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Supplementary Information

Renseignements supplémentaires

Presentation from the Nuclear Innovation Institute

Présentation de la Nuclear Innovation Institute

Bruce Power

Bruce Power

Bruce Power Mid-Term Update of Licensed Activities

Rapport de mi-parcours au sujet des activités autorisées de Bruce Power

Commission Meeting

Réunion de la Commission

September 20 and 21, 2023

Le 20 et 21 septembre 2023

CNSC Mid-Term Update

Licensed activities at the Bruce Power site

September 2023

The Nuclear Innovation Institute

- ▶ Lasting local impact in the community
- ▶ A nuclear industry fit to compete in the energy transition



NII is capitalized by its Founding Members



Two main streams of business

- ▶ Bruce Power's commitment to safety, innovation and community impact are reflected in the work of NII and its programs.



**INDUSTRY
INNOVATION**



**COMMUNITY
IMPACT**

Driving technology adoption that enhance worker safety

Spot / LIDAR



Neutron dose



3D printing



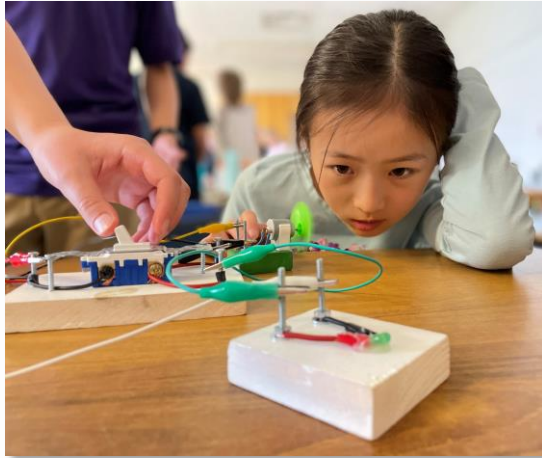
Data science



Leading-edge research in human health and environment



Closing the rural gap in science and technology education



By the numbers



13,500+

lifetime reach of *Coding in the Classroom* across Bruce and Grey counties in 2 years



100%

of schools in Bruce and Grey counties



350+

teachers taught during *Coding in the Classroom*



26

schools engaged in the *Science in the Classroom* Grade 5 Electricity Unit

Helping drive original nuclear policy and research

Jobs
22k+ from life-extension project

Economic growth
\$4B in annual GDP contribution

Made-in-Ontario Power
7 in 10 Ontarians want homegrown electricity

A greener grid
1/3 of Ontario's clean electricity

Investment
90% of life-extension project investment in Ontario

Ontario's clean energy economy starts here.

CLEAN ENERGY FRONTIER
BRUCE • GREY • HURON

REPORTS
CLEAN ENERGY FRONTIER
JUNE 2021

PLUGGING IN

Why Bruce, Grey and Huron must prepare for an electric vehicle future

REPORTS
BRUCE • GREY • HURON
MAY 2021

STORE OF VALUE

How energy storage delivers clean power on demand

Chapter 3

Nuclear & energy storage—a clean energy solution

CONNECTING CLEAN, RELIABLE NUCLEAR POWER WITH ENERGY STORAGE CAN DELIVER A NET-ZERO FUTURE

Energy storage technologies can be leveraged to maximize clean energy. They typically store electricity generated elsewhere and provide it where needed. But when coupled to our primary, large-scale electrical system such as Ontario's, they have the potential to reduce the overall carbon footprint by storing excess, intermittent electricity to be used as needed and reducing the need for additional fossil generation during peak demand periods. Efficiently storing provides the opportunity to shift electricity generation from when it is generated to when it is needed. The abundant supply of base-load power in Ontario provides the promise to reap the full benefits of energy storage.

REPORTS 144

Connecting nuclear to other sectors



Diversifying nuclear's clean energy and health credentials

Pumped storage is part of Ontario's clean energy toolbox.



Because of its potential to store energy.

NETZERO PARTNERSHIP

NUCLEAR INNOVATION INSTITUTE

 =  for 

1,000 MW
ENERGY STORAGE

8 HOURS
CLEAN POWER

1 MILLION
HOMES



Isotopes in action.

Nuclear reactors can turn stable isotopes into powerful medical isotopes like Lutetium-177.

Nuclear medicine is providing hope to millions.

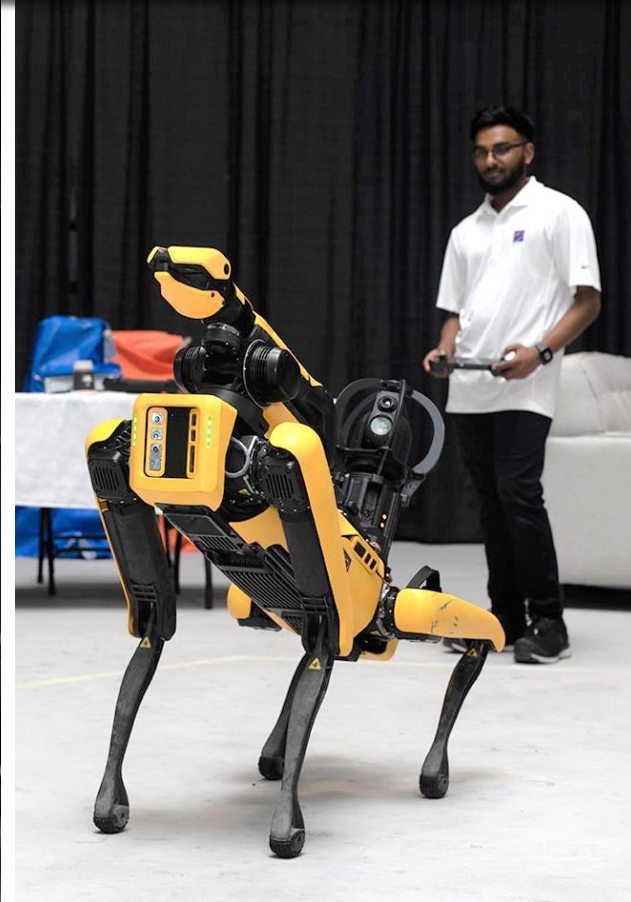


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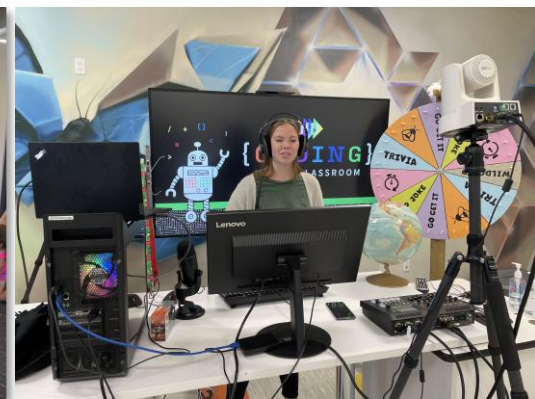
Inspiring the next generation of STEM workers



Building an advanced technology campus



A thriving community hub



Questions?