

Opportunities in the Clean Technology Sector

Rob McCullagh - National Sector Manager – Clean Technology

Introduction

State of the Sector

- Carbon price announcement good for sector:
 - Allows for more informed investment decisions
 - Encourage big polluters to seek emissions reduction technologies
 - Should mobilise the sector (\$100B investment to 2050 est “Clean Energy Council, 2011”)
- Question is, how can Australian industry best harvest opportunities?
 - As a provider of complementary products and services
 - As a producer of products for export
 - As a partner/licensee

Can we play in this space or are we destined to be a net importer?

Complementary products and services

- Renewable energy projects
 - For example, wind and solar farms
 - Balance of plant activities, environmental services
 - Activities essential to project delivery
 - More projects should be commissioned
- Indirect opportunities
 - Big polluters will be seeking ways to offset their emissions
- Energy supply exposed sectors
 - Resources sector
 - Tourism
 - Emergency services, military and peacekeeping deployments
 - Etc

Production and export opportunities

- Number of lucrative market opportunities for Australian producers.
- ICN believes key areas of opportunity include:
 - Off-grid products
 - Bio-energy
 - Waste management and recycling technologies
 - Concentrated solar technologies
 - Building management technologies
- Key is promoting to appropriate markets
 - Perhaps look a little closer to home

Licensing and investment opportunities

- More budget certainty makes Australia a more attractive investment prospect.
- Local component manufacture may be more realistic.
 - E.g. blades for wind turbines
- Seeing more multinationals looking for projects and partnering opportunities.
- Viable projects stalled due to funding should be made known to ICN.
- Companies in other sectors looking to diversify into clean technology.

Upcoming ICN activities

- Off-grid capability showcase.
 - Looking to cluster viable alternatives to diesel generators
 - Initial target markets resources and tourism sectors.
 - Remote Australia and Oceania initial area focus.
- Defence Multi-national Business Opportunity Day.
 - One-on-one technology demonstration focus
 - Invitation only after shortlisting process
- Supplier Advocate “Industry Capability Teams” initiative
 - Similar to Joint Strike Fighter “Team Australia” model
 - Targeting specific themes e.g. cleantech for the defence, food, built environment etc sectors.

All opportunities will be posted on Cleantech Directory
www.cleantech.icn.org.au

What you need to do

- Register with ICN, either via Gateway or Cleantech directory.
- Keep your details up to date:
 - Complete capability taxonomy
 - Include related experience/ projects
 - Ensure contacts are current
 - Keep it brief but relevant
- If you are not registered we can't find you
- If your information is clearly incorrect or dated we can't/won't nominate you

www.icn.org.au
www.cleantech.icn.org.au

Back-up slides

Off-grid

Technology Overview	Extremely broad but generally considered to be smaller scale, highly deployable technologies e.g. diesel generator alternatives
Why Australian industry?	Reputation for developing harsh environment solutions
Potential target sectors	Resources sector, tourism, military, NGOs (red cross), isolated communities.
Potential markets	ASEAN, Africa, Latin America, outback Australia, mining projects
Benefits	Energy self reliance, security of supply, reduced fuel import/transportation costs etc.
Challenges	Reliability and through life support

Bioenergy

Technology Overview	Use of organic materials for energy e.g. ethanol, methane, biochar.
Why Australian industry?	Excellent resource for feedstock and proving technology. Strong research pedigree in this space.
Potential target sectors	Transportation, military, livestock, food and beverage industry.
Potential markets	Diesel reliant economies with good feedstock e.g. Pacific islands, wine regions
Benefits	Ability to utilise otherwise waste materials.
Challenges	“Food versus fuel”, yield, quality.

Waste management and recycling

Technology Overview	Elimination, reduction or utilisation of waste material, energy and process by-products.
Why Australian industry?	Increasing interest in marginal technologies, particularly recycling.
Potential target sectors	Virtually all industry sectors produce waste.
Potential markets	High population densities, heavy polluters, developing economies, EU.
Benefits	Turning a negative into a positive. Technology transfer opportunities
Challenges	NIMBY factor, diversity of policies, standards and codes.

Concentrated Solar

Technology Overview	Storing sun derived heat to convert into energy.
Why Australian industry?	Climate pre-disposed towards solar utilisation.
Potential target sectors	Utilities, isolated sites.
Potential markets	Regions with high sunlight levels
Benefits	Potential for baseload power.
Challenges	Maturity of technology, efficiency.