Written Testimony of Jan Nespor, PhD

HB308 -Including energy generated by nuclear reaction as green energy

State of Ohio

Senate Energy and Public Utilities Committee December 8, 2024

Chairperson, Reineke, Vice-chair McColley, Ranking Member Smith, and members of the Ohio Senate Energy and Public Utilities Committee

My name is Jan Nespor, and I am a professor of Education Policy at the Ohio State University. I do not represent Ohio State, but rather am submitting testimony as a private citizen in opposition to HB308.

There are serious policy debates about the role of nuclear energy in reducing greenhouse gas emissions. This bill is not a contribution to those debate. Rather, the goal seems to be to re-brand or "greenwash" an unpopular industry to make it easier for the legislature to allocate money for it. The energy corporations need that money because the high costs of nuclear power generation mean that most plants cost more to run than they earn. The industry as a whole isn't viable without large government subsidies. Thus the industry lobbies for bills such as this one which facilitate the use of public money to generate private profit.

One might argue that given the urgency of the climate crisis such investments are nonetheless worth it. But the contribution of nuclear energy to reducing greenhouse gas emissions is at best ambiguous given the emissions associated with plant construction. Plants take a decade or more to construct, making them problematic for addressing the need for near-term reductions in greenhouse gasses. The current enthusiasm for small modular nuclear reactors is unwarranted. More importantly, the bill divert support from less expensive and much greener renewable energy technologies. One study of nuclear power investments in 123 countries over 25 years found that investments in nuclear energy do not tend to associate with significantly lower carbon emissions while renewables do, and that in fact nuclear and renewables attachments tend to crowd each other out. Take the money you want to give to nuclear energy, use it to fund retraining for workers in the industry, and put the rest (and more) into renewable energy sources. Reject HB308.

Jan Nespor

¹ Barron, Robert W., and Mary C. Hill. 2019. "A Wedge or a Weight? Critically Examining Nuclear Power's Viability as a Low Carbon Energy Source from an Intergenerational Perspective." *Energy Research & Social Science* 50 (April): 7–17. https://doi.org/10.1016/J.ERSS.2018.10.012.

² http://www.bloomberg.com/news/articles/2017-06-14/half-of-america-s-nuclear-power-plants-seen-as-money-losers

³ https://www.cnbc.com/2022/02/17/the-us-is-spending-billions-to-keep-money-losing-nuclear-plants-open.html

⁴ https://theecologist.org/2015/feb/05/false-solution-nuclear-power-not-low-carbon

⁵ https://www.reuters.com/article/us-energy-nuclearpower-idUSKBN1W909J

⁶ https://cleantechnica.com/2023/11/30/what-drives-this-madness-on-small-modular-nuclear-reactors/

⁷ Sovacool, B.K., Schmid, P., Stirling, A. *et al.* Differences in carbon emissions reduction between countries pursuing renewable electricity versus nuclear power. *Nat Energy* **5**, 928–935 (2020). https://doi.org/10.1038/s41560-020-00696-3