

High Temperature Reactors and Industrial Heat Application

NEA Workshop

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Industrial Decarbonization

Industrial Revolution – Part 2

- Since the 1800s, industrial heat has been produced primarily with fossil fuels
- Today, biomass and some renewables are in use
- Industrial heat makes up 2/3 of industrial energy demand and most of industrial CO₂ released to atmosphere
- Demand continues to increase in developed and developing countries

To achieve Net Zero goals:
Replace other means of heat production with nuclear

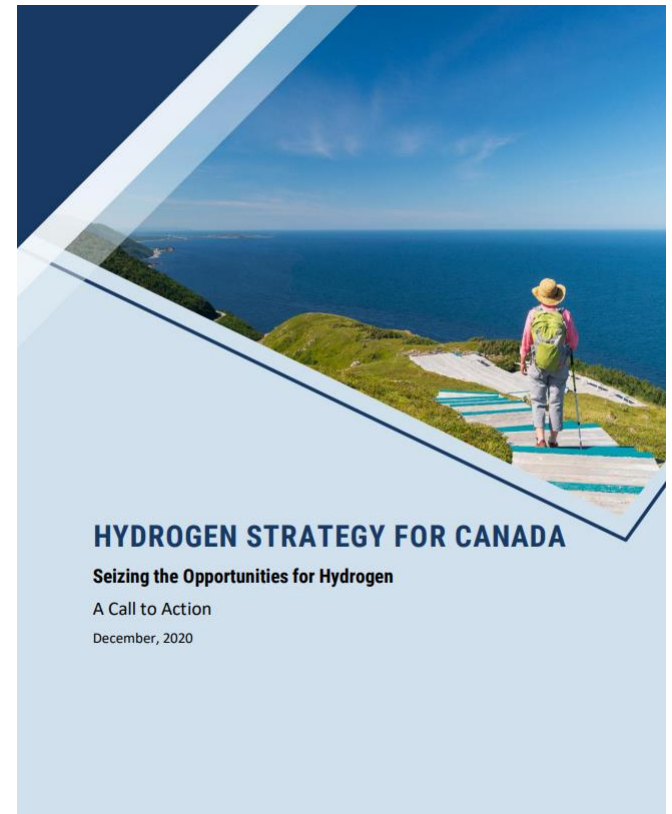
National Strategies

A Call to Action:
A Canadian Roadmap for Small Modular Reactors

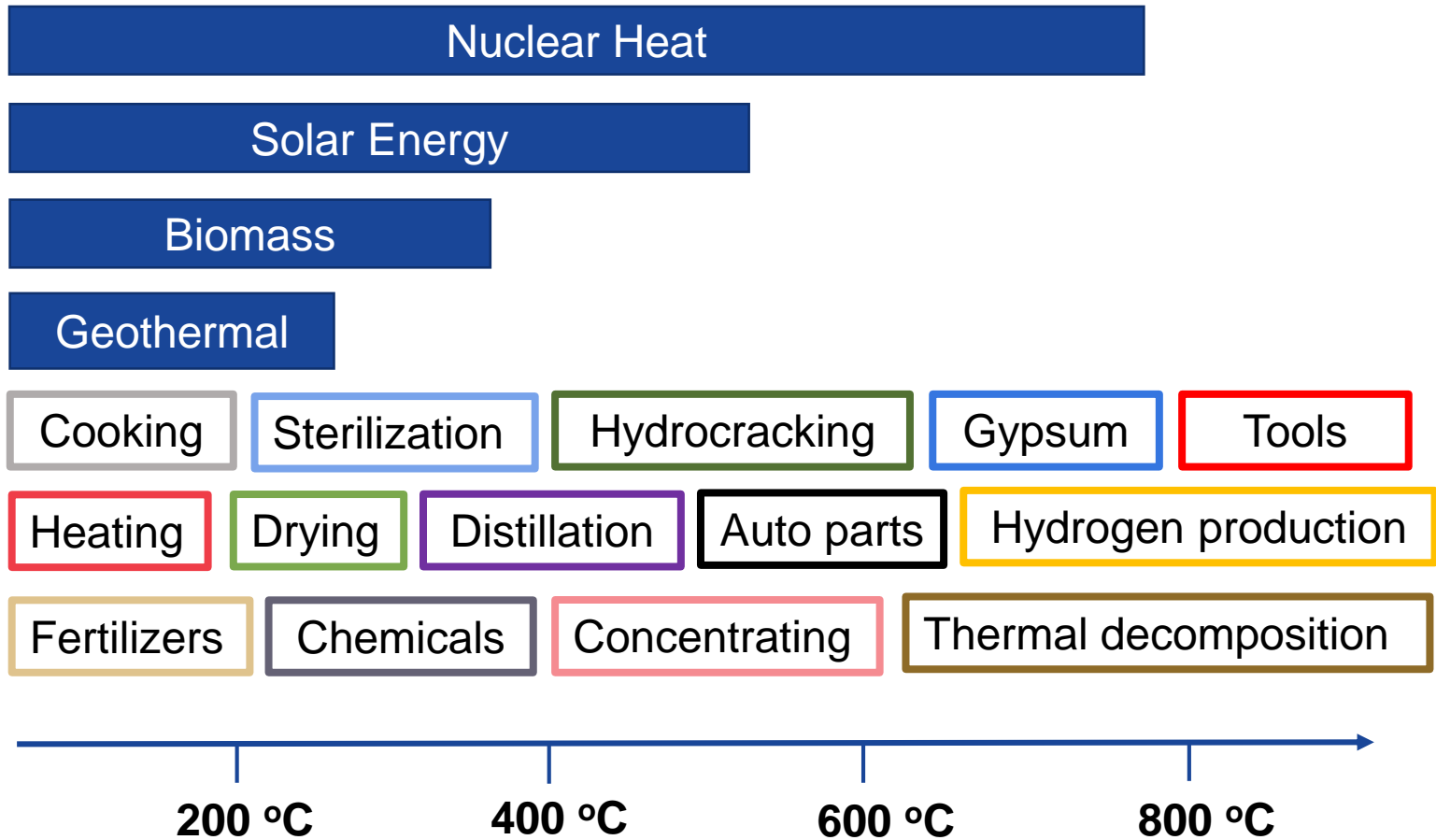


Provincial support to SMR development
and deployment

Hydrogen
strategy



SMRs' Potential to Enable Industrial Decarbonization



COG's Role: Excellence & Innovation Through Collaboration

Members



Bruce Power
CANADA



CNNO
CHINA



CNL
CANADA



KHNP
KOREA



NB Power
CANADA



NA-SA
ARGENTINA



OPG
CANADA



NPCIL
INDIA



PAEC
PAKISTAN



SNN
ROMANIA

45 operating CANDU units across 7 countries, worldwide

- ✓ Canadian technology with international reach
- ✓ Between \$60-\$70 million annually in R&D and member-initiated projects
- ✓ Private, not-for-profit corporation
- ✓ Enables safe, reliable, cost-effective and environmentally-sound operation through knowledge and resource sharing

CANDU and Beyond
Performance Excellence
and Industry
Sustainability

GLOBAL
goals



INDUSTRY

response



MEMBER

projects &
operations



COG
collaboration

Founded in Canada in 1984