

**Jim McConnell**

As a researcher, I believe in following science, logic, and policies that do the most good for the greatest number of people. Please see the attached letter that I wrote on fuel usage, emissions, the environment, and policy. Sincerely, Jim McConnell

Dear Mr. David Anderson:

I appreciate your letter to NW Natural Gas customers and the difficult job you do.

I ask respectfully to have my voice heard as you have suggested in your last paragraph. Please fight to keep natural gas as a part of our energy production.

As someone with a Master of Science degree who has been studying much of the climate data and scientific information available, I would like to counter one of the statements in your third paragraph. There is no conclusive evidence that human-caused greenhouse emissions have any significant effect on climate change.

Since the beginning of life on the earth, carbon emissions have naturally been produced through animal and plant respiration, from the soil, through the decomposition of deceased organisms and other organic matter, carbon dioxide releases from the ocean, the constant volcanic eruptions around the earth, and from wildfires. Carbon dioxide is required for photosynthesis by plants under natural conditions. Without this process all life on earth would cease to exist. The oceans, plants, and the soil are more than sufficient to store and use all the carbon dioxide produced.

Just as the annual cycle of temperatures becoming hot in the summer and cold in the winter exists, there is another cycle which has been occurring for all of recorded history, and as we can tell from geologic evidence, has been transpiring for millennia before recorded history. The climate has always had stretches of years that were cooler and then stretches of years that were warmer than average. This cycle was happening before the industrial age and before humans were on the earth. It continues to occur today. There is no consistent correlation with this cyclical pattern and human emissions, despite what the popular media continues to repeat mindlessly.

Respectfully, instead of going along with the current political hysteria, we should dig into the actual long-term scientific data. While the public does not hear this perspective often, there are many scientists who hold to this factual view. Sadly, many of these scientists have been bullied into submission for fear of ruining their social credibility or even losing their job.

Natural gas is a wonderful, abundant natural resource. It would be foolish for our country not to use it since we have it. Natural gas is easier to transport than most fuels, it burns the cleanest, and we get more bang for our buck with natural gas. I would hate to see the natural gas industry go the way of the oil industry.

Three years ago, the U. S. was energy-independent and gasoline prices were reasonable. But because of the current administration's declarations that oil is evil and should be forced out through policies, we are no longer energy-independent, and prices are rising faster than they ever have. This was happening before Russia attacked Ukraine and resulted from stopping the Keystone pipeline, restricting oil companies, declaring political and economic war on oil, and enacting restrictive laws, as well as the president signing 39 executive orders which have directly hurt our energy sector. The Keystone pipeline alone, could have provided 800,000 barrels of Canadian oil each day, creating thousands of new jobs, and boosting the economy by billions of dollars. As a result of following emotional environmentalism, we now create far more pollution transporting more of our oil by rail and truck, when it could have come through the pipeline pollution-free. How does this make sense?

If the current administration has its way, outlawing gasoline and diesel-fueled vehicles, and forcing everyone to buy a solar operated vehicle, it will destroy our country. Many can't afford an EV. The technology isn't advanced enough, yet. EVs can't go far enough without a charge. Most all goods are transported on trucks which would need to stop and recharge every few hundred miles. The supply chain

would shut down. The price of goods that get delivered would increase exponentially because of the increased costs and delays. Outlawing gas and diesel would result in the biggest depression our country has seen.

Also, there are more serious polluting chemicals in the manufacturing of lithium batteries for EVs. Most people are unaware that the typical EV battery weighs about 1,000 pounds and contains 25 lbs. of lithium, 60 lbs. of nickel, 44 lbs. of manganese, 30 lbs. of cobalt, 200 lbs. of copper, plus 440 lbs. of other mined substances. 85,000 lbs. of brine are processed in manufacturing these elements for each EV battery. It is estimated that about one-half million pounds of earth are dug up for each individual EV battery produced. How much environmental destruction is occurring from this and how many millions of gallons of fuel for earth movers and transport trucks are used to make all of the EV batteries? There are many mines in operation for these resources and it is estimated that each mine averages 17 million gallons of fuel use annually, just for the trucks that transport the minerals.

We have 280 million cars and 15 million trucks registered in the U. S. today. We don't have enough charging stations for even a small fraction of these vehicles. How long will it take to get the necessary land for parking many millions of vehicles while charging and for the electric infrastructure. And who will pay for all of this?

The next obvious question is, "Where will all of the needed electricity come from to charge these vehicles?" According to the US government, 38% of our electricity currently comes from natural gas, 22% from coal, 19% from nuclear, and 20% from renewable sources—which includes solar, wind, geothermal, biomass, and hydroelectric. How long will it take to replace the 60% of our electricity generated from our abundant fossil fuels? Obviously, natural gas is a critical part of our electric infrastructure.

It is invalid to say that an EV is a zero-emission vehicle. The emissions generated to make the vehicle and to provide the electricity to power an EV is probably not much different than the emissions for a gas- or diesel-powered vehicle. Sadly, this perspective is never mentioned by the environmentalists or the legacy media.

I personally believe in renewable energy and have purchased solar panels for my house. The electricity we generate goes into our local power grid and reduces our power bill. But because of state laws, when the power goes out, I cannot take advantage of my panels. My expensive solar panels will sit on my roof, useless, while I go without electricity.

Our country slowly started installing solar panels on homes in the 1970s, and today about three percent of our electricity is produced by solar. I am thankful for this logical progression. I also realize that it will take many decades to convert everything over to renewable energy.

Mr. Anderson, please fight to keep natural gas, this abundant, clean natural resource, which benefits so many people--and of which you have been put in charge. We can work toward reducing dependence on fossil fuels over the next century, but we would be foolish to not fully use this valuable resource before we have found a way to efficiently utilize more renewable sources without destroying our country's economy and people's lives.

Thank you for hearing my voice.

Sincerely,

Jim McConnell  
Vancouver WA