Canadian Nuclear Safety Commission | Commission canadienne de sûreté nucléaire

CMD 20-H102.39

File/dossier : 6.01.07
Date : 2020-06-02
e-Docs pdf : 6310651

Written submission from Generation Atomic

Mémoire de Generation Atomic

In the Matter of

À l'égard de

Decision on the scope of an environmental assessment of the proposed Micro Modular Reactor Project at the Canadian Nuclear Laboratories Ltd., in Chalk River

Décision sur la portée de l'évaluation environnementale pour le projet de microréacteur modulaire aux Laboratoires Nucléaires Canadiens ltée, à Chalk River

Hearing in writing based on written submissions

Audience par écrit fondée sur des mémoires

June 2020

Juin 2020

Canada

Submission to the Canadian Nuclear Safety Commission on the decision on the scope of an environmental assessment of Global First Power's Micro Modular Reactor Project at the Canadian Nuclear Laboratories Ltd., in Chalk River, Ontario.

June 1st, 2020

http://generationatomic.org

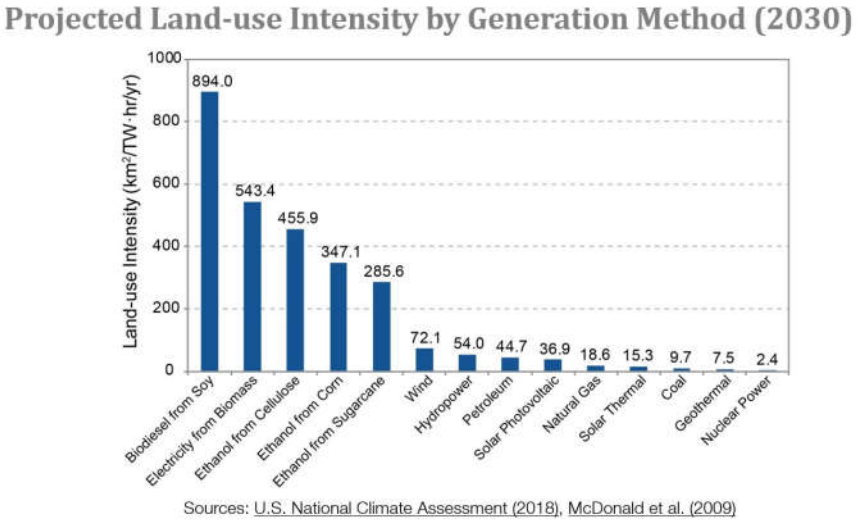
My name is Eric Meyer, and I'm the founder and executive director of Generation Atomic. I'm a lifelong environmentalist who, after studying it for years, overcame my skepticism of nuclear technology and decided to devote my life to advocating for nuclear power as part of the solution to our climate and environmental challenges. I see Global First Power's proposed Micro Modular Reactor Build Project as a stepping stone that could pave the way to greater use of advanced reactors, and I believe advanced reactors will unlock a new paradigm in rapid deep decarbonization and economic prosperity for communities all around the world.

Too often over the past five decades we've seen nuclear projects with a lot of potential stalled or abandoned as a result of environmental concerns raised by the anti-nuclear movement. These concerns, while understandable considering a few high profile accidents in nuclear's history, always resulted in other power sources with far greater environmental and public health impact being built instead. It is with that in mind that I form my comments regarding the scope of the environmental assessment.

I believe it would best serve Canadians and the world at large if this assessment took a fact-based but pragmatic approach to evaluating the project. For example, because of the fuel it uses, FCM (Fully Ceramic Microencapsulated Fuel), a meltdown and release of radioactive materials is physically impossible. Translation: the emergency planning zone for the plant need not be greater than the site boundary itself.

Another example is in relation to water usage. Traditional nuclear plants may use a local water source for cooling purposes, which may result in impact on aquatic life. However, the MMR uses no water for cooling, so can operate without any potential marine impacts. Proliferation concerns are also greatly reduced with this type of reactor, which never needs to refuel over the course of its twenty-year life, eliminating that possibility for the diversion of fissile material.

The ecological footprint of today's large-scale reactors, in terms of mining intensity and land use, is already quite small. This reactor promises to be an even more scaled down version of that, which will allow it to integrate into smaller communities that are currently reliant on fossil fuels for reliable power.



Not only are the potential air quality and climate downsides non-existent in comparison to other sources of power typically used in applications this reactor is suited for, i.e. diesel generators, the MMR and reactors like it hold the promise of greatly improving quality of life and economic prosperity for the communities they're housed in. For example, there are innumerate secondary and tertiary businesses that can be built on the back of a low cost reliable heat and power source. These include powering water purification systems, combined hydroponic and aquaculture facilities, providing heat for manufacturing processes, and enabling cleaner and more efficient mining practices.

Nuclear is a proven tool and Canada can be a leader in unlocking its use for smaller communities both in country and around the planet, and I hope that the Commission moves forward with all deliberate speed in assessing and approving of USNC's micro modular reactor design.

Generation Atomic is a 501(c)3 nonprofit organization working to spread nuclear energy literacy and build a grassroots movement to help save the world with nuclear power.