

## CONFERENCE PARTNERS



The Council is a non-partisan, not-for-profit, independent organization comprised of representatives from academia, public and private sectors, energy and strategic planning professionals that promote public dialogue related to the generation, transmission and distribution of clean, affordable and reliable electricity. The Council has been instrumental in promoting neutral public forums for debate and information sharing between academia, business, international experts and multi-government levels.

Through the creation of facilitated conferences, energy leaders have gathered to better understand the challenges and potential solutions to common areas affecting energy in Canada and abroad. The Council has been responsible for identifying key

issues in the energy field including to date discussions on coal, biomass, distributed generation and nuclear, and has played a central role in coordinating neutral debate and broad range discussion on electricity issues at facilitated conferences.

Leaders are looking to the Council to continue the neutral public dialogue through various forums on energy. The Council is strategically positioned to facilitate debate on the generation, transmission and distribution of clean, affordable and reliable electricity and exploring issues with a view to finding solutions for Canada and abroad.

[www.thinkingpower.ca](http://www.thinkingpower.ca)



The Waterloo Institute for Sustainable Energy (WISE) was established at the University of Waterloo in 2008. The Institute comprises more than 70 faculty members with graduate students and postdoctoral fellows working as multi-disciplinary research teams across Engineering, Science and Environment. The Institute is the focal point at UW for research in energy studies. In collaboration with utilities, private sector partners, government agencies and civil society groups, the Institute's goal is to foster the development of innovative technologies and alternatives to existing energy production and delivery systems, and to promote energy efficiency and environmental sustainability.

Our vision is to be recognized internationally as a centre of excellence in energy research and to contribute to the development of energy policies and strategies that enhance the social, economic, and environmental performance of the energy system. We emphasize innovation as the key driver in the transformation of the energy system. Our focus is on research initiatives that provide both timely solutions for the near term and shape the evolution of energy use over the longer-term.

<http://www.wise.uwaterloo.ca/>

## CONFERENCE SPONSORS



Council for Clean & Reliable Electricity  
*transforming the way we think about power*

UNIVERSITY OF Waterloo  
Waterloo Institute for Sustainable Energy

October 25 & 26, 2009

Ottawa Hampton Inn & Conference Centre  
Ottawa, Ontario

### SUNDAY, OCTOBER 25, 2009

- 3 - 5:00 pm **Conference Registration**
- 6 - 7:00 pm **Reception**
- 7 - 8:00 pm **Opening Dinner**
- 8 - 8:30 pm **Keynote Address**  
The Honourable Jim Prentice,  
Minister of the Environment

### MONDAY, OCTOBER 26, 2009

- 7:00 - 8:00 am **Breakfast**
- 8:00 - 9:00 am **SESSION 1: INTRODUCTION**
- Opening Remarks**  
Glen Wright,  
Chair, Council for  
Clean & Reliable Electricity
- Challenges of a Sustainable Energy Future**  
Jatin Nathwani,  
Professor and Executive Director  
Waterloo Institute for  
Sustainable Energy,  
University of Waterloo
- Practical Foundations for Energy Policy**  
Jan Carr,  
former CEO Ontario Power  
Authority; former Vice Chair,  
Ontario Energy Board
- 9 - 10:15 am **SESSION 2: COST AND  
SCHEDULE EXPERIENCE**
- Anatomy of Darlington**  
Elgin Horton,  
former Vice President of  
Nuclear Operations and Chief  
Nuclear Officer Ontario Hydro
- Contracting for Major Infrastructure**  
Patrick Lamarre,  
Executive Vice-President, Global  
Power, SNC-Lavalin Group Inc. and  
President, SNC-Lavalin-Nuclear Inc.

### Business Case Necessities for Nuclear Projects

Alexander Pourbaix,  
President, Energy and Executive  
Vice-President Corporate  
Development  
TransCanada Corporation

### Panel Question & Answer Period

10:15 - 10:45 **Break**

10:45 - 12 noon **SESSION 3: SAFETY**

### Nuclear Safety Practice - Regulation and International Standards

Michael Binder,  
President and CEO  
Canadian Nuclear Safety  
Commission

### Safety and Reliability in Nuclear Reactor Operations

Ronald D. Crawford,  
Deputy Director, Regional Centre -  
Atlanta, World Association of  
Nuclear Operators

### Health Effects and Radiological Safety - Experience from Accidents

Daniel Krewski,  
Professor and Director  
Centre for Population Health Risk  
Assessment  
University of Ottawa

### Panel Question & Answer Period

12:00 - 1:30 pm **Lunch**

Duncan Hawthorne  
President & CEO, Bruce Power

1:30 - 2:45 **SESSION 4:  
WASTE MANAGEMENT**

### Canada's Waste Management Plan

Ken Nash, President and CEO  
Nuclear Waste Management  
Organization

### Social Acceptance and Siting

David Cameron,  
Chair and Professor  
Department of Political  
Science, University of Toronto

### Yucca Mountain and the US Waste Management Program

Tom Isaacs,  
Consulting Professor,  
Stanford University,  
& Director of Policy, Planning  
and Special Studies  
Lawrence Livermore National  
Laboratory, California

### Panel Question & Answer Period

2:45 - 3:15 pm **Break**

3:15 - 4:50 pm **SESSION 5: FUTURE DIRECTIONS  
FOR CANADA**

An informal "fireside" discussion covering such topics as:  
· geopolitical aspects of nuclear development - thorium,  
non-proliferation, climate change and third world growth  
· novel uses - oil sands extraction, direct hydrogen production  
· international trade - India, China  
· Canadian economic impacts - employment and  
investment statistics

**Moderator** David McFadden,  
Chair, Ontario Centres of Excellence

### Participants

1. Hugh MacDiarmid, President & CEO,  
Atomic Energy Canada Ltd.
2. Duncan Hawthorne, President & CEO, Bruce Power
3. Al Kupcis, former CEO Ontario Hydro, former Chair  
Canadian Nuclear Association
4. Trevor Findlay, Professor and Director, Canadian Centre for  
Treaty Compliance, Carleton University
5. Sean Conway, Director, Institute of Intergovernmental  
Relations, Queen's University

4:50 - 5:00 pm **Summary Comments**

Jan Carr and Jatin Nathwani,  
Conference Co-Chairs



**THE HONOURABLE JIM PRENTICE,  
Minister of the Environment**

As Canada's Minister of the Environment, Jim Prentice is responsible for Canada's participation in the Clean Energy Dialogue established by Prime Minister Harper and President Obama, for Canada's role in international climate change negotiations in the 2009 Major Emitters' process, and the negotiations on the world-wide agreement on the environment in Copenhagen later this year. The Minister will be setting the context for the future of energy and the environment in Canada, and the critical need to address the global energy and environment needs for the world.

Prior to the Environment Ministry, Mr. Prentice was Minister of Industry and his first portfolio was Indian Affairs and Northern Development. He was Chair of the Operations Committee of Cabinet and the original Chair of the Cabinet Committee on Environment and Energy Security.



**DUNCAN HAWTHORNE**

Duncan Hawthorne is the President and Chief Executive Officer of Bruce Power, the largest independent power generator in Ontario. As the executive lead during the acquisition of several power plants in North America, he was responsible for the acquisition of the Bruce nuclear facility and the formation of Bruce Power.

Mr. Hawthorne is an active advocate for the nuclear industry and is the Past Chair of the Canadian Nuclear Association and current Chair of the Board of Governors of the World Association of Nuclear Operators - Atlanta Centre. He has roughly 30 years experience in the power generation business and has been recognized by his peers through a series of awards including the Ontario Electricity Association Leader of the Year, the Ian McCrae award for leadership in the Canadian nuclear industry, the 2004 Hedley Palmer Award for outstanding contributions to Ontario's electricity generation industry and the 2005 Canadian Energy Person of the Year.

**MICHAEL BINDER**

Michael Binder is the President and CEO of the Canadian Nuclear Safety Commission. He has held a number of senior positions throughout his career in federal public service including Industry Canada, Department of Communications, Office of the Comptroller General of Canada, Canada Mortgage and Housing Corporation, Ministry of State for Urban Affairs and the Defence Research Board.

During his tenure as ADM of Spectrum, Information Technologies and Telecommunications in Industry Canada, Dr. Binder oversaw Canada's transition to a network economy and was responsible for the regulation of telecommunication industries, the promotion of electronic commerce and the development and use of world class information and communications technologies for the economic, social and cultural benefit of all Canadians.

**DAVID CAMERON**

David Cameron is a professor of Political Science at the University of Toronto. He has worked as the Assistant Secretary to the federal Cabinet for Strategic and Constitutional Planning and the Assistant Undersecretary of State, Education Support. In Ontario, Dr. Cameron was Deputy Minister of Intergovernmental Affairs, the Ontario representative to the Government of Quebec and a Special Advisor on Constitutional Reform. He was one of Ontario's chief negotiators during Canada's Charlottetown constitutional discussions.

Throughout his career, Dr. Cameron has maintained an active interest in questions of federalism, Quebec nationalism, French-English relations, constitutional renewal and national unity. He has published two books and produced numerous publications.

**JAN CARR**

Jan Carr is a Corporate Director and former CEO of the Ontario Power Authority. He was the Vice Chair of the Ontario Energy Board during its transition from a government department to a self-funding independently operated tribunal.

Dr. Carr has over 35 years of experience in the electricity sector as a professional engineer holding senior positions in the design and planning of electricity transmission and distribution systems. He has been a consultant to utilities, government and others on the financial, business, strategic and policy aspects of the electric power industry.

Dr. Carr has served on the Board of Directors of both a publicly traded generation company and a privately held infrastructure investment fund. As well, he was a member of the Advisory Committee on Competition in Ontario's Electricity System, Chair of the Electricity Task Force of the Toronto Board of Trade, Commissioner and Chair of the municipally-owned electric utility in Niagara-on-the-Lake and Regional Chair of the Municipal Electric Association.

**SEAN CONWAY**

Sean Conway became the Acting Vice-Principal, Advancement of Queen's University on January 1, 2009. He oversees the University's fundraising, marketing and communications, alumni relations, and advancement services. He also continues as Special Advisor for External Relations to the Principal providing strategic advice on the advancement of Queen's priority initiatives and directs the External

Relations team in the Principal's Office. Mr. Conway was the Director of Queen's Institute of Intergovernmental Relations, and is a Member of the Board of the Ontario Centres of Excellence and Chairs the Centre for Energy. He is also a public policy advisor with the national law firm Gowling, Lafleur Henderson LLP and a public affairs analyst on various television and radio programs.

Mr. Conway was a member of the Ontario Legislative Assembly for 28 years, including five years as a Cabinet Minister in the Government of Premier David Peterson. In Cabinet, he held a number of portfolios, including Minister of Education, Colleges and Universities and Skills Development, Minister of Mines and Government House Leader. He also served on several legislative committees examining Ontario Hydro, energy issues, health care and constitutional reform

**RONALD D. CRAWFORD**

Mr. Crawford is the Deputy Director of WANO - Atlanta Center and is responsible for the effective implementation of WANO programs in support of commercial nuclear stations in Canada, Mexico, South Africa, United States and Romania. He has served in a number of senior positions at the Institute of Nuclear Power Operations (INPO) and was employed by the Commonwealth Edison Company in various management roles.

Mr. Crawford is a certified senior reactor operator for boiling and pressurized water reactors and served onboard nuclear submarines for eight years.

**TREVOR FINDLAY**

Trevor Findlay is a Professor and Director of the Canadian Centre for Treaty Compliance at Carleton University in Ottawa. He was a member of the Australian delegation to the Conference on Disarmament as well as delegations to the UN General Assembly and UN Disarmament Commission. Trevor Findlay is a Senior Fellow at the Centre for International Governance Innovation in Waterloo, which is currently collaborating on a three year Nuclear Futures Project examining the global governance implications of the purported nuclear energy revival in the coming two decades.

Dr. Findlay was Executive Director of the London based nongovernmental organization, the Verification Research, Training and Information Centre (VERTIC). He served for thirteen years in the Australian diplomatic service. Dr. Findlay held several academic appointments at the ANU's Peace Research Centre and established the peace keeping program for the Stockholm International Peace Research Institute. He is the author of several books in the fields of arms control, disarmament and nonproliferation and peace operations.

**ELGIN P. HORTON**

Elgie Horton is the former Vice President of Nuclear Operations and Chief Nuclear Officer of Ontario Hydro. He worked for Atomic Energy of Canada Limited (AECL) as a junior engineer and Reactor Physicist in the NRU reactor. His Ontario Hydro Station experience included NPD, Douglas Point, Pickering and Bruce Power.

Mr. Horton currently provides consulting services in the nuclear field to utilities in the United States and Canada. Mr. Horton received the 1994 Ian McCrae Award from the Canadian Nuclear Association for outstanding contribution to nuclear energy in Canada.

**TOM ISAACS**

Tom Isaacs is a consulting professor at Stanford University's Center for International Security and Cooperation (CSIAC) where the focus of his work is on the management and disposition of nuclear materials and wastes and on issues at the intersection of nuclear power, national security and waste management. He has a particular interest in issues of trust and confidence building in nuclear affairs. Mr. Isaacs is the research coordinator for the American Academy of Arts and Sciences initiative on The Global Nuclear Future. He is a member of the U.S. National Academy of Sciences Board on Nuclear and Radiation Studies. He is also the Director of Planning and Special Studies at Lawrence Livermore National Laboratory.

Mr. Isaacs has held a number of senior management positions including Deputy Director of the Radioactive Waste Office and Deputy Director of the Office of Safeguards and Security at the U.S. Department of Energy.

**DANIEL KREWSKI**

Daniel Krewski is the Associate Scientific Director of PrioNet Canada. He is also the Director of the McLaughlin Centre for Population Health Risk Assessment where he holds the position of NSERC Industrial Research Chair in Risk Science. He has been a Professor in the Department of Epidemiology and Community Medicine at the University of Ottawa.

Dr. Krewski is a Fellow of the American Statistical Association and the Society for Risk Analysis and a lifetime National Affiliate of the U.S. National Academy of Sciences. He is also the Scientific Director of the PAHO/WHO Collaborating Centre in Population Health Risk Assessment at the University of Ottawa. He has participated in national and international panels of experts, contributed to over 450 publications and is the author or editor of six books.

**ALLAN KUPCIS**

Allan Kupcis is the past Chair of the Canadian Nuclear Association and past President of the World Association of Nuclear Operators. He was the President and CEO of Ontario Hydro from 1995 to 1997 and President and COO from 1993 to 1995.

Mr. Kupcis is currently active on a number of Boards including the Technical Standards and Safety Authority, Hydro Ottawa Limited, the Energy Council of Canada, Brookfield Renewable Power Inc., Hatch Global, and the Nuclear Electric Insurance Limited. He chaired a Task Force on Nuclear Event Definition for the World Nuclear Association and held senior positions with Integran Technologies Inc., Synexus Global Inc., the Institute of Nuclear Power Operations and the Northland Power International.

Current public affiliations include serving on the Dean's Advisory Board for the Faculty of Applied Science and Engineering at the University of Toronto, and the Nuclear Program Advisory Committee at the University of Ontario Institute of Technology.

**PATRICK LAMARRE**

Patrick Lamarre is the Executive Vice-President, Global Power, SNC-Lavalin Group Inc. and President, SNC-Lavalin-Nuclear Inc., in charge of global power generation including nuclear, coal, gas, hydro and the transmission and distribution of electricity. In addition, he is responsible for SNC-Lavalin industrial and infrastructure operations in Ontario, Manitoba and Saskatchewan.

Mr. Lamarre is a Director on the Board of the Canadian Nuclear Association. He has extensive experience working on all aspects of mega projects and has worked on projects in Chile, Cuba, Venezuela and Australia.

**HUGH MACDIARMID**

Hugh MacDiarmid is the President and CEO of Atomic Energy Canada Limited. His executive experience includes Vice President, Commercial for CP Railway and President and CEO of the Student Transportation Business unit at Laidlaw International Inc. As well, he served as President and CEO of Lumonics Inc., and was the Managing Director of Holden America LLC.

Mr. MacDiarmid currently serves as a Director of ALH Holding Inc., the Energy Council of Canada and the Canadian Nuclear Association. He has also served as Chair of the Public Policy Forum, Chair of the External Advisory Committee on Smart Regulation and served as a Governor of Ortech International.

**DAVID J. MCFADDEN**

David McFadden is the Chair of the Ontario Centres of Excellence. He is the Chair of Gowlings International and a member of Gowlings' Board of Trustees. He served as Chair of Gowlings National Energy and Infrastructure Industry Group and acts for corporations, municipalities, and utilities involved in the generation, distribution, marketing and financing of energy.

Mr. McFadden has served as Chair of the Stakeholders Alliance for Electricity Competition and Customer Choice and served as a member of the Electric System Working Group established to investigate the power blackout in August 2003. The final report of the Task Force set out a blueprint to enhance the reliability of the North American electricity grid.

Mr. McFadden was appointed to the Ontario Government's Electricity Conservation and Supply Task Force and is a member of the Smart Grid Forum of the Independent Electricity System Operator. He has also held a number of senior positions in the Infrastructure industry and played a key role in research and development.

**KEN NASH**

Ken Nash is a founding member of the Nuclear Waste Management Organization, the immediate past Chair of the Board of Directors and was appointed President in 2006. He was responsible for overseeing the NWMO study of nuclear waste management approaches and is responsible for implementing the plan approved by the Government of Canada.

Mr. Nash has held a number of management positions at Ontario Hydro and OPG. Prior to that, he worked for British Nuclear Fuels on nuclear fuel design and nuclear waste management.

**JATIN NATHWANI**

Jatin Nathwani is the Ontario Research Chair in Public Policy and Sustainable Energy Management at the University of Waterloo, Faculty of Engineering and Faculty of the Environment. He is the Executive Director of the Waterloo Institute for Sustainable Energy (WISE).

Dr. Nathwani's primary role is to lead a multi-disciplinary effort to develop cleaner energy technologies and promote policies to improve the environmental and economic performance of the energy system over the long-term.

Dr. Nathwani has a wealth of experience in the energy sector including corporate strategy, business planning, policy development, and the planning, design and operation of critical infrastructure. As a member of the Ontario Smart Grid Forum, he has contributed to the shaping of the vision for the future of Ontario's grid. Dr. Nathwani was deeply involved in the development of the Ontario Power Authority's Integrated Power System Plan. He has over 80 publications related to energy and risk management.

**ALEXANDER (ALEX) J. POURBAIX**

Alex Pourbaix is the President, Energy & Executive Vice-President of Corporate Development at TransCanada. He is responsible for the corporation's non-regulated businesses, including power and gas storage, as well as acquisitions, divestments and execution of major transactions in both Energy and Pipelines. He is also responsible for the operation of Cancarb Limited, a carbon black manufacturing business owned and operated by TransCanada.

Mr. Pourbaix also serves on the Board of Management for the Alberta Economic Development Authority. He is a member of the Uranium Development Partnership, a group of industry experts asked by the Government of Saskatchewan to assist in developing its nuclear industry.

**GLEN WRIGHT**

Glen Wright is the Chair of the Council for Clean and Reliable Electricity. He has extensive experience in public policy and government providing key advice to National and Provincial leaders.

Mr. Wright led major restructuring initiatives as Chair of Hydro One Inc. and Chair of the Workplace Safety and Insurance Board providing significant improvements to both organizations. His private sector career has focused on the insurance and actuarial industries where he founded and operated one of the top ten pension and benefit companies.

Mr. Wright has served on the board of a wide range of corporations, charitable and not-for-profit organizations. He is currently serving as Chair of PrinterOn Corp., Chair of Medmanager Interactive Corp, Director of TurboSonic Corporation and LeanCor LLC. Mr. Wright is a member of the Joint Public Advisory Panel, NAFTA Commission for Environmental Cooperation.