

# Memorandum

**TO:** HONORABLE MAYOR  
AND CITY COUNCIL

**FROM:** Kerrie Romanow  
Chris Burton

**SUBJECT:** SEE BELOW

**DATE:** December 19, 2023

Approved



Date

12/20/23

## INFORMATION

**SUBJECT: LIMITED EXEMPTION FOR NATURAL GAS DISTRIBUTED ENERGY RESOURCE IN NEW CONSTRUCTION**

This informational memorandum updates the City Council on the availability of fuel substitutes for natural gas for Distributed Energy Resources as required by San José Municipal Code Section 17.845.050, the Natural Gas Infrastructure Prohibition Ordinance (Ordinance).

The City of San José is an internationally recognized leader for its policies and actions to address climate change. In 2019, City Council adopted the Ordinance to apply only to new single-family and low-rise residential construction. One year later, in December 2020, City Council determined the cost effectiveness of all-electric buildings and extended the Ordinance to cover all newly constructed buildings in San José, with limited exemptions. The purpose of the exemptions, in part, was to advance strong public policy addressing the urgent climate crisis while balancing the challenges of being on the forefront of these important changes.

The Ordinance contains two relevant exemptions: the Hardship Exemption (Section 17.845.050) and the Distributed Energy Resources exemption (Section 17.845.020).

The Hardship Exemption allows the Director of Planning, Building, Code Enforcement or their designee to grant an exemption if an applicant demonstrates “physical site conditions, necessary operational requirements, or the public health, safety, or economic welfare in the event of an electric grid outage make it a hardship or infeasible to meet the requirements of [the ordinance], or the project meets the City’s adopted sustainability and environmental policies...”

The second, more limited Distributed Energy Resources exemption, applies to buildings served with Distributed Energy Resources for necessary operational requirements to protect the public health, safety, or economic welfare in the event of an electric grid outage until December 31, 2024. By December 31, 2023, the Ordinance requires the Director of Planning, Building, Code Enforcement or their designee to report to City Council “with analysis of the availability of fuel substitutes for natural gas and whether or not to transition this section to a Hardship Exemption, effective January 1, 2025.” This memorandum provides this analysis.

A Distributed Energy Resource provides on-site power for a building or facility. More specifically, the Ordinance defines it as "...an electric generation or storage technology that complies with the emissions standards adopted by the State Air Resources Board pursuant to the distributed generation certification requirements of Section 94203 of Title 17 of the California Code of Regulations, or any successor regulation." [San José Municipal Code Section 17.845.020 (E.)]

A newly constructed building that would be eligible for the Distributed Energy Resources exemption may be served with:

- Natural gas combustion-based generators and microturbines;
- Natural gas fuel cells; and/or
- Natural gas linear generators.

Beyond natural gas, fuel substitute options for Distributed Energy Resources include the following:

- Combustion-based generators that use diesel\*, biogas<sup>1</sup>, onsite biomethane<sup>2</sup>, and renewable natural gas<sup>3</sup>;
- Flexible fuel linear generators that use biogas\*, onsite biomethane, renewable natural gas\*, ammonia, and hydrogen; and
- Fuel cells that use biogas\*, onsite biomethane, renewable natural gas\*, and hydrogen\*.

The options listed with an asterisk indicate fuel substitute technologies where at least one installation has occurred on a site within the United States outside of manufacturer testing, based on the City's permit database, interviews with customers, and online research. Large hydrogen fuel cells (greater than 3 megawatts) are also in pilot use, though they are not commercially available yet. In addition to the fuel substitutes, other back-up power options which could substitute for natural gas Distributed Energy Resources include solar and battery and stand-alone backup batteries.

Following the Ordinance's effective date of August 1, 2021 for non-residential new construction, only one new construction project has applied for and received a Distributed Energy Resources limited exemption. While the project has not been constructed, that exemption applied to natural

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<sup>1</sup> Biogas as defined in the report [Renewable Natural Gas in California](#) is gas produced from an organic waste feedstock by processes that include: anaerobic decomposition of organic material including co-digestion, noncombustible thermal conversion of agriculture crop residues, nonrecyclable materials, livestock waste, municipal sewage sludge, or biosolids.

<sup>2</sup> Biomethane as defined in the report [Renewable Natural Gas in California](#) is biogas that has been further refined and processed and meets standards adopted pursuant to subdivisions (c) and (d) of Section 2541 of the California Health and Safety Code for injection into a common carrier pipeline (i.e., pipeline-ready but not necessarily injected into a pipeline).

<sup>3</sup> Renewable Natural Gas as defined in the report [Renewable Natural Gas in California](#) is biomethane that has been injected into a pipeline to replace natural gas.

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gas fueled back-up generators with planned greenhouse gas emission reductions through the use of indirect biogas.

Even without the exemption, new construction served with a Distributed Energy Resource could be eligible for a Hardship Exemption (Section 17.845.050). As stated above, if the project applicant shows that physical site conditions, necessary operational requirements, or the public health, safety, or economic welfare in the event of an electric grid outage make it a hardship or infeasible to meet the Ordinance requirements, the Director or their designee may grant an exemption.

Given the greenhouse gas impact of natural gas Distributed Energy Resources has resulted in only one installation in San José under this exemption since August 2021, and that the Hardship Exemption would continue to be an option for a new construction project to request, no further City Council action is required so that the Distributed Energy Resources exemption can transition to the ordinance's Hardship Exemption effective January 1, 2025.

/s/  
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