



CONCLUSION

The power of partnerships

The world's ability to meet global clean energy goals will in part depend on the strength of partnerships.

Breakthroughs is the seldom-told story of nuclear innovation as an enabler of clean energy systems.

The stories in this book reveal what may be surprising or unexpected contributions—contributions that re-imagine the role of nuclear energy in clean energy systems of the future:

- A flexible source of energy, **ready to work with renewables**, energy storage and diverse end uses;
- A source of **non-emitting heat and power** for hard-to-clean sectors such as transportation and industry; and,
- A **driver of economic growth and opportunity**, and an option for communities and countries looking to alleviate energy access issues.

But if one looks further there is even more to the story.

The people, approaches, and solutions in this book provide answers to some of the tough questions facing nuclear energy development. Their stories address essential conditions needed for nuclear energy to play a role in meeting global clean energy goals:

- A culture of **continuous learning and innovation** to ensure safe and reliable operation, while realizing new levels of efficiency and performance.
- The development of **new technologies and disruptive business models** to cut costs, compete with alternatives, and unlock the significant investments needed to build tomorrow's energy systems.

- Models for building **trust and a positive dialogue** with communities, including Indigenous groups, on complex energy issues and the pros and cons among a holistic set of clean energy options.
- The **importance of stewardship** and an environmentally-responsible approach to the long-term management of both resources and waste that protects the health and safety of the public and the environment.
- And a **strong, diverse and passionate workforce**, attracting talented next-generation thinkers and leaders with opportunities for growth and innovation.

At the core of these conditions are foundational requirements that apply across the full spectrum of clean energy options, creating opportunities to share lessons and best practices.

In other words, *Breakthroughs* demonstrates that in developing innovative and practical solutions to clean energy challenges, nuclear energy has a lot to offer.

THE POWER OF PARTNERSHIPS

So where do we go from here to explore the roles that clean, innovative, and advanced nuclear technologies can play in furthering economic growth and effective environmental stewardship?

What's clear is that this exploration and sharing cannot happen solely in traditional nuclear fora.

To be successful, it will require new partnerships across traditional sectoral boundaries to develop integrated perspectives on the complementary roles that nuclear energy could play alongside all other forms of clean energy.

Governments will have an important role to play as well. They can explore how to include nuclear energy in dialogue, policies, programs, and planning. They can support enabling frameworks and appropriate licensing approaches to stimulate innovation and enable market-driven solutions. And they can advance strong bilateral and multilateral clean energy collaboration.

The Clean Energy Ministerial and the NICE Future initiative offer a unique opportunity to start building these partnerships:

- To **engage in dialogue and action** across energy sub-sectors.
- To **raise the profile** of discussions on nuclear energy's contributions to clean energy goals.
- To **collaborate and share knowledge** among interested countries on the role of nuclear in integrated systems of the future.
- And to **encourage a diverse and inclusive audience** to engage in multilateral discussions and activities to drive nuclear innovation in clean energy systems

To bring nuclear innovation to a global clean energy discussion, we told a story of stories.

And together we can write the next chapter.