



Climate Change = Economic Growth Potential in the Regions Through Business

Grant Dunford: Board Member Director: Negawatt Resources Ltd

Energy is just one by product

\$1.8 billion in Waste to Energy projects in the pipeline

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- Regulators face complex issues on landfill regulations
- Australia's growing landfills are a significant potential source of energy, and more can be done to harness the potential of what is not just rubbish, but an energy resource.
- This week's Australasian Waste & Recycling Expo includes a workshop on Waste to Energy, led by the Waste Management Association of Australia (WMAA).
- Shaun Rainford, the chair of the NSW Resource and Energy Recovery working group of WMAA, told Energy Business News that "significant quantities" of "so-called recyclable materials" are currently landfilled because they are "too dirty" or no commercial markets exist.
- "The recovery of energy from these materials is a far better outcome for everyone compared to burying the resource," Rainford said.
- "What is critical is that the regulations that are intended to prevent material from being diverted from recycling into Energy from Waste are not so stringent that the material is just landfilled in any case.
- "There are different legislative requirements in each state, but we now have workable policies in most Australian states which is a major step forward compared to say three years ago. Time will tell which regulations will allow the Energy from Waste industry to develop."
- Despite being in its early stages, Rainford outlined nine significant Waste to Energy projects under development in Australia, with a capital value of more than \$1.8 billion. There are also a "multitude" of smaller plants dotted around Australia, Rainford said.
- The largest of these significant projects is at Eastern Creek in NSW, where Dial-A-Dump Industries is developing the \$700 million Next Generation project, which plans to use moving grate thermal treatment technology to produce up to 140MW of power. The project is in the approvals stage and is moving towards a 2016 launch date.
- Another significant project is in WA, where the \$380 million Phoenix Energy project at Kwinana plans to begin operations in late 2016, subject to waste contracts.
- The plant will use reverse-acting stroker grate technology and has a supply agreement signed with the City of Kwinana for waste delivery, with expectations to deliver up to 32MW of power.
- Other countries have taken the lead on Waste to Energy and their examples can show a way forward for Australia.
- "Europe is typically cited as having taken the lead on Energy from Waste with many countries having Energy from Waste provide base load," Rainford said.
- "In Germany and other European countries, rising energy costs together with strict landfill avoidance regulation have driven the uptake of Energy from Waste although larger scale plants are more commonly bankable."
- Australia, says Rainford, must integrate Waste from Energy into future infrastructure planning, and this is the responsibility of both industry and government.
- "The recent National Energy from Waste Symposium in Lorne established that development of energy from waste infrastructure is a shared responsibility, with both Government and Industry having a role to play," he said.
- "Industry will lead the development of infrastructure and integrated waste management systems, and should also take a lead on providing clear and consistent messages to government and the community."
- If you are interested in attending the workshop on Waste to Energy, tickets are still available to this week's Australasian Waste & Recycling Expo seminar.
- Visit <u>www.awre.com.au</u> for more details



Why it is <u>not</u> happening here

Issues of Disconnect

- Systemic disconnect between Government legislation, funding application & management to achieve economic, social and environmental outcomes.
- Disconnect between community aspirations and local / regional body implementation.
- Disconnect between business and social values.
- Disconnect between return on investment, environmental & social benefits.
- Disconnect between service providers & opportunities.



For Things to Change First WE Have to Change

- We need to get on the same Waka!
- Use our greatest asset, collective knowledge, to identify opportunities, create solutions and new ways to implement them.
- Create scale and economies by integrating processes.
- Ensure commercial viability and finance through investment not subsidy.
- New value perception sweeping the world of Corporate responsibility.
- Driven by need to address increasing impact of being seen as a major cause of social, environmental and economic problems.
- Finding not only reduces costs..... but builds markets while retaining or enhancing shareholder returns, and reduces their carbon footprint!
- Studies by Stanford University, Harvard and many others have documented whole new operating rationales starting to be embraced by major Corporations



So, there's a shift from B.A.U...



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Collaboration Shared Value

Collective Impact

Collaboration

Similar to, but more closely aligned than, <u>co-operation</u>,

and both are an opposite of <u>competition</u>

Requires agreement to common purpose and establishment of trust

- Service Providers need to lead the process
- Corporate Business's need to value developing their market
- Local Business's- need to recognise opportunities
- Communities need to feel listened to & involved
- Government & Local Bodies need to recognise economic, social & environmental value



Shared Value

"the short definition of Shared value is really finding business opportunities in solving social problems".

Mark Kramer, founder and director general of the consultant FSG that studies global social impacts.



Collective Impact



· Keeps all parties moving towards the same goal

Common Progress Measures

· Measures that gert to the TRUE outcome

Mutually Reinforcing Activities

· Each expertise is leveraged as part of the overall

Communications

This allows a culture of collaboration

Backbone Organization

Takes on the role of managing collaboration



Regional Bio Processing is the NZ Inc. Opportunity

Multi Processing of Multi Feedstocks for Multi Benefits

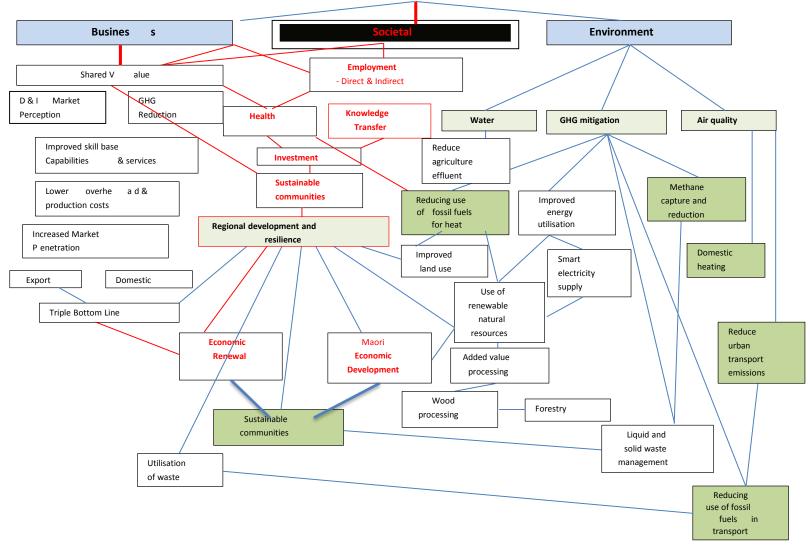
Need Commercial Viability

From

Scale



Primary Divers for Low Carbon Solutions to Economic Health and Wellbeing



BIOENERGY

Green Triangle (North) Collaboration/Collective Impact/Shared Value

milton

aikato

Corporate Players

- Keyside Holdings

- Contact, Mercury

- Graigs Investments

-Tegal – chicken farms

Environmental issues:

-Atmospheric warming

- Waste management

-Water quality

- Air emissions

-Transport

-Fonterra

- NZ Steel

Bay of Plenty

- Iwi

orua

Taupo

-Forestry companies

Drivers

- -Waikato River
- -Largest plantation forests
- -Largest off highway transport network
- -Dairying
- -Horticulture
- -Port logistics
- -Tourism
- -Rail
- -Lakes rivers, forests, harbours
- -Linked to half NZs population -Access to Auckland

Social issues:

- -Unemployment
- -Maori development
- -Dysfunctional families
- -Health



BANZ facilitate new business opportunities through new products, services and supply chains that deliver social and environmental outcomes – Shared value!

Opportunity Is

For BANZ Members to Initiate and Facilitate the Process

