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**2. Innovative Waste Management Solutions** Introduce thermoelectric pyramids for nuclear waste, transforming a liability into a continuous electricity generation asset, addressing waste management concerns while contributing to the energy grid.

**3. Rural Sustainability Transition** Implement a low carbon transition plan focusing on rural areas, utilizing nuclear energy advancements to support sustainable living, local energy independence, and economic revitalization.

**4. Municipal-Level Thorium MSRs** Promote the adoption of thorium MSRs at the municipal level, creating a new paradigm for local energy production and enabling industrial parks to sustainably produce solar panels and other renewables.

**5. Overflow Electricity Utilization** Explore the innovative use of overflow electricity from nuclear facilities for the production of ammonium nitrate pellets, offering a cost-effective solution for fertilizer production.

**6. Nuclear-Powered National Rail Freight** Investigate the feasibility of powering national rail freight with nuclear steam engines, significantly reducing the transport sector's carbon footprint.

## 4 Impact

This proposal not only aims to address the immediate challenges facing the nuclear industry but also to unlock sustainable pathways for energy production, waste management, and economic development. By focusing on innovative solutions and sustainable transitions, we can ensure that the nuclear industry contributes to high-quality, sustainable lifestyles for countless generations.

## 5 Conclusion and Invitation for Collaboration

I am eager to bring my expertise and vision to your Organization of Canadian Nuclear Industries (OCNI) and Bruce Power, working alongside your team to explore these transformative opportunities. My approach is grounded in consultation and partnership, believing that together we can forge a path toward a sustainable nuclear future that benefits all stakeholders.

I look forward to the possibility of discussing how my background, skills, and innovations can align with your strategic goals to mutually advance the state of nuclear energy and sustainability. Please feel free to contact me at [andrii@liberit.ca](mailto:andrii@liberit.ca) to explore how we can collaborate for a brighter, sustainable future.

Thank you for considering my proposal. I am excited about the potential to contribute to the vital work OCNI and Bruce Power is doing and hope to be a part of your continued success in shaping the future of nuclear energy.

# Long-Term Nuclear Planning Consultant

Andrii Zvorygin  
[andrii@liberit.ca](mailto:andrii@liberit.ca) 226-476-3413

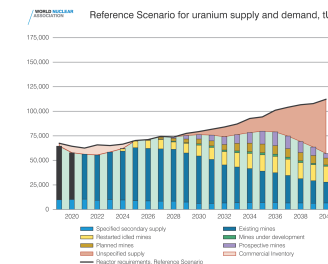
March 27, 2024

## 1 Executive Summary

I propose to serve as a Long-Term Nuclear Planning Consultant, leveraging extensive experience in sustainable rural transitions, waste management innovations, and renewable energy solutions. With a proven track record of advising municipal, provincial, and federal levels, and active participation in international expert panels, my vision extends the nuclear industry's impact into creating sustainable lifestyles and high-quality jobs for future generations.

## 2 Background

The nuclear industry stands at a crossroads, where decisions made today will influence energy sustainability, economic stability, and environmental integrity for millennia. My work focuses on harnessing the untapped potential of nuclear technology, including municipal scale thorium molten salt reactors (MSRs) for industrial parks and thermoelectric nuclear waste management solutions, to revolutionize our energy landscape.



World Nuclear Association indicates that demand is on pace for outstripping supply, and at current reserves are only enough for around a century at current demand, so we need to shift to gaining more value from less fuel, so we can thrive with what is available and have nuclear fuel for future generations. My plans allow for us to thrive within our available resources for as many as millions of years.

## 3 Proposal

**1. Sustainable Nuclear Supply Chain Development** Leverage my international network, including ties with the UN, EU, Nordic and Baltic states, and

the Club of Rome, to foster collaborative global initiatives aimed at ensuring the nuclear supply chain's long-term viability.

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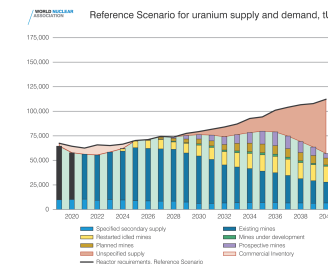
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