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**From:** [Deepa Sivarajan](#)

**Sent:** Friday, March 5, 2021 1:54:31 PM

**To:** [City Council](#)

**Subject:** [EXTERNAL] Council Strategy Planning: Building Electrification

**Sensitivity:** Normal

**Attachments:**

[Building Electrification Model Ordinance.docx](#) 

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Honorable Councilmembers,

I'm very pleased to see that Shoreline City Council will be discussing potential policies around phasing out the use of fossil fuels in new residential and commercial buildings at the Strategy Planning session tomorrow. Climate Solutions supports building electrification policies and would be happy to engage with Council on this.

I also wanted to share some initial resources that could be helpful for Council in discussing this. Firstly, the [Build Electric WA](#) website has great information on the case for building electrification, including benefits to greenhouse gas reductions, public health and safety, cost-savings, and creation of green jobs.

Secondly, I've attached a model ordinance that Climate Solutions developed in partnership with Stand.Earth and other local organizations. The legal principle has been confirmed with MRSC and we would be happy to work with Council on policy development.

Sincerely,

Deepa Sivarajan

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**Deepa Sivarajan | WA Policy Manager | she/her**

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## Building Electrification Model Ordinance

### AN ORDINANCE OF THE [JURISDICTION], WASHINGTON PROHIBITING NATURAL GAS PIPING SYSTEMS IN NEW BUILDINGS.

WHEREAS, an October 2018 United Nations Intergovernmental Panel on Climate Change 11 (IPCC) report states that human beings have only until 2030 to limit devastating global warming and avoid a climate catastrophe; and

WHEREAS, the 2018 IPCC report also states that every bit of warming matters, so every fraction of a degree less of warming will save lives and pay dividends across the world's economies; and

WHEREAS, the [jurisdiction name] government is responsible for promoting the public health and safety of its residents including access to clean air, clean water, and a livable environment; and

WHEREAS, the [jurisdiction name] also has a responsibility to Washington state's climate goals to reduce emissions to 95% below 1990 levels by 2050; and

WHEREAS, buildings are the largest source of toxic air pollution in the United States; and

WHEREAS, the combustion of natural gas in buildings impacts the cardiovascular and respiratory health of vulnerable population, including children, elders, and people with pre-existing conditions;

WHEREAS, communities of color are disproportionately impacted by air pollution in addition to lower access to healthcare; and

WHEREAS, moving towards all-electric buildings now will prevent increased conversion costs in the future; and

WHEREAS, the burden of future conversion costs would be disproportionately borne by low-income residents; and

WHEREAS, prohibiting the inclusion of natural gas infrastructure in new buildings would both improve public safety and public health and reduce greenhouse gas emissions;

[Other whereas statements to include based on the specific jurisdiction:

- Commitments the jurisdiction has made to addressing climate change in the past, including greenhouse gas reduction goals
- Impacts of climate change already felt and/or expected in the region
- Responsibility of the jurisdiction to steward their land for local indigenous peoples and Tribal Nations, as well as disproportionate impacts of climate change to indigenous peoples
- Data on the impact of fossil gas from buildings on the emissions of the jurisdiction area
- Prior commitments made by the jurisdiction towards building electrification, such as in a Climate Action Plan or other plan]

NOW THEREFORE, [JURISDICTION] DOES ORDAIN:

### Legislative facts and findings:

- A. Scientific evidence confirms that emissions of greenhouse gases (GHGs) including carbon dioxide, methane, nitrous oxide, and others have risen globally at an unprecedented rate since the beginning of the industrialization, and that GHG emissions have led to a global temperature increase of almost two degrees Fahrenheit in the last 150 years.
- B. Impacts of climate change have been felt across Washington, including through increased temperature extremes, record droughts, warm ocean temperatures leading to ocean acidification, and more volatile wildlife seasons.
  - a. [Specific impacts experienced by the jurisdiction.]
  - b. Communities already facing socioeconomic and health inequities, including youth, elders, communities of color, and low-income communities, will suffer disproportionately from these impacts.
  - c. [Impacts of climate change on local Tribal Nations or other indigenous communities.]
- C. [Commitment by the jurisdiction to addressing climate change, including any GHG reduction goals that have been set through past legislation or climate action planning process.]
- D. Eliminating the use of natural gas in new buildings is necessary to further reduce emissions from the buildings sector in [jurisdiction].
  - a. [Specifics around building emissions and growth of buildings sector in jurisdiction.]
- E. In addition to producing emissions, the use of natural gas in buildings increases indoor and outdoor air pollution.
  - a. Natural gas cooking appliances emit nitrogen oxides (NOx), carbon monoxide (CO), fine particulate matter (PM 2.5), ultrafine particles, and formaldehyde, which compromise indoor air quality.
  - b. Homes with gas stoves have 50 to 400% more NOx emissions than homes with electric stoves.
  - c. Living in a home with gas cooking increases a child's chance of developing asthma by 42%.
  - d. Combustion of fossil fuels in buildings also impacts outdoor air pollution: buildings in Washington generate more than two times as much NOx as power plants do.
- F. Indoor and outdoor air pollution create significant public health risks that disproportionately impact vulnerable and historically disadvantaged populations, leading buildings to be the primary source of pollution-related deaths in Washington state.
  - a. Pollutants emitted by natural gas cooking appliances impact the respiratory and cardiovascular health of vulnerable populations such children, the elderly, and those with existing health conditions.
  - b. Black, Latinx, and Asian people, as well as people with lower socioeconomic status, have higher risks of death from particle pollution, in part due to the historical impacts of segregation and redlining that have led communities of color to be pushed to live in places with greater exposure to air pollution.
  - c. Lower-income households may also be at higher risk of exposure to gas stove pollution because of smaller unit sizes, more people per home, older homes with poorer ventilation, and using stoves or ovens for supplemental heat.
  - d. Lack of access to healthcare, jobs, grocery stores, and more also lead to disparate health impacts for vulnerable communities.

- e. The COVID-19 pandemic creates additional urgency to reduce the use of gas in buildings as soon as possible, as even small increases in long-term exposure to PM 2.5 leads to a large increase in the COVID-19 death rate, with more severe impacts to people over the age of 65.
- G. The use of natural gas in buildings also poses safety risks to communities due to the potential for gas leaks and pipeline explosions.
  - a. [911 stats on calls for suspected gas leaks from jurisdiction.]
  - b. In August 2020, a natural gas explosion in Baltimore, Maryland killed two and injured seven people from three row houses in a neighborhood.
  - c. A natural gas explosion in 2016 in Seattle’s Greenwood neighborhood 2016 leveled two buildings, impacted 36 businesses, and created \$3 million dollars of damage.
  - d. [Specific information on pipeline explosions that impacted the jurisdiction.]
  - e. Earthquake risk makes Washington state particularly vulnerable because highly pressurized gas pipelines run a high risk of exploding during earthquakes.
- H. Research shows that all-electric new homes and buildings will save customers money over the lifetime of the building.
  - a. Requiring clean new buildings will also prevent an unnecessary expansion of gas infrastructure that poses a risk of stranded assets in the future, given that new buildings constructed with natural gas infrastructure will last for over 50 years.
  - b. If new buildings are not required to be built without natural gas infrastructure, low-income residents will bear the highest burden of costs for rising gas prices and retrofit conversion to all-electric buildings.

### **Definitions**

“Natural gas” means a natural gas, naturally occurring mixtures of hydrocarbon gases and vapors consisting principally of methane, whether in gaseous or liquid form, including methane clathrate, as the terms are used in the definition of “fuel gas” in the International Fuel Gas Code. Natural gas does not include renewable natural gas or the portion of renewable natural gas when blended into other fuels.

“Natural gas infrastructure” means a system of fuel gas piping, valves, and fittings that, if installed, extends from the outlet of the point of delivery to a premises or in a building and utilized to convey natural gas, as “fuel gas,” “piping,” “valves,” “outlet,” and “point of delivery” are defined in the International Fuel Gas Code.

“New building” means any new building, including detached accessible dwelling units, proposed to be constructed as part of a complete building permit application beginning [date] or thereafter.

### **Applicability**

- A. The requirements of this legislation apply to applications for all building or mechanical permits for new buildings.
- B. The requirements of this legislation do not apply to the use of portable propane appliances for outdoor cooking and heating.
- C. The requirements of this legislation apply to detached accessory dwelling units.

### **Prohibition of natural gas infrastructure systems**

- A. Effective [date], natural gas infrastructure is prohibited from being installed in new buildings.

### **Enforcement**

- A. If any provision of this legislation is in conflict with any other provision, limitation, or restriction which is now in effect under any other part of the [jurisdiction's code or other regulation], or any rule or regulation promulgated thereunder, this chapter shall govern and control and such other code or rule or regulation promulgated thereunder shall be deemed superseded for the purposes of this chapter.