Mission Grove Apartments Project

Draft Environmental Impact Report
SCH#2022100610

Appendix A: Notice of Preparation (NOP) & NOP Comment Letter

Community & Economic Development Department **Planning Division**
3900 Main Street, Riverside, CA 92522 | Phone: (951) 826-5371 | RiversideCA.gov

NOTICE OF PREPARATION

FROM LEAD AGENCY: Veronica Hernandez, Senior Planner
City of Riverside
Community and Economic Development Department, Planning Division
3900 Main Street, 3rd floor
Riverside, California 92522

DATE: October 28, 2022

SUBJECT: Notice of Preparation of a Draft Environmental Impact Report (EIR) and Scoping Meeting for the Mission Grove Apartments Project

The City of Riverside will be the Lead Agency and will prepare an Environmental Impact Report (EIR) for the proposed residential project known as the Mission Grove Apartments Project (Project). The City is requesting input from you or your agency or organization as to the scope and content of the environmental information that is relevant to your agency or organization's statutory responsibilities or interests in connection with the proposed Project.

This Notice of Preparation (NOP) identifies the Project applicant, contains the proposed Project description including Project setting and location, and identifies the potential environmental effects of the proposed Project. A regional map and project site map are included in this NOP (Figures 1 and 2).

Due to time limits mandated by State law, your response must be received at the earliest possible date, **but not later than 30 days** after receipt of this NOP. The public comment period for this NOP begins on October 28, 2022 and is set to close at 5:00 p.m. on November 28, 2022.

Please send written responses to this NOP to Veronica Hernandez at the address shown above. Please include the name and contact person in your agency. If you have any questions, please contact Veronica Hernandez at 951-826-3965 or via e-mail at vhernandez@riversideca.gov.

DOCUMENT AVAILABILITY: This NOP is available on the City's website at https://riversideca.gov/cedd/planning/development-projects-and-cega-documents, or contact Veronica Hernandez via phone at 951-826-3965 or via email at vhernandez@riversideca.gov to obtain an electronic copy of it.

PROJECT TITLE: Mission Grove Apartments, Planning Case: PR-2022-001359 General Plan Amendment (GPA), Zoning Code Amendment (RZ), Specific Plan Amendment (SPA), Design Review (DR), Environmental Impact Report (EIR).

PROJECT APPLICANT: Anton Mission Grove, LLC, 1676 N. California Blvd., Suite 250, Walnut Creek, CA 94596.

PROJECT LOCATION: The Project site consists of a single 9.92-acre parcel and is located at 375 East Alessandro Boulevard, Riverside, CA 92508, situated at the northwest corner of Mission Grove Parkway and Mission Village Drive, south of Alessandro Boulevard, Figure 2 – Project Site Map. The Assessor Parcel Number (APN) is 276-110-018.

PROJECT SETTING: The Project site is part of the 70-acre Mission Grove Plaza Shopping Center and is currently developed with a 104,231 square foot vacant retail building (a former K-Mart retail store) and an associated surface parking lot. The project site includes portions of a signalized intersection at Mission Grove Parkway and a shared driveway providing ingress and egress from Mission Grove Parkway for the shopping center.

PROJECT GENERAL PLAN AND ZONING DESIGNATIONS: The current land use of the project site is a vacant retail site. The General Plan designation for the project site is C - Commercial and it is currently zoned as CR-SP - Commercial Retail and Specific Plan (Mission Grove) Overlay Zones. The site is also within the Mission Grove Specific Plan and is designated as Retail Business & Office within that plan.

PROJECT DESCRIPTION: The proposed Project includes a total of 347 studio, one-, two-, and three-bedroom residential apartment units within five, 4-story buildings. The project will include indoor amenities including a leasing office, clubroom, fitness center, and outdoor amenities including a pool and spa, outdoor seating and dining areas, and a dog park. The net square footage (SF) of the apartment community is 327,032 SF in total. The Project includes 604 parking spaces in total. Of these, 513 parking spaces will be dedicated for the Proposed apartment project, and 91 will be shared between the Proposed apartment project and the existing adjacent retail site.

The project includes a General Plan Amendment to change the General Plan Land Use Designation from C – Commercial to MU-U – Mixed-Use – Urban, to allow the residential land use. A Zone Change is also proposed from CR – Commercial Retail – to MU-U – Mixed-use Urban. Mixed Use-Urban zoning has been selected for this site to bring together medium- to high-density residential and retail development in a mixed-use environment. The Mixed Use-Urban zone will allow the proposed apartment project to be introduced into the existing retail environment and will create a framework for integration of uses with features such as pedestrian connectivity, walkability, and shared elements including parking

The project also includes a Specific Plan Amendment (SPA) to the Mission Grove Specific Plan. The SPA introduces the residential land use and provides specific design guidelines integrating both land uses.

The following environmental review and entitlements are requested for implementation of the project, Planning Case PR-2022-001359:

- General Plan Amendment (GPA) – to change the General Plan Land Use Designation from C - Commercial to MU-U - Mixed Use-Urban, to allow residential land use.

- Zoning Code Amendment (RZ) – to change the zoning from CR-SP Commercial Retail and Specific Plan (Mission Grove) Overlay Zones to MU-U-SP – Mixed Use-Urban and Specific Plan (Mission Grove) Overlay Zones.

- Specific Plan Amendment (SPA) – to revise the Mission Grove Specific Plan.

- Design Review (DR) – for the proposed site design and building elevations.

- Environmental Impact Report (EIR) – for the preparation of an Environmental Impact Report for the proposed Project.

Project Alternatives: Identification of potential alternatives to the Mission Grove Apartments Project will be addressed as part of the EIR. Analysis of a "No Project" alternative is required by law. In addition to the "No Project" Alternative, at least two additional alternatives will be evaluated. The evaluation of alternatives will provide a comparative analysis of alternatives to the proposed development.

The EIR will identify the degree to which each alternative might reduce one or more of the impacts associated with the development of the Mission Grove Apartments Project, whether or not the alternative could result in other or increased impacts, the viability of the alternative, and the degree to which the alternative is consistent with the City and Applicant's goals and objectives.

Cumulative Impact Analysis: The EIR will include a discussion of the potentially significant cumulative impacts of the Mission Grove Apartments Project when considered with other past, present, and reasonably foreseeable future projects in the area.

Other Required Sections: The EIR will also include other information typically required for an EIR. These other sections include the following: 1) Introduction; 2) Project Description; 3) Effects Found Not to Be Significant; 4) Environmental Impact Analysis; Growth-Inducing Impacts; 5) Significant Unavoidable Environmental Effects; 6) Significant Irreversible Changes; 7) Consistency with Regional Plans; 8) Discussion and Analysis of Energy Conservation based on Appendix F and G of CEQA Guidelines; 9) Mitigation Measures; 10) References; and 11) List of Preparers.

The following topics as required by CEQA will be analyzed further in the forthcoming Draft EIR: Aesthetics, Agriculture & Forest Resources, Air Quality, Biological Resources, Cultural Resources, Energy, Geology and Soils, Greenhouse Gas Emissions, Hazards and Hazardous Materials, Hydrology and Water Quality, Land Use and Planning, Mineral Resources, Noise, Population and Housing, Public Services, Recreation, Transportation, Tribal Cultural Resources, Utilities and Service Systems, and Wildfire. Relevant technical reports will be provided as EIR appendices.

SCOPING MEETING: A virtual scoping meeting will be held about this project in order to hear from interested parties about issues that might need to be addressed in the forthcoming Environmental Impact Report.

Meeting Information: Wednesday, November 2, 2022

6:00 – 7:00 pm (Pacific Standard Time)

Attend the virtual zoom meeting live at:

Meeting ID: 863 1009 5297

Passcode: 419876

https://us06web.zoom.us/j/86310095297?pwd=c014UDFmM3dXY2RRWkZZYnNYMUJZQT09

At this meeting, agencies, organizations, and members of the public will be provided a brief presentation on the project and will be able to review the proposed Mission Grove Apartments Project.

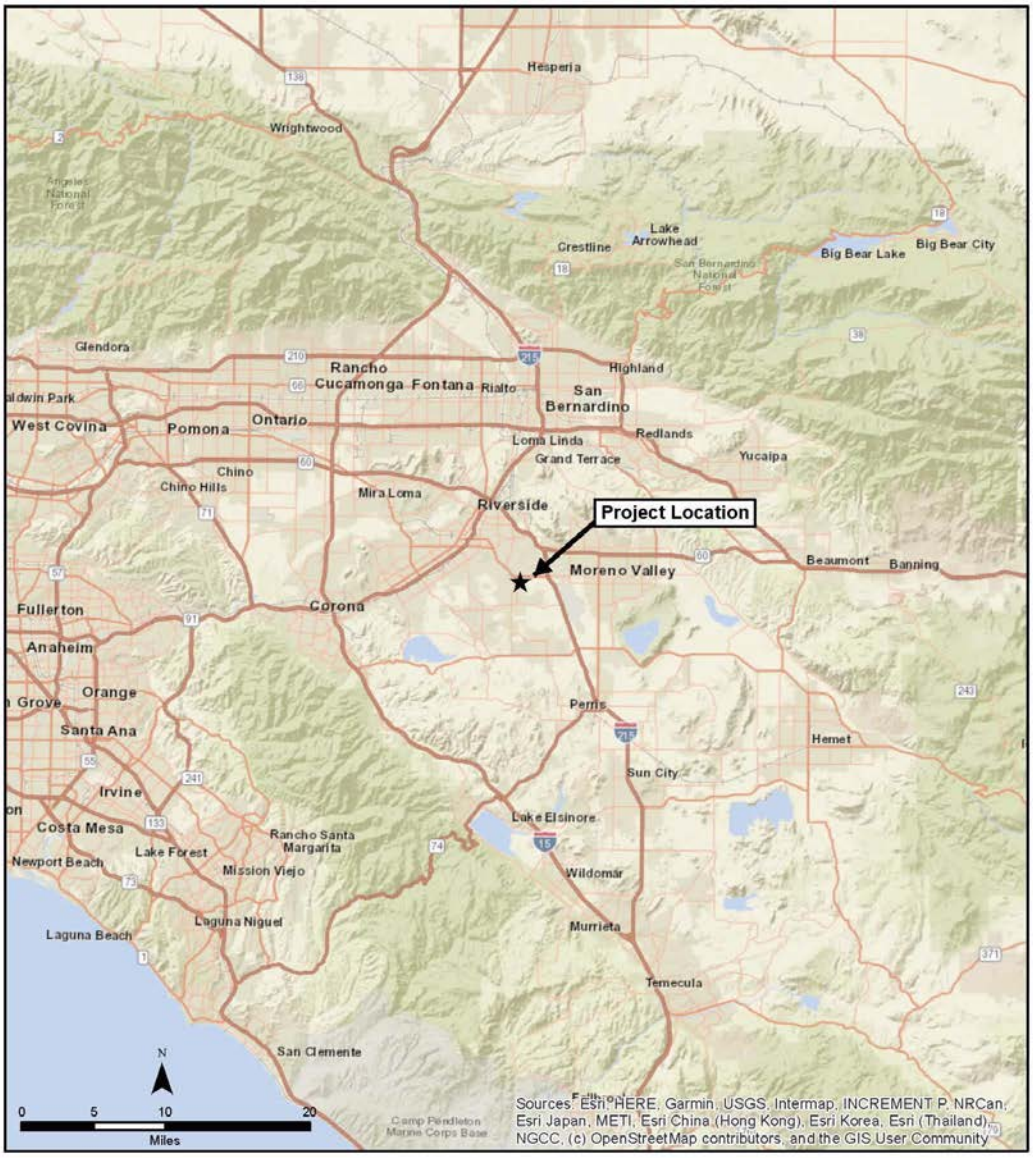
During the Notice of Preparation public review period, public agencies, interested organizations and individuals have the opportunity to identify those environmental issues that have the potential to be affected by the project and that they request to be addressed in the EIR. For this project the review period is October 28, 2022 to 5:00 p.m. on November 28, 2022.

SIGNATURE: _____

TITLE: Veronica Hernandez, Senior Planner – City of Riverside

TELEPHONE: **951-826-3965**

DATE: **10-25-2022**

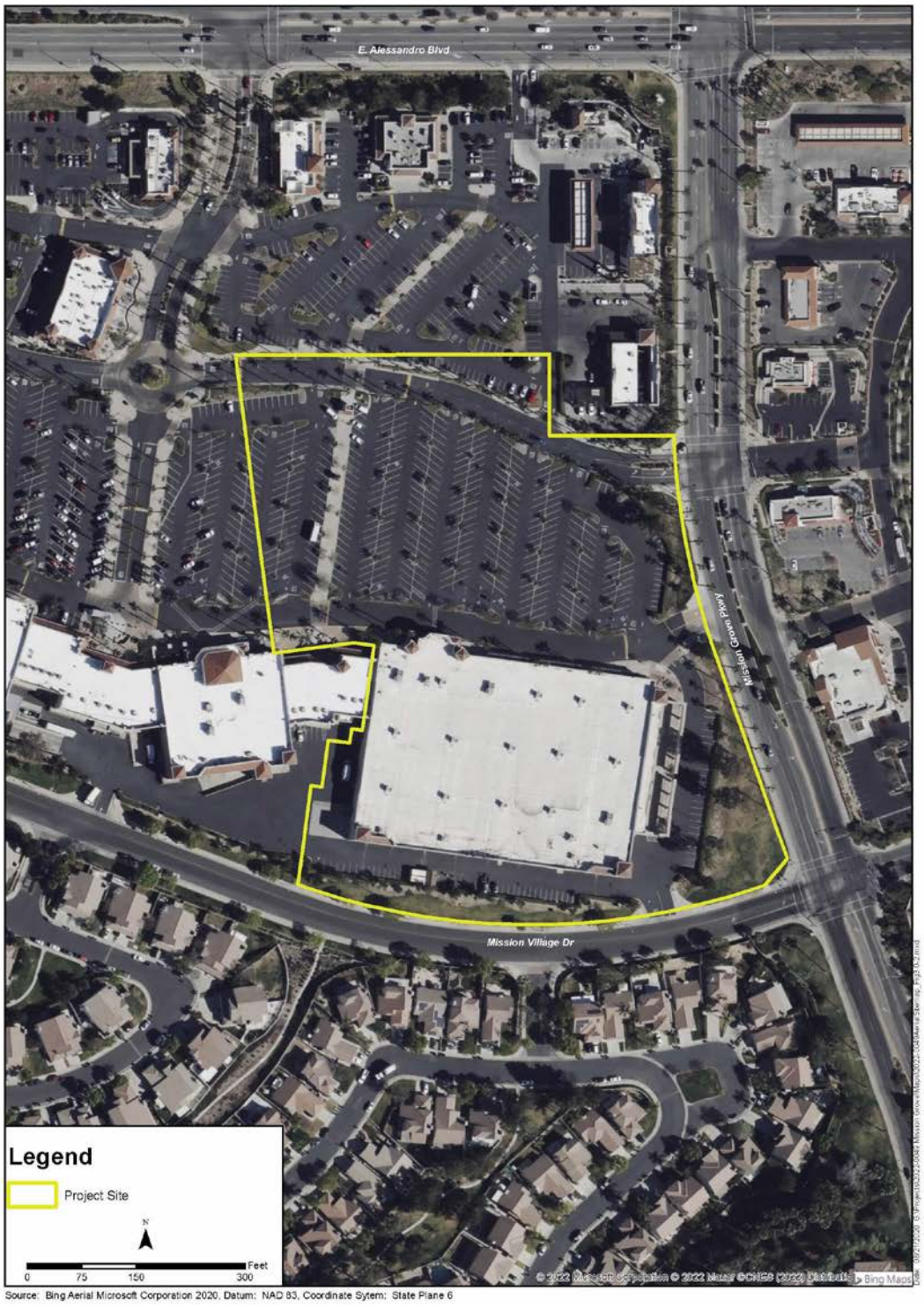


MISSION GROVE APARTMENTS

RVA

Regional Map

Figure 1



Source: Bing Aerial Microsoft Corporation 2020, Datum: NAD 83, Coordinate Sytem: State Plane 6

MISSION GROVE APARTMENTS

RVA

Project Site

Map Figure 2

EARTHJUSTICE
BECAUSE THE EARTH NEEDS A GOOD LAWYER

Via Electronic Mail

November 2, 2022

Veronica Hernandez
Senior Planner
City of Riverside
Community and Economic Development Department, Planning Division
3900 Main Street, 3rd Floor
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vhernandez@riversideca.gov

Re: Earthjustice Comments on the Notice of Preparation of a Draft Environmental Impact Report for Mission Grove Apartments Project

Earthjustice appreciates the opportunity to comment on the Notice of Preparation of a Draft Environmental Impact Report ("DEIR") for the Mission Grove Apartments Project ("Project"), which contemplates the construction of 346 studio, one-, two-, and three-bedroom residential apartment units within five, 4-story buildings, plus various amenities. Our initial comments focus on the importance of incorporating building electrification requirements into the Project. New construction that relies on burning gas for end uses such as cooking and space and water heating has significant greenhouse gas ("GHG"), energy, and health impacts under the California Environmental Quality Act ("CEQA"). All-electric buildings avoid these impacts. Moreover, all-electric buildings are typically less costly to construct due to avoided costs of gas infrastructure. With the California Public Utilities Commission ("CPUC") now ending subsidies for gas lines to new development, cost savings from all-electric construction will further increase. Accordingly, to comply with CEQA's obligation to adopt all feasible mitigation to reduce significant environmental impacts, the City must require an all-electric Project design that is not connected to the gas system.

I. Projects Connecting to the Gas System Have Significant GHG, Energy and Public Health Impacts.

A. The GHG Impacts of Projects Connecting to the Gas System Are Significant.

CEQA requires a DEIR to identify all the significant impacts of a proposed project, including impacts from the project's GHG emissions.[1] One option to determine the significance of the Project's GHG impacts is to apply a net-zero emissions threshold. In addition to being CEQA-compliant, a net-zero threshold is also consistent with the severity of the climate crisis

[1] CEQA Guidelines § 15126.2; Appendix F.

and the recognition that any increase in GHG emissions exacerbates the cumulative impacts of climate change.

Another option is to apply the approach recently adopted by the Bay Area Quality Management District ("BAAQMD"). In determining the significance of project impacts, a lead agency "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. To stay in step with evolving scientific knowledge and state policy, the Bay Area Quality Management District ("BAAQMD") updated its previous CEQA GHG guidance for buildings this year to require all new projects to be built without natural gas and with no inefficient or wasteful energy usage in order to receive a finding of no significant impact.[2] BAAQMD's previous 1,100 MT GHG significance threshold was derived from Assembly Bill ("AB") 32's 2020 GHG reduction targets, but did not reflect later developments, such as Senate Bill ("SB") 32's requirement to reduce GHGs to 40 percent below 1990 levels by 2030, nor Executive Order B-55-18's requirement to achieve carbon neutrality by 2045.[3] As BAAQMD properly noted in its justifications for its updated GHG threshold, "[f]or California to successfully eliminate natural gas usage by 2045, it will need to focus available resources on retrofitting existing natural gas infrastructure. This task will become virtually impossible if we continue to build more natural gas infrastructure that will also need to be retrofit within the next few years."[4]

Even outside of BAAQMD's jurisdiction, the analysis supporting its zero-gas threshold provides substantial evidence to support an EIR' s finding of significance, particularly where, as here, GHGs are a globally dispersed pollutant. Indeed, state agencies have made similar findings regarding the incompatibility of gas in new construction with achievement of state climate requirements. As the California Energy Commission ("CEC") determined in 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 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

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[2] *See* BAAQMD, *Justification Report: CEQA Thresholds for Evaluating the Significance of Climate Impacts from Land Use Projects and Plans*, at 11 (Apr. 2022) ("BAAQMD 2022 Update"), https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa-thresholds-2022/justification-report-pdf.pdf?la=en.

[3] *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 previous project-level GHG threshold).

[4] Justification Report at 12.

> the opportunity instead to lock in a zero- or low-carbon emission outcome that will persist for decades.[5]

Consistent with the CEC's findings, the California Public Utilities Commission ("CPUC") recently adopted a Decision that would end gas line extension allowances, finding that "gas line subsidies encourage gas use by providing incentives to builders to install more gas appliances, perpetuating a continued reliance on the gas system both now and over the life of the appliance, and offsetting if not reversing any GHG emission reduction benefits secured through other decarbonization measures."[6] Accordingly, the CPUC found, subsidies for these new gas connections "work against today's climate goals and conflict[] with SB 32 and 1477."[7] This reflects the growing consensus that aggressive electrification will be needed to achieve the state's climate goals. Indeed, the 2022 Title 24 update already requires heat pumps as a baseline for either space or water heating in single-family homes, as well as a heat pump space heating standard for new muti-family homes and businesses.[8] In addition, any new mixed-fuel single-family homes must already be electric-ready so they can "easily convert from natural gas to electric in the future."[9]

Earthjustice strongly cautions against using approaches to determine the significance of Project GHG impacts that involve comparisons against "business-as-usual" emissions or a per capita emissions metric. 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*, "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

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

[6] D.22-09-026, Phase III Decision Eliminating Gas Line Extension Allowances, Ten-Year Refundable Payment Option, and Fifty Percent Discount Payment Option Under Gas Line Extension Rules, at 27 (Sep. 20, 2022), https://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M496/K987/496987290.PDF.

[7] *Id*.

[8] *See* CEC, 2022 Building Energy Efficiency Standards Summary, at 9 (Aug. 2021), https://www.energy.ca.gov/sites/default/files/2021-08/CEC_2022_EnergyCodeUpdateSummary_ADA.pdf.

[9] *Id.*

existing and proposed new development, it is not appropriate for projects that only govern new development.

B. The Energy Impacts of Projects Connecting to the Gas System are Significant.

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."[10] Addressing energy impacts of proposed projects requires more than mere compliance with Title 24 Building Energy Efficiency Standards.[11] Including gas hook-ups in new projects, and thereby perpetuating reliance on fossil fuels, is contrary to California's energy objectives and should be considered a significant impact under CEQA.

In addition to the lock-in effect discussed above and its perpetuation of reliance on fossil fuel infrastructure, gas appliances are also inherently wasteful because they are significantly less efficient than their electric alternatives. Heat pumps for space and water heating are substantially more efficient than their gas counterparts. Because heat pumps use electricity to move heat around rather than creating heat, their efficiency 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 uniform efficiency factor ("UEF") of 0.58 – 0.83.[12] In contrast, Rheem's heat pump water heaters have UEFs between 3.7 and 4.0, making them roughly four to seven times more efficient than gas alternatives.[13] 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."[14] 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 Health/Air Quality Impacts of Projects Connecting to the Gas System are Significant.

CEQA also requires consideration of "health and safety problems" that may result from a project's emissions.[15] Indeed, Section III.(d) of Appendix G of the CEQA Guidelines

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[10] CEQA Guidelines, Appendix F, Sec. I.
[11] See California Clean Energy Committee v. City of Woodland (2014) 225 Cal.App.4th 173, 211.
[12] Rheem, *Gas Water Heaters*, https://www.rheem.com/products/residential/water-heating/tank/residential_gas/.
[13] Rheem, *Professional Prestige Series ProTerra Hybrid Electric Water Heater with LeakGuard, https://www.rheem.com/group/rheem-hybrid-electric-water-heater-professional-prestige-series-hybrid-electric-water-heater*.
[14] 2018 IEPR Update at 32.
[15] CEQA Guidelines § 15126.2; *see also Sierra Club v. County of Fresno* (2018) 6 Cal. 5th 502, 520 (requiring an EIR to not only discuss air quality impacts and human health impacts separately, but to draw a connection between the two segments of information, to "meet CEQA's requirements.").

specifically asks a lead agency to evaluate if the project would "[e]xpose sensitive receptors to substantial pollutant concentrations."[16] The health and safety hazards of gas-burning appliances in buildings are well-documented by the California Air Resources Board ("CARB"), the CEC, and numerous peer-reviewed academic studies. In a Board-adopted resolution, CARB determined that that "cooking emissions, especially from gas stoves, are associated with increased respiratory disease."[17] 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)."[18] Other health effects observed in children from exposure to nitrogen dioxide ("NO_x"), which is a byproduct of gas combustion, include cardiovascular effects, increased susceptibility to allergens and lung infections, irritated airways and other aggravated respiratory symptoms, and learning deficits.[19] As found repeatedly by peer-reviewed studies, combustion of gas in household appliances produces harmful indoor air pollution, including carbon monoxide, nitric oxide and nitrogen dioxide, formaldehyde, acetaldehyde, and ultrafine particles, often in excess of the levels set out by the California Ambient Air Quality Standards and the National Ambient Air Quality Standards.[20] CARB has therefore recognized "the conclusion of recent studies that 100 percent electrification of natural gas appliances in

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[16] CEQA Guidelines, Appendix G, Sec. III(d).

[17] CARB, *Combustion Pollutants & Indoor Air Quality*, https://perma.cc/J6YH-VVZH (as of March 30, 2022).

[18] 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/.

[19] *Id.*

[20] *See, e.g.*, 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), http://dx.doi.org/10.1289/ehp.1306673 (modeling exposure rates for gas stove pollutants and finding that "62%, 9%, and 53% of occupants are routinely exposed to NO_2, CO, and HCHO levels that exceed acute health-based standards and guidelines" and that "reducing pollutant exposures from [gas stoves] should be a public health priority."); John Manuel, *A Healthy Home Environment?*, 107 Env'tl. Health Perspectives 352, 352–57 (1999), https://doi.org/10.1289/ehp.99107a352 (finding that gas furnaces and other gas appliances can be sources of unsafe indoor carbon monoxide concentrations); Nasim A. Mullen et al., *Impact of Natural Gas Appliances on Pollutant Levels in California Homes*, Lawrence Berkeley Nat'l Lab'y (Dec. 2012), https://eta-publications.lbl.gov/sites/default/files/impact_of_natural_gas_appliances.pdf (finding that concentrations of NO_2, NO_x, and carbon monoxide were associates with use of gas appliances); 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), https://ucla.app.box.com/s/xyzt8jc1ixnetiv0269qe704wu0ihif7 (finding that gas combustion appliances are associated with higher concentrations of NO_2, NO_x, CO, fine particulate matter, and formaldehyde in indoor air, and discussing the health impacts of acute and chronic exposure to each pollutant).

California would result in significant health benefits."[21] Accordingly, projects that permit gas appliances such as stoves have significant air quality impacts under CEQA.

Gas appliances contribute to indoor air pollution even when they are not turned on. A recent study sampling the gas supply to home appliances also found additional harmful pollutants present, including the Hazardous Air Pollutants benzene and hexane in 95% and 98% of samples, respectively, among others.[22] These pollutants have serious health impacts, particularly given that residential appliances can last for upwards of ten years, and residents may be repeatedly exposed to their pollution multiple times daily. For example, in addition to being a known carcinogen, non-cancer long-term health effects of exposure to benzene include "harmful effects on the bone marrow," "excessive bleeding," and can compromise the immune system.[23] Similarly, "[c]hronic inhalation exposure to hexane is associated with sensorimotor polyneuropathy in humans, with numbness in the extremities, muscular weakness, blurred vision, headache, and fatigue," and animal studies have shown "pulmonary lesions" as well as damage to reproductive organs following chronic inhalation exposure.[24] These pollutants were present in the gas supplied to home appliances prior to combustion, and a 2022 study also found that most gas stoves leak supply gas "continuously" even while turned off.[25]

II. Building Electrification is Feasible and Effective Mitigation to Reduce Project GHG, Energy, and Health 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."[26] Only when feasible mitigation measures have been exhausted may an agency find that overriding considerations exist that outweigh the significant environmental effects. [27] This mandate—to avoid, minimize and mitigate significant adverse effects where feasible—has been described as the "most important" provision of the law.[28]

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[21] 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.
[22] Drew R. Michanowicz et al., *Home is Where the Pipeline Ends: Characterization of Volatile Organic Compounds Present in Natural Gas at the Point of the Residential End User*, Environ. Sci. Technol. 2022, 56, 10258–10268 at 10262 (Jun. 2022), https://pubs.acs.org/doi/pdf/10.1021/acs.est.1c08298.
[23] *See* Centers for Disease Control and Prevention, *Facts about Benzene*, https://emergency.cdc.gov/agent/benzene/basics/facts.asp#:~:text=(Long%2Dterm%20exposure%20means%20exposure,increasing%20the%20chance%20for%20infection.
[24] U.S. Env. Prot. Agency, *Hexane*, https://www.epa.gov/sites/default/files/2016-09/documents/hexane.pdf.
[25] Eric D. Lebel, et al., Methane and NO_x Emissions from Natural Gas Stoves, Cooktops, and Ovens in Residential Homes, Environ. Sci. Technol. 2022, 56, 4, at 2534 (Jan. 27, 2022), https://doi.org/10.1021/acs.est.1c04707.
[26] Pub. Res. Code § 21002.
[27] *Id.* § 21081; *see also* CEQA Guidelines 15091(a).
[28] *Sierra Club v. Gilroy City Council*, 222 Cal. App. 3d 30, 41 (1990).

Eliminating natural gas use in new buildings is feasible mitigation that will substantially lessen the Project's GHG, energy, and air quality/health impacts. For example, in *Residential Building Electrification in California*, Energy and Environmental Economics ("E3") determined that "electrification is found to reduce total greenhouse gas emissions in single family homes by approximately 30 to 60 percent in 2020, relative to a natural gas-fueled home."[29] Moreover, "[a]s the carbon intensity of the grid decreases over time, these savings are estimated to increase to approximately 80 to 90 percent by 2050, including the impacts of upstream methane leakage and refrigerant gas leakage from air conditioners and heat pumps."[30] As shown in the graph below, the GHG savings from heat pumps are substantial today and will only increase as California continues to decarbonize its grid as required under SB 100.

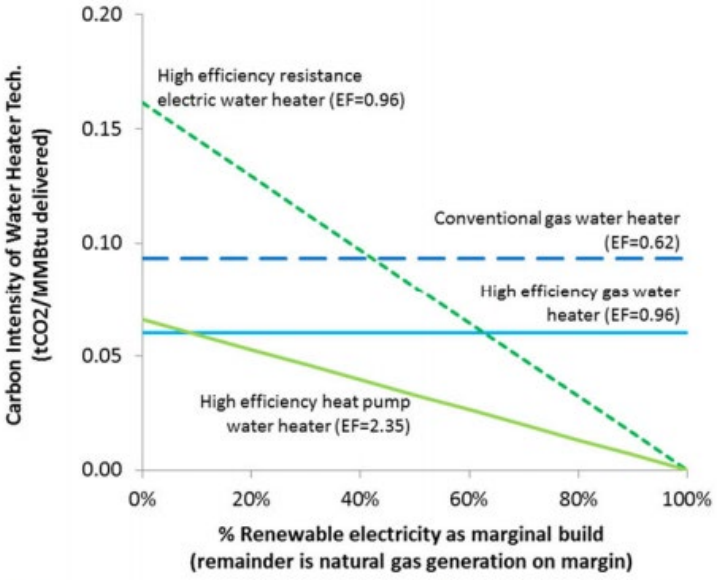

Figure 3. Carbon intensity of water heater technologies, as a function of renewable electricity percentage.
Source: Author's calculations [31]

In contrast, because gas appliance will generate the same level of pollution over their lifetime, their emissions relative to electric alternatives will increase over time and increasingly interfere with achievement of California's climate objectives.

Numerous local jurisdictions have also adopted all-electric building policies for a variety of building types, demonstrating the feasibility of all-electric new construction. For example, San Francisco adopted an ordinance effective June 2021 prohibiting gas in new construction for

[29] E3, *Residential Building Electrification in California*, at iv (Apr. 2019), https://www.ethree.com/wp-content/uploads/2019/04/E3_Residential_Building_Electrification_in_California_April_2019.pdf.
[30] *Id.*
[31] Amber Mahone et al., *What If Efficiency Goals Were Carbon Goals*, at 9-7, American Council for an Energy-Efficient Economy (2016), https://aceee.org/files/proceedings/2016/data/papers/9_284.pdf.

all building types, with narrow exceptions.[32] Several other California municipalities have adopted similar legislation, including Berkeley, San Luis Obispo, and Half Moon Bay, and the City of Los Angeles is close behind.[33]

All-electric new construction is also a feasible mitigation measure to avoid the health impacts of gas, particularly the indoor air pollution impacts in residential buildings. For example, Marin Clean Energy developed its Low-Income Families and Tenants ("LIFT") Pilot Program to reduce energy burdens and improve quality of life for residents in income-qualified multifamily properties through energy efficiency, electrification, and health, safety, and comfort upgrades.[34] An evaluation of the LIFT Pilot found that on a per dwelling basis, participants who received heat pump replacements for gas or propane heating equipment saw reductions of greenhouse gases by over one ton of CO_2 per dwelling, NO_x reductions of close to 1 pound, and carbon monoxide reductions of more than 2 pounds.[35] Notably, because the national health and safety limit for carbon monoxide is 1 pound annually, residents had been living with unsafe carbon monoxide levels. Heat pump installation virtually eliminated this pollution source.[36] In addition to direct health benefits from reduced pollution, tenants reported increased comfort, with "indoor air temperature being just right even on very hot days," better air quality and reduced noise.[37] Electrifying gas end uses in buildings demonstrably mitigates not only building emissions but their associated health and safety impacts.

All-electric building design is also economically feasible under CEQA. When considering economic feasibility of alternatives under CEQA, courts consider "whether the marginal costs of the alternative as compared to the cost of the proposed project are so great that

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[32] San Francisco Building Code § 106A.1.17.1, https://codelibrary.amlegal.com/codes/san_francisco/latest/sf_building/0-0-0-92027.

[33] *See, e.g.,* San Luis Obispo Ordinance No. 1717, http://opengov.slocity.org/WebLink/DocView.aspx?id=162695&dbid=0&repo=CityClerk, (prohibiting natural gas in new construction effective January 1, 2023, with narrow commercial availability and viability exceptions); Los Angeles City Council Motion, https://drive.google.com/file/d/1KLrBqAT2sj2sQJjD2NKGTME8WX5ZEn_9/view, (directing Los Angeles city agencies to develop a plan within six months that will "require all new residential and commercial buildings in Los Angeles to be built so that they will achieve zero-carbon emissions," to be effective January 1, 2023); Half Moon Bay Municipal Code § 14.06.030, https://www.codepublishing.com/CA/HalfMoonBay/#!/HalfMoonBay14/HalfMoonBay1406.html#14.06.030, (requiring all-electric construction for all new buildings, effective March 17, 2022). *See also* Sierra Club, *California's Cities Lead the Way on Pollution-Free Homes and Buildings*, https://www.sierraclub.org/articles/2021/07/californias-cities-lead-way-pollution-free-homes-and-buildings, (running list of California municipalities with gas-free buildings commitments and electrification building codes).

[34] DNV, MCE Low-Income Families and Tenants Pilot Program Evaluation at 1 (Aug 5. 2021) https://www.mcecleanenergy.org/wp-content/uploads/2021/07/MCE-Low-Income-Families-and-Tenants-Pilot-Program-Evaluation.pdf.

[35] *Id.* at 28.

[36] *Id.* at 29.

[37] *Id.* at 4, 35 (Aug 5. 2021) https://www.mcecleanenergy.org/wp-content/uploads/2021/07/MCE-Low-Income-Families-and-Tenants-Pilot-Program-Evaluation.pdf.

a reasonably prudent [person] would not proceed with the [altered project]."[38] That is, even if an alternative is *more* expensive than the original plan, "[t]he fact that an alternative may be more expensive or less profitable is not sufficient to show that the alternative is financially infeasible."[39]

All-electric building design for new construction is indisputably financially feasible because it is now cheaper than mixed-fuel construction.[40] The CEC has found that capital costs for all-electric single family homes are "several thousand dollars less expensive than mixed-fuel homes."[41] For mid-rise multi-family homes, "[a]n average reduction of $3,300 per unit was found" by avoiding the costs of gas piping, venting, and trenching to connect to the gas system.[42] Indeed, as noted in Redwood Energy's A Zero Emissions All-Electric Multifamily Construction Guide, "[i]n the downtown of a city like Los Angeles, just trenching and piping gas to an apartment building in a busy street can cost $140,000."[43] Moreover, there are additional embedded savings from faster build-out (related to not having to install gas plumbing and piping inside of the home), and by installing one heat pump instead of a separate furnace and air conditioning. As the CPUC is eliminating gas line extension allowances for all customer classes starting in July 2023, the infrastructure buildout to support gas hookups will raise costs of projects connecting to the gas system even more than before, when line extensions were subsidized.[44] Additionally, as discussed above, the 2022 update to the Title 24 Building Code already requires heat pumps as a baseline for space or water heating, and requires panel upgrades and other space modifications in any new mixed-fuel homes to ensure they are electric-ready when they inevitably convert to all-electric.[45] As a result, mixed-fuel design in new construction

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[38] *SPRAWLDEF v. San Francisco Bay Conservation and Development Comm'n* (2014) 226 Cal. App. 4th 905, 918 (citing *Uphold Our Heritage v. Town of Woodside* (2007) 147 Cal. App. 4th 587, 600).
[39] *Id.* (citing *Center for Biological Diversity v. Cty. of San Bernardino* (2010) 185 Cal. App. 4th 866, 833).
[40] *See* CARB, Draft 2022 Scoping Plan, Appendix F: Building Decarbonization, at 14–15 (May 2022) (finding that "all-electric new construction is one of the most cost-effective near-term applications for building decarbonization efforts," and that all-electric new construction is crucial in particular because "it is less costly to build, avoids new pipeline costs to ratepayers, and avoids expensive retrofits later."), https://ww2.arb.ca.gov/sites/default/files/2022-05/2022-draft-sp-appendix-f-building-decarbonization.pdf.
[41] *See* CEC, Final 2021 Integrated Energy Policy Report Volume I: Building Decarbonization at 89 (Feb. 2022), https://efiling.energy.ca.gov/GetDocument.aspx?tn=241599, (citing E3, *Residential Building Electrification in California: Consumer Economics, Greenhouse Gases and Grid Impacts*, https://www.ethree.com/wp-content/uploads/2019/04/E3_Residential_Building_Electrification_in_California_April_2019.pdf.).
[42] CEC, *California Building Decarbonization Assessment*, at 83 (Aug. 13, 2021) ("CEC Building Decarbonization Assessment"), https://efiling.energy.ca.gov/GetDocument.aspx?tn=239311.
[43] Redwood Energy, A Zero Emissions All-Electric Multifamily Construction Guide at 2 (2019), https://fossilfreebuildings.org/ElectricMFGuide.pdf
[44] R. 19-01-011, Phase III Decision Eliminating Gas Line Extension Allowances, Ten-Year Refundable Payment Option, and Fifty Percent Discount Payment Option Under Gas Line Extension Rules, (Aug. 8, 2022), https://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M496/K415/496415627.PDF.
[45] *See* CEC, 2022 Building Energy Efficiency Standards Summary, at 9 (Aug. 2021), https://www.energy.ca.gov/sites/default/files/2021-08/CEC_2022_EnergyCodeUpdateSummary_ADA.pdf.

is likely *less* financially feasible than all-electric design, in addition to imposing significant GHG, energy, and health impacts.

Now is the critical window for the City 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. To comply with CEQA, we urge incorporation of all-electric building design into the Project.

Please contact Rebecca Barker at rbarker@earthjustice.org, and Matt Vespa at mvespa@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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