



Sir Mark Oliphant
CONFERENCES

'Cleantech Science & Solutions – mainstream & at the edge'



4 – 6 May 2010

**NOVOTEL – 285 Springvale Road
Glen Waverley, Melbourne, Australia**
www.smoclean.org



Australian Government
Department of Innovation, Industry, Science and Research

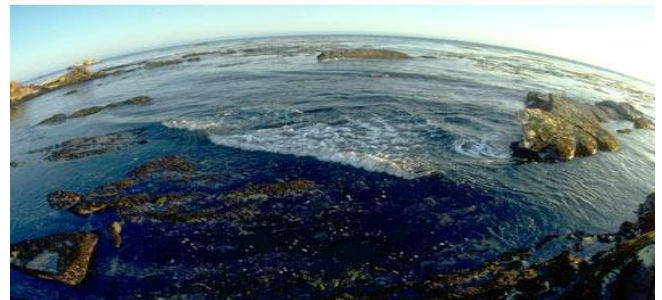
Cleantech: Technologies and services that have both environmental and economic benefits

About the Conference

The Sir Mark Oliphant Conference “Cleantech Science and Solutions – mainstream and at the edge” brings together leaders in the field from across the world who represent organisations and companies from a broad range of sectors. These include researchers, leading industrialists, end users, investors, educators, professional organisations and government. They will discuss and investigate how economically viable clean technologies will drive the world towards sustainability through increased efficiency, reduced waste and the adoption of renewable energy.

Speakers comprise international, national and local experts in their fields. However, the Conference is far more than outstanding speakers.

“Cleantech Science and Solutions – mainstream and at the edge” is a blend of networking, experiences, and scientific talks; a meeting place where people share knowledge, learn from each other, and discuss and debate points of view - all of which contribute to the advancement of this emerging field. This is the Conference for everyone concerned about sustainable economic and business development through the exploitation of cleantech.



Student Competition

As an extension of the conference, a competition is being held for primary and secondary school students. All students are eligible to enter and prizes will be awarded to the winning students and their schools.

Entry is free!

Competition entries must be submitted by Friday 16 April. The awards presentation is to take place on Tuesday 4 May in the STRIP, Building 75, Monash University, Clayton at 5pm.

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Selection Criteria

Winning entries will be judged on students' interpretation of what the future will be like and how they would use clean technologies to make the world a better place.

Age appropriate design elements (including those related to creativity, complexity and innovation) associated with the topics at both primary and secondary levels, will be assessed. As will the overall presentation of submissions. The judges will take into account items such as materials used and the clarity of message (relative to the complexity of the topic). For secondary students, the ability to attract and maintain the interest of the reader and the extent to which the task has been completed will also be important.

Primary School Competition

Reducing carbon pollution and greenhouse gas emissions and caring for Australia's environment is a joint responsibility that involves many different levels of the community.

Primary School students entering the competition are required to either:

Design a calendar, signage or information sheets about ways you can reduce carbon pollution and greenhouse gas emissions being emitted from school, home or the community, or sustainable practices.

or

Draw posters which show how different people are concerned about, affected by or involved with the reduction of carbon pollution and greenhouse gas emissions contributing to changes in the environment.

Acknowledgement: Our thanks to CarbonKids, CSIRO and Shell for providing the source material for the primary school competition. CarbonKids is an educational program developed by CSIRO Education. Shell has provided funding support for the pilot. See <http://csiro.au/resources/CarbonKids.html>

Secondary School Competition

Secondary School students are required to draw up a plan for a remote sustainable community and submit it in 2D form on a sheet of poster paper no larger than A1 size. This will allow entries to be displayed at the conference.

The tasks involved include:

- Design a remote community
- Estimate the total energy needs of the community
- Show how you will meet the energy needs using wind and solar energy (and possibly biomass)
- Show how you will provide energy when there are variations in the supplies of wind and solar (for example on a windless night)
- What will it cost to meet the energy needs?
- How will the community have a sustainable food and water supply?

In your plan please include the:

- Name of your community
- Location
- Type of community
- Number of people
- Community constraints (limited resources, money, land area etc)
- Community assets (wind, solar, biomass, human labour, money, machinery, animals etc)

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- Basic design of the sustainable system:
 1. Food
 2. Shelter
 3. Transport
 4. Commerce
 5. Expenditure
- A drawing of the system and its components

The following is an example of a basic parameter to be considered for the sustainable community - cost of technology

- Wind turbines cost \$3m installed for a 2.1MW machine, \$2m for a 1.2MW machine and \$1m for a 300kW machine. Wind energy capacity factor is 30%, service costs \$ 10,000 per MW pa
- Solar costs \$x per square meter installed, solar conversion is 15%, sun hours per day are 6
- Batteries cost \$x per kwhr, battery cycle efficiency is 70%, life time is 5 years

Submission of entries

Please complete the attached application form and return it by Friday 16 April, together with your entry to:

Ms Vanessa Heuser
 CEO
 Small Technologies Cluster Ltd
 1 Dalmore Drive
 Scoresby 3179

Competition sponsor

Our sincere appreciation goes to Davey Water Products who have kindly donated two 'Rainbank' controllers for the winning students' primary and secondary schools. For more information please visit www.davey.com.au.

Further Information

For further information, please contact Project Manager Gael Andrews, on 0403 920 377 or email info@smoclean.org.

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Sir Mark Oliphant Cleantech Science and Solutions Conference

Student Competition Entry Form – please attach to each entry (Please print)

Full name: _____ Male Female

Address: _____ P'code: _____

Telephone number: _____ Age: _____ School year/level: _____

Name of School: _____

Address: _____ P'code: _____

School contact person: _____ Tel: _____

Entry for Primary School Competition Secondary School Competition

Permission to enter this competition is granted by:

Name: _____ Signature: _____
(Parent or guardian)

Date ____/____/____

Entries close Friday 16 April and must be sent to:

Ms Vanessa Heuser
CEO
Small Technologies Cluster Ltd
1 Dalmore Drive
Scoresby 3179

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