

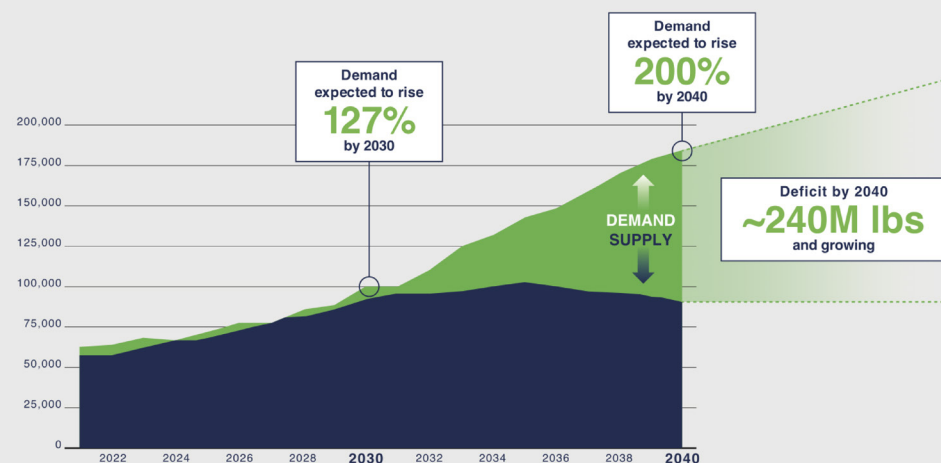
# A Globally Sustainable Future Requires a Nimble Canadian Nuclear Fuel Supply

The world's rapidly growing appetite for clean energy can only be fed by Canadian uranium. But can we responsibly grow the uranium supply in time?

D.F. MoCourt



## URANIUM'S RISING DEMAND



With demand expected to triple by 2050<sup>1</sup>, the world requires multiple Rook I sized projects to be found, permitted, financed and constructed over the next 20 years.

WNA - World Nuclear Fuel Report 2023 - Upper Case scenario  
1. OECD Uranium 2022, Resources, Production, Demand

We are facing, in Canada and around the globe, two simultaneous energy crises. First and foremost, we must ensure that our energy supply is clean and from a politically stable and sustainable source, in the face of an ongoing climate emergency. But even as we greatly expand renewable capacity through technologies like wind and solar, we must also reckon with the second crisis. We simply don't have enough energy supply to meet the world's crucial and rapidly growing energy demand.

### Reliable Carbon-Free Power Source

What we need is a huge and unprecedented influx of new low-carbon baseload energy, far more than what renewables alone can provide. What we need, in other words, is a nuclear renaissance. And we need it urgently.

"The demand for power in Canada, but also worldwide, is incredibly robust at a time when the infrastructure and the provision of power is probably at the most stressed it's ever been historically, due to an underinvestment in power infrastructure over the last three decades," says Leigh Curyer, President and CEO of NexGen Energy. "Nuclear is the go-to with respect to cheap, reliable, and carbon free power, but there needs to be a sensible transition. If the investment into nuclear power, wind, and solar doesn't occur early enough and materially enough, power prices are going to continue to rise, and we'll see rolling brownouts throughout the developed world."

We have, here in Canada, the established expertise to lead the world in a massive expansion of nuclear capacity. But the biggest obstacle in the path to a stable nuclear future is not building the reactors, it's securing the nuclear fuel supply.



NexGen's Rook I project is being developed with elite ESG commitments focused on environmental protection and maximizing community benefits through a partnership approach.

### Canada can be a World Leader

In 2014, NexGen discovered the largest, highest-grade uranium deposit in Canada beneath Saskatchewan's Southwest Athabasca Basin. The Arrow Deposit forms the basis for the Company's Rook I Project which is in the final stages of federal regulatory approvals. Upon approval, Rook I will be adding over a hundred million kilograms of uranium to the global supply, significantly alleviating our reliance on fuel from high-risk countries like Russia and Kazakhstan.

"As per the Rook I Feasibility Study, this will be the largest uranium producing project in Canadian history," says Curyer. "When in production, it alone will have the capacity to account for approximately 23% of the world's uranium production at full capacity. Canada has the natural resources and the uranium deposits to become the world's leading producer of nuclear fuel once again. But it's dependent on assets like Rook I coming into production."

### Expediting Development Without Compromise

The regulatory framework for a project like this one is understandably vast and meticulous, but historically is also counterproductively slow. Recognizing the growing urgency, Canada's 2024 Federal Budget announced an Action Plan (Building Canada's Clean Future) intended to improve federal regulatory and permitting processes to help expedite the advancement of material clean energy projects.

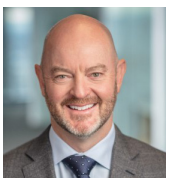
"Canada's reputation on safety and environmental impact in uranium mining is elite," says Curyer. "A big part of the reason for this reputation is the rigorous regulatory process, which is transparent and thorough, and the Canadian population can be very proud of the regulatory framework. Canada's Action Plan is a fantastic opportunity to accelerate the transition to clean energy by optimizing the regulatory process to find efficiencies, mitigate duplication, and enhance early engagement to drive timely decisions on projects that are not only crucial to local communities, the Province and Canada, but in addition, to delivering a leading solution to the rest of the world."

The Rook I Project is finally approaching the regulatory finish line. The provincial approvals are in. The enthusiastic support of local Indigenous communities has been fully formalized through historic Benefit Agreements. Once federal approval is secured, Rook I can begin construction, and be supplying the market with much-needed nuclear fuel, in 40 months. "We are ready to literally start construction the very next day," Curyer emphasizes, "once we have final federal environmental approval and licensing."

However, even once approval for

Rook I is finalized, the global quest for a robust and stable nuclear fuel supply will still have only just begun. "The production from Rook I is only going to be replacing production that is forecast to come offline around the world between now and 2028," says Curyer. "Given the demand scenario, between now and 2030, between 2030 and 2050, the world needs three to four projects of this scale coming online starting in the next four years and continuously thereafter, yet they just don't exist."

And so Curyer's backing of a more streamlined and expedited regulatory process is not just about NexGen's Rook I Project. It's also about the next project, and the project after that, whoever may build them. Because we need every one of them, and we need them as quickly as we can manage without compromising our principles of safety, community, and environmental stewardship. ■



**Leigh Curyer**  
President & CEO,  
NexGen Energy

**"The Rook I project squarely fits with all of the Government of Canada's targets with respect to critical minerals, Indigenous engagement, and decarbonization, and all will be instrumental to building Canada's place as the leading supplier of the cleanest baseload fuel source known to mankind."**



Find out how NexGen is Meeting Commitments for a Sustainable Tomorrow at [nexgenenergy.ca](https://nexgenenergy.ca).

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