

# How Alberta Is Shaping The Future Of Energy Solutions



On Monday, May 12, 2025, more than 80 stakeholders gathered for an energy innovation event hosted by Energy Storage Canada, in collaboration with the Canadian Nuclear Association and the Canadian Hydrogen Association. The event showcased Alberta's leadership in integrating energy storage, hydrogen and nuclear technologies—key pillars for a secure, abundant and prosperous energy future.

## Key Takeaways

### **Advancing Canada's National Interest**

Canada is uniquely positioned to become a global energy superpower. Participants stressed the need to leverage all energy sources—conventional and emerging—through better coordination, acceleration and deployment strategies. Emphasis was placed on long-term planning, drawing insights from international examples (e.g., the United Kingdom and Germany), aligning business and government priorities, and engaging the public early in the process.

### **Strengthening Alberta's Grid With Energy Storage**

Energy storage is becoming vital to Alberta's energy grid, enhancing reliability and enabling a smoother transition to renewable energy. While parts of the province still struggle with power delivery, integrating storage solutions will help stabilize the grid and support a more resilient

infrastructure.

## **Embracing Emerging Technologies: Hydrogen and Nuclear**

Hydrogen and nuclear energy are critical to Alberta's goal to incorporate low-carbon technologies as part of its energy mix. Advancements in hydrogen production, storage and application show promise across multiple sectors. Meanwhile, the Canadian Nuclear Association highlighted the role of small modular reactors (SMRs) and nuclear infrastructure in delivering reliable, low-emission energy. Success will require strong industry partnerships, government support and targeted investment.

## **Addressing Policy and Regulatory Uncertainty**

There is ongoing confusion around provincial and federal energy regulations, leaving producers hesitant to act. To boost national productivity and project development, a clear and predictable regulatory framework is essential. Despite current political complexities, there is cross-party consensus on the need to build a new energy future. Stakeholders are encouraged to adopt a developer mindset and proactively plan within existing constraints.

## **Balancing Reliability and Affordability**

Financing and regulatory challenges, coupled with rising labour and transportation costs, continue to impact competitiveness. Seventy percent of project costs are tied to storage and logistics. To address these challenges, early engagement with suppliers, local contractors and regulators is key—along with identifying approval requirements upfront to de-risk projects.

## **A Collaborative Path Forward**

By fostering collaboration among Indigenous and local communities, industry stakeholders and government, Alberta is

well-positioned to lead Canada's energy transformation. With a proactive, innovative and inclusive approach, the province is laying the foundation for a resilient, affordable and sustainable energy future.

*The content of this article is intended to provide a general guide to the subject matter. Specialist advice should be sought about your specific circumstances.*

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