

One-day Conference
Thursday, May 10, 2007
The Old Mill Inn, Toronto, Ontario



The Future of Coal in Ontario?

INSTITUTE FOR
**Energy and
Environmental
Policy**



Queen's Institute for
Energy and Environmental Policy
Room 239, School of Policy Studies
Queen's University
Kingston, Ontario, K7L 3N6



The Future of Coal in Ontario?

Towards a Clean, Secure and Competitive Energy Portfolio

CONFERENCE SCHEDULE

Introduction

Conference Chair, Sean Conway
Queen's University

8:00–10:00 am

Environmental and Security of Supply Considerations

- This session examines security of fuel supply as well as sources of air pollution and related costs. The session will also examine the role of coal in US energy policy.

J. David Hughes – Geological Survey of Canada

Kenneth E. Markel Jr. – US Department of Energy,
Fossil Energy's National Energy Technology Laboratory

10:00–10:15 am

Break

10:15 am - 12:00 noon

A “Coal Exit” Policy: Operational Considerations

- This session examines the current government's coal exit policy in the context of grid reliability and contingency measures if planned alternative supply and demand initiatives fail to meet critical target timelines. The related question of whether to retrofit existing coal units to reduce smog is also addressed.

Amir Shalaby – Ontario Power Authority

David Goulding – Queen's IEEP

Tom Adams – Energy Probe

12:00 noon – 1:45 pm

Lunch

Keynote Speaker

Future of Coal in the Global Society

Thomas Homer-Dixon – University of Toronto

1:45–3:00 pm

Alternative Strategies: Emissions Pricing

- All fossil fuels have greenhouse gases associated with their production and use. Coal, as currently used, is the heaviest emitter. This session addresses emission pricing (through taxation or cap-and-trade models). What are the pros and cons? What is the international experience? Can we do it in Ontario? Is it a better policy than simply banning coal?

Don Dewees – University of Toronto

Ross McKittrick – University of Guelph

Stephen Hill – Trent University

3:00–3:15 pm

Break

3:15–5:15 pm

Alternative Strategies: Next Generation Technologies

- This session addresses next generation technologies such as clean coal and carbon sequestration and the use of biomass in electricity generation and includes an overall assessment of competing generation options.

Robert Page – University of Calgary

David Layzell – Queen's University

David Keith – University of Calgary

5:15 pm

Wrap-up

Coal's Future in Ontario? Towards a Clean, Secure, and Competitive Energy Portfolio

Byrne Purchase – Queen's Institute for Energy and Environmental Policy (QIEEP)

CONFERENCE PRESENTERS

Sean Conway

- Special Advisor for External Relations to the Principal of Queen's University, a member of the board of the Ontario Centres of Excellence and Chair of the Centre for Energy, a public policy advisor with Gowling, Lafleur Henderson LLP, and a public affairs analyst on TV Ontario.
- Mr. Conway was a Member of the Ontario Legislature for 28 years, including five years as a Cabinet Minister in the Government of Premier David Peterson.

J. David Hughes

- A geologist with more than 30 years experience studying the energy resources of Canada for the Geological Survey of Canada and the private sector. He is the Leader of the National Coal Inventory and also Team Leader for Unconventional Gas for the Canadian Gas Potential Committee, an organization which publishes Canada's most authoritative assessments of national natural gas potential.
- Mr. Hughes has presented his analysis of global and North American energy supply and demand to governments, business and professional associations across Canada and the United States.

Kenneth E. Markel Jr.

- Director of the Office of Major Demonstrations, US Department of Energy, Fossil Energy's National Energy Technology Laboratory.
- Mr. Markel has directed various fossil energy and environmental management research, development and demonstration activities. As Assistant Manager of Project Management Mr. Markel oversaw more than 100 project managers responsible for approximately 1,000 projects for the development of science and technology in areas such as advanced power generation, environmental control technologies, ultra-clean fuels, natural gas exploration and environmental technologies to clean up DOE's former nuclear production sites. In addition Mr. Markel has worked as a systems and design engineering program manager at the US Naval Weapons Centre, Chinal Lake, California.

Amir Shalaby

- Vice President of the Ontario Power Authority, with specific responsibility for the long-term integrated plan for the development of Ontario's electricity system.
- Mr. Shalaby has graduate degrees in electrical engineering and business administration and his 30-year career in Ontario's electricity industry includes experience in power system operations, power system planning, demand management, transmission pricing and regulatory affairs at Ontario Hydro, Hydro One and the Independent Electricity System Operator.

David Goulding

- Professional engineer and a Director of the Queen's Institute for Energy and Environmental Policy.
- Mr Goulding is a Former President and CEO of Ontario's Independent Electricity System Operator (IESO), member of the NERC Board of Trustees, the NERC Stakeholder Committee and the Executive Committee of the NorthEast Power Coordinating Council and a former General Manager and Senior Vice President of Ontario Hydro.

Thomas Homer-Dixon

- Director of the Pierre Elliott Trudeau Centre for Peace and Conflict Studies at the University of Toronto, and Professor in the Department of Political Science at the University of Toronto.
- Recently, Dr. Homer-Dixon's research has focused on threats to global security in the 21st century and on how societies adapt to complex economic, ecological and technological change. His books include *The Upside of Down: Catastrophe, Creativity, and the Renewal of Civilization*; *The Ingenuity Gap*, which won the 2001 Governor General's Nonfiction Award; *Environment, Scarcity, and Violence*; and, *Ecoviolence: Links Among Environment, Population, and Security*.

Donald N. Dewees

- Professor of Economics and a Professor of Law at the University of Toronto.
- Dr. Dewees holds an engineering degree from Swarthmore College, and a Harvard LLB and PhD (Economics), and was the Director of Research for the Ontario Royal Commission on Asbestos and Vice-Chair of the Ontario Market Design Committee. He is author of several books and many scholarly articles in the fields of environmental economics, law and economics, and electricity restructuring.

Ross McKittrick

- Associate Professor of Economics and Director of Graduate Studies in Economics at the University of Guelph, and a Senior Fellow at the Fraser Institute.
- Dr. McKittrick specializes in environmental economics and is an expert on climate change and the Kyoto Protocol. He has published dozens of scholarly articles in both economics and science journals, and in 2003 his (coauthored) book *Taken By Storm: The Troubled Science, Policy and Politics of Global Warming* won the Donner Prize for the best book on Canadian Public Policy.

Stephen Hill

- Assistant professor in Environmental and Resource Studies at Trent University and 2006 Adjunct Professor of environmental policy in the School of Policy Studies at Queen's University.
- Dr. Hill has a PhD in environmental science from the Faculty of Environmental Design (University of Calgary), and undergraduate degrees in chemical engineering (Queen's) and biology (Queen's). He has worked as an engineer and environmental policy specialist with the private sector, government and non-profit organizations on environmental risk management and is author of a number of academic papers.

Robert Page

- TransAlta Professor of Environmental Management & Sustainability at the Institute for Sustainable Energy, Environment & Economy, University of Calgary and Chair of the Board of BIOCAP Canada at Queen's.
- Dr. Page is the former Vice President, Sustainable Development for the TransAlta Corporation and former Dean, Faculty of Environmental Design, University of Calgary and a former Board Chair of the International Emissions Trading Association (Geneva).

David B. Layzell

- Professor of Biology at Queen's University, a Fellow in the Royal Society of Canada and President and CEO of the BIOCAP Canada Foundation, a national, non-profit research foundation that is supporting Canada's transformation to a sustainable bioeconomy.
- Dr. Layzell has been working for over 25 years to understand and optimize the exchange of gases between plants and the atmosphere in order to provide environmental and economic value. He has contributed more than 100 peer-reviewed publications, holds 6 US patents and participated in the creation of a spin-off company called Qubit Systems Inc.

Tom Adams

- Executive Director of Energy Probe, a senior consultant with the consulting firm Borealis Energy Research Association and a lecturer in Geography at the University of Toronto.
- Mr. Adams is a member of the management board of the Ontario Centre for Excellence for Energy, and a member of the board of REAP Canada, an agricultural research institute. He is a frequent guest columnist in national newspapers.

David Keith

- Canada Research Chair in Energy and the Environment, and Professor in the Departments of Chemical and Petroleum Engineering and Economics, University of Calgary and Adjunct Professor, Department of Engineering and Public Policy at Carnegie Mellon.
- Named environmental scientist of the year by Canadian Geographic, Dr. Keith's technical and policy work addresses capture and storage of CO2 and the economics and climatic impacts of large-scale wind power, the use of hydrogen as a transportation fuel, and the technology of geo-engineering. He has served as a member of Canada's 'blue ribbon' Panel on Sustainable Energy Technology, and the InterAcademy Council study on Transitions to a Sustainable Energy System, and as a member of US National Academy committees.

Bryne Purchase

- Adjunct Professor at the School of Policy Studies, Queen's University and Executive Director of the Queen's Institute for Energy and Environmental Policy.
- Dr. Purchase is a former Ontario Deputy Minister of Finance, Revenue and Economics, and Deputy Minister, Ministry of Energy, Science and Technology and author of several publications on competitiveness.

FAQ'S

When and Where is it?

The Conference takes place on Thursday, May 10, 2007 at The Old Mill, Toronto, Ontario oldmilltoronto.com

Where can I stay?

The Old Mill is located at 21 Old Mill Road, Toronto. For hotel registration, please call the hotel, toll-free, at 866-653-6455 or 416-236-2641. Hotel fax is 416-236-2749.

How much does it cost?

Registration for the conference is \$395.00 including GST. Fees are payable to the Queen's Institute for Energy and Environmental Policy. Fees include all conference materials, lunch and refreshments.

Can I save money on registration?

Register before April 15, 2007:

\$350.00 including GST

Register after April 15, 2007:

\$395.00 including GST

Limited registration available at a special rate for academics and students. Please e-mail: energy.policy@queensu.ca.

How do I register?

There are 3 ways to register:

1. FAX:

Completed registration form to 613-533-6875

2. MAIL to:

Queen's Institute for Energy and Environmental Policy
Room 239, School of Policy Studies,
Queen's University
Kingston, Ontario, K7L 3N6

3. ONLINE:

Complete the electronic registration form at queensu.ca/sps/qieep

Questions?

E-mail energy.policy@queensu.ca

Coal's Future in Ontario?

Towards A Clean, Secure and Competitive Energy Portfolio

REGISTRATION FORM

(Please print)

(Mr. / Ms. / Dr. / Prof.) Last Name

First Name

Title

Affiliation / Organization

Address

City

Province

Postal Code

E-mail

Telephone

Fax

REGISTRATION FEES

Registration fee before April 15, 2007: \$350.00 including GST _____

Registration fee after April 15, 2007: \$395.00 including GST _____

METHODS OF PAYMENT

cheque

VISA

MasterCard

Credit Card information:

Number

Expiry Date

Signature

(Cheques are to be made payable to the Queen's Institute for Energy and Environmental Policy)



The Future of Coal in Ontario?

Conference Host



Mission

The mission of the Queen's Institute for Energy and Environmental Policy (QIEEP) is to investigate alternative energy and environmental policies and generate pragmatic advice that is relevant and accessible to the public, to private business and to governments at all levels.

Research

The Institute encourages independent, multi-disciplinary investigation so that scientific, technological, social, legal, psychological, philosophical and economic research capabilities are brought to bear on its mission.

Outreach

The Institute offers a variety of venues (conferences, workshops, seminars and publications) whereby the best academic minds, armed with the latest independent research, can interact with policy makers and advisors in government, non-governmental organizations, the media and private industry.

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Conference Sponsor



About the Council

The Council for Clean and Reliable Electricity is a not-for-profit, public policy and research organization established to contribute to the policy debate on the future development of Ontario's electricity system.

The Council is a non-partisan, independent organization that believes in a comprehensive and inclusive approach to the challenges facing the generation, transmission and delivery of electricity in Ontario.

Council members include senior academics and professionals, former executives of Hydro One and Municipal utilities, former Ontario Cabinet and Deputy Ministers, and a retired General from the Canadian Armed Forces.

The Council looks forward to the support and participation of other individuals and organizations who share our concerns about ensuring realistic, achievable, solution-oriented approaches to maintaining both the reliability and environmental safety of Ontario's electricity network.

Council Members

Glen Wright
Roy Mould
Laura Rees
Bryne Purchase
Sean Conway
David Lever
George Todd

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