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From: [Nancy Morris](#)

Sent: Monday, November 15, 2021 3:31:22 PM

To: [City Council](#)

Cc: [Plancom](#); John@electjohnramsdell.com; electebenpobee@gmail.com

Subject: [EXTERNAL] Comment on Study Item 9 (a) Banning the use of natural gas (NG) in new commercial and large multi-family construction

Importance: High

Sensitivity: Normal

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To Shoreline City Council and colleagues:

RE: Comment on the discussion regarding “the ban of the use of fossil fuels in new commercial and large multi-family construction projects for space heating and most water heating.”

I am in favor of restricting Natural Gas (NG) in new construction. New Construction can be insulated to a point where heating should be by electricity. In Seattle and nearby areas, this is done mostly with hydro supplemented with increased wind, solar, batteries and new storage technologies. Insulate the old and build the new to use electricity. Besides restricting the use of NG, cities should encourage the use of decentralized energy production in the forms of rooftop solar and other small scale solar installations (see more at end of comment with **References** 5,6, and 7). To just restrict the use of NG will not help us in the long run without state, county, and city policies incorporating renewable decentralized energy production (see **Reference** 8) and helping people be more energy efficient with low cost retrofits to older homes. Besides policies for new construction, we also need new policies that reward individuals to switch to electricity from NG that are affordable, as right now heating with electricity is very expensive and will impact many individuals with high heating bills if and when they change from NG to electricity.

And it is important to recognize that in the not too distant future NG will become a far scarcer form of energy production simply because we have reached peak NG. NG from conventional wells peaked in the US at 19 trillion cubic feet in 1973. It reached about 6 trillion cubic feet a couple years ago. In 2019 there was a slight uptick to 7 trillion, but most of the NG supplies are gone for conventional drilling. Fracking, on the other hand, went to 27 trillion cubic feet in 2019, but decreased due to the pandemic. Fracked wells also don't last as long as conventional wells. For further information you can go to [Gas depletion](#) and [Hubbert peak theory](#) or look under **References** at the end of this comment.

A very serious downside to NG is that it is dependent on fracking, which is highly toxic to our environment and the wells do not last long. Please see “**Truth About Fracking and the Environment**”: <https://www.wilderness.org/articles/article/truth-about-fracking-and-environment>. The continued use of fracking will destroy water aquifers, increase air pollution, and increase climate warming; it destroys wilderness areas and wildlife. It is a form of energy production that will need to eventually stop.

Regards,
Nancy Morris
Shoreline, WA resident

REFERENCES

1. “**Peak Gas**”: https://en.wikipedia.org/wiki/Peak_gas Peak gas is the year in which the maximum global [natural gas](#) (fossil gas) production rate will be reached, after which the rate of production will enter its terminal decline.^[1] Although demand is peaking in the United States^[2] and Europe,^[3] it continues to rise globally due to consumers in Asia,^[4] especially

China. ^{[5][6]} Natural gas is a [fossil fuel](#) formed from plant matter over the course of millions of years. Natural gas derived from fossil fuels is a [non-renewable energy](#) source, however [methane](#) can be renewable in other forms such as [biogas](#). [Peak coal](#) was in 2013, and [peak oil](#) is forecast to occur before peak gas. ^[7] One forecast is for natural gas demand to peak in 2035. ^[8] ... Go to link for complete discussion.

2. **"Environmental Impacts of Natural Gas from Union of Concerned Scientists,"** Published June 19, 2014 <https://www.ucsusa.org/resources/environmental-impacts-natural-gas> . . . "However, despite these benefits, unconventional gas development can affect local and regional air quality. Some areas where drilling occurs have experienced increases in concentrations of hazardous air pollutants and two of the six "criteria pollutants" — particulate matter and ozone plus its precursors — regulated by the EPA because of their harmful effects on health and the environment ^[9]. Exposure to elevated levels of these air pollutants can lead to adverse health outcomes, including respiratory symptoms, cardiovascular disease, and cancer ^[11]. One recent study found that residents living less than half a mile from unconventional gas well sites were at greater risk of health effects from air pollution from natural gas development than those living farther from the well sites ^[12]. . ."

3. **"Peak Gas Is Coming to the U.S. Sooner Than Anyone Expected"** By [Naureen Malik](#), [Brian Eckhouse](#), [Dave Merrill](#) and [Jeremy C.F. Lin](#) October 22, 2020 <https://www.bloomberg.com/graphics/2020-natural-gas-demand-peak/>

4. **"The U.S. is counting on a long-term abundance of oil & natural gas. But what if the boom is just a bubble?"** <https://shalebubble.org/> ". . . Ultimately, technology can't overcome core characteristics of shale — steep decline rates (wells decline between 75-90% in the first three years, and field declines without new drilling typically range from 25-50% per year) and variable reservoir quality, with "sweet spots" or "core areas" containing the highest quality reservoir rock typically comprising 20% or less of overall play area. Tight oil and shale gas producers have focused their efforts and technological improvements on targeting these "sweet spots" and in many plays we are already witnessing the point of diminishing returns. But the EIA is counting on — and asking the American people to bank on — technological miracles overcoming physical limits. A sound energy policy, however, should be based on reality."

5. **"Decentralized energy system - United Nations ESCAP"** -- A decentralized energy system is characterized by **locating of energy production facilities closer to the site of energy consumption**. A decentralized energy system allows for more optimal use of renewable energy as well as combined heat and power, reduces fossil fuel use and increases eco-efficiency. <https://www.unescap.org/sites/default/files/14.%20FS-Decentralized-energy-system.pdf>

6. **"Getting Smarter About the Smart Grid" *An energy and electricity policy white paper*** by Dr. Timothy Schoechele; <https://gettingsmarteraboutthesmartgrid.org/>

7. **"Proposed Hudson Valley Power Line Project is a Misguided Attempt to Prop Up Investor-Owned Utilities, Delaying Locally Generated Renewable Energy, According to New Report"** June 15, 2015. <https://www.businesswire.com/news/home/20150615005347/en/Proposed-Hudson-Valley-Power-Line-Project-is-a-Misguided-Attempt-to-Prop-Up-Investor-Owned-Utilities-Delaying-Locally-Generated-Renewable-Energy-According-to-New-Report>

8. **"The Value of Solar — utility-scale or rooftop?"** By R.J. Harrington and Timothy Schoechele <https://gettingsmarteraboutthesmartgrid.org/solaroped.xhtml>