

The Living Without Oil Series: An Elder Academy Event

Wind Energy Opportunities: Terrestrial, offshore and airborne variants

Curran Crawford

Saturday, February 22

10:00am – 12:00pm

David Turpin Building, Room A110



University
of Victoria
Retirees
Association

Wind energy has emerged as a key low-carbon electricity generation technology through progressive development starting in earnest in the 1970's. Wind resources are widely distributed around the world, and, in some energy markets, are now on-par with conventional fossil fuel generation prices.

This talk will provide an overview of the wind resource and international electricity market relative to the integration of wind energy. It will explore the engineering drivers that have led to the emergence of the 'Danish concept' 3-bladed wind turbine. Aspects of terrestrial wind energy deployments will be presented, including siting considerations and both global and systemic environmental impacts. We will look at developments in emerging technologies, starting with bottom-mounted offshore turbines and the push toward floating offshore concepts, and consider the promises and challenges of airborne wind energy.



Dr. Crawford is a Professor in Mechanical Engineering at UVic, a member of the Institute for Integrated Energy Systems (IESVic) and co-director of the Pacific Institute for Marine Energy Discovery (PRIMED). His research focuses on developing advanced models and optimization-based design tools for a range of low-carbon technologies ranging from advanced wind energy concepts, to tidal and wave energy, through to energy systems analysis of electrified transportation, batteries and demand response. The objective of this research is to enable a transition to a low-carbon future by connecting renewable generation with end-use services.

To register: <https://www.eventbrite.ca/e/oil-part-one-tickets-85417396733>. Students may register for free by emailing uvraevents@uvic.ca

This event is presented in partnership with IESVic



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