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ENTERED 02/08
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21st July 2010

To whom it may concern

Submission to the Queensland's Waste Strategy 2010-2020:
Waste Avoidance and Recycling Consultation Draft, June 2010

Summary

Bosco International Pty Ltd (Bosco) as an Australian company with offices in Melbourne, Brisbane and Manila, specializing in waste management, renewable energy and waste to energy projects welcomes the opportunity to comment on the Queensland's Waste Strategy 2010-2020: Waste Avoidance and Recycling Consultation Draft, June 2010.

Bosco and its joint venture partners have substantial direct interest in the outcome of this review, particularly in the solid waste management and stationary energy sectors and will limit its comments to those sectors.

1. The challenge to make Queensland a centre for resource recovery industries and technologies and to develop a diverse portfolio of low emissions energy sources to ensure supply, create jobs and attract investment and minimise costs is accentuated as a result of the nature of its energy sector and the strong reliance on coal. Black coal dominates Queensland's electricity generation. Approximately 81 per cent of the state's electricity is generated by coal-fired power stations. Notably electricity generated through renewables has been progressively falling over the last fifteen years and currently account for only 8% of Australia's total electricity generation. (Source: ABARE 2005, *Australian Energy, National and State projections to 2029-30, Australia*)
2. The Queensland Government's Waste Strategy 2010-2020: and Waste Avoidance and Recycling Consultation Draft June 2010 set goals to drive Queensland to new levels of resource recovery that will ensure that more environmental friendly waste management options are promoted. In this context Bosco is currently involved in introducing a proven EU technology for the utilisation of Solid Recovered Fuels (SRF) derived from Municipal Solid Waste (MSW) as a partial coal substitute in a large-scale power plant.
3. Bosco is the Australian licensee for the Pirelli technology and is currently proposing to develop a \$180 million manufacturing plant for HQ-SRF (High Quality Solid Recovered Fuel) for co-firing with coal, in a new facility to be constructed in Victoria's Latrobe Valley. An economic impact study commissioned by Latrobe City predicts that from the direct employment of approximately 270 jobs, the project generates a flow on of 410 local jobs and injects an estimated \$70 million annually into the local economy. The project also generates CO² reductions of 735,000 tonnes annually with a corresponding potential for CER credits when the federal government approves an appropriate scheme. As per its mandate, Bosco wishes to introduce the Pirelli process to Queensland as a next step in its Australian technology transfer.
4. The need for more efficient and environmental friendly waste treatment methods has become gradually clear in all the EU countries. Co-combustion of SRF, which mainly consists of biogenic components like paper, cardboard, wood (50-70%) and of plastics, in existing coal-fired power plants, bring significant economic and environmental benefits. The use of SRF results in savings of valuable non-renewable energy sources and reduction of CO² emissions, as well as waste quantities that are disposed to landfill. The lost commodity value of materials to landfill in Queensland in 2005 was over \$350 million (Source: *Total Environment Centre 2007*)

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5. The patented Pirelli process is designed to recover those materials and end-of-life products from the waste stream that have a reuse, recycling or energy value including plastics, end of life tyres, rubber and other undesirable recyclables as a fuel and a resource. However a future Australian CPRS alone is unlikely to provide sufficient incentives for optimal levels of investment in alternative technologies.
6. Bosco recognises that one of the primary objectives of the Queensland strategy is to encourage 'new' renewable generation investment in Queensland. In that context the use of "waste to energy" is an important source of renewable energy and it has substantial potential in the near term as a method of manipulating waste and avoiding landfill. While not explicitly identified in the strategy, an expected outcome of the proposed legislation is that it will spur on new renewable developments, particularly "waste to energy" and give the renewable electricity industry 'critical mass'. Once an alternative material is identified as having the potential for use in cement manufacturing or power generation, it needs to be reclassified from a "waste" or "hazardous" product to a "resource". Currently, the process for doing so is non-existent or unclear. This delays decisions and poses a disincentive that could lead to the loss of the opportunities mentioned above.
7. To stimulate stakeholder involvement in the transfer of Alternative Waste Technologies (AWT) and for these alternative technologies to be competitive they must have relevant legislative framework and protocols allowing them access to programs that other sectors enjoy, such as the planned Carbon Pollution Reduction Scheme (CPRS), the Mandatory Renewable Energy Target (MRET) scheme and the interactions between the Australian Emissions Trading Scheme (ETS) for carbon dioxide (CO₂) and trading programs for renewable electricity certificates (REC's). The scope of eligible technologies to be defined should be broadened to include low emission technologies such as Solid Recovered Fuels (SRF) and not discriminate against other technologies and avoid the view that the legislation is centred on vested interests and a scheme of "picking winners". **Bosco submits that the Government legislates to introduce Queensland resource recovery certificates (RRC) - RRCs would support a sustainable resource recovery sector, similar in purpose to renewable energy certificates (RECs). Bosco further submits that SRF manufactured from Municipal Solid Waste (MSW), supporting the 'goal of zero' strategy, be included in the list of renewable energy sources and allow for the generation and creation of RRCs. This inclusion will allow private investment in other AWT's.**
8. Bin prices are designed to discourage the use of larger, higher volume bins and also to fully recover costs of all waste management services (including recycling collection services). These economic instruments are mechanisms (often financial) that influence behaviour and if properly applied will encourage the development of new, cleaner technologies, and make waste recycling more economically viable. The option to scrap recycling bins has increasingly been taken up in recent years with the emergence of secondary treatment technologies, such as the Pirelli technology, that process all waste in the one system.
9. As an example, on 16 November 2001 Mandarie Regional Council (Perth) commissioned its 'Resource Recovery Facility' located in the City of Stirling. It represents world's best practice and can sort a mixture of household discards to recover organics (food, garden waste), and all paper, glass and plastic bottles, steel and aluminium cans. The process is designed to keep all of the materials intact except the organic component. By removing the need for householders to sort their domestic waste stream into two or more streams each resident in the City of Stirling now recycles at the highest level with just one bin per household. Some 380,000 tonnes of waste are processed each year. www.mrc.wa.gov.au At single bin system is estimated to cost 38% less than the cost of a two bin system; (Source Productivity Commission Inquiry Report No. 38, 20 October 2006).
10. There has never been a comprehensive regulatory cost benefit analysis of kerbside recycling in Australia, despite the significance given to it. Contamination levels in the existing multiple bin collection systems, biodegradable and recyclable waste streams for all materials at the MRF, have national average 16.8%. (Source NEPM, undated, 2005/06 data.) **Bosco submits that a cost benefit analysis of kerbside recycling be carried out to determine the efficiency and economics of the multi-bin system in Queensland.**

11. Nolan ITU modelling suggests the greatest gains from AWTs are not actually in increased recycling of materials. AWTs are designed to reduce the quantity of waste (by 60-80 per cent), stabilise the material to reduce gas and leachate formation in landfill, and produce outputs such as energy, compost, gas and recyclables that can be used beneficially. More resources are recovered but life cycle analysis shows the principal advantage is the avoided pollution from waste to landfill (*Source Nolan ITU*). In the Pirelli process lifestyle assessment shows overall environmental benefits in the Pirelli AWT process is assessed at 90 times better than landfill and incineration plants (*Source: Bicocca University Milan*). Currently Governments get the environmental benefits of reduced leachate and landfill gas generation from AWT facilities for free. However the principal hurdle for the development of alternative waste technologies remains an economic one. To drive the technology revolution AWT gate fee reform is required.
12. **Bosco submits that a regulated higher landfill gate fee policy be introduced and the revenue collected from it used to help fund the roll-out of UR-3R type AWT infrastructure – providing obvious benefits such as diversion from landfill and reduced greenhouse gas emissions, but also installing a safety net to remove hazardous waste that is not caught by dedicated hazardous waste systems such as end of life tyres.**
13. **Bosco submits that any new landfill contracts be restricted to less than four years so as not to prejudice the opportunity for AWTs.**

We would be pleased to provide further information on any matter raised in this submission. As the operation of the Queensland Waste Strategy Plan is of significant direct relevance to Bosco, we would appreciate the opportunity to discuss the key issues in this submission directly.

Yours Faithfully



Stephen Hicks
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