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NB Loves Nukes!

1. The nuclear industry has conveniently taken the 'N' for "nuclear" out of SMR.

It refers to them as SMRs: small modular reactors. Ask yourself, why don't they want you to know these reactors are nuclear? By the way, they're not so small, either.

2. It's a bargain!

The industry is suggesting that this is the time to get in on the ground floor, claiming SMRs are going to take off and make everyone rich. The reality is these SMRs will be oodles more expensive than any of the other energy options on the table. In order to be cost effective, a company would need to sell thousands of its particular model (there are over a 100 SMR designs currently in competition). The only SMR actually built so far is on a barge off the shores of Russia and very little is known about it. The most advanced SMR in the West is the NuScale project. Nearly $1 billion and 15 years later, it's still not built! Nuclear energy is in decline globally, and has been for some time. The SMRs are a desperate attempt to sell a technology that will soon be obsolete.

3. So what if it's a bad investment for nuclear companies? It's their problem, not ours, right?

Nope. These companies can't get Wall Street or Bay St. to ante up, so governments are the ones investing millions of dollars on designs for SMR prototypes and providing billions in loan guarantees. You know where that money comes from? You, the taxpayer. In 2018, the New Brunswick government spent $10 million on two SMR designs (ARC and Moltex). In February of this year, it promised $20 million to further develop the ARC design. The federal government just announced it will invest $50 million in SMR development (Moltex) for New Brunswick. Wouldn't you rather your tax dollars go to health care, supporting local businesses, reducing class sizes in schools, or even renewable energy?

4. OK, but we need to ramp up nuclear energy because of climate change. After all, nuclear energy doesn't produce CO_2 emissions.

Hah, that's a funny one! It presumes a fairy godmother waved her magic wand and produced an SMR out of thin air. These things take years and years to build, and the carbon involved in constructing them is huge—not to mention the mining of materials such as uranium, which destroys forests and other ecosystems, poisons water, and more. Also, we need climate action NOW. Assuming commercial SMRs even work (the technology is still unproven), the best-case scenario is that there might be one SMR up and running in New Brunswick in the early 2030s. If that's NB's road to GHG reductions, it'll already be too late.

5. But we need electricity!

Wind and solar are intermittent sources of energy. What if the wind doesn't blow or the sun doesn't shine!? Hmm, like that's going to happen in Atlantic Canada. Normally, there's more wind in the colder months and more sun in the hotter months, so they tend to balance themselves out. Nevertheless, for additional and more reliable energy, we need only look next door to Quebec for hydropower. Plus, battery storage is getting better and cheaper all the time. Right now in California, Tesla and PG&E are building the largest battery storage facility ever constructed. It will be able to dispatch 730 MW of energy to the elec-

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trical grid—that's more than Point Lepreau currently does (660MW). The project was announced last summer (2020) and it's almost completed. Imagine, an energy project that's on time and on budget. It could be a first for New Brunswick (and Atlantic Canada)! NS Power is also testing small Tesla batteries in homes to store energy generated from solar panels.

6. There haven't been any Chernobyl- or Fukushima-like nuclear energy disasters in recent years, so the technology must be safer now, right?

Wrong again. The two companies hoping to develop SMRs for New Brunswick are start-ups—they've never built a nuclear reactor! Their experimental SMR designs involve creating even more concentrated forms of deadly liquid nuclear waste. Did you know that nuclear waste remains toxic for thousands of years? Who wants that in their backyard? Furthermore, the SMR structures themselves, like the Point Lepreau reactor, remain radioactive when the SMRs' lifespans are over. Who is going to be responsible for cleaning up that mess? New Brunswick taxpayers!

7. Yes, but the government will make sure these SMRs are safe.

No, I'm afraid not. In fact, the federal government has exempted all SMRs built on existing reactor sites from undergoing environmental assessments. Guess where the SMR(s) will be built in New Brunswick? At Point Lepreau! Therefore, SMRs in NB won't undergo any environment assessment by the federal government. New Brunswickers will be guinea pigs, at the mercy of the nuclear power industry, which is desperate to make a sale.

8. Hmm, yes, but NB really needs jobs and these SMRs will provide new and hopefully well-paying jobs.

Sure, New Brunswickers need good jobs, but why should they be given this kind of ultimatum? Ask yourself, *who* is telling you that nuclear energy will create lots of jobs, and that they're the only new jobs available—and *why*? Is it the nuclear industry, along with the federal and provincial governments, which are trying to dig themselves out of previous bad investments in nuclear technology? Let's look at the facts, not the BS: solar energy creates 4–5 times as many jobs as nuclear energy. The US Bureau of Labor Statistics forecasts, "America's two fastest-growing jobs through 2026 will be solar installer (105% growth) and wind technician (96% growth)" (Forbes, 2019). In case you're wondering, nuclear jobs didn't even register high enough to make the charts.

9. Point Lepreau is already a highly secure facility, but SMRs would require even more armed security.

That's because the proposed designs involve extracting plutonium from Point Lepreau's existing reactor to make new fuel for the SMRs. Plutonium is the primary nuclear explosive material in the world's arsenals of nuclear weapons. A derivative of uranium that does not exist in nature, plutonium is created inside every nuclear reactor fuelled with uranium. Up until now, Canada has never extracted plutonium in a commercial nuclear reactor. Why not? Two reasons: 1) it is highly dangerous and polluting to "open up" the used nuclear fuel in order to extract the desired plutonium and 2) extracting plutonium creates an opportunity for civilian trafficking in highly dangerous materials that can be used by enemy governments, criminals, or terrorists to make powerful nuclear weapons without the need for terribly sophisticated or readily detectable infrastructure. So, more risk, more danger, more security, more cost.

10. New Brunswick is f@#ked!

Yup, unless people speak up loud and clear and tell the nuclear industry, the NB government, and federal government that nukes are not welcome here.

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