### **Curriculum Vitae**

### **John David Hughes**

### **Overview**

David Hughes is an earth scientist that has studied the energy resources of Canada and the U.S. for more than four decades, including 32 years with the Geological Survey of Canada as a scientist and research manager. He is president of Global Sustainability Research Inc., a consultancy that has analyzed the geological fundamentals and production potential of unconventional oil and gas plays across Canada and the U.S. He has published and lectured widely on energy and sustainability issues in North America and internationally. He is also a Fellow of Post Carbon Institute, a Board member of Physicians, Scientists and Engineers for Healthy Energy and a Research Associate with the Canadian Centre for Policy Alternatives.

### **Education:**

First Class Honours Bachelor of Science in Geology, 1972, University of Alberta Master of Science in Geology, 1975, University of Alberta

## **Experience:**

## 2008-present: President, Global Sustainability Research Inc.

President of Global Sustainability Research Inc., a consultancy conducting research on global and North American energy and sustainability issues. A key focus has been on unconventional hydrocarbons as well as on promoting awareness of energy issues based on in-depth analyses of available data on global, North American and Canadian energy consumption and production trends and forecasts. In this regard presentations have been given at more than 200 North American and international venues over the past several years. Findings have also been released through reports, publications, blog posts and other media.

Clients have included oil and gas companies, environmental NGOs and think tanks, including Imperial Oil, ForestEthics, Post Carbon Institute, Council of Canadians, Canadian Centre for Policy Alternatives, Cornell University, and others. Testimony as an expert witness has also been provided on energy issues in several cases.

# 1976-2008: Scientist and Research Manager, Geological Survey of Canada, Department of Natural Resources, Government of Canada

Responsibilities included:

- Development and management of Canada's National Coal Inventory, a system for assessing the resource potential of Canada's coal resources and well as the economic and environmental implications of their use.
- Development and management of a National assessment of unconventional energy resources in Canada including coalbed methane and shale gas.
- Management of joint industry-government projects on the assessment of the potential of deep unmineable coal seams for carbon capture and storage in western Canada and the Maritimes.
- Management of joint projects with the private sector that saw the development of Canada's first large scale production of coalbed methane in Canada in the late 1990s.
- Management of a multi-disciplinary team of scientists and technicians as Head, Coal Subdivision.
- Research, update and dissemination of an evolving analysis of global and North American energy production, consumption and sustainability issues in a Canadian context.

Research findings have been released through scientific papers, industrial reports, book chapters, oral presentations, internet postings and articles in the media.

## 2000-2008: Team Leader, Unconventional Gas, Canadian Gas Potential Committee

Team Leader, Unconventional Gas, for the Canadian Gas Potential Committee, which is a volunteer organization of senior petroleum geologists and explorationists. It publishes an authoritative assessment of Canada's natural gas potential on a 4-5 year timeframe. Responsibilities included management of the compilation and publication of the two national assessments of Canada's unconventional natural gas potential which were published in 2001 and 2006.

## 1973-1976: Chief Geologist, Consolidation Coal Company of Canada

Management of a geological team working in conjunction with engineering staff on coal properties in Alberta and B.C. Design and management of drilling programs in southwest and central Alberta.

### **Recent Publications**

- 2017: Hughes, J.D., Will the Trans Mountain Pipeline and Tidewater Access Boost Prices and Save Canada's Oil Industry? Canadian Centre for Policy Alternatives, 42 p.
- 2016: Hughes, J.D, 2016 Shale Gas Reality Check: Revisiting the U.S. Department of Energy Play-by-Play Forecasts through 2040, Post Carbon Institute, 39 p.
- 2016: Hughes, J.D, 2016 Tight Oil Reality Check: Revisiting the U.S. Department of Energy Play-by-Play Forecasts through 2040, Post Carbon Institute, 33 p.
- 2016: Hughes, J.D, Can Canada Expand Oil and Gas Production, Build Pipelines and Keep Its Climate Change Commitments?, Canadian Centre for Policy alternatives, 37 p.
- 2015: Hughes, J.D, Bakken Reality Check: The Nation's Number Two Tight Oil Play after a year of low prices, Post Carbon Institute, 18 p.
- 2015: Hughes, J.D, Tight Oil Reality Check: Revisiting the U.S. Department of Energy playby-play forecasts through 2040 from Annual Energy Outlook 2015, Post Carbon Institute, 17 p.
- 2015: Hughes, J.D, Shale Gas Reality Check: Revisiting the U.S. Department of Energy playby-play forecasts through 2040 from Annual Energy Outlook 2015, Post Carbon Institute, 17 p.
- 2015: Hughes, J.D., A Clear View of B.C. LNG, Canadian Centre for Policy Alternatives, 49 p.
- 2014: Hughes, J.D, The Geology and Sustainability of Shale. *In* Finkel, ML (ed). The Human and Environmental Impact of Fracking: How Fracturing Shale for Gas Affects Us and Our World. Santa Barbara, CA: Praeger Press. 2015. pp. 195-206.
- 2014: Hughes, J.D., Drilling Deeper: A Reality Check on U.S. Government Forecasts for a Lasting Tight Oil & Shale Gas Boom, Post Carbon Institute, 315 p.

- 2014: Hughes, J.D., B.C. LNG Reality Check, Watershed Sentinel, 8 p.
- 2013: Hughes, J.D., Drilling California: A Reality Check on the Monterey Shale, Physicians, Scientists and Engineers for Healthy Energy, and Post Carbon Institute, 48 p.
- 2013: Hughes, J.D., A Reality Check on the Shale Revolution, Nature, v. 494, p. 307-308.
- 2013: Hughes, J.D., Drill Baby Drill: Can Unconventional Fuels usher in a new Era of Energy Abundance?, Post Carbon Institute, 166 p.

Older publications available on request.

### **Contact:**

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