

GLOBAL ENVIRONMENTAL AND CLIMATE CHANGE CENTRE CENTRE SUR LES CHANGEMENTS CLIMATIQUES ET L'ENVIRONNEMENT GLOBAL

# H. Douglas Lightfoot



Doug Lightfoot is a retired Mechanical Engineer, graduated from UBC in Applied Science in 1952, and received an MBA from Concordia University in 1976. He spent eighteen years with Domtar Inc. at the Research Centre in Senneville, Quebec, working on research, engineering and economic studies of alternate energies as well as a wide variety of projects for the pulp and paper, chemicals and construction materials businesses. Prior to joining Domtar, he spent five years designing, building and starting up chemical plants at Dupont of Canada, and 12 years of project engineering at Standard Chemical Limited.

Doug is a retired member of the Order of Engineers of Quebec and the Professional Engineers of Ontario, and a Life Member of the American Society of Mechanical Engineers. He continues to have an active interest in energy and energy related subjects and is an associate member of Quebec's Global Environmental and Climate Change Centre (GEC3).

He welcomes questions, comments or requests for more information Please contact Doug by email <u>dlightfo@aei.ca</u>

### **Publications**

Lightfoot, H.D. (2009) What engineers and scientists should know about scales for measuring primary energy: why they are necessary and how to use them. *2nd Climate Change Technology Conference* May 12-15, 2009, Hamilton, Ontario, Canada.

Lightfoot, H.D. (2009) A method for constructing scenarios of future world energy demand. 2nd Climate Change Technology Conference May 12-15, 2009, Hamilton, Ontario. 2 Full Text available

Lightfoot, H. D. (2008) **Required improvements to primary energy in the IPCC scenarios**. *Proceedings of the Institution of Civil Engineers, Energy*, Volume 161(EN3): 127-132, doi:10.1680/ener.2008.161.3.127. Publisher: Thomas Telford. Abstract

Lightfoot, H. D. (2008) *Chapter 9*: The Potential for Increasing the Contribution of Renewable Energies towards Replacing Fossil Fuels is too Small to Justify the Expenditure of Government Research Funds. In: Climate Change Research Progress, Editor: Lawrence N. Peretz, pp. 291-312. ISBN: 978-1-60021-998-6. © 2008 Nova Science Publishers, Inc. Abstract

Lightfoot, H. D., (2007) Understand the three different scales for measuring primary energy and avoid errors. *Energy* 32:1478-1483, doi:10.1016/j.energy.2006.10.009.

<u>Lightfoot</u>, H. D., Manheimer, W., Meneley, D. A.; Pendergast, D., and Stanford, G.S. (2006) **Nuclear Fission Fuel is Inexhaustible**, *EIC Climate Change Technology Conference*, *2006 IEEE*, May 2006, pages 1-8. <u>http://ieeexplore.ieee.org/Xplore/guesthome.jsp</u>. doi:10.1109/EICCCC.2006.277268. <u>Abstract</u>

Lightfoot, H. D. (2006) A Strategy for Future World Energy Supply and Carbon Emission Control. *EIC Climate Change Technology Conference, 2006 IEEE,* May, pages: 1-10. http://ieeexplore.ieee.org/Xplore/guesthome.jsp. doi:10.1109/EICCCC.2006.277266.

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### **Global Environment and Climate Change Centre Research reports:**

<u>Lightfoot</u> H D and Green C (1992) The dominance of fossil fuels: technical and resource limitations to alternative energy sources. <u>No. 1992-6</u>

Lightfoot H D and Green C (2001) Climate change is an energy problem. No. 2001-1

<u>Lightfoot</u> H D and Green C (2001) Energy Intensity decline implications for stabilization of atmospheric  $CO_2$  content. <u>No. 2001-7</u>

<u>Lightfoot</u> H D and Green C (2002) An assessment of IPCC Working Group III findings in Climate Change 2001: Mitigation of the potential contribution of renewable energies to atmospheric carbon dioxide stabilization. <u>No. 2002-5</u>

<u>Lightfoot</u> H D and Green C (2002) Observations on the IPCC Working Group III scenarios in the Special Report on Emissions Scenarios. <u>No. 2002-9</u>

### **Canadian Nuclear Achievement Award**

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## **Nobody's Fuel** by *H. Douglas Lightfoot*

Nobody's Fuel is a film that emphasizes how important energy is to human welfare.

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B<u>Nobody's Fuel: Executive Summary</u>

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B<u>Nobody's Fuel description of slides</u>