EARTHJUSTICE
BECAUSE THE EARTH NEEDS A GOOD LAWYER

Via Electronic Mail

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Re: Earthjustice Comments on the Notice of Preparation of a Draft Environmental Impact Report for the North McKay Ranch Subdivision

Earthjustice appreciates the opportunity to comment on the Notice of Preparation of a Draft Environmental Impact Report ("DEIR") for the North McKay Ranch Subdivision ("Project"), which contemplates the development of 320 residential units and 22,000 square feet of commercial space. Our initial comments focus on the importance of incorporating building electrification requirements into the Project. The transition from gas to electric buildings is critical to reaching a zero emissions future and will not occur at the scale or timing needed absent decisive County leadership. Consistent with California Environmental Quality Act ("CEQA") requirements to adopt all feasible mitigation to reduce significant greenhouse gas ("GHG") and energy impacts, building electrification is essential mitigation to reduce Project impacts and take meaningful action to address climate change. Building electrification will also provide economic, safety, and air quality benefits for Humboldt County. We therefore urge the County to require all-electric construction as feasible mitigation in the DEIR for the Project.

I. The Project Will Have Significant GHG Impacts.

CEQA requires a DEIR identify all the significant impacts of a proposed project, including from the project's GHG emissions and energy use and adopt feasible mitigation.[1] To determine the significance of the Plan's GHG impacts, the County should apply a net-zero emissions threshold. A net-zero threshold is also consistent with the severity of the climate crisis and the recognition that any increase in GHG emissions exacerbates the cumulative impacts of climate.

In determining the significance of project impacts, the County "must ensure that CEQA analysis stays in step with evolving scientific knowledge and state regulatory schemes." *Cleveland National Forest Foundation v. San Diego Assn. of Gov'ts* (2017) 3 Cal.5th 497, 519. Non-zero numeric thresholds, such as the 1,100 MT GHG significance threshold proposed by the Bay Area Air Quality Management District ("BAAQMD") in 2009 are unlikely to survive legal scrutiny. The BAAQMD numeric threshold was derived from Assembly Bill ("AB") 32's 2020 GHG reduction targets and does not reflect Senate Bill 32's requirement to reduce GHGs to 40

[1] CEQA Guidelines § 15126.2; Appendix F; Appendix G § VII.

percent below 1990 levels by 2030 or our increased understanding of the severity of climate impacts California is and will experience.[2] While useful when first recommended ten years ago, it has not kept in step with scientific knowledge and regulatory developments and is no longer supported by substantial evidence.

Alternative approaches to determining the significance of Project GHG impacts, such as using a comparison against "business-as-usual" emissions or a per capita emissions metric, may not withstand legal scrutiny and should not be used to evaluate the Project's emissions in the DEIR. In *Center for Biological Diversity v. Cal. Dept of Fish & Wildlife* (2015) 62 Cal.4th 204, the California Supreme Court held that determining the significance of project GHG impacts by comparing project emissions with emissions under a business-as-usual scenario derived from statewide emissions reduction goals under AB 32 lacked substantial evidence. For similar reasons, use of statewide per capita emissions metrics to determine the significance of project emissions has also been rejected for the purpose of determining project GHG impacts under CEQA. As the court held in *Golden Door Properties LLC*, because "using a statewide criterion requires substantial evidence and reasoned explanation to close the analytical gap left by the assumption that the 'level of effort required in one [statewide] context . . . will suffice in the other, a specific land use development.'" *Golden Door Properties LLC v. County of San Diego* (2018) 27 Cal.App.5th 892, 904 (quoting *Center for Biological Diversity*, 62 Cal.4th at 227). While use of a statewide per capita metric to determine the significance of GHG impacts may be useful for a General Plan, which examines collective community emissions of existing and proposed new development, it is not appropriate for projects that only govern new development. Accordingly, the County should apply a net-zero emissions GHG threshold to ensure a legally defensible EIR. Because the Project will result in an increase in GHG emissions, the County should consider its GHG impacts significant.

II. The Project Will Have Significant Energy Impacts if it Requires Gas Connections.

As stated in the Revised Notice of Preparation ("NOP") for this project, energy conservation was not addressed in the Initial Study but "may possibly be significant."[3] A key purpose of the evaluation of project energy impacts under CEQA is "decreasing reliance on fossil fuels, such as coal, natural gas and oil."[4] Addressing energy impacts of proposed projects requires more than mere compliance with Title 24 Building Energy Efficiency Standards.[5] Including gas hook-ups in new projects, and thereby perpetuating reliance on fossil fuels, is contrary to California's energy objectives. As the California Energy Commission ("CEC") determined its 2018 Integrated Energy Policy Report ("IEPR") Update:

> New construction projects, retrofitting existing buildings, and replacing appliances and other energy-consuming equipment essentially lock in energy

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[2] *See* BAAQMD, *CEQA Guidelines Update, Proposed Thresholds of Significance* at 10-22 (Dec 7, 2009), http://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/proposed-thresholds-of-significance-dec-7-09.pdf?la=en (explaining methodology for project-level GHG threshold).

[3] Humboldt County Dept. of Planning and Building, *North McKay Ranch Subdivision, General Plan Amendment RNOP* at 11. Probable Effects (May 2019), https://saoprceqap001.blob.core.windows.net/250226-3/attachment/IocUBWLHA4jB-2Tx3Fm3lnv7rbYUOzkWjhsyxuHOo_XGx60ubqj6bNxazZSQgmgXY0EKXC1F3eZN_XdG0.

[4] CEQA Guidelines, Appendix F, Sec. I.

[5] *See California Clean Energy Committee v. City of Woodland* (2014) 225 Cal.App.4th 173, 211.

> system infrastructure for many years. As a result, each new opportunity for truly impactful investment in energy efficiency and fuel choice is precious. If the decisions made for new buildings result in new and continued fossil fuel use, it will be that much more difficult for California to meet its GHG emission reduction goals. Parties planning new construction have the opportunity instead to lock in a zero- or low-carbon emission outcome that will persist for decades.[6]

Accordingly, projects that contain new gas connections, and therefore result in new fossil fuel delivery infrastructure, have significant energy impacts under CEQA. The example built out schedule identified in the Project's NOP plans for utility construction during the Phase 1 construction of the Project.[7] Phase 1 is a prime opportunity to establish a zero-emission utility system and align with California's energy goals. By providing a zero-emission system in Phase 1, the following phases of the Project can easily connect to and provide clean energy to the future residents and commercial area.

III. Building Electrification is Feasible and Effective Mitigation to Reduce Project GHG and Energy Impacts.

A lead agency may not lawfully approve a Project where "there are feasible alternatives or feasible mitigation measures available which would substantially lessen [its] significant environmental effects."[8] 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."[9]

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.[10] Some California developers now exclusively build all-electric homes, and have already deployed a range of affordable, luxury, single- and multi-family housing units

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[6] CEC, *2018 Integrated Energy Policy Report Update, Vol. II* at 18 (Jan. 2019), https://efiling.energy.ca.gov/getdocument.aspx?tn=226392

[7] Humboldt County Dept. of Planning and Building, *North McKay Ranch Subdividion, General Plan Amendement RNOP* at 11. Description of Project (May 2019), https://saoprceqap001.blob.core.windows.net/250226-3/attachment/IocUBWLHA4jB-2Tx3Fm3lnv7rbYUOzkWjhsyxuHOo_XGx60ubqj6bNxazZSQgmgXY0EKXC1F3eZN_XdG0.

[8] Pub. Res. Code § 21002.

[9] CEC, *2018 Integrated Energy Policy Report Update, Vol. II* at 20 (Jan. 2019), https://efiling.energy.ca.gov/getdocument.aspx?tn=226392.

[10] Justin Gerdes, *All-Electric Homes Are Becoming the Default for New Residential Construction in Sacramento*, Greentech Media (Nov. 13, 2018), https://www.greentechmedia.com/articles/read/all-electric-homes-are-becoming-the-default-for-new-residential-constructio#gs.VYzCCMQ.

all across the state.[11] 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."[12]

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 (HVAC) (i.e., space-heating and space cooling), cooking, and clothes-drying and there is no gas meter connection."[13] The natural next step is to extend such a requirement to commercial developments, which can also be feasibly electrified.[14]

IV. There Are Multiple Co-Benefits to Achieving Zero Emission Buildings through Electrification.

Beyond achieving the energy and GHG emissions reductions essential for preventing climate breakdown, electrification of new buildings will produce a range of important co-benefits for the economic well-being, safety, and health of the community. Building electrification offers the potential to lower energy bills, reduce the cost of new construction, improve air quality, public safety, and climate resiliency, as well as create new jobs. Far from being a barrier to new housing, all-electric new construction can enable greater opportunities for affordable housing construction by reducing costs and streamlining mitigation requirements. For disadvantaged populations that pay a disproportionate amount of their income to energy costs, and who are more likely to suffer from asthma due to poor indoor air quality, zero emission homes are an important opportunity to deliver social equity.[15]

A. Lowering Energy Bills and Cost of New Construction

All-electric buildings can lower utility bills for tenants, reduce the cost of construction of new housing in the County, and shield customers from the volatile and increasing costs of gas. A recent report, *Decarbonization of Heating Energy Use in California Buildings*, by Synapse Energy Economics found that electrification could lower utility bills by up to $800 annually and lower the cost of new construction in Los Angeles by roughly $1,500 to $6,000.[16] Other analysis has found that new homes and apartment buildings can cost between $1,000 and $18,000 less to

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[11] *See* Redwood Energy, *Development Projects (A Small Sample)*, https://www.redwoodenergy.tech/development-projects/.

[12] University of California, *UC sets higher standards, greater goals for sustainability* (Sept. 4, 2018), https://www.universityofcalifornia.edu/press-room/uc-sets-higher-standards-greater-goals-sustainability.

[13] City of Hayward, *Hayward Downtown Specific Plan DEIR, Greenhouse Gas Emissions Chapter* at 4.6-40 (Jan. 7, 2019), https://www.hayward-ca.gov/sites/default/files/documents/dtsp-eir-greenhouse-gas-emissions.pdf.

[14] *See, e.g.*, Redwood Energy, *Zero Carbon Commercial Construction: An Electrification Guide for Large Commercial Buildings and Campuses* (2019), https://drive.google.com/file/d/1L5IBsSmT-p8he6dmrW565l6ZB_dkXya9/view.

[15] Kelly Vaugh, *Social Equity, Affordable Housing, and the Net-Zero Energy Opportunity*, Rocky Mountain Institute (May 9, 2018), https://rmi.org/social-equity-affordable-housing-and-the-net-zero-energy-opportunity/.

[16] Synapse Energy Economics, *Decarbonization of Heating Energy Use in California Buildings* at 2, 39 (Oct. 2018), http://www.synapse-energy.com/sites/default/files/Decarbonization-Heating-CA-Buildings-17-092-1.pdf.

build if they are not connected to gas distribution pipelines.[17] The UC has carefully examined feasibility and costs of all-electric buildings in the report: UC Carbon Neutral Buildings Cost Study. The first key insight offered is that "[a]ll-electric buildings are comparable or slightly less expensive tha[n] gas + electric buildings from a 20-year Life Cycle Cost perspective."[18] The most significant cost savings were found for residential buildings, where the average Life Cycle Cost for all-electric was $5.28/sf lower compared to gas + electric options.[19]

B. A Safer Community

Recent events from Aliso Canyon, San Bruno, and the state of Massachusetts add to the devastating record of hazardous natural gas infrastructure. Between 2015 and 2017, natural gas pipeline explosions and incidents in the country claimed on average 15 fatalities, 57 injuries, and $316,647,907 in property damage *annually*.[20] As climate impacts intensify, the escalating risks of aging natural gas infrastructure will outpace the industry's rate of pipeline replacement. Sea level rise, which promises to be one of the many significant climate impacts affecting the region, especially amplifies the risks of natural gas.[21]

Methane leakage, a pervasive problem with natural gas infrastructure, can be particularly hazardous for families living in earthquake and fire-prone areas since leaking gas exacerbates fires after earthquakes. The California Seismic Safety Commission estimates that 20 to 50 percent of total post-earthquake fires are fires related to gas leaks.[22] Beginning to electrify entire communities is a key precautionary strategy to mitigate the growing risks of California's massive gas system.

C. Improved Air Quality

Gas appliances in buildings make up a quarter of California's nitrogen oxide (NO_x) emissions from natural gas. NO_x is a precursor to ozone and a key pollutant to curb in order to comply with state and federal ambient air quality standards. Electrifying buildings will help the County to reduce NO_x and ground level ozone, improving *outdoor* air quality and benefiting public health. Electrification of fossil fuel appliances will also immediately improve *indoor* air quality and health. On average, Californians spend 68 percent of their time indoors, making

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[17] Stone Energy Associates, *Accounting for Cost of Gas Infrastructure*, CEC Docket 17-BTSD-01 (May 4, 2017), https://efiling.energy.ca.gov/GetDocument.aspx?tn=217420&DocumentContentId=26959.

[18] Point Energy Innovations, *UC Carbon Neutral Buildings Cost Study* at 3 (June 2017), https://www.ucop.edu/sustainability/_files/Carbon%20Neutral%20New%20Building%20Cost%20Study%20FinalReport.pdf.

[19] *Id.*

[20] Pipeline and Hazardous Materials Safety Administration, *Pipeline Incident 20 Year Trends* (Nov. 2018), https://www.phmsa.dot.gov/data-and-statistics/pipeline/pipeline-incident-20-year-trends.

[21] Radke *et al.*, *Assessment of California's Natural Gas Pipeline Vulnerability to Climate Change*, University of California, Berkeley (2016), https://www.energy.ca.gov/2017publications/CEC-500-2017-008/CEC-500-2017-008.pdf.

[22] California Seismic Safety Commission, *Improving Natural Gas Safety in Earthquakes* at 1 (adopted July 11, 2002), http://ssc.ca.gov/forms_pubs/cssc_2002-03_natural_gas_safety.pdf.

indoor air quality a key determinant of human health.[23] The combustion of gas in household appliances produces harmful indoor air pollution, specifically nitrogen dioxide, carbon monoxide, nitric oxide, formaldehyde, acetaldehyde, and ultrafine particles.[24] The California Air Resources Board warns that "cooking emissions, especially from gas stoves, have been associated with increased respiratory disease."[25] Young children and people with asthma are especially vulnerable to indoor air pollution.

D. Pathways to Good, Green Jobs

Electrification of buildings will enable local workforce development for jobs that will be critical in California's broader energy transition. Partnering with local organizations and community colleges, the County can foster training and pipeline programs for new jobs in construction, HVAC installation, electrical work, energy efficiency and load management services, as well as manufacturing.

These jobs will rapidly grow in demand as local governments across the state look to rapidly address the emissions from their building sector. In Sacramento Municipal Utility District territory, where all-electric buildings are quickly becoming the default for new developments, demand for specialized plumbers and HVAC technicians is expected to grow enormously. The region expects to install more than 300,000 heat pump space heaters in the next 15 to 20 years.[26]

The next one to five years will be a critical window of opportunity for the County to jump-start this transition away from gas to clean energy buildings. CEQA is an essential vehicle to take all feasible action to reduce GHGs and limit further expansion of gas infrastructure and we urge incorporation of all-electric building design into the Project.

Please contact Matt Vespa at mvespa@earthjustice.org, Sasan Saadat at ssaadat@earthjustice.org with any questions or concerns, and please include each of us in future notifications on the Project's development.

Sincerely,

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Research and Policy Analyst

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[23] Klepeis *et al.*, *The National Human Activity Pattern Survey (NHAPS): A Resource for Assessing Exposure to Environmental Pollutants*, J. EXPO. ANAL. ENVIRON. EPIDEMIOL., Vol. 11(3), 231-52 (2001).
[24] *See, e.g.*, Logue *et al.*, *Pollutant Exposures from Natural Gas Cooking Burners: A Simulation-Based Assessment for Southern California*, ENVIRON. HEALTH PERSP., Vol. 122(1), 43-50 (2014); Victoria Klug & Brett Singer, *Cooking Appliance Use in California Homes—Data Collected from a Web-based Survey*, LAWRENCE BERKELEY NATIONAL LABORATORY (Aug. 2011); John Manuel, *A Healthy Home Environment?* ENVIRON. HEALTH PERSP., Vol. 107(7), 352-57 (1999); Mullen *et al.*, *Impact of Natural Gas Appliances on Pollutant Levels in California Homes*, LAWRENCE BERKELEY NATIONAL LABORATORY (2012).
[25] California Air Resources Board, *Combustion Pollutants* (last reviewed Jan. 19, 2017), https://www.arb.ca.gov/research/indoor/combustion.htm.
[26] Justin Gerdes, *Experts Discuss the Biggest Barriers Holding Back Building Electrification*, Greentech Media (Sept. 19. 2018), https://www.greentechmedia.com/articles/read/here-are-some-of-the-biggest-barriers-holding-back-building-electrification#gs.fBEBKJy2.

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