



Canadian Nuclear
Safety Commission

Commission canadienne
de sûreté nucléaire

Canada 



CANADIAN NUCLEAR SAFETY COMMISSION

nuclearsafety.gc.ca



Michael Binder

President and Chief Executive Officer

Presentation to the Canadian Association of Nuclear Host Communities

February 21, 2018 – Ottawa, Ontario

nuclearsafety.gc.ca

eDOCS: 5437640

The Canadian Nuclear Safety Commission (CNSC)

Our Mandate



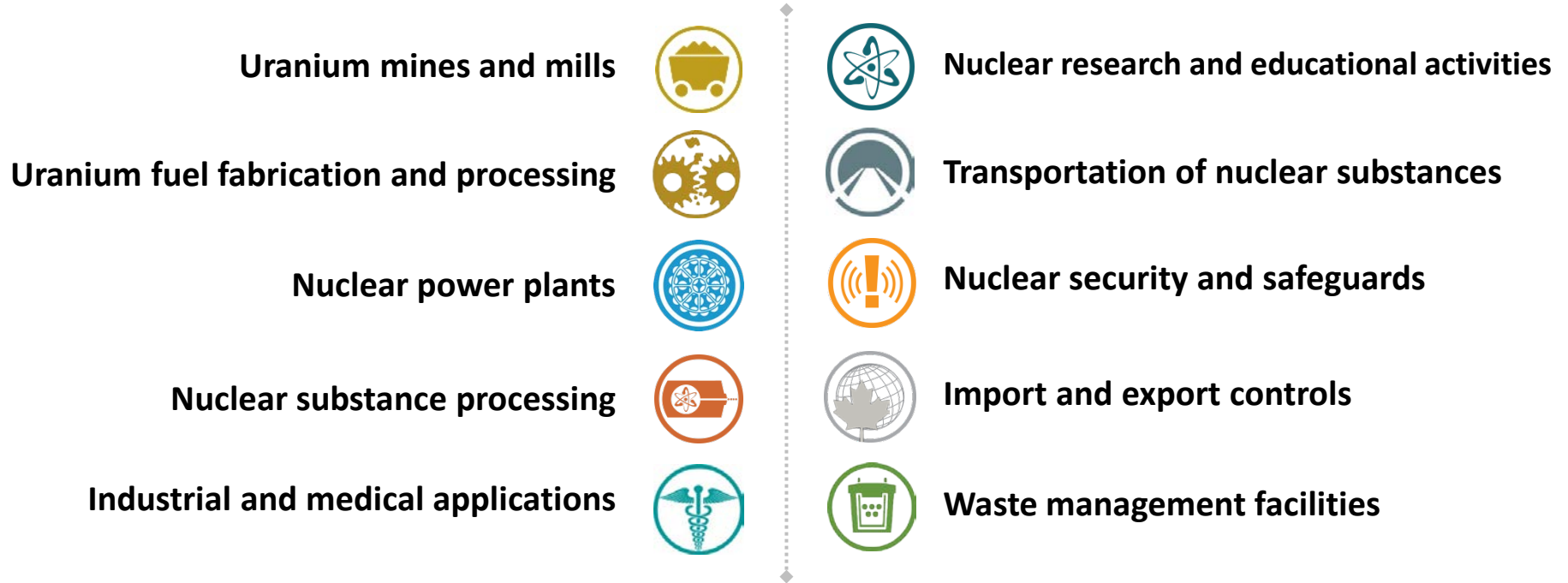
Regulates the use of nuclear energy and materials to protect **health**,
safety, and **security** and the **environment**

Implements Canada's **international commitments** on the peaceful
use of nuclear energy

Disseminates **objective** scientific, technical and regulatory
information to the public

We will never compromise safety

The CNSC Regulates All Nuclear Facilities And Activities In Canada



CNSC Staff Located Across Canada



Fiscal year 2017–18

Human resources: **857** full-time equivalents

Financial resources: **\$148 million**
(~70% cost recovery; ~30% appropriation)

Licensees: **1,700**

Licences: **2,500**

Headquarters (HQ) in Ottawa

4 site offices at power plants

1 site office at Chalk River

4 regional offices

Independent Commission



- Quasi-judicial administrative tribunal
- Agent of the Crown (duty to consult)
- Reports to Parliament through Minister of Natural Resources
 - Commission members are independent and part-time
 - Commission hearings are public and Webcast
 - Staff presentations in public
 - Decisions are reviewable by Federal Court

Transparent, science-based decision making

Commission Members

Dr. Michael Binder



**President and Chief
Executive Officer**

**Term expires
May 8, 2018**

Dr. Alexander McEwan



**Term expires
Mar. 6, 2018**

Dr. Sandor Demeter



**One-year term expired
Feb 17, 2018**

Dr. Soliman A. Soliman



**One-year term expired
Feb 17, 2018**

Mr. Rob Seeley



**One-year term expired
Feb 17, 2018**

Canadian Uranium Projects Update

Active uranium mining projects (Saskatchewan):

- Key Lake Mill (Cameco)
 - McArthur River Mine (Cameco)
 - Rabbit Lake Mine/Mill (Cameco)
 - announced suspension – April 2016
 - Cigar Lake Mine (Cameco)
 - McClean Lake Mine/Mill (AREVA)
 - licence renewed until June 30, 2027
- On 10-month suspension starting Feb 1, 2018

Increased interest in exports to China and India

Global price not supportive of production – Low demand and oversupply

Mining projects

Environmental assessment review complete:

- Midwest Mine (northern Saskatchewan) (AREVA)
 - awaiting application

Projects under review

- Millennium (northern Saskatchewan)
 - on hold for economic reasons
 - tailings management inspections ongoing

Bruce Nuclear Generating Station

- Licence expires on May 31, 2020
- Letter of intent for refurbishment filed on June 30, 2017
 - Major Component Replacement of units 3 to 8 from 2020 to 2033
- Public Commission hearings for a 10-year licence renewal set
 - Part 1: March 14, 2018
 - Part 2: May 30–31, 2018



Darlington Nuclear Generating Station

- Licence expires on **November 30, 2025**
- The Darlington Refurbishment project began in October 2016 and is scheduled for completion by 2026
 - refurbishment of Unit 2 expected to be complete by February 2020 – On track
 - Ontario government has committed \$12.8 billion to the project
 - the CNSC will closely monitor the project and will continue to conduct reviews and inspections



Pickering Nuclear Generating Station

- Licence expires on **August 31, 2018**
- Application for a 10-year licence renewal during which time Pickering will undergo permanent shutdown
 - Ontario Power Generation (OPG) has asked for 4-year extension of operations to 2024
- Public Commission hearings set
 - Part 1: April 4, 2018
 - Part 2: June 26–28, 2018



Point Lepreau Nuclear Generating Station

- Licence expires on **June 30, 2022**
- Refurbishment completed – Returned to service November 2012



Canadian Nuclear Laboratories

- Licence expires on **March 31, 2018**
- Commission hearing for renewal of Chalk River Laboratories' operating licence took place in January 2018
- Three environmental assessments under way for decommissioning purposes
 - Near Surface Disposal Facility Project (Chalk River)
 - Decommissioning of the Whiteshell Reactor #1 (Pinawa)
 - Nuclear Power Demonstration Closure Project (Rolphton)



Waste Management



OPG waste management facilities

- Western – Licence renewed until May 31, 2027
- Pickering – Licence renewed until August 31, 2027
- Darlington – Licence valid until 2023

Port Hope Area Initiative (PHAI)

- Port Hope and Port Granby – Implementation phase (facility construction ongoing)
 - Port Hope waste nuclear substance licence – Valid until December 31, 2022
 - Port Granby waste nuclear substance licence – Valid until December 31, 2021

Waste Management (Cont'd)

OPG Deep Geologic Repository (DGR) for low- and intermediate-level waste

- Joint Review Panel environmental assessment report – May 2015
- in November 2015, new Minister of Environment and Climate Change requested additional information and further studies on environmental assessment
- on August 21, 2017, the Minister requested additional information from OPG on the potential cumulative effects of the DGR project on physical and cultural heritage of the Saugeen Ojibway Nation (SON) – The SON considers this as reconciliation in action

Waste Management (Cont'd)

Nuclear Waste Management Organization (NWMO) – Finding a site for high-level radioactive waste

There are 5 communities remaining in the NWMO's learn more process (out of 22 original communities – 19 in Ontario, 3 in Saskatchewan)

2023 – A single preferred site is identified

2028 – Licence applications submitted

2040 to 2045 – Operations begin

NWMO Learn more communities

1. South Bruce
2. Hornepayne
3. Huron-Kinloss
4. Ignace
5. Manitowadge



Radioactive Waste Management Sites In Canada

A list of all waste management sites can be found in Canada's sixth National Report for the *Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management*



Emergency Preparedness



EXERCISE UNIFIED CONTROL DECEMBER 2017 – PICKERING

Third emergency exercise carried out at Pickering in accordance with the Fukushima Action Plan



EXERCISE SYNERGY OCTOBER 2018 – POINT LEPREAU

Fourth emergency exercise will focus on consequence management, evacuation, decontamination and recovery



IAEA EMERGENCY PREPAREDNESS MISSION (EPREV) – SPRING 2019

Will look at operators' and all levels of governments' nuclear emergency preparedness plans and procedures for Canadian nuclear facilities



WIRELESS COMMUNICATIONS DURING AN EMERGENCY – OPG

Radio-interoperability with municipalities and other operators will be key to emergency response. OPG to commission P25 NextGen radio system at nuclear sites in Q4 of 2017

Provincial Nuclear Emergency Response Plan approved by Ontario Cabinet in December 2017

Office of the Fire Marshal and Emergency Management working to update site-specific plans

Modernizing Regulatory Framework

Fukushima Action Plan — Regulations

Regulations governing Class I facilities, uranium mines and mills, radiation protection
Cabinet approved – published in the *Canada Gazette, Part II* on October 4, 2017

Regulatory modernization — Regulatory documents

Discussion paper DIS-16-04, *Small Modular Reactors*

– What We Heard Report published September 2017

Discussion paper DIS-16-03, *Radioactive Waste Management and Decommissioning*

– What We Heard Report published December 2017

Discussion paper DIS-17-01, *Framework for Recovery in the Event of a Nuclear or Radiological Emergency* – Public comment period closed in January 2018

REGDOC-2.2.4, *Fitness for Duty, Volume II: Managing Drug and Alcohol Use*

– Published December 2017

REGDOC-2.1.2, *Safety Culture* – Presentation to the Commission expected March 2018

The CNSC and International Engagement

Convention on Nuclear Safety

CNSC EVP Ramzi Jammal served as the elected president of the Seventh Review Meeting in March 2017

The Summary Report available on the International Atomic Energy Agency website details new measures to improve the effectiveness of the CNS and its reporting process, as well as measures to strengthen nuclear safety globally

International Atomic Energy Agency 61st General Conference – September 2017

Parliamentary Secretary Kim Rudd led Canadian delegation

Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management

Canadian national report published in October 2017

Review meeting to be held in 2018

International Symposium on Communicating Nuclear and Radiological Emergencies to the Public, October 1–5, 2018 in Vienna

Chaired by CNSC VP Jason Cameron

Government Reviews



New legislation tabled, covering

Bill C-68: To amend the *Fisheries Act*

Bill C-69: To enact the *Impact Assessment Act and the Canadian Energy Regulator Act*,
to amend the *Navigation Protection Act*

important component yet to come: Project list



Generation Energy led by Minister of Natural Resources – Nuclear is part of the mix

14-member Generation Energy Council created in December 2017 to prepare report
to inform the development of Canada's energy policy and energy future

Indigenous Reconciliation

The CNSC will continue to strengthen its consultation and engagement process



Cabinet Committee on Diversity and Inclusion looks at initiatives to strengthen relationships with Indigenous Canadians



Working group of six ministers to ensure that Canada's laws, policies and programs protect Aboriginal and treaty rights



United Nations Declaration on the Rights of Indigenous Peoples – Free, prior and informed consent
Prime Minister's speech on Feb 14, 2018 and commitment to support Bill C-262



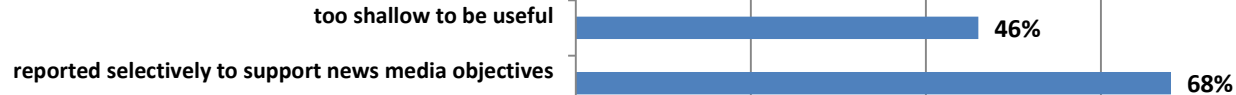
Indigenous engagement forums – more formal, and structures approach

Léger Study: Canadians Say

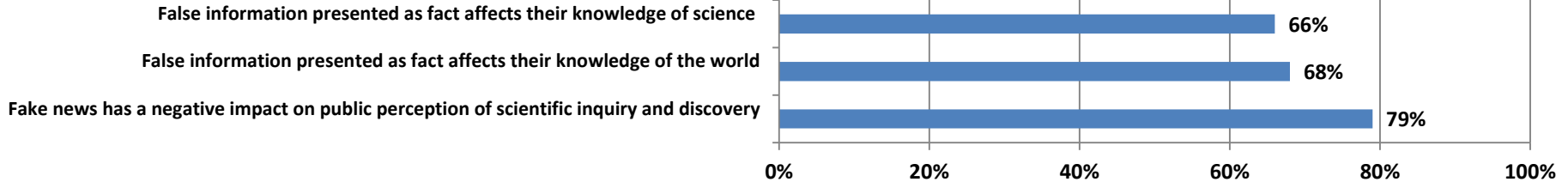
Question: To what extent do you agree or disagree that scientific findings...



Question: Thinking about media coverage you have seen about scientific issues, to what extent do you agree that it is:



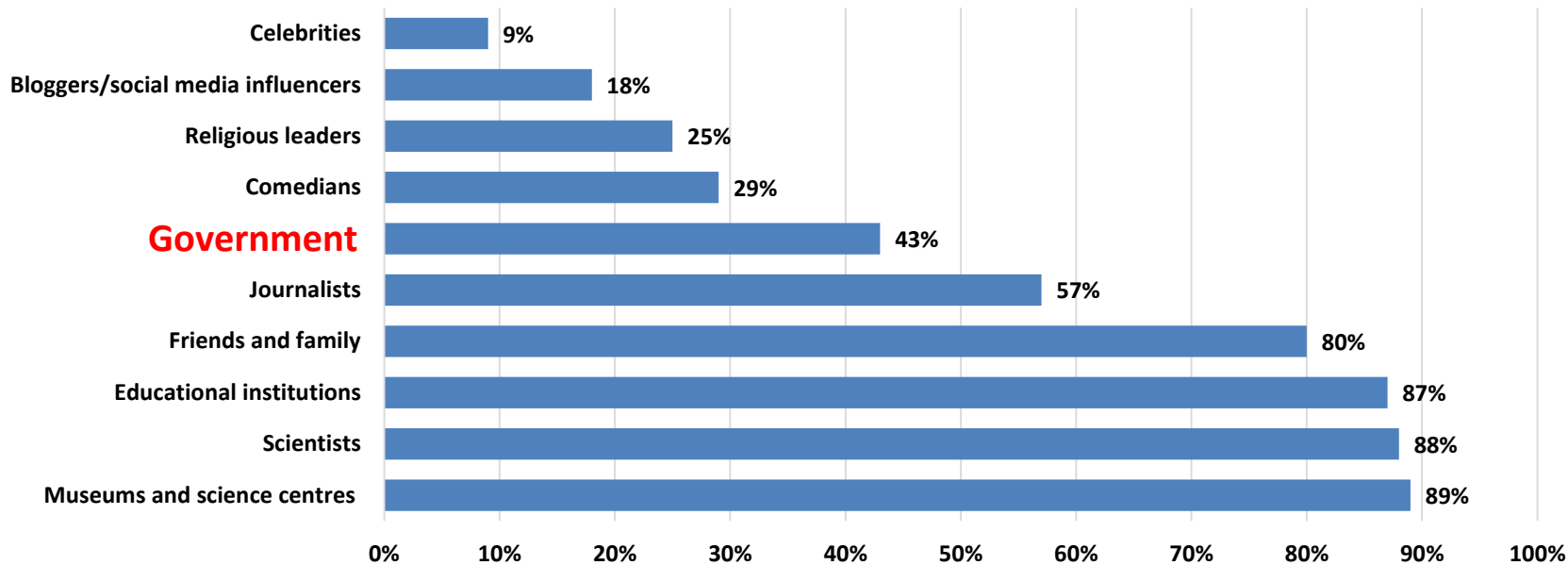
Question: To what extent are you concerned about each of the following:



Source: Léger. LégerWeb online survey of 1,514 Canadians, August 15-16, 2017

Scary view of science

Léger Study: Who Canadians Trust To Provide Reliable Scientific Information



Source: Léger. LégerWeb online survey of 1,514 Canadians, August 15-16, 2017

How best to engage in this climate?

Edelman Trust Barometer – Canada

Annual survey carried out by Edelman Canada to measure trust and credibility of Canadians – 2018 report findings assess trust in four institutions: NGOs, business, government and media

From 2017 to 2018, trust in NGOs and business have **decreased**, while trust in government and media have **increased**

Trust in government officials / regulators **increased by 11% to 37%** in 2018

Since 2014, trust in industry sectors is generally **declining**, except for energy

65% in Canada worry about **false information or fake news** being used as a weapon

Canadians are returning to **figures of authority and experts** for truth

While **trust in journalism** from general news and information sources has **rebounded** since last year, **trust in social media and search engines** has continued to **decline**

Trust in institutions has remained steady in the past year

CNSC Public Outreach



EXTENSIVE
OUTREACH AND
ENGAGEMENT
PROGRAM



ABORIGINAL
AND PUBLIC
CONSULTATIONS



PARTICIPANT
FUNDING
PROGRAM (PFP)



REQUIREMENT
FOR LICENSEES
TO COMMUNICATE



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