

November 2, 2020

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Clerk of the San Francisco Board of Supervisors  
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Re: File #200701 – All-Electric New Construction Ordinance

To the San Francisco Board of Supervisors:

Earthjustice, NRDC, and the Rocky Mountain Institute write again to strongly urge you to pass the proposed ordinance in File No. 200701, which will amend the building code to require all-electric construction for new buildings in San Francisco. This legislation is a critical step forward in our fight to address the climate crisis and it will protect the respiratory health of generations of San Franciscans to come, who will live and work in and near these new buildings.<sup>1</sup> San Francisco has the opportunity to lead the state and the nation as the first major city to recognize the public health, climate, and economic benefits of building decarbonization and pass a comprehensive all-electric mandate, reflecting the urgency of the climate crisis and the non-negotiable value of its citizens' health.

The Board of Supervisors unanimously passed its Climate Emergency Resolution in April 2019, more than a year and half ago.<sup>2</sup> Since then, San Franciscans and Californians across the state have experienced the increasingly catastrophic effects of climate change, paired with the devastation of the COVID-19 pandemic. This September, Governor Newsom reiterated the urgency that we “fast-track our efforts” to decarbonize our economy, and admitted that “across

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<sup>1</sup> While we strongly urge you to pass this ordinance without any further delay for amendments, we also note for the record that the exemption process for restaurants is unnecessary due to the high amount of existing, available, gas-connected restaurant space and the potential health impacts to restaurant workers due to continued reliance on gas cooktops, as induction cooktops become more advanced and affordable.

<sup>2</sup> Board of Supervisors File No. 190222, Res. No. 160-19 (Passed April 2, 2019).

the entire spectrum, our goals are inadequate to the reality we're experiencing."<sup>3</sup> Less than a month later, we experienced our first million-acre "giga-fire," and Death Valley experienced one of the hottest temperatures ever recorded on Earth.<sup>4</sup> As we have previously noted in comments supporting the ordinance, building electrification drives significant reductions in emissions of greenhouse gases that contribute to climate change, not only because the grid in California is increasingly powered by renewable energy, but also because electric appliances, like heat pump water heaters, are far more efficient than their gas-fueled counterparts.<sup>5</sup>

Thousands of local construction and manufacturing jobs are projected to flow from building electrification.<sup>6</sup> In addition to that, Supervisor Mandelman has committed to developing future, separate legislation alongside the UA Local 38 Plumbers and Pipefitters Union to ensure that any job impacts to their industry due to the phase-out of gas infrastructure can be mitigated by creating new pathways for plumbers and pipefitters to continue to put their skills to work in a decarbonized building stock.

And as our families and communities have been driven indoors by the pandemic and by unhealthy outdoor air quality due to smoke and ash, we have seen increasing data that gas stoves damage our indoor air quality, especially in smaller spaces and when windows must be kept closed. The combustion of gas in household appliances, such as stoves, produces harmful indoor air pollution, specifically nitrogen dioxide, carbon monoxide, nitric oxide, 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.<sup>7</sup>

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<sup>3</sup> Sammy Roth, *Boiling Point newsletter: Gavin Newsom just promised 'giant leaps forward' on climate. Will he follow through?*, Los Angeles Times (Sept. 17, 2020), <https://www.latimes.com/environment/newsletter/2020-09-17/gavin-newsom-just-promised-giant-leaps-forward-on-climate-will-he-follow-through-boiling-point>

<sup>4</sup> Hayley Smith and Rong-Gong Lin II, *The frightening implications of California's first million-acre fire*, Los Angeles Times (October 6, 2020), <https://www.latimes.com/california/story/2020-10-06/the-frightening-implications-california-first-million-acre-wildfire>.

<sup>5</sup> 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](https://www.ethree.com/wp-content/uploads/2019/04/E3_Residential_Building_Electrification_in_California_April_2019.pdf); See Pub. Util. Code § 397.6(k)(3) (a measure of SGIP success and impact is the "amount of energy reductions measured in energy value."); Pub. Util. Code § 379.6(k)(1) (a measure of SGIP success and impact is the "amount of reductions of emissions of greenhouse gases.").

<sup>6</sup> UCLA Luskin Center for Innovation, *California Building Decarbonization: Workforce Needs and Recommendations*, at ES-iv (Nov. 2019).

<sup>7</sup> See, e.g., Jennifer M. Logue et al., *Pollutant Exposures from Natural Gas Cooking Burners: A Simulation-Based Assessment for Southern California*, 122 *Envtl. Health Perspectives* 43, 43–50 (2014); Victoria L. Klug et al., *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?*, 107 *Envtl. Health Perspectives* 352, 352–57 (1999); Nasim A. Mullen et al., *Impact of Natural Gas Appliances on Pollutant Levels in California Homes*, Lawrence Berkeley National Laboratory (2012); *Effects of Residential Gas Appliances on Indoor and Outdoor Air Quality and Public Health in California*, at 12–13.

In particular, the California Air Resources Board warns that “cooking emissions, especially from gas stoves, are associated with increased respiratory disease.”<sup>8</sup> 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).”<sup>9</sup> Other health effects of NO<sub>x</sub> 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.<sup>10</sup> The following slides from a CARB presentation in the CEC’s September 30, 2020 Indoor Air Quality workshop sum up the issue—and the solution—well:<sup>11</sup>

**SUMMARY**

- NG Appliances cause health impacts
- High Capture Efficiency on Range Hoods is Necessary  
BUT not Sufficient
- Building Electrification can eliminate these health impacts

 11

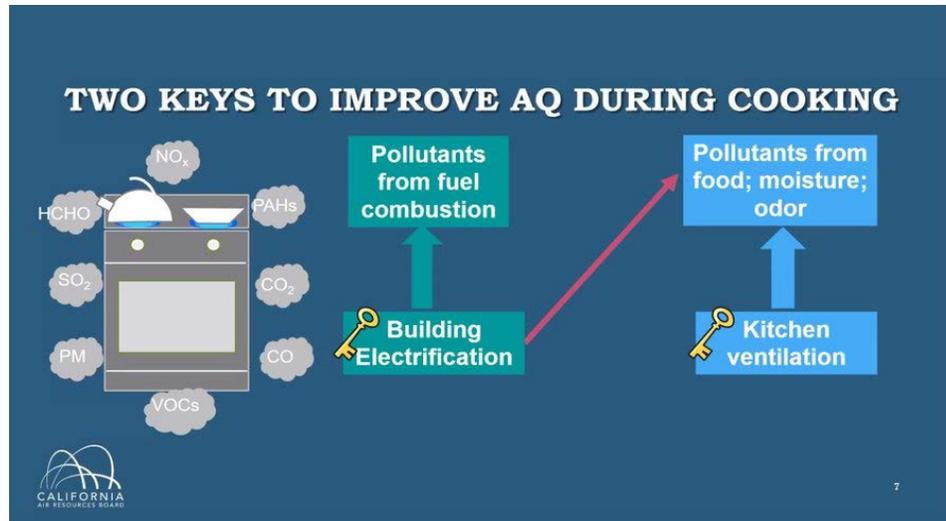
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<sup>8</sup> CARB, *Combustion Pollutants & Indoor Air Quality*, <https://ww2.arb.ca.gov/resources/documents/combustion-pollutants-indoor-air-quality> (last visited Oct. 12, 2020).

<sup>9</sup> Brady Seals and Andee Krasner, *Health Effects from Gas Stove Pollution*, Rocky Mountain Institute, Physicians for Social Responsibility, and Sierra Club, 2020, at 13 (May 2020) (“Health Effects from Gas Stove Pollution”), <https://www.psr.org/wp-content/uploads/2020/05/health-effects-from-gas-stove-pollutionpdf>.

<sup>10</sup> *Id.*

<sup>11</sup> CEC Commissioner Workshop re: Advances in Scientific Understanding of the Impact of Indoor Cooking and Associated Ventilation on Indoor Air Quality, Panelist Presentation from Pat Wong and Qunfang Zoe Zhang, CARB Staff (Sep. 30, 2020); see <https://www.energy.ca.gov/event/webinar/2020-09/commissioner-workshop-2022-energy-code-pre-rulemaking-advances-scientific>.



We commend Supervisor Mandelman for his leadership developing this legislation, and his dedication to affirmatively engage with a wide array of stakeholders in its development. This ordinance has been through an extraordinary amount of process, and to protect our communities, we cannot afford any additional delay.

Thank you for your consideration of these comments.

Respectfully submitted,

Rebecca Barker  
Associate Attorney  
Clean Energy Program  
Earthjustice

Elizabeth Stampe  
City Strategist, American Cities Climate Challenge  
Healthy People & Thriving Communities Program  
Natural Resources Defense Council

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**From:** [Joni](#)  
**To:** [Major, Erica \(BOS\); Board of Supervisors, \(BOS\)](#)  
**Cc:** [Walton, Shamann \(BOS\)](#)  
**Subject:** Comment Re: BoS File 200701, item #9 - mandating all-electric new construction  
**Date:** Monday, November 2, 2020 8:49:37 PM

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Dear Supervisor Walton and Colleagues:

Please cosponsor and then pass this very important legislation, quickly! Although this ordinance is the product of many months of hard work - which I very much appreciate - and collaboration by numerous stakeholders, it's really just the first, "easy" part of our City's efforts to meet our greenhouse-gas-reduction goals.

The daunting task ahead is the retrofit of existing buildings: a fair and equitable transition away from natural gas, leaving no one behind. NOT taking this easier step now, so the ordinance can go into effect January 1, 2021, will make the next steps that much harder. The more natural gas infrastructure we allow to be built by delaying passage of this ordinance or by including amendments to weaken it, the worse it is for us, our children and grandchildren.

There are so many big projects being planned, especially in the Southeast Corridor. Including gas infrastructure in these new buildings, thereby subjecting current and future residents to all the gas-related dangers of explosions, respiratory problems and post-earthquake fires, is simply unjust.

We know how to build all-electric. It's technically feasible, and affordable. And chefs the world over cook in all-electric kitchens, enjoying the speed, power and precision of induction cooking, and avoiding the high heat, fire hazards and bad air restaurant workers in gas-fired kitchens must endure.

San Francisco must show climate leadership by moving forward towards a world of clean energy, not moving backward towards more burning of fossil fuels.

Thank you.

Sincerely,

Joni Eisen, District 10  
SF Climate Emergency Coalition  
San Francisco Tomorrow