

EDMONTON DISTINGUISHED LECTURE SERIES IN CHEMISTRY AND SEE PRESENTATION

Dr. Daniel G. Nocera

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will speak on

"Personalized Energy for 1 (\times 6 Billion): A Solution to the Global Energy Challenge"

Abstract: The supply of secure, clean, sustainable energy is arguably the most important scientific and technical challenge facing humanity in the 21st century. Rising living standards of a growing world population will cause global energy consumption to double by mid-century and triple by the end of the century. Even in light of unprecedented conservation, the additional energy needed is simply not attainable from long discussed sources – these include nuclear, biomass, wind, geothermal and hydroelectric. The global appetite for energy is simply too much. Petroleum-based fuel sources (i.e., coal, oil and gas) could be increased. However, deleterious consequences resulting from external drivers of economy, the environment, and global security dictate that this energy need be met by renewable and sustainable sources. The dramatic increase in global energy need is driven by 3 billion low-energy users in the non-legacy world and by 3 billion people yet to inhabit the planet over the next half century. The capture and storage of solar energy at the individual level – personalized solar energy – drives inextricably towards the heart of this energy challenge by addressing the triumvirate of secure, carbon neutral and plentiful energy. This talk will place the scale of the global energy issue in perspective and then discuss how personalized energy (especially for the non-legacy world) can provide a path to a solution to the global energy challenge.

Panel Discussion with Eddy Isaacs (CEO, Energy and Environment Solutions, Alberta Innovates) and Murray Gray (CRC Professor of Engineering, University of Alberta) to follow.

DATE: Monday, 15 March 2010
TIME: 7:30 p.m.
PLACE: Telus Centre, Room 150

Other Events:

March 16, 3:30 pm, ETLC 1-007, University of Alberta
"The Chemistry of Solar Energy and Its Storage for the Non-Legacy World"