP on March 22, 2022.

Additional mitigation measures must at least include the following:

1. For all buildings, in addition to Title 24 energy efficiency and solar photovoltaic ("PV") building requirements:
 - i. All-electric construction with no new natural gas infrastructure;
 - ii. At least one smart electric vehicle charging station installed per unit (including multifamily units); and
 - iii. Building energy storage systems installed with, and sized to match the capacity of, every PV system.
2. All installed appliances, EV chargers, solar PV system inverters, and other feasible devices will have grid-interactive capabilities that meet the Institute of Electrical and Electronics Engineers ("IEEE") standard for grid-responsive distributed energy resources (IEEE Standard 2030.5).
3. Provide bus passes allowing free and unrestricted travel on both the Eureka Transit System and Redwood Transit System to residents of all new multifamily buildings constructed as part of the project, for a minimum of 5 years following construction.

As we have previously demonstrated, these mitigation measures are feasible. As explained in the June 19, 2019 letter from Earthjustice (internal citations omitted):

Eliminating natural gas use in new buildings is feasible mitigation that will substantially lessen the Project's GHG and energy impacts. Indeed, building electrification is one of the fastest and most cost-effective ways to achieve the transition to net-zero emissions. In the 2018 IEPR Update, the CEC recognized the “growing consensus that building electrification is the most viable and predictable path to zero-emission buildings ... due to the availability of off-the-shelf, highly efficient electric technologies (such as heat pumps) and the continued reduction of emission intensities in the electricity sector.”

All-electric developments are being constructed for a range of building types pursuing low or zero emissions objectives and are a feasible mitigation requirement for new development under the Project. Sacramento's Municipal Utility District has partnered with homebuilders to construct entire neighborhoods that are all-electric, with 400 all-electric homes planned in the next two years alone. Some California developers now exclusively build all-electric homes, and have already deployed a range of affordable, luxury, single- and multi-family housing units all across the state. Given that other entities are now requiring all-electric construction, there is no reason for the County not to also do so. For example, the University of California announced in August of 2018 that “[n]o new UC buildings or major renovations after June 2019, except in special circumstances, will use on-site fossil fuel combustion, such as natural gas, for space and water heating.”

Similarly, in its Downtown Specific Plan, the City of Hayward required for multifamily residential developments that “[a]ll buildings will be all electric, meaning that electricity is the only permanent source of energy for water-heating, mechanical and heating, ventilation, and air conditioning (HV AC) (i.e., space-heating and space cooling), cooking, and clothes-drying and there is no gas meter connection.” The natural next step is to extend such a requirement to commercial developments, which can also be feasibly electrified.

Since Earthjustice's 2019 letter, all-electric development has only become more feasible and the climate, public health, and energy impacts of continued reliance on gas in homes more apparent.

All-electric development is nearly always cheaper than mixed-fuel development. All-electric development is almost always cheaper than mixed-fuel development for single-family

houses.²⁹ While multi-family mid-rise construction is more complex, again all-electric development is generally cheaper than mixed-fuel development.³⁰ The Redwood Coast Energy Authority has further reduced the costs of all-electric development through its rebate program, which offers rebates for heat pumps, energy storage, EV chargers, and more.³¹ Because electric appliances are substantially more efficient than gas alternatives and the Project will include rooftop solar to generate electricity, operational costs will also be substantially less than a mixed-fuel home.³²

In looking at analogous development projects across the state and county, all-electric development is routinely adopted. In Humboldt County, numerous examples of all-electric development exist: Danco's new Sorrel Place apartments in Arcata, Phyllis Rex Townhouses in Samoa, and the Lodge in Eureka, as well as Linc's proposed apartments in Eureka—all voluntarily elected to pursue all-electric development. By contrast, Tejon Ranch—a housing development across 270,000 acres—adopted all-electric development only after litigants filed for claims similar to those raised here.³³ As these many projects demonstrate, all-electric construction is feasible and effective mitigation for the Project's GHG, energy, air quality and public health impacts.

Bus passes for residents is another frequently-adopted measure to reduce greenhouse gas emissions. For example, at the Board of Supervisors meeting on March 22, 2022, Supervisor Mike Wilson stated that this is a standard condition of approval for multifamily projects approved by the California Coastal Commission. Locally, Linc's new Eureka housing project and the Sorrel Place project in Arcata likewise include free bus passes for their future residents.

In sum, all-electric development and the issuance of bus passes to residents are feasible mitigation measures the County must incorporate into the Project prior to final Project approval. Failure to adopt additional mitigation measures to reduce the Project's significant GHG and related impacts violates CEQA. We look forward to a formal response from the county

²⁹ Attach. 25, Frontier Energy, Inc. & Misti Bruceri & Associates, LLC, *2019 Cost-effectiveness Study: Low-Rise Residential*, at 33 (July 17, 2019) (Prepared by Frontier Energy for the PG&E Codes and Standards Program.), <https://efiling.energy.ca.gov/GetDocument.aspx?tn=234020-6&DocumentContentId=66846>.

³⁰ *Id.*; Attach. 26, E3, *Residential Building Electrification in California*, at 56 (Apr. 2019), https://www.ethree.com/wp-content/uploads/2019/04/E3_Residential_Building_Electrification_in_California_April_2019.pdf; Attach. 27, Redwood Energy, *A Zero-Emissions All-Electric Multifamily Construction Guide* (2019), <https://www.redwoodenergy.tech/wp-content/uploads/2019/11/Multifamily-ZNC-Guide-7-10-19-sa-clean.pdf>.

³¹ Attach. 28, Redwood Energy, *RCEA Rebates & Resources*, <https://perma.cc/9Y6S-A6XY>.

³² See, e.g., Attach. 29, Tim Kohut, *Here's how California can cut affordable housing costs*, CalMatters (Feb. 9, 2021) (reducing operational and construction costs through all-electric construction), <https://perma.cc/6VYZ-CBEK>.

³³ Attach. 30, Tejon Ranch Co., Form 10-K, Ex. 10.48, Settlement Agreement (Nov. 30, 2021), <https://perma.cc/UUN7-LGW5>.

regarding our continued concerns and the adoption of additional mitigation measures or project features to reduce the Project's significant GHG, energy and public health impacts. Please include Attachments 1-30 listed below and sent in a separate email in the administrative record for this action and do not hesitate to contact us at the email addresses below.

March 31, 2022

Sincerely,

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ATTACHMENTS FOR RECORD

The following attached documents are referenced above. Please ensure each is included in the administrative record for this Project.

- Attachment 1: Jennifer M. Logue et al., *Pollutant Exposures from Natural Gas Cooking Burners: A Simulation-Based Assessment for Southern California*, 122 Env't Health Perspectives 43 (2014).
- Attachment 2: Victoria L. Klug et al., *Cooking Appliance Use in California Homes—Data Collected from a Web-Based Survey*, Lawrence Berkeley Nat'l Lab'y (Aug. 2011).
- Attachment 3: John Manuel, *A Healthy Home Environment?*, 107 Env'tl. Health Perspectives 352 (1999).
- Attachment 4: Nasim A. Mullen et al., *Impact of Natural Gas Appliances on Pollutant Levels in California Homes*, Lawrence Berkeley Nat'l Lab'y (Dec. 2012).
- Attachment 5: Dr. Zhu et al., *Effects of Residential Gas Appliances on Indoor and Outdoor Air Quality and Public Health in California*, UCLA Fielding School of Pub. Health (Apr. 2020).
- Attachment 6: CARB, *Combustion Pollutants & Indoor Air Quality* (as of November 19, 2020).
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- Attachment 13: UN Environment Programme, *Cut Methane Emissions to Avert Global Temperature Rise, UN-Backed Study Urges* (May 6, 2021).
- Attachment 14: Ramon A. Alvarez et al., *Assessment of Methane Emissions from the U.S. Oil and Gas Supply Chain*, 361 Science 186 (July 13, 2018).
- Attachment 15: Genevieve Plant et al., *Large Fugitive Methane Emissions From Urban Centers Along the U.S. East Coast*, 46 Geophysical Research Letters 8500 (July 15, 2019).
- Attachment 16: Diana Burns, *Attribution of Production-stage Methane Emissions to Assess Spatial Variability in the Climate Intensity of US Natural gas Consumption*, 16 Environ. Res. Lett. (Apr. 8, 2021).
- Attachment 17: Eric D. Lebel et al., *Methane and Nox Emissions from Natural gas Stoves, Cooktops, and Ovens in Residential Homes*, 56 Environ. Sci. Technol 2529 (Jan 27, 2022).

- Attachment 18: Yuanlei Chen et al., *Quantifying Regional Methane Emissions in the New Mexico Permian Basin with a Comprehensive Aerial Survey*, Environ. Sci. Tech. (Mar. 23, 2022).
- Attachment 19: California Energy Comm’n, *The Challenge of Retail Gas in California’s Low-Carbon Future* (Apr. 2020).
- Attachment 20: Barbara Haya et al., *Managing Uncertainty in Carbon Offsets: Insights from California’s Standardized Approach* (Aug. 2019).
- Attachment 21: Barbara Haya, *POLICY BRIEF: The California Air Resources Board’s U.S. Forest offset protocol underestimates leakage*, at 2 (May 7, 2019).
- Attachment 22: Lisa Song, *An Even More Inconvenient Truth – Why Carbon Credits For Forest Preservation May Be Worse Than Nothing*, ProPublica (May 22, 2019).
- Attachment 23: Winston Choi-Schagrin, *Wildfires are ravaging forests set aside to soak up greenhouse gases*, NY Times (Aug. 23, 2021).
- Attachment 24: Oriana S. Chegwiddden et al., *Risks to Forest Carbon in a Changing Climate*, (carbon)plan (May 20, 2021).
- Attachment 25: Frontier Energy, Inc. & Misti Bruceri & Associates, LLC, *2019 Cost-effectiveness Study: Low-Rise Residential* (July 17, 2019).
- Attachment 26: E3, *Residential Building Electrification in California* (Apr. 2019).
- Attachment 27: Redwood Energy, *A Zero-Emissions All-Electric Multifamily Construction Guide* (2019).
- Attachment 28: Redwood Energy, *RCEA Rebates & Resources*.
- Attachment 29: Tim Kohut, *Here’s how California can cut affordable housing costs*, CalMatters (Feb. 9, 2021).
- Attachment 30: Tejon Ranch Co., Form 10-K, Ex. 10.48, Settlement Agreement (Nov. 30, 2021).