

City of Alexandria, Virginia

MEMORANDUM

DATE: APRIL 1, 2025

TO: CHAIR MELISSA MCMAHON
AND MEMBERS OF THE PLANNING COMMISSION

FROM: KARL W. MORITZ, DIRECTOR
DEPARTMENT OF PLANNING AND ZONING

SUBJECT: DOCKET ITEM #6 – REZ2024-0004; DSUP2024-10017; ENC2024-0008
HISTORY OF ALLOWING GAS APPLIANCES IN FOR-SALE PROJECTS

Issue

The applicant for Whitley Phase 2 has discussed with Planning Commission members the feasibility of modifying the following Condition (#43) to allow gas stoves in the condominium building, arguing that gas stoves are a market preference.

43. At the first Final Site Plan, demonstrate that the building will be fully electric including all mechanical systems, except for a back-up generator and DOAS unit. For limited accessory elements, if using gas, outdoor grills must be controlled with occupancy sensors or timers not to exceed two hours, or other technology to prevent the accessory element from using natural gas when not being used by an occupant of the building. (OCA) *

What follows is useful background information on the evolution of staff's (both the Office of Climate Action and the Department of Planning & Zoning) position with respect to gas appliances in individual units (stoves and fireplaces).

Context

The Alexandria City Council unanimously adopted the updated Environmental Action Plan (EAP) 2040 in July 2019. While not binding to any single specific development project, the Plan set ambitious community-wide goals:

- To reduce emissions by 50% by 2030 (base year 2005),
- To approach carbon neutrality (80-100% reduction) by 2050,
- And all new construction should be carbon neutral by Fiscal Year 2030.

The Energy and Climate Change Action Plan (ECCAP) was completed in May 2023. The ECCAP describes specific pathways and actions for the City and stakeholders, to include City staff and

policymakers, individuals, and businesses and institutions, to reduce emissions 50% by 2030 (from 2005) and 80-100% by 2050.

Achieving these ambitious goals will require the City's utility grid to decarbonize over the coming decades. This effort is beyond the control of the City, our residents, and our development community. In 2020, Alexandria's total greenhouse gases emissions were 1.27 million metric tons of carbon dioxide equivalent (MTCO₂e). Most emissions (55%) came from the use of energy in residential and commercial buildings. Onsite natural gas use and fugitive emissions from natural gas distribution contributed to these emissions.

The EAP 2040 and ECCAP have provided staff strategic guidance on the new development project recommendations we propose – for Planning Commission's consideration – related to building end-use (space heating, domestic hot water generation, building ventilation, amenity use, and residential cooktop use) electrification vs traditional methods which require combustion onsite. Limiting combustion on site for new development projects avoids future building retrofits and works to meet our community's established goals.

While neither the City's 2009 or 2019 (current) Green Building Policies have required complete electrification or explicitly prohibited combustion onsite, the City has significantly limited when natural gas or propane can be used at a project through conditions of approval. Specifically, staff has consistently recommended, and the Planning Commission and City Council have agreed to, not allowing natural gas or propane use onsite when a fully electric alternative is available and being widely used in the local real estate market. With respect to the applicant's request for gas ranges, staff notes that electric-resistance and induction cooktop alternatives are widely available in a range of sizes, qualities, and price points.

Below is the Standard Condition language which has been used since 2022 relating to building electrification. On occasion, specific projects have requested and been granted flexibility to use natural gas for Dedicated Outside Air System (DOAS) units and common amenity uses (fireplaces, fire pits, BBQ grills, provided they have timers). The most recent examples that permitted gas ranges were approved in late 2021 (805 N. Columbus Street, DSUP2021-10020, currently under construction as Whitley Phase 1 by the same developer) and early 2022 (Landmark Overlook, DSUP2021-10013). Staff, Planning Commission and City Council have not supported such requests for gas ranges or fireplaces since then.

2024 Standard Condition:

*At the first Final Site Plan, demonstrate that the building will be fully electric including all mechanical systems. For limited accessory elements, if using gas, food and beverage uses in retail spaces and outdoor grills, must be controlled with occupancy sensors, timers not to exceed two hours, or other technology to prevent the accessory element from using natural gas when not being used by an occupant of the building. (OCA) **

2022 Standard Condition:

The building shall use electricity except for limited accessory elements of the building such as retail use, food and beverage uses, emergency generators, and common areas systems/amenities. For these limited accessory elements, the buildings shall support low cost and easy conversion from fossil fuel to electricity in the future. (P&Z) (T&ES) [Townhomes and predominantly multifamily buildings with mixed uses]

Project	Approval date	Use	Conditions/notes
805-823 N Columbus (DSUP2021-10020)	10.16.21 Same applicant as Whitley Phase 2	Sale	18. The building shall use electricity except for limited accessory elements of the building such as retail use, food and beverage uses, emergency generators, and common area systems. For these limited accessory elements, the building shall support low cost and easy conversion from fossil fuel to electricity in the future. This condition does not prohibit outdoor or roof fire pits, gas fireplaces on any 4th or 5th floor penthouse units, gas emergency generator, and gas kitchen ranges or cook tops with back-up electrical outlets.(P&Z) (T&ES)
101 Duke townhouses (DSUP2021-10012)	9.18.21	Sale	13. The building shall use electricity except for limited accessory elements of the building such as retail use, food and beverage uses, emergency generators, and common areas systems and unit appliances. For these limited accessory elements, the buildings shall support low cost and easy conversion from fossil fuel to electricity in the future. (P&Z) (T&ES)
Landmark Overlook DSUP2021-10013	2.12.22	Sale and rental	34. The building shall use electricity except for limited accessory elements of the building such as gas ranges and fireplaces. For these limited accessory elements, the buildings shall support low cost and easy conversion from fossil fuel to electricity in the future. (P&Z) (T&ES)
901 N Pitt (DSUP2021-10030)	4.23.22	Rental	42. The building shall use electricity except for limited accessory elements of the building such as retail use, food and beverage uses, emergency generators, and common areas systems amenities including indoor or outdoor community fire pits and gas-fired rooftop dedicated outside air unit . For these limited accessory elements, the buildings shall support low cost and easy conversion from fossil fuel to electricity in the future. (P&Z) (T&ES) (PC)
Tidelock (DSUP2021-10017)	1.22.22	Sale and rental	21. The building shall use electricity except for limited accessory elements of the building such as retail use, food and beverage uses, emergency generators, and common area systems. For these limited accessory elements, the building shall support low cost and easy conversion from fossil fuel to electricity in the future. This condition does not prohibit communal outdoor or roof fire pits or gas emergency generators. (P&Z) (T&ES) <i>The applicant requested gas cooking appliances for the for-sale units but the request was denied.</i>
Montgomery Center (DSUP2022-10020)	4.15.23	Rental	52. The building shall use electricity except for limited accessory elements of the building such as retail use, food and beverage uses, emergency generators, and common areas systems/amenities for up to two gas fireplaces in the building interior and up to two intermittently used firepits on the rooftop amenity space. All fire amenities will be managed with automated technology. For these limited accessory elements, the buildings shall support low cost and easy conversion from fossil fuel to electricity in the future. (P&Z) (T&ES) (PC)
AHDC Seminary (DSUP2021-10027)	12.18.21	Sale	15. Install Energy Star labeled appliances where residential appliances are installed. (T&ES) 16. In order to provide a more sustainable use of natural resources, the applicant shall use EPA-labeled WaterSense or equivalent low flow fixtures. In addition, the applicant is encouraged to explore the possibilities of adopting water reduction strategies (i.e., use of gray water system on-site) and other measures that could reduce the consumption of potable water on this site. A list of applicable mechanisms can be found at: www.epa.gov/WaterSense . (T&ES)

Rutherford (DSUP	6.17.23	Rental	<p>37. <u>CONDITION AMENDED BY CITY COUNCIL JUNE 17, 2023:</u> <u>The building's HVAC system shall be fully electric, except for limited accessory elements of the building such as retail uses, emergency generators, and up to two gas fireplaces with occupant controls in common amenity areas; including: up to three gas fireplaces/fire pits located in the exterior courtyards of the building with occupant controls (one in each courtyard); and intermittently used gas-fired bar-b-que grills in the outdoor courtyard amenity spaces. Gas fireplaces shall not burn continually. For these limited accessory elements, the buildings shall support low cost and easy conversion from onsite fossil fuel use to electrical use in the future.</u></p> <p><u>Alternatively, the applicant may submit a detailed Greenhouse Gas (GHG) emissions report, stamped by a mechanical engineer licensed in Virginia, no later than the first Final Site Plan, for review by staff in the Office of Climate Action. The report should demonstrate that full electrification is more carbon intensive over the life cycle of the proposed HVAC system than a gas-fired backup, and must include the following:</u></p> <ul style="list-style-type: none"> a. <u>Complete specifications for both the proposed gas-fired system and the all-electric system alternatives being compared. At a minimum, this will include equipment manufacturer and unit name, system sizing, efficiency ratings, SEER ratings, fan capacities, useful life and anticipated quantities of each system needed to meet the project's HVAC demands;</u> b. <u>An all-electric alternative comparison which includes systems consistent with Condition 35, adherence to the Green Building Policy;</u> c. <u>Use most recent IPCC or other government-reviewed projections for anticipated localized average temperature changes over the manufacturer-specified lifespan of the equipment; and,</u> d. <u>The report will use the fuel generation mix provided by National Renewable Energy Laboratory's (NREL) projection data, with the following criteria: Standard Scenarios 2022, Scenario: Mid-case, nascent techs, current policies, Location: Virginia. (Scenario Viewer (nrel.gov)).</u> <p><u>Office of Climate Action staff will review this report and make a determination within 30 days of receipt of the complete proposal. The authorized system shall be the system which the report demonstrates has the lower carbon intensity, when all conditions A-D above are met. If the proposal is not accepted, the Final Site Plan must be updated to show the fully electric HVAC system, to the satisfaction of the Directors of the Office of Climate Action and Planning & Zoning. (OCA) (P&Z) (PC) (CC)*</u></p>
820 Gibbon townhouses (DSUP2023-10017)	1.20.24	Sale	34. The building shall use electricity except for limited accessory elements of the building such as emergency generators. For these limited accessory elements, the buildings shall support low-cost and easy conversion from fossil fuel to electricity in the future. (OCA)
(301 N Fairfax DSUP2023-10009)	1.20.24	Sale	All electric project.
Vulcan Townhouses (DSUP2023-10014)	4.13.24	Sale	262. At the first Final Site Plan for condominiums, townhouses, and stacked townhouses, demonstrate that the buildings will be fully electric including all mechanical systems. (OCA) *

Vulcan Condos (DSUP202 3-10007)	4.13.24	Sale	42. At the first Final Site Plan for condominiums, townhouses, and stacked townhouses, demonstrate that the buildings will be fully electric including all mechanical systems.
125 N West townhouses (DSUP202 4-10004)	7.2.24	Sale	All electric project.
Westridge Towns (DSUP202 4-10010)	Going 4.1.25	Condo	All electric project. <i>Proposed Condition: At each first Final Site Plan, demonstrate that the building will be fully electric including all mechanical systems. For limited accessory elements, if using gas, food and beverage uses in retail spaces and outdoor grills, must be controlled with occupancy sensors, timers not to exceed two hours, or other technology to prevent the accessory element from using natural gas when not being used by an occupant of the building. (OCA) *</i>