OPPOSE NUCLEAR REACTORS FOR SASKATCHEWAN **

Oppose the Saskatchewan Government's intention to use taxpayer dollars to research and build small modular nuclear reactors (SMRs) in Saskatchewan.

See supporting links at the end

NOT CLEAN! All nuclear reactors create toxic radioactive waste. Everything - "spent" fuel bundles, the reactor vessel, all metallic components and the concrete structure ultimately become radioactive waste.

NOT GREEN! Calling SMRs, or any other nuclear reactor, "green" ignores the massive footprint of greenhouse gases created in mining, milling, fuel fabrication, reprocessing, enrichment, transportation, decommissioning, and waste management. As well, routine radioactive pollution and toxic chemical effluents are emitted all along the nuclear fuel chain.

<u>NOT SAFE!</u> Emissions from the nuclear fuel chain, including from reactors, can negatively impact human health. High level nuclear waste contains numerous man-made fission products, some fatal to humans within minutes of unshielded contact. And, nuclear reactors sometimes have accidents which widely contaminate the land, air & water.

NOT HEALTHY! All nuclear reactors routinely discharge radioactivity into the air and water. The KiKK study in Germany found that leukemia in children increased the closer a child lived to a nuclear power plant. Other studies indicate that neonatal deaths and cancers at all ages increase in the vicinity of nuclear power plants. Although some of these studies have been challenged by nuclear proponents the precautionary principle should apply – why should we take unnecessary and dangerous risks with the health of our communities?

NOT SMALL! While some internet images show a single module of a reactor on a truck, they do not depict a full SMR power facility. With the infrastructure – containment building, exclusion zone, shielding, steam generator, turbine, etc. it would be as large as any medium sized power plant.

NOT LIKE HOUSEHOLD GARBAGE! Nuclear reactor waste has been produced in Canada since our first experimental ZEEP reactor in 1945, 75 years ago. But Canada has still not established a permanent method for safely dealing with the waste. "Recycling" or "reprocessing" nuclear waste to create plutonium-based fuel for SMRs would produce even more toxic solid & liquid waste byproducts and would make it even more difficult to prevent proliferation of nuclear weapons around the world. It would also add to the environmental and financial burden of long-lived hazardous high level nuclear waste.

NOT NECESSARY! In addition to combined-cycle natural gas plants in the near term, Saskatchewan can meet its energy needs by increasing sustainable & renewable energy strategies & technologies including: conservation, wind, solar, geothermal, hydroelectric imports from Manitoba, run-of-the-river hydro systems, and others.

NOT COST-EFFECTIVE! All types of nuclear reactors have historically cost much more than their initial estimates. Nuclear's capital costs continue to increase dramatically while renewable energy costs are declining, as noted in an updated August 2020 report from the U.S. Energy Information Administration (EIA). Investing in renewables would create more jobs while producing energy sooner and at less cost.

NOT ACCEPTABLE! For all of the above reasons and more - see links below - small modular nuclear reactors are not a viable choice for Saskatchewan. Let's not saddle taxpayers, present and future, with this speculative, untested, untried, risky, expensive, non-competitive and unnecessary technology.

Not Clean

https://cleangreensask.ca/wp-content/uploads/2021/09/Pollution-from-the-Nuclear-Fuel-Chain-1.pdf

Not Green https://www.pembina.org/reports/ClearingThAir_Summary_final.pdf

Not Safe

https://cleangreensask.ca/wp-content/uploads/2021/09/RADIATION-AND-THE-HUMAN-BODY-1.pdf

Not Healthy https://www.ianfairlie.org/uncategorized/new-french-study-on-childhood-leukemias-nearnuclear-power-plants/

Not Like Household Garbage http://www.ccnr.org/Hill_Times_GE&SO_Sept_21_2020.pdf

Not Necessary

https://cleangreensask.ca/wp-content/uploads/2021/11/Small-Modular-Reactors-SMRs-Sept-2020_new.pdf

Not Cost-Effective https://www.eia.gov/outlooks/aeo/assumptions/pdf/table_8.2.pdf https://large.stanford.edu/courses/2016/ph240/kountz1/images/f1big.png

Not Acceptable! Gordon Edwards et al: www.ccnr.org/SMNR_article_2019.pdf
Edwards video www.youtube.com/watch?v=Z-L4QvN3QIA

https://wiseinternational.org/nuclear-monitor/872-873/small-modular-reactors-introduction-and-obituary

https://sppga.ubc.ca/news/professor-ramana-publishes-eyes-wide-shut-a-report-on-problems-with-smallscale-nuclear-plants/

https://cleangreensask.ca/wp-content/uploads/2021/09/footprint-poster-with-black-background-1.pdf

Inter-Church Uranium Committee Educational Co-operative. (ICUCEC) <u>icucec.sk@gmail.com</u> 306-653-1929

Committee for Future Generations 1-306-304-1698 committeeforfuturegenerations@gmail.com

