



Health Professionals for a Healthy Climate

February 10, 2025

RE: Opposition to HF9

Dear Chair Chris Swedzinski and Members of the Energy Finance and Policy Committee,

Health Professionals for a Healthy Climate (HPHC) is a multidisciplinary network of hundreds of health professionals across Minnesota working to protect and improve human health by promoting climate health. HPHC appreciates the opportunity to comment on and oppose HF9, which would weaken several provisions of Minnesota's 100% carbon free energy law that protect human health by requiring 100% carbon free energy by 2040.

We object to the following provisions in HF9:

HF9's provision in Section 2 unnecessarily delays the timeline for compliance with the 100% carbon-free standard. MN Statute 216B.1691, Section 2 already allows for compliance delays, if the Public Utilities Commission "determines that modifying or delaying the standard obligation is in the public interest." Additional opportunities for delay are unnecessary and could delay the swift action needed to reduce greenhouse gases that will save lives, improve health, and reduce health care costs. Achieving 100% carbon free energy provides the basis for decarbonizing every sector of our economy and for reducing fossil fuel-based air pollution, which is responsible for 350,000 premature deaths in the U.S. each year.¹ Delaying climate action increases exposure to air pollution, resulting in more premature deaths and increased incidence of respiratory and cardiovascular diseases. Minnesota's law will save lives, reduce chronic illness and the health care costs that go along with it. Minnesota carbon free law could save MN \$1.2 billion in avoided health costs between 2022-2040.² We urge you to allow Minnesota to reap the full benefits of the original law, by not creating additional opportunities for delay.

Lifting the nuclear energy moratorium in Section 3 is unnecessary right now and will divert attention and resources from safer, less expensive and viable energy sources. Minnesota's current nuclear energy facilities provide transitional capacity for grid stability, as we move to a 100% carbon free energy future by increasing use of wind, solar, and energy storage. Building a new nuclear plant will take decades and the high construction costs will burden taxpayers and ratepayers for decades more. The estimated cost of energy for a new nuclear reactor is \$181/MWh compared with \$49.5/MWh for onshore wind and \$60/MWh for utility scale solar.³ In addition, nuclear plants are not carbon free, as fossil fuels are used in uranium mining, which poses both health and environmental risks to Indigenous

¹ Vohra, K., Vodonos, A., Schwartz, J., Marais, E. A., Sulprizio, M. P., & Mickley, L. J. (2021). Global mortality from outdoor fine particle pollution generated by fossil fuel combustion: Results from GEOS-Chem. *Environmental Research*, 195, 110754. <https://doi.org/10.1016/j.envres.2021.110754>

² On the Road to 100 Percent Renewables for Minnesota, COPAL & UCS, 2021.

³ [Jacobson M Z. Seven Reasons Why New Nuclear Energy is an Opportunity Cost That Damages Efforts to Address Climate Change and Air Pollution. January 17, 2024.](#)

lands and the health of workers and communities.^{4 5} Another problem with nuclear reactors is their use of billions of gallons of water per year,⁶ which is concerning as climate effects such as extreme heat and periodic drought conditions are increasing.⁷ Finally, Minnesota should not consider building more nuclear facilities until at the very least, the problem of permanent storage of nuclear waste has been solved. Xcel Energy was permitted to temporarily store 39 casks of highly radioactive waste from the Prairie Island nuclear plant on the land of the Prairie Island Indian Community, with some homes located less than 700 yards from the nuclear plant. Thirty years later, the Prairie Island Indian Community continues to bear the health and environmental risks of the Prairie Island Nuclear Generating Plant, while 1.5 million Minnesotans in the Xcel service area reap the benefits.

Carbon capture and sequestration (CCS) should not be prioritized over other climate solutions. Section 5 highlights CCS as a state policy. CCS could be a useful tool if the CO₂ is captured and utilized on site. However, CCS as currently practiced is really carbon capture utilization and sequestration (CCUS), where the CO₂ is piped out of state to be used in enhanced oil recovery and very little CO₂ is sequestered. CCUS utilizes CO₂ pipelines to capture CO₂ at a refinery, power plant or industrial site and transport the CO₂ in a pipeline to another site where 80% or more of the CO₂ is used by oil and gas companies for enhanced oil recovery (EOR).⁸ CCUS may appear to reduce carbon emissions at industrial sites, when in fact its real purpose is to support the fossil fuel industry in capturing hard to reach oil and gas reserves.⁹ Current experience with CCUS in the U.S. demonstrates that it is expensive, energy and water intensive, and underperforms in terms of actual CO₂ sequestering.¹⁰ CCUS creates air and water pollution and land disturbance, diverts necessary funds from effective climate solutions, and squanders precious water and energy resources. CO₂ pipelines carrying concentrated CO₂ under high pressure are at risk for leaks and explosions putting human health at risk. CO₂ is an asphyxiant and toxicant, so communities are at risk for life threatening exposures that incapacitate people and emergency response systems in the case of a pipeline leak or break. In addition, pipelines are usually sited in BIPOC communities where refineries are located, in rural communities and on or near Indigenous treaty lands. CCS is costly, ineffective and harmful to health and the environment, and should not be highlighted.

HPHC appreciates the opportunity to weigh in on HF9.

Sincerely,

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⁴ Kyne D, Bolin B. Emerging environmental justice issues in nuclear power and radioactive contamination. *Int J Res Public Health*. 2016;13(7):700.

⁵ Roscoe RJ, Deddens JA, Salvan A, Schnorr TM. Mortality among Navajo uranium miners. *Am J Public Health*. 1995;85(4):535-540.

⁶ [Nuclear Power and Water Consumption, March 2022.](#)

⁷ [Sikorsky E. The Promise and Peril of Nuclear Energy in a Climate Changed World. January 19, 2024. Perry World House.](#)

⁸ <https://zerocarbon-analytics.org/archives/energy/a-closer-look-at-ccs-problems-and-potential>

⁹ Ron Ness, *The Future of Oil and Natural Gas Industry in North Dakota is Bright*, North Dakota Petroleum Council, 2017 <https://www.ndoil.org/the-future-of-oil-and-natural-gas-industry-in-north-dakota-is-bright/>.

¹⁰ <https://ieefa.org/resources/carbon-capture-model-exxons-shute-creek-ccus-reveals-questionable-technology-and>