

# WORKSHOP ON THE SECURITY OF SMALL MODULAR REACTORS



Museum of Nature  
Ottawa, Canada



20-21 November 2019

## INTRODUCTION

The World Institute for Nuclear Security (WINS) is conducting a workshop on the Security of Small Modular Reactors in Ottawa, Canada, from 20-21 November 2019 cosponsored by the CANDU Owners Group (COG), Natural Resources Canada (NRCAN), Canadian National Laboratories (CNL), and the Canadian Nuclear Safety Commission (CNSC). The objective of the workshop is to review and discuss all security matters related to the design, commissioning and operation of small modular reactors (SMRs). The workshop will also address cybersecurity matters and the interfaces between safety, safeguards and security for advanced reactor design.

SMRs have noteworthy potential to provide energy in numerous countries around the world. The important reduction in costs, maintenance, and ease of operation are strong incentives for the use of SMRs in a wide range of environments and geographical locations. SMRs are inherently safer than commercial nuclear power plants in operation, could be located closer to densely populated areas, and could provide energy where the needs are. Moreover, due to their flexibility, SMRs could play a key role in the emerging decentralised power supply energy market by providing clean, safe, competitive and reliable energy while protecting the environment.

The design and technological choices made during the development of SMRs in Canada and other countries will impact the risk picture and might require evolution in the regulatory approach. To ensure regulatory efficiency and nuclear security, a graded approach based on risk-informed criteria needs to be adopted, and security by design and cybersecurity need to be carefully considered. Furthermore, the security implications associated with these new reactors need to be identified and addressed as early as possible. The objective should be to reduce the cost of security without compromising safety or security.

It is also important to begin engaging with industry, the public and Indigenous representatives early in the design and development process because their support and acceptance of this new technology will be crucial for its successful implementation. All of these efforts will help to ensure that the Canadian regulatory framework is flexible, well-defined and ready for SMR licensing and regulation.

## KEY OBJECTIVES OF THE WORKSHOP

The purpose of this workshop is to review and discuss all security matters related to the design, commissioning and operation of SMRs including:

1. SMR technologies and their impact on security
2. Security by design; Nuclear Safety/Safeguards/Security interfaces
3. Cyber Security
4. Impact of SMRs on the security of the fuel cycle facilities
5. Impact of SMRs on the regulatory framework, including challenges and opportunities
6. Engagement with key stakeholders on SMR security



CANDU Owners Group Inc.



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## TARGETED AUDIENCE

This two-day event will limit participation to a maximum of 60 participants. Attendees will be expected to meet their own costs for travel and accommodations, but the organisers will meet all event costs. No registration fee is required. This event is by invitation only and the targeted audience include:

- SMR vendors and designers
- Nuclear engineers and system designers
- Leading researchers and practitioners in SMRs
- Experts in data analytics and associated technological fields
- Business managers who approve security expenditures
- Security managers
- Regulators and other governmental organizations
- Insurance companies
- Transport security experts
- Security experts, consultants and vendors

WINS promotes gender diversity in its events and limited funding support for travel and participation is available for female participants as part of our Gender Champions programme.



## EVENT PROCESS

The workshop will consist of presentations and plenary and group discussions. The workshops will be conducted in English and draw only on unclassified information.

The workshop will focus on SMR development in Canada and will bring together experts and leading thinkers in SMR technologies and security matters from around the world. This will increase the diversity of perspectives on the topic, give Canadian participants a broad view of similar programs around the world, and support the identification and sharing of international best practices for the security of SMRs.

These efforts are aligned with the CNSC and NRCAN's commitments to promote open and transparent dialogue between the industry and government on SMRs. WINS will produce a workshop report after the event with key findings.

## CONTACT INFORMATION AND REGISTRATION

If you wish to register or obtain more information on this event, please contact:

**Ms. Bettina Lock**

World Institute for Nuclear Security (WINS)

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## MEETING VENUE

**Canadian Museum of Nature**

240 McLeod St.

Ottawa, ON K2P 2R1

