

Peter Kinley

Biography

Peter is the President and CEO of the Lunenburg Shipyard Alliance and also President and CEO of Lunenburg Foundry & Engineering Limited, Lunenburg Marine Railway Company and Heritage Harbour Developments Limited. Peter holds a Master of Science in Engineering Degree in Naval Architecture and Marine Engineering from the University of Michigan, a Bachelor of Engineering degree in Mechanical Engineering from Technical University of Nova Scotia, and a diploma in Engineering from Dalhousie University.

Peter has held positions at many Professional and Community Service Organizations. Peter was Director of the Canadian Foundry Association, Atlantic Vice-President of the Canadian Society for Mechanical Engineering, a member of the Metals Technology Laboratory's Technical Advisory Group, an Industry Board Member of CANMET at Natural Resources Canada, an American Foundry Society member, and an Associate Member of the Society of Naval Architects & Marine Engineers.

Peter is actively engaged in developing Prometheus Solar Technologies, specializing in the commercialization of patented solar concentrating energy methods. He also has over 30 years of experience working in various Lunenburg marine, harbour and shipyard companies. Peter's areas of research include the design of marine vessels, propulsion systems, blockage and movement systems for drydocking, and ship-repair and modification projects.

Presentation Abstract: Prometheus Solar Project

A new concentrated solar technology is emerging from a venerable Nova Scotian firm, Lunenburg Industrial Foundry & Engineering, which provides a huge advancement in efficiency and cost effectiveness. The company is the first in the world to cast its metal products using only solar energy. The breakthrough empowers an economic renewable clean energy source for distributed power and provides a permanent solution to the World's dependence on fossil fuels. The patented, Kinley Two-Stage concentration method produces high temperatures, as high as 3000°C, at a cost that is far below other solar concentrators. The cost effective method uses commonly available mirrors that can be simply curved and combined to produce a strong point focus.

The concentrator may be used to melt metal or as a platform to drive many other industrial and chemical processes not achievable by other solar energy systems.

As well as the obvious use for energy generation, applications are anticipated in; materials processing, food processing and water purification.

It is easily scalable providing a high energy density with a small footprint. The system has been rated at over 74% solar thermal efficiency, by third party tests at AITF and subsequent improvements have shown ratings over 80% are achievable.

The Prometheus Project team combines experienced personnel with talented resources from leading engineering schools and research institutions. A spin-off company, Prometheus Solar Technologies Inc. has been established to carry the technology to global markets.