

IVEY ENERGY POLICY AND MANAGEMENT CENTRE



2015 ANNUAL REPORT



WESTERN UNIVERSITY · CANADA

Energy Policy and
Management Centre

By the numbers, 2012 – 2015

\$1.4 million

Donations

18

Publications

12

Student scholarships awarded

2,266

Ivey alumni in the energy sector

2,050

Attendees at events

\$2.7 MILLION

Research grants and awards

23 Events

11 Student internships granted

3

DIRECTOR'S MESSAGE

4

RESEARCH

9

TEACHING

11

OUTREACH

14

CENTRE FACULTY AND STAFF



Director's message

Guy Holburn

Director, Ivey Energy Policy and Management Centre, and Suncor Chair in Energy Policy, Ivey Business School

The year 2015 has been notably turbulent for Canada's energy sector, as rapidly changing economic, legal, and political conditions have buffeted oil, gas, pipeline and electricity industries, challenging existing plans and creating new uncertainties about future prospects. Given the significance of energy to Canada's livelihood and prosperity, it is now more important than ever to have public discourse about sector development and policy grounded in facts and reasoned analysis. Universities have a central role to play in developing Canada's energy future by bringing trusted, independent analytical skills to the complexities of today's energy sector.

I am pleased to report that the Ivey Energy Policy and Management Centre is making its contribution to a more informed national energy dialogue. In fact, the past year has seen the Centre significantly

expand its activities, becoming one of the most active research centres among Canadian universities focusing on energy policy issues. In the 12 months since June 2014, the Centre has organized and sponsored nine outreach events, bringing together more than 450 leaders from industry, government, NGOs, Aboriginal groups, and academia, as well as students, to address issues around energy sector development. Centre faculty have published seven Policy Briefs and peer-reviewed scholarly articles on energy topics ranging from Aboriginal engagement, to sector economic impact, and retail gasoline pricing. Their research was presented at 10 conferences and seminars in Canada, the United States, and Europe. Centre faculty have also received more than \$1.4 million from government agencies and private sector donors to support their research.

The Centre welcomed four new student interns, two doctoral students, one faculty Fellow, and two Executives-in-Residence, substantially growing the scope and depth of our expertise. We have communicated our work to more than 3,500 energy professionals across the country as part of a broader public communications strategy.

Beyond these numbers, a particular highlight of the year was the Positive Energy conference, a two-day event on social acceptance and support of energy sector development, organized jointly by the Ivey Energy Policy and Management Centre and the University of Ottawa. More than 120 invited energy sector leaders participated, with keynote addresses from The Honourable Doug Black, Senator for Alberta; Nik Nanos, Chairman, Nanos Research Corporation; Barry Rabe, Professor, University of Michigan; Ellis Ross, Chief Councillor, Haisla Nation; and Steve Williams, President and CEO, Suncor Energy. The conference was part of the Centre's continuing focus on social issues in energy development and on Aboriginal engagement.

I am especially grateful for the support of our Advisory Board and of our donors – ATCO, OMERS, the Power Workers' Union, Suncor Energy Foundation, TransCanada Corporation, and Union Gas – who have enabled the Centre to grow and extend our impact. The Centre has ambitious plans to build on the past year's successes, and we look forward to working with all our partners in the year ahead.

RESEARCH

Energy Centre expands research and outreach capabilities with new Ivey Energy Consortium

In late November 2014 more than 100 people were arrested on Burnaby Mountain in British Columbia after they refused to take down their encampment, a protest against a pipeline proposed by multinational energy company Kinder Morgan.

The protest was just one of many over the past several years targeting the energy sector. It's a complex sector, involving a wide array of stakeholders and spanning a range of hot-button issues. Making effective policy in this over-heated environment is difficult, leading to a greater demand for trustworthy, unbiased industry research. The Ivey Energy Policy and Management Centre offers neutral ground for informed policy analysis and debate. And now, thanks to a unique program, the Centre is receiving strong support from the Ivey Energy Consortium, a diverse group of stakeholder organizations.

The Ivey Energy Consortium is a partnership between Ivey and five organizations. Its members include ATCO Ltd., OMERS Worldwide, Power Workers' Union, TransCanada Corporation, and Union Gas Limited, who have together pledged \$1.25 million over five years to support the research and outreach activities of the Centre. Suncor Energy Foundation also supports Ivey through its \$1.125-million investment for the Suncor Chair in Energy Policy, student scholarships, and outreach activities.

The involvement of Consortium members goes far beyond the much-needed financial support. Says Centre Director, Professor Guy Holburn: "We looked for organizations that were willing to engage with the Centre and provide some input— not advocating for their organizations but bringing a thoughtful perspective on the role that the energy sector can play broadly within Canadian society."

Consortium members are invited to sit on the Centre's Advisory Board. They identify critical energy policy issues, provide ideas for new case studies and teaching materials, and support Centre outreach activities and conferences.

Idea Forum tackles the challenges facing Canada's energy sector



Guy Holburn introduces panellists at an Ivey Idea Forum in Toronto

Panellists included Steve Baker, President, Union Gas Limited; Siegfried Kiefer, President and Chief Operating Officer, Power & Utilities, ATCO Ltd. & Canadian Utilities Limited; Gordon Lambert, Former Executive Advisor, Sustainability and Innovation, Suncor Energy; Don MacKinnon, President, Power Workers' Union; John McManus, Senior Advisor, Borealis Infrastructure; and Francois Poirier, President, Energy East Pipeline, TransCanada.

To hear the panellist's insights on the opportunities and challenges facing Canada's energy sector, watch their interviews at go.ivey.ca/interviews

In October 2014, Ivey Energy Consortium leaders participated in an expert panel discussion at the annual Ivey Idea Forum: Balancing Economic and Social Pressures in Canada's Energy Sector.

Securing energy market diversification for Canada's economic future

Canada's dominance as an oil and gas powerhouse has come under threat with the recent slump in world oil prices.



A new policy brief from the Energy Centre, *Developing Global Market Access for Canada's Oil and Gas Industry*, outlines ways to strengthen Canada's oil and gas sector through investment in new pipelines and natural gas facilities.

"The drop in oil prices highlights how Canada's energy sector has become exposed to one export commodity – oil – and to one international market – the United States. Policies that strengthen Canada's role as a global supplier of both oil and gas, reaching new international markets, will reduce the sector's risk profile," said Ivey Assistant Professor Adam Fremeth, holder of the Ivey Energy Consortium Fellowship, which supports applied research in energy policy.

Fremeth is the lead author of the policy brief, which was co-authored with Guy Holburn, Director of the Energy Centre; Pradeep Venkatesh, a research intern with the Centre; and André Wilkie, Associate at The Boston Consulting Group.

Read the full policy brief at go.ivey.ca/canadagas

Examining the responsibility to consult and engage Aboriginal groups

From the Energy East Pipeline to the Supreme Court's Tsilhqot'in Nation v. British Columbia decision, the role of Aboriginal people in energy and natural resources projects figures prominently in Canada today.

Many energy projects involving electricity, oil, gas, and pipelines, are located on Aboriginal lands used for hunting, fishing, or cultural purposes. Therefore, government bodies have a legal obligation to consult with Aboriginal groups to evaluate the potential impacts these projects may have on their lands.

The Ivey Energy Policy and Management Centre has brought this key issue to the forefront with a new policy brief, *The Duty to Consult and Accommodate Aboriginal Groups in Canada*. The brief is a primer on the history and current legal environment surrounding Aboriginal rights impacting energy projects.

"The duty to consult and accommodate Aboriginal groups remains a complex issue, with definitions and standards that continue to evolve as courts provide more interpretation and guidance," said Margaret Loudermilk, Energy Centre Research Director. "Firms that understand the complexity of Aboriginal rights and their role within the process will be better positioned to achieve mutually beneficial agreements in a timely fashion."



Loudermilk is the lead author of the policy brief, which was co-authored with Guy Holburn, Director of the Energy Centre; and André Wilkie, Associate at The Boston Consulting Group.

Read the full policy brief at go.ivey.ca/aboriginalgroups

Trends in Canadian energy policy research

The energy sector plays a critical role in Canada's economy at both the national and provincial levels, making literacy about the energy sector an important issue for government, industry, and citizens. In order for energy policies to be successful, credible sources of information and policy analysis are required to inform stakeholders – consumers, business leaders, government officials, and others involved in crafting policy initiatives.

"Academics and economic experts are a central source of independent policy research and are well positioned to contribute to public dialogue on Canada's future in the energy sector," said Margaret Loudermilk, Research Director of the Energy Centre. "The Policy Brief provides a comprehensive understanding of the current state of Canadian energy policy research in academic literature."

The report summarizes the insights that have emerged from the construction of a database of all papers published from 2000-2012 in peer-reviewed academic journals that studied aspects of energy policy in Canada. The study finds that there has been a gradual increase in such publications, but that the increase is directly linked to the rise in research related to renewable energy. Further, little correlation was found between the economic magnitude of energy

sub-sectors or importance of current energy policy issues and the degree of academic research attention the topic received. This suggests that significant opportunities exist for academics to make a greater contribution to policy-making by broadening the topics of research. The brief details additional findings on the distribution of publication outlets, faculties where research occurs, and specific sub-sector issues researched.

The findings lead to three additional recommendations for increasing the contribution of academics to Canada's energy policy discourse – strengthening relationships between universities, industry and government, increasing funding for energy policy research, and improving access to credible energy sector data.

Read the full policy brief at go.ivey.ca/energytrends

Learning by sharing: the focus of Ivey's new Executive-in-Residence



Gord Lambert, Suncor Sustainability Executive-in-Residence

Gord Lambert is widely known for his efforts in bringing a collaborative and collective approach to the development of Canada's resource sector, which resulted in the advancement of sustainability in the oil sands.

Now the former Suncor executive brings the same co-operative focus to the Ivey classroom by sharing his experiences as the new Suncor Sustainability Executive-in-Residence (EIR) for both the Ivey Energy Policy and Management Centre and Ivey's Centre for Building Sustainable Value.

"I have been a very active practitioner of 'learning by doing' during my 36-year career in the energy sector," said Lambert. "I now look forward to 'learning by sharing' with the talented students and the world-class faculty at Ivey."

During his three-year appointment as the Suncor EIR, Lambert will be a guest speaker in the classroom, write cases and white papers, and participate in panels and conferences.

Dennis McConaghy, Visiting Fellow



Dennis McConaghy, Visiting Fellow

Before his retirement, Dennis McConaghy was Executive Vice-President, Corporate Development at TransCanada. In 2014 he was appointed as a Visiting Fellow for both the Ivey Energy Policy and Management Centre and Ivey's Lawrence National Centre for Policy and Management.

Since joining Ivey, McConaghy has co-written with faculty a new business case study on TransCanada's Keystone XL pipeline project. The case study raises important questions for firms in a variety of sectors about how to judge whether proposed projects will achieve 'social licence' or whether they will instead generate concerted push back from affected parties. It also raises central questions for governments and regulators in defining what constitutes the public interest when reviewing firms' project applications.

This new energy sector case study will be included in the Ivey HBA *Corporations and Society* course curriculum, and will feature a lecture by McConaghy who will share his first-person experience with the project while he worked for TransCanada.

In addition, McConaghy has helped lead Centre consensus-building outreach initiatives, and he is working on a series of articles for publication in national media outlets.

Faculty research grants and awards

Matt Davison	■ NSERC Discovery grant, \$235,000, Principal Investigator, 2015-2019
Adam Fremeth	■ Social Sciences and Humanities Research Council grant, \$132,666, Principal Investigator, 2014-2018 ■ Social Sciences and Humanities Research Council grant, \$68,100, Principal Investigator, 2011-2014 ■ Carbon Management Canada grant, \$442,140, Principal Investigator, 2011-2014
Horia Hangan	■ Infrastructure Operational Fund CFI and ORF, \$3,635,891, Principal Investigator, 2014-2019 ■ NSERC CRD grant, \$540,000, Principal Investigator, 2015-2018 ■ NSERC Discovery grant, \$110,000, Collaborator, 2012-2017
Guy Holburn	■ Natural Resources Canada grant, \$30,000, Principal Investigator, 2015-2016 ■ Social Sciences and Humanities Research Council grant, \$62,000, Principal Investigator, 2010-2013 ■ Hydro One University of Western Ontario Research grant, \$150,000, Principal Investigator, 2010-2012
Brandon Schaufele	■ Sustainable Prosperity Research grant, \$13,200, Principal Investigator, 2013 ■ University of Ottawa CUT grant, \$6,863, Principal Investigator, 2012-2013 ■ Pacific Institute for Climate Science, \$10,000, Co-Principal Investigator, 2012-2014 ■ Environment Canada Economics and Policy Research Network, \$500,000, Collaborator, 2012-2017 ■ CIGI-INET Research grant, \$198,000, Collaborator, 2012-2014

Recent faculty research publications

“Do Retailers Set Optimal Prices in the Case of the Retail Gasoline Market?”

Daero Kim, Matt Davison and Fredrik Odegaard. *International Journal of Revenue Management*, 2015

The authors discuss a special case where they empirically fit a model where retailers set gasoline prices partly in response to local competitors.

“Real Options with Regulatory Policy Uncertainty.”

Christian Maxwell and Matt Davison. *Commodities, Energy and Environmental Finance*, 2015

Utilizing a quantitative model, this paper considers the choices involved with investing in a corn ethanol production plant with uncertainty surrounding a production tax subsidy.

“The Effect of Carbon Taxes on Agricultural Trade.”

Nicholas Rivers and Brandon Schaufele. *Canadian Journal of Agricultural Economics*, September 2014.

Evaluating the implications of an existing carbon tax on international trade in the agricultural sector, focusing on British Columbia’s carbon tax on all fossil fuels.

“Political Campaign Contributions around Merger and Acquisition Events in the Energy Sector.”

Guy L.F. Holburn and Richard G. Vanden Bergh. *Strategic Management Journal*, 2014.

U.S. electric utilities increase campaign contributions to local politicians the year before public announcement of a merger; a strategy consistent with building political support for restructuring.



Chris Ragan: Idea Exchange

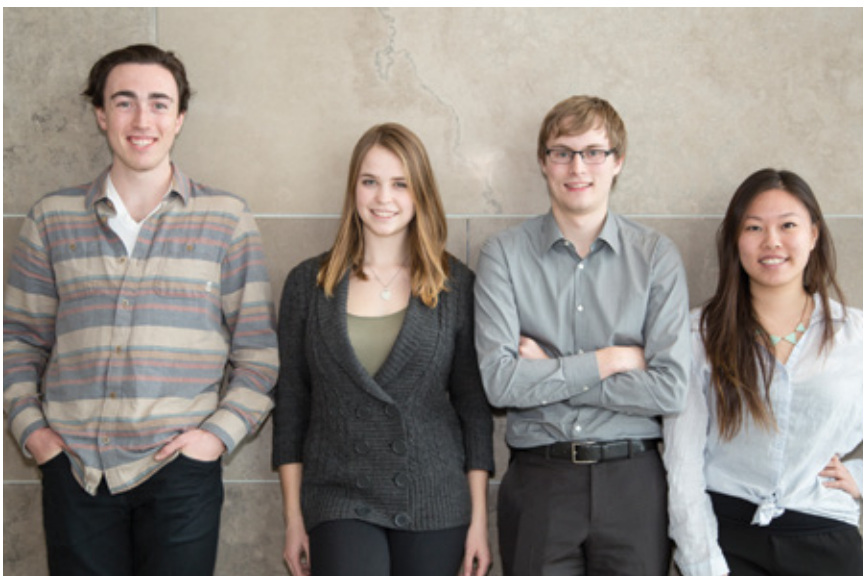
In February 2015, Chris Ragan, Associate Professor of Economics at McGill University and Chair of Canada’s Ecofiscal Commission, presented a seminar and met with researchers of the Ivey Energy Centre where he discussed carbon pricing, the competitiveness of Canadian oil, and ecofiscal policies.

Watch the full interview with Chris Ragan at go.ivey.ca/chrisragan

TEACHING

Suncor award helps shape tomorrow's energy leaders

The Ivey Energy Policy and Management Centre empowers the next generation of business leaders to understand the challenges of energy sector development from national and international perspectives.



Recipients (left) Noah Dibley, Katie Lawrence, Cole Truscott, and Amy Zhou

To enhance the development of tomorrow's leaders, the Suncor Energy Foundation has established the Suncor Energy Emerging Leaders Awards (SEELA) at Ivey. Now in its third year, these awards honour selected first-year HBA students who demonstrate excellent academic achievement, strong leadership, and keen interest in the energy sector.

Noah Dibley, Katie Lawrence, Cole Truscott, and Amy Zhou were the 2015 recipients, each receiving a \$5,000 scholarship from the Suncor Energy Foundation.

The award provides students with financial support, mentorship from faculty in the Centre, and the opportunity to combine energy sector knowledge with business education to help them become leaders in the industry.

Internships build the skills students need for a bright future

Each year, the Energy Centre grants internships to select, promising students. The students are given the opportunity to work closely with Centre faculty on research projects and delve into the current challenges facing the industry. Chad Gray, HBA '15, and Caley Savage, HBA '16, share their internship experiences.

Chad Gray

Most people see renewable energy as a welcomed change, until wind farms start popping up on the landscape. Chad Gray had a first-hand look at the issue while researching social resistance to wind farm development in Ontario.

"I had a great opportunity to learn about the wind industry in Ontario and some of the challenges that it faces," said Gray. "Even though renewable energy is widely considered positive by the general public, the construction of many wind farms hasn't had the same support in local communities."

Gray noted that resistance to wind development in Ontario does not follow a single trend.

"There are a variety of issues that can be brought up by impacted stakeholders, and the issues vary even between projects that are in close proximity," he said.

His research will be part of a future policy brief on social resistance to renewable energy.

Gray now lives and works in Calgary as project manager for in-line inspection projects at TransCanada.



Intern Caley Savage, HBA '16

Caley Savage

Caley Savage has interned with the Ivey Energy Policy and Management Centre since October 2014, working on projects that range from gathering information on wind turbines to analyzing public reactions towards nuclear repository sites.

"The research is a balance of quantitative analysis coupled with drilling down to find the human aspect behind each decision," said Savage, who is pursuing

a dual honours degree in Geography, majoring in social and environmental risk at Western University.

"One of the key learning points gained from working with the Energy Centre has been the ability to take complete ownership over a project," said Savage. "Having the choice in how to collect data, analyze it and present it, builds every aspect of a successful researcher from the design stage to personal presentation skills."

Savage's time with the Centre has helped her secure a role as an environmental risk and disaster analyst for Bell Canada upon graduation.

Where are they now?

Chad Gray, Intern, 2015

Project Manager,
TransCanada

Caley Savage, Intern, 2015

Environmental
Risk and Disaster
Analyst, Bell
Canada

André Wilkie, Intern, 2014

Associate, Boston
Consulting Group

Dan Berry, Intern, 2013

Specialist,
Commercial
Regulatory &
Tariffs, Plains
Midstream Canada

Anisha George, Intern, 2013

Policy and
Program Assistant,
Ministry of the
Environment and
Climate Change,
Ontario

Patrick McNaught, Intern, 2013

Commercial
Analyst, AltaGas
Ltd.

OUTREACH

Strong Aboriginal relations hold the key to energy sector development

Accessing Canada's wealth of natural resources must be done in consultation with Canada's Aboriginal communities.

The Ivey Energy Policy and Management Centre and the HBA Energy and Resources Club hosted an expert panel discussion in September 2014 on Aboriginal engagement, featuring four experts from industry, government, law, and First Nations communities. Here are some of the highlights:

- **Vern Janvier**, Chief, Chipewyan Prairie Dene First Nation: "One of the most important ways that we can have a successful partnership in the energy projects is through honest, straightforward communication. If these projects aren't properly set up, and if the issues are not properly dealt with, the future of Canada will always be in jeopardy. It will always be a problem."
- **Kendall Dilling**, Vice-President, Environmental & Regulatory Affairs, Cenovus Energy: "We've been working with the communities in establishing agreements that will last them the life of the development. This development is happening in their backyards so they should absolutely be sharing in the benefits."
- **Michael Keenan**, Associate Deputy Minister, Natural Resources Canada: "The duty to consult is a serious legal



Pat McJannett, Co-President of the HBA Energy & Resources Club, introduces the panellists for discussion on aboriginal relations

obligation. It is driving, along with a number of other factors, a fundamental shift in our relationship with Aboriginal people in Canada and it plays out dramatically on energy projects and natural resources projects. There are tough issues, but slowly and surely you can see agreements coming together. You can see trust."

- **Bill Gallagher**, Lawyer and author of *Resource Rulers: Fortune and Folly on Canada's Road to Resources*: "Basically, we're left in a situation where the courts are filling in the vacuum and showing leadership. There's a huge social justice component to this. We have to think about what sort of country we have become and what sort of country we want to be."

Building social support for energy development in Canada



Ellis Ross, Chief Councilor, Haisla Nation, speaks about fostering Aboriginal participation in energy sector development.



Nancy Southern, Chair, President and CEO of ATCO Ltd., discussed social acceptance and support for energy development.



Steve Williams, President and CEO of Suncor Energy, delivers a keynote address at the Positive Energy conference.



The Honourable Doug Black, Senator for Alberta, speaks at the Energy Conference.

In March 2015, the Ivey Energy Policy and Management Centre and the University of Ottawa's Collaboratory on Energy Research and Policy, jointly organized the Positive Energy Conference: Building a Path to Social Acceptance and Support of Energy Development in Canada.

The conference brought together 120 invited energy sector stakeholders to develop practical approaches and strategies for improving social acceptance around energy development, and to identify priority areas for future academic research. The 21 keynote and panel speakers included:

- **The Honourable Doug Black** (Senator for Alberta)
- **Michael Cleland** (Executive-in-Residence, Canada West Foundation)
- **Richard Dunn** (Vice President, Government Relations, Encana)
- **Stewart Elgie** (Director, Sustainable Prosperity)
- **Martha Hall Findlay** (Chair, Advisory Council, Partnership for Resource Trade)
- **Phil Fontaine** (President, Ishkonigan Consulting and Mediation)
- **Jeff Gaulin** (Vice President, Communications, Canadian Association of Petroleum Producers)
- **Chris Henderson** (President, Lumos Energy)
- **Michael Keenan** (Associate Deputy Minister, Natural Resources Canada)
- **Craig Leonard** (former Minister of Energy, Province of New Brunswick)
- **Nik Nanos** (Chairman, Nanos Research Corporation)
- **Dwight Newman** (Professor, University of Saskatchewan)
- **Bob Oliver** (CEO, Pollution Probe)
- **Alain Parisé** (Director, Aboriginal, Land and Community Relations, Energy East Pipeline, TransCanada)
- **Barry Rabe** (Professor, University of Michigan)
- **Ellis Ross** (Chief Councilor, Haisla Nation)
- **Merran Smith** (Director, Clean Energy Canada)
- **Nancy Southern** (Chair, President and CEO, ATCO)
- **Peter Watson** (Chair and CEO, National Energy Board)
- **John Wilkinson** (former Minister, Government of Ontario)
- **Steve Williams** (President and CEO, Suncor Energy)

National energy sector survey

Commissioned by the Ivey Energy Policy and Management Centre and the University of Ottawa, Nanos Research polled Canadians for the Positive Energy Conference.



6 in 10 Canadians support growth of the oil and gas sector



8 in 10 Canadians say growth in the energy sector can occur while protecting the environment



Universities were found to be the most trusted institution to advance a responsible dialogue about the economy, the energy sector, and the environment.



80%+ of Canadians want the federal government to lead policy making for reducing greenhouse gas emissions.

See the full survey results at go.ivey.ca/opinionsurvey

Media highlights

Ivey Energy Centre faculty received significant media attention this year. They shared their insights with the *Globe and Mail*, *Financial Post*, *Maclean's*, and the *Canadian Investment Review* on issues ranging from carbon taxes, to low oil prices, to cap-and-trade systems.

Read the full articles at ivey.ca/energycentre/news

Bob Hamilton visits the Centre

Bob Hamilton, Deputy Minister of Natural Resources Canada, visited the Ivey Energy Policy and Management Centre in January to discuss research and outreach.

Shale gas and fracking event

The *Ivey Business Review* and the Ivey Energy Policy and Management Centre hosted a special lecture on shale gas in February with guest speakers Steve Baker, President at Union Gas, and Mel Ydreos, Executive Director at EnergyVantage.

Read Ivey's interviews with Steve Baker and Mel Ydreos at go.ivey.ca/stevebaker and go.ivey.ca/melydreos

Third Annual Energy Leaders Roundtable

The Energy Centre partnered with the Council for Clean and Reliable Electricity and the University of Waterloo in April for the Annual Energy Leaders Roundtable, an invitation-only event for 50 senior leaders from across the country. A special keynote address was given by the Hon. Michael D. Harris, former Premier of Ontario (1995-2002).

Ivey Energy Policy and Management Centre Faculty and Staff

■ **Guy Holburn, Director**

Guy Holburn is the Suncor Chair in Energy Policy and an Associate Professor of Business, Economics and Public Policy at the Ivey Business School. His area of expertise is in the intersection of business strategy and public policy, particularly as applied to strategy and policy issues in the energy and utilities sectors. He is currently leading a multi-year research program on the regulation of the energy sector in Canada. Holburn received his MA and PhD from the University of California, Berkeley, and his BA Hons. (First Class) from Cambridge University. He is a board member of the Council for Clean and Reliable Electricity.

■ **Adam Fremeth, Ivey Energy Consortium Fellowship**

Adam Fremeth joined the Ivey Business School as an Assistant Professor of Business, Economics and Public Policy in 2009 after completing his PhD in Strategic Management and Organization at the University of Minnesota. He holds an HBA from Ivey and an MA in International Affairs from Carleton University. His research focuses on the intersection of firm strategy and public policy-making.

■ **Margaret Loudermilk, Research Director**

Margaret Loudermilk joined the Ivey Energy Policy and Management Centre as Research Director in 2014 and is an Adjunct Research Professor in the Business, Economics and Public Policy group at Ivey. Her research focuses on measuring the economic impacts of energy policies. She is now leading major research projects for the Energy Centre on social licence in the energy sector, and on aboriginal participation in energy projects. Loudermilk received her PhD in Economics from Michigan State University, specializing in econometrics and industrial organization.

■ **Brandon Schaufele, Ivey Energy Consortium Fellowship**

Brandon Schaufele is an Assistant Professor in Business, Economics and Public Policy at the Ivey Business School. Prior to his arrival in 2014, Schaufele was an Assistant Professor in the Department of Economics at the University of Ottawa, as well as the Research Director of the University of Ottawa's Institute of the Environment. Schaufele's research focuses on the links between firms, governments and civil society with special emphasis on energy and environmental policy.

■ **Paul Boothe, Research Fellow**

Paul Boothe was appointed Professor and Director of the Lawrence National Centre for Policy and Management at the Ivey Business School in September 2012. Boothe's public sector career includes serving as the Deputy Minister of Finance and Secretary to Treasury Board for Saskatchewan (1999-2001), Associate Deputy Minister of Finance and G7 Deputy for Canada (2004-2005), Senior Associate Deputy Minister of Industry (2007-2010) and Deputy Minister of the Environment (2010-2012).

■ **Matt Davison, Research Fellow**

Matt Davison is a full Professor jointly appointed to the departments of Applied Mathematics and Statistical & Actuarial Sciences at Western University. Davison holds the Canada Research Chair in Quantitative Finance and leads the nationwide Modelling Trading and Risk in the Market project for the MITACS Network of Centres of Excellence. Much of his research is on energy markets and finance, and lies at the intersection of industrial mathematics, operational research, and engineering.

■ **Horia Hangan, Research Fellow**

Horia Hangan is a Professor in the Faculty of Engineering at Western University and the Founding Director of the Wind Engineering, Energy and Environment (WindEEE) Research Institute. His research focuses on the simulation and impact of high intensity winds, wind energy and wind environmental impacts.

■ **Richard Dicerni, Research Fellow**

Richard Dicerni was appointed Deputy Minister of Alberta Executive Council in October 2014. He held the position of Deputy Minister of Industry Canada from 2006 to 2012. He began a career with the federal government in 1969 and has held a number of executive positions in the federal and provincial public service.

■ **Gord Lambert, Suncor Sustainability Executive-in-Residence**

Gord Lambert is the former Executive Advisor of Sustainability and Innovation at Suncor Energy. Previously, he was Vice President of Sustainable Development. Prior to assuming that role in 1997, Lambert spent two years as Director of Sustainable Development for TransAlta Corporation and 15 years with a major Canadian integrated oil and gas company. In 2015, he was appointed Suncor Sustainability Executive-in-Residence at Ivey, where he works with both the Ivey Energy Policy and Management Centre and Ivey's Centre for Building Sustainable Value.

■ **Dennis McConaghy, Visiting Fellow**

Dennis McConaghy is the former Executive Vice-President of Corporate Development at TransCanada. Previously, he was Executive Vice-President of Pipeline Strategy and Development. He joined TransCanada in 1998, and has held senior positions in Corporate Strategy & Development, Midstream/Divestments, and Business Development. He has more than 25 years experience in oil and gas. In 2014, he was appointed Visiting Fellow for both the Ivey Energy Policy and Management Centre and Ivey's Lawrence National Centre for Policy and Management.

■ **Rajiv Varma, Research Fellow**

Rajiv K. Varma is an Associate Professor and Hydro One Chair in Power Systems Engineering in the Electrical and Computer Engineering Department at Western University. Varma is the project lead in a recently awarded \$6-million research grant from Ontario Centre of Excellence for a photovoltaic solar power integration.

■ **Laura McLeod, Coordinator**

Laura McLeod joined Ivey Business School in 2010, where she currently holds the position of Coordinator for the Ivey Energy Policy and Management Centre. Previously, McLeod held positions with Ivey as a Faculty Assistant and Coordinator for the Pierre L. Morrissette Institute for Entrepreneurship. She has a BA from Queen's University and a Postgraduate Diploma from Humber College

■ **Jessyca Wemyss, Coordinator**

Jessyca Wemyss joined Ivey Business School in 2015 as the Coordinator for the Ivey Energy Policy and Management Centre. Previously, Wemyss has worked in the digital marketing industry, specializing in content, social media, and optimization tactics. She has a BA and a Postgraduate Diploma from Western University.

Ivey Energy Policy and Management Centre Advisory Board

Steve Baker	President, Union Gas Limited
Paul Boothe	Professor and Director, Lawrence National Centre for Policy and Management, Ivey Business School
Jan Carr	Strategic Advisor, Gowlings and Hatch; Former CEO, Ontario Power Authority
Richard Dicteri	Deputy Minister of Alberta Executive Council
Guy Holburn	Director, Ivey Energy Policy and Management Centre, Ivey Business School
Robert Kennedy	Dean, Ivey Business School
Siegfried Kiefer	President and Chief Operating Officer, Power & Utilities, ATCO Ltd. & Canadian Utilities Limited
Gordon Lambert	Former Executive Advisor, Sustainability and Innovation, Suncor Energy
Don MacKinnon	President, Power Workers' Union
John McManus	Senior Advisor, Borealis Infrastructure
Francois Poirier	Senior Vice President, Strategy and Corporate Development, TransCanada
E. Louise Spencer	Director, Development, Ivey Business School

Ivey Energy Policy and Management Centre

www.ivey.ca/energy

Ivey Business School

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