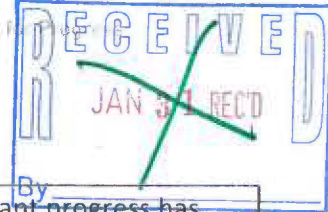


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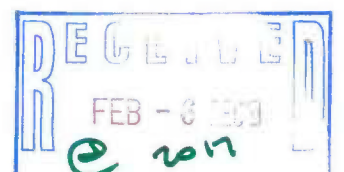
The Need for Policy Action to Decarbonize the Building Sector

California has set ambitious goals to reduce emissions from fossil fuels. While significant progress has been made implementing a decarbonization strategy and policy framework in most sectors of the economy, little attention has been paid to reducing emissions from fossil fuels used for space and water heating in homes and businesses, currently responsible for over 40% of CA building sector emissions. A bold strategy is needed for California to decarbonize its building sector in line with its climate goals. **Leadership and policy action in 2018 will be critical to catalyze the market transformation necessary to reduce these emissions cost-effectively and stay within our 2050 carbon budget.**

The issue: Direct emissions from fossil fuel use in California’s buildings (largely from natural gas burned for space and water heating) are on par with emissions from all in-state power plants. And fugitive emissions from production, distribution, and onsite leaks of natural gas increase climate impacts from combustion. As our electricity supply gets cleaner, these direct emissions from buildings will become one of the top barriers to achieving California’s climate goals – onsite combustion of fossil fuels already account for over 40% of emissions from buildings in the state.

Fossil fuel emissions in buildings are a major gap in CA’s climate policies. Governor Brown rightly highlighted the need to “make heating fuels cleaner” in his 2015 State of the State address, and Senate Bill 32 set the goal to reduce California’s GHG emissions by 40 percent below 1990 by 2030. While significant progress has been made fleshing out a vision and policy framework to cut GHG emissions in most sectors of the economy, less attention has been paid to cutting emissions from the fossil fuels we use in our own homes for space and water heating. California cannot achieve its climate goals in a cost-effective manner without addressing emissions from fossil fuels used to heat homes and commercial buildings.

Progress on building decarbonization is hampered by numerous policy and market barriers. Energy efficiency and climate policies at the CPUC and CEC need to be updated and aligned with SB32 in order to put the buildings sector on the path to deep decarbonization. The CPUC’s fuel substitution test (“3-prong test”) is based on 25-year old outdated assumptions and virtually prevents incentive programs for electrification, effectively locking Californians into continued use of gas appliances. State efficiency policies have historically been heavily focused on electricity with less emphasis on reducing gas consumption. While the SB 350 targets recently adopted by CEC for doubling energy efficiency are



beginning to bridge this efficiency gap, there are no prospects for scaling biomethane or synthetic gas in pipelines to levels comparable with renewable electricity by 2030.

A new bold strategy is needed to put California on a path to a deep decarbonization of its building sector in line with its climate goals. By 2050, emissions in residential and commercial buildings need to be reduced by more than 90 percent, and energy use must drop by 60 percent,ⁱ to ensure an economy-wide emissions reduction of 80 percent. Given the long lifecycle of buildings and of heating equipment within them, this requires that by 2030, all newly constructed buildings and major renovations attain zero net emissions, and the majority of space and water heating equipment installations and replacements use clean energy solutions. To achieve this market transformation over the next 12 years, it is critical to align the building energy code with the state's emissions reduction goals, remove counterproductive regulatory barriers to building electrification, provide incentives to scale adoption, accelerate innovation and reduce the costs of clean energy heating systems.

Policy priorities for building decarbonization in 2018: We see three major policy priorities to lay the foundation for this transformation in 2018:

1. **Revise the CPUC's "three-prong test for fuel substitution"**, to reflect California's increasingly clean grid and its climate and energy priorities. The test should also be streamlined to facilitate implementation of beneficial electrification. Incentives for electrification projects that have clear energy and emissions reduction benefits are critical to catalyze the clean energy transition in existing buildings.
2. **Revise the building energy code compliance framework (Title 24)**, to better reflect the state's climate and energy goals and priorities in the treatment of fossil fuels vs. electricity in new buildings, and to avoid locking in emissions from gas infrastructure and appliances that would make it hard or even impossible to achieve the state's climate targets.
3. **Fund rebate programs** to accelerate the market development of clean, decarbonized space and water heating systems, like the California Solar Initiative did with solar and the Clean Vehicle Rebate is doing with electric vehicles.

Job, health, economic, and environmental benefits from decarbonizing buildings:

1. The clean energy transition in buildings will grow good-paying jobs to retrofit buildings, install heat pumps, and modernize the grid, while also providing a transition pathway for workers in fossil fuel industry sectors;
2. High-efficiency electric heating systems powered by clean energy will dramatically reduce criteria pollutants and harmful climate emissions from natural gas combustion, transmission and storage;
3. Beneficial electrification will insulate consumers from volatile fossil fuel prices, avoid costly new and upgraded pipeline infrastructure, and protect rate payers from the risk of future stranded gas infrastructure;
4. Flexible electrified water and space heating loads will support deep renewables integration into the grid, reducing the cost of transitioning to a clean electricity grid and zero-emissions homes and buildings.

ⁱ NRDC "America's Clean Energy Frontier", September 2017, <https://www.nrdc.org/resources/americas-clean-energy-frontier-pathway-safer-climate-future>



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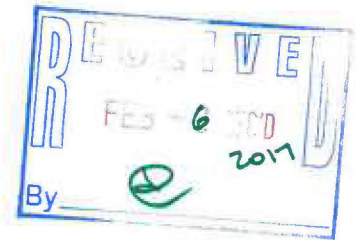
GRID ALTERNATIVES
Greater Los Angeles



Friday, February 2, 2018

Honorable José Huizar
Honorable Bob Blumenfield
200 N. Spring St.
Los Angeles, CA 90012

Re: Council Motion 18-0002-S7 - Moratorium on Gas Hook Ups



Dear Honorable Councilmembers Blumenfield and Huizar,

On behalf of thirteen organizations and businesses, we submit these comments on Motion 18-0002-S7, which addresses the California Public Utilities Commission's (CPUC) proposed moratorium on gas hook-ups in new commercial and industrial construction. Opposing the CPUC's proposed moratorium cannot be the only action the City Council takes on this important matter. Rather, the proposed moratorium, though short in duration, must serve as a call to action for the Southern California region to begin reducing our reliance on gas.

If the City of Los Angeles is to act on its commitment to climate change and healthy air, and respond to the ongoing challenges posed by our reliance on gas, then the City of Los Angeles must take strong action now to reduce our dependence on gas.

We strongly urge the Council, as it considers a response to the CPUC, to show leadership to prevent future gas reliability, safety, and environmental risks by taking steps to proactively reduce our reliance on gas in homes and buildings wherever possible, and accelerate a transition to clean, climate-friendly electric buildings.

By _____

Since the massive leak at Aliso Canyon in October 2015, further events have only reinforced the problems which come from our reliance on natural gas. For example, a natural gas odorant leak in West Los Angeles on November 29th, 2017 created confusion and concern for public safety. Weeks later on December 18th, 2017, another leak was reported at Aliso Canyon, leading to 34 reports of headaches, nosebleeds, and burning in the eyes or throat.¹ The recent wildfires also prompted safety concerns and required shutting off gas service in some parts of the region.²

The Huizar Motion could be improved by refocusing the City Council's attention to activities under its jurisdiction to proactively respond to the ongoing gas reliability and safety issues, rather than waiting on the CPUC to consider alternative mechanisms to mitigate gas usage.

The City has historically been a leader in actions to reduce air pollution and greenhouse gas emissions by encouraging energy efficiency and renewable energy deployment. Having its own municipal utility, the City is in a strong position to go further to manage a much needed shift from natural gas to safe, reliable, all-electric buildings powered by local clean energy.

At a high level, the LA City Council should instruct LADWP and the Building and Safety Department to evaluate the measures needed to reduce dependency on natural gas and encourage the use of high efficiency electric appliances in new construction, major retrofits, and existing buildings.

Specifically, we recommend that the City Council:

1. Direct LADWP to establish building electrification targets in the 2018 Integrated Resource Plan to reduce greenhouse gas emissions from energy use in all residential, commercial, and public buildings by at least 45 percent below 1990 levels by 2030 to align with the City's Greenhouse Gas Reduction Goal.
2. Direct the Building and Safety Department, in consultation with LADWP, to report back within 30 days on the code changes necessary to require new residential and commercial buildings to be, at a minimum, "electrification ready" -- i.e. have electrical service and panel space capable of supporting high efficiency electric space heating, water heating, cooking, and clothes drying.
3. Direct the Building and Safety Department, in consultation with LADWP, to analyze the costs and practical implications of requiring certain types or percentages of buildings to be natural gas free, including recommendations for rebate programs to lower the upfront costs of purchasing and installing high efficiency electric appliances, new electrification-friendly tariffs to support deeper integration of renewables on the grid and ensure affordability, and

¹ LA Times, [Residents report nosebleeds and headaches after new leak at Aliso Canyon natural gas facility](#), December 18, 2017.

² See: <https://www.socalgas.com/newsroom/fires>

financing mechanisms to make electrification economically feasible for a broad cross-section of Californians.

We appreciate the City Council's attention to this issue, and urge the Council to take action to ensure energy reliability, to maintain local control over the City's power supplies, and to remain a leader in clean air and climate action.

Sincerely,

Evan Gillespie
Sierra Club

Alex Nagy
Food Water Watch

Jennifer Kropke
IBEW local 11

Tim O'Connor
Environmental Defense Fund

Dan Thomsen
Building Doctors

Ann Edminster
Design AVEnues

Vlad Popescu
Indivisible CA-43

Adrian Martinez
Earthjustice

Michael Kadish
Grid Alternatives

Michelle Kinman
Environment California

Matt Pakucko
Save Porter Ranch

Marcia Hanscom
Ballona Institute

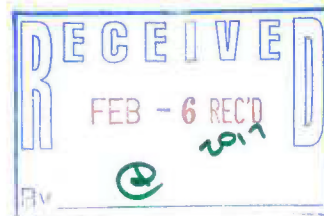
Sean Armstrong
Redwood Energy

Item #28



February 1, 2018

Honorable Jose Huizar
Honorable Bob Blumenfield
200 N. Spring St.
Los Angeles, CA 90012



Re: Council Motion 18-0002-S7 - Moratorium on Gas Hook Ups

Dear Honorable Councilmembers,

The Natural Resources Defense Council (NRDC) submits these comments on Motion 18-0002-S7, which addresses the California Public Utilities Commission’s (CPUC) proposed moratorium on gas hook-ups in new commercial and industrial construction.

It is becoming starkly clear that the leaders of California – and the City of Los Angeles – must take decisive action to significantly reduce greenhouse gas emissions (GHGs) from our buildings to meet climate commitments and to improve the health of our communities.

Direct emissions from fossil fuel use in California’s buildings (largely from natural gas burned for space and water heating) are on par with emissions from all in-state power plants. And fugitive emissions from production, distribution, and onsite leaks of natural gas increase climate impacts from combustion. As our electricity supply gets cleaner, these direct emissions from buildings will become one of the top barriers to achieving California’s climate goals – onsite combustion of fossil fuels already account for over 40% of emissions from buildings in the state.

NRDC urges the City Council to use the opportunity of the proposed moratorium to respond constructively and demonstrate leadership in developing proactive ways to reduce greenhouse gas emissions from buildings.

We have provided a letter (attached) on “The Need for Policy Action to Decarbonize the Building Sector” supported by a wide range of stakeholder groups as an example of the growing call for leadership in this area in California.

We recommend that the City Council take the following constructive actions:


1. Direct the Building and Safety Department, in consultation with LADWP, to **assess the City’s opportunities for encouraging low-GHG buildings**, including through changes to the building code, and report back to the City Council on the range of opportunities within the City’s jurisdiction.

2. Direct the City's Building and Safety Department, in consultation with LADWP, to propose **incentive programs for efficient, low-GHG technologies** such as heat pumps for water and space heating and to offer **tariffs that encourage buildings to use electricity during the times of day with the lowest GHG-emissions.**
3. Direct LADWP to include **targets in the 2018 Integrated Resource Plan for reducing emissions from buildings by at least 45 percent below 1990 levels by 2030** to align with the City's Greenhouse Gas Reduction Goal.


The Los Angeles City Council has an important role to play in leading all of California towards improving community and environmental health. We urge you to take this opportunity to be the vanguard in California, rather than waiting for actions from others.

Sincerely,

Maria Stamas
Western Director, Energy Affordability



Christina Angelides
Director, City Energy Project



Merrian Borgeson
Senior Scientist



Pierre Delforge
Senior Scientist