There is a strong technical argument that a significant reduction in the global greenhouse effect may be achieved by means of a relatively simple system that has been labelled the Atmospheric Vortex Engine. The proposed system makes use of an induced vortex to harness enthalpy contained within the atmosphere. The enthalpy is principally in the form of the latent heat of water vapour. Other energy such as geothermal energy is used to provide the energy to activate the vortex and effectively generate an approximation to a Carnot cycle.

It is argued that a significant reduction in the global greenhouse effect may be achieved by producing electrical power by means of the relatively simple system. In Nature, buoyancy-induced columnar vortices ("cockeyed bobs") occur spontaneously, with core diameters of up to 50 m at the surface, heights of up to one kilometre, with induced air flow of considerable angular and linear momentum. The scale of the proposed man-made power generation system would be an approximately 200 m diameter core vortex and a plume several kilometres high.

ABOUT THE SPEAKER

Donald Cooper is a mechanical engineer and inventor strongly interested in alternative energy and the implications of climate change. He graduated in mechanical engineering from Curtin University of Technology in 1971. He has a background within both academia and industrial practice.

Within the former role, he was Study Area Leader in mechanical engineering within the Western Australian Department of Training from 1991 to 1995, and from 1996 to 1999 Principal Lecturer (Engineering) at Challenger College of TAFE. In 1997, while working within TAFE, he completed a degree of Master of Engineering studies at the University of Western Australia, which included a dissertation involving the computer modeling of gyroscopic dynamics and its application in regenerative braking systems.

In industry, he has worked primarily as a mechanical design engineer in industries such as alumina refining, iron & steel, water treatment and nickel, gold and copper refining.