



November 21, 2022

Mayor Vinis and Eugene City Council,

We, the undersigned Eugene and Oregon-based building industry professionals, urge you to adopt policies to transition homes and buildings in Eugene from polluting fossil fuels to renewable electricity as a proactive measure to address the climate crisis. We especially support programs to encourage the adoption of high efficiency heat pump systems in new construction, as well as in existing homes and buildings.

Homes and buildings represent approximately [32% of Eugene's greenhouse gas emissions](#) and are one of the fastest growing sources of emissions in the City. Since Eugene's [Climate Recovery Ordinance \(CRO\)](#), [initiated in 2014, calls for an average annual emissions reduction of 7.6% across sectors and a 50% reduction in fossil fuel use of 2010 levels by 2030](#), the City is far from achieving its goals.

To achieve our ambitious climate targets, protect our residents, and build a viable future for coming generations, we must utilize the best building techniques and technologies that are currently fully adopted in the marketplace, readily available, affordable and environmentally preferable. That is why we support the policies currently being considered by the City of Eugene to transition our city to renewable electricity by requiring that new commercial and residential buildings be constructed with all electric heating and water heating, and to create a program to transition existing residential and commercial buildings to all-electric systems for heating and water heating by 2035. In the [Eugene Climate Action Plan 2.0 Gap Analysis](#), policies similar to those that the City is currently considering were suggested by City staff as a means of achieving our CRO goals, goals which the city is quickly falling behind on.

These policies will strongly increase the rate of adoption of heat pumps, which is critical both to reducing emissions in the City, as well as increasing our community's resilience to climate-driven heat waves, wildfires, cold spells, and reducing strain on the local electrical grid.

In addition to being all-electric, the immediately tangible benefits of heat pump systems are multifold:

- Heat pump air conditioners provide both cooling in summer and heat in winter, offering increased resilience in climate-driven extreme weather conditions
- Heat pump air conditioners are between 300% and 500% more efficient than traditional gas furnaces
- Heat pump air conditioners and some heat pump water heaters are effective even when outdoor temperatures are as low as negative 25 F
- Heat pump water heaters are between 300% and 500% more efficient than gas water heater
- Heat pumps can be scaled to any project – from residential and educational to large scale commercial and industrial buildings

Furthermore, new electric construction has significant benefits for health and safety, and the climate, including:

- Reduced indoor and outdoor air pollution and the associated health risks caused by unhealthy air quality from gas appliances
- Reduced upfront construction costs and consumer utility expenses, thanks to the elimination of gas plumbing and necessary exhaust ductwork and to the great energy-efficiency of heat pumps and heat pump hot water heaters
- Reduced risk of consumers being stuck with stranded assets as the local, state and federal government pass policies to transition off of gas infrastructure

It is time to signal to the market that we need to move away from fossil fuels in our homes and buildings. In our professional practices we have found that building all-electric new homes and buildings is a proven, robust, efficient, and economically viable solution already adopted across the marketplace. The market for electric-only HVAC and hot water equipment is mature and poses very little risk to developers and engineers alike. In Eugene alone, a significant number of new housing developments have been successful in adopting all-electric energy strategies including St. Vincent DePaul's Iris Place, St. Vincent DePaul's Stellar Apartments, and Square One Villages' Opportunity Village.

All-electric new construction will contribute to Eugene's stated climate goals and will protect its citizens and future generations from the accelerating physical and economic impacts of climate change. Given this fact, we can no longer justify prolonging the use of gas in new construction when there are more viable, more sustainable, more profitable, and healthier alternatives readily available today. This is especially true as [Eugene's electrical grid is already one of the cleanest in the nation](#), and, with the implementation of [Oregon House Bill 2021](#), Oregon's electricity will be increasingly generated by renewable technology.

A recent analysis from the highly respected non-partisan, non-profit think-tank [RMI](#), demonstrated the significant economic and climate benefits of all-electric residential construction in Eugene. Specifically, RMI's Eugene-specific analysis shows that:

- All-electric homes constructed with an Energy Star-rated heat pump cost \$3,446 less to build than a similar mixed-fuel home.
- Because of low electricity rates and a mild climate, heat pumps in Eugene were also found to significantly lower annual utility bills, saving rate payers up to \$390 a year in utilities compared to a mixed-fuel home.

- All-electric homes in Eugene emit 70% less carbon over a 15-year period than a mixed-fuel home.

The technology to build high-performance all-electric homes and buildings already exists in the market today and innovation is driving more advanced products. Concrete policies like the ones that the City of Eugene is considering meet a triple bottom line of benefiting our climate, our economy, and our community.

Detailed research has shown that such policies are not only critical to meeting the City's carbon reduction goals but will save Eugene residents money, particularly low-income and historically marginalized populations who suffer disproportionate energy burdens and harms from the health effects of gas in the home.

The feasibility of successfully realizing such an ordinance is demonstrated by the [ever growing list of cities and states](#) implementing electrification policies, including:

- New York City, NY
- San Francisco, CA
- Seattle, WA
- Denver, CO
- Los Angeles, CA
- Washington D.C.
- Boston, MA
- Berkeley, CA
- Brookline, MA

In 2010, when Eugene created its first [Community Climate and Energy Action Plan](#), it joined a growing list of forward-thinking cities around the world that are addressing climate change and energy challenges through dedicated planning efforts. Eugene's CRO continues to include some of the strongest greenhouse gas emission reduction goals in the nation.

Thanks to these strong commitments, Eugene is already a national leader in climate policy. At this critical point in time we, the architects, designers, builders, engineers, and suppliers at work in our community, urge you to uphold the bold commitments that you made a decade ago and have reaffirmed countless times since, and to push forward in taking this important step to effectively address the climate crisis. Let's create a better future for our community by transitioning our homes and buildings from polluting fossil-fuel to clean, renewable electricity.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Jan Fillinger', with a stylized, flowing script.

Jan Fillinger, AIA, LEED ap, Principal, **Studio.e Architecture PC**

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