

Eastern Creek plant generates power from building waste

By Nick Soon Dec. 13, 2013, 10 a.m.



Genesis Xero waste recycling landfill where TNG plant will get building waste for fuel. 1 of 2 Photo: Gary Warrick

A \$700 million plant that can generate electricity from building waste for more than 200,000 homes has been proposed for Eastern Creek.

It is on a six-hectare site next to Genesis Xero waste disposal and recycling centre at Honeycomb Drive.

The Next Generation (TNG) NSW company is headed by lan Malouf who is also the owner of Genesis Xero, and is committed to a sustainable waste and energy future.

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The centre is the first of its kind in NSW and will eradicate the need for another landfill in metropolitan Sydney for up to 30 years.

TNG plant is based on generation plants that have been in operation across Europe and the United Kingdom for many years. A spokesman said it would create about 70 new direct jobs and thousands in indirect jobs when opened in 2016.

"Our power station does not belch plumes into the air and generally is not even recognisable as power stations," he said.

"The nearby Genesis recycling facility is estimated to generate 1.6 million tonnes of carbon dioxide (equivalent) per year.

"Using waste that cannot be recycled from Genesis to power electricity our plant will divert about one million tonnes of waste away from landfill per year.

"A plant of this kind would generate 140MW of 'green' electricity which is enough energy to power over 200,000 homes."

He said the extra power generated would be fed back into the NSW grid to power surrounding businesses and facilitate the development of new businesses.

The company TNG NSW has commissioned an Environmental Impact Statement which will include technical studies to assist in assessing the facility.

The EIS will be lodged with the Department of Planning and Infrastructure for review in early to mid-2014 with a public exhibition period later in the year.

The company has started holding community consultations.

Residents and community groups can contact its community relations team on 1800252040 (during business hours) or they can email info@tngnsw.com.au or write to us at PO Box 1040 Mascot 1460.

Further information can be seen on its website - <u>www.tngnsw.com.au/</u> (<u>http://www.tngnsw.com.au/)</u>. Next Story

Article rank 8 Jan 2014 Blacktown Advocate

Proposal for power station under review

A POWER station that would produce enough green energy to power 200,000 homes has been proposed for Eastern Creek.

The company behind the proposal, The Next Generation NSW, claims the power station would use thermal technology to generate 140MW of energy from waste dumped at the Genesis Xero Waste facility on Honeycomb Drive.

The company believes the power station would divert one million tonnes of waste away from landfill each year.

There are several dozen facilities across Europe and the UK currently using similar technology to turn waste into energy.

The power station plans have been lodged with the Department of Planning and Infrastructure for review.

With approval pending, it is expected the plans will be put on public exhibition in the next few months.



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Plan to power homes from waste

By Kylie Stevens Feb. 10, 2014, 11:30 p.m.



Powered by waste: Proponents of The Next Generation NSW energy plant want to use waste from the nearby Genesis Xero waste recycling/landfill facility (pictured). Go to tngnsw.com.au for more details about the proposal. Picture: Gary Warrick

CONCERNS have been raised about what promises to be the most technologically advanced and successful recycling facility in Australia.

The Next Generation (TNG) NSW wants to build a \$700 million plant in Eastern Creek to generate electricity from building waste for more than 200,000 homes.

Owner lan Malouf also owns Genesis Xero waste disposal and recycling centre, which is next to the proposed site on Honeycomb Drive.

"The type of plant that we have selected we feel is the most efficient and News Business environmentally sustainable technology currently available," a TNG spokesman said. Blacktown councillor Edmond Atalla called on the state government to reject the proposal.

He is concerned about the 24/7 hour operation, the effects on nearby residents and the type of commercial and industrial waste to be incinerated.

"It shouldn't be near an urban area," Cr Atalla said.

"If it's safe as they claim it is, the premier should put in in his own electorate, include of using western Sydney as a dumping ground."

A community open day will be held at the proposed site on February 22 at 2pm.

It will be a while before the environment impact statement is lodged with the planning department.

"We are in the early stages of the consultation process," the spokesman said.

"If the planning process proceeds in accordance with the timetable we have outlined and if planning approval is granted before the end of this year the facility could be undergoing commissioning and testing at the end of two years thereafter."

Cr Atalla remains unconvinced despite a recent a meeting with Mr Malouf, who will brief all Blacktown councillors in the coming weeks.

"I look forward to the briefing and will keep an open mind and ask many questions," Cr Atalla said.

The TNG spokesman said he understood there were sceptics.

"To those people we ask you to have an open mind, to look at our website and listen to the evidence and to have regard to the future of the planet," the spokesman said.



Power from waste sparks opposition

By Kylie Stevens Feb. 17, 2014, 11:38 a.m.



Powered by waste: A proposed The Next Generation (TNG) NSW energy plant wants to use waste from the nearby Genesis Xero waste recycling/landfill facility. Go to tngnsw.com.au for more details about the proposal. It will be some time before the environment impact statement is lodged with the planning department. Picture: Gary Warrick

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Next Generation (TNG) NSW wants to build a \$700 million plant in Eastern Creek to generate electricity from building waste for 200,000 homes.

News Business Owner Ian Malouf also owns the Genesis Xero waste disposal and recycling centre, which is next to the proposed site on Honeycomb Drive.

"The plant that we have selected has the most efficient and environmentally sustainable technology available," a TNG spokesman said.

Blacktown councillor Edmond Atalla called on the state government to reject the proposal.

He is concerned about the 24/7 hour operation, its impact on residents and the type of commercial and industrial waste that will be incinerated.

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The TNG spokesman understands there are sceptics.

"We ask people to keep an open mind, look at our website, listen to the evidence and think about the future of the planet," he said.



Appendix G – 1800 number and project email register

Call number	Date	Issue raised/comment
1	18/12/2013	Blacktown Advocate called in response to Blacktown Sun article, they are going to write an article as well; requested a copy of the fact sheet
2	18/12/2013	Contracting company and wanted to know if we have contractors as yet.
3	19/12/2013	Very concerned regarding the odour, provided with a factsheet
4	14/01/2013	Enquired re ABN and CAN numbers
5	15/01/2014	Enquiry re work, passed his contact details onto TNG
6	20/01/2014	Enquiry re job opportunity
7	20/01/2014	Enquiry re job opportunity
8	20/02/2014	Business Development Manager enquiry re work, passed him onto TNG office number
9	21/02/2014	Enquiry as to location of the community open day tomorrow - she is doing her thesis on EFW facilities and wants to attend
10	25/02/2014	Asked engineering issues and the status of the project.
11	25/02/2014	Asked engineering issues and the status of the project.
12	6/02/2014	Enquired re the project, sent fact sheet and answered questions re project in general



Appendix H – Waste Avoidance and Resource Recovery Conference Report

SUMMARY REPORT

Waste Avoidance and Resource Recovery Conference

Tuesday May 6 – Thursday 8 May 2014 Coffs Harbour, NSW

Waste 2014 lived up to its reputation as Australia's leading conference for government, industry, technology and service providers working in the nation's fastest growing green collar sector.

487 delegates participated in the *Waste 2014* Conference, including representatives from local government authorities across Australia. There were over 40 exhibits set up and operated by government authorities, consultants, equipment and technology providers.

The *Waste 2014* program covered topics critical to industry including law, policy, markets, infrastructure, technology and innovation. This document provides a summary of key information provided at the conference.

CONFERENCE DAY 1 – WEDNESDAY MAY 7

Keynote addresses on the first day of the conference came from Kim McKay, founder of Clean Up Australia and Clean up the World; Steve Beaman, Director of Waste and Resource Recovery at the NSW EPA; Stan Krpan, CEO of Sustainability Victoria and Grahame Collier, Director of T Issues Consultancy.

As a key decision maker in the nation's largest EPA, Beaman began by addressing the issue of environmental regulation in NSW. He said that "absolutely" everything the waste and resource recovery industry does is premised around good behaviour, from source separation to compliance with licence requirements.

He noted that if the industry did not work consistently to maintain good behaviour, it was at risk of losing its reputation and credibility. Meanwhile, the NSW EPA was not relying on good will alone, having just completed an 18 month surveillance program in partnership with the NSW police.

Regarding a future direction, Beaman flagged how the NSW EPA was currently working on a strategic infrastructure plan for the state, much like the Victorian plan. This will aid the NSW EPA to gain optimum value from the roll out of its *Waste Less, Recycle More* strategy.

Next came Stan Krpan, CEO of Sustainability Victoria (SV). Krpan's talk came in the context of a major overhaul of the legislative framework which controls waste and resource recovery in Victoria. Passed in February, the *Environment Protection and Sustainability Victoria Amendment Bill 2014* overhauls the state's regional waste management groups, SV and control of the landfill levy.

In this context Krpan described how SV has re-aligned strategically to focus on two issues: resource efficiency and integrated waste management. This new focus was critical because under a business-as-usual scenario, waste generation in Victoria will continuing to grow exponentially.

To tackle these two core issues, SV undertook the largest and most comprehensive audit to date of Victorian waste and resource recovery infrastructure. Krpan explained how SV was planning to use this data to create better state wide planning for recovery infrastructure.

Broadly, this policy was designed to help implement the goals of the Victorian waste policy – *Getting Full Value*. In conclusion, Krpan foregrounded a range of new initiatives from SV including a Victorian organics strategy, support for landfill consolidation and new transfer stations.

Collier began his presentation by asking the audience whether they believed waste education in NSW was being done effectively, and found that much of the audience believed it could be done better. He then identified what all good waste educators know, that effective education is about facilitating behaviour change rather than just informing people.

He said that good education programs build on existing knowledge, teach people how to best utilise existing infrastructure, build the capacity of staff and educators and were always evaluated. Collier also identified five different education programs he saw as best practise in NSW;

- Lake Macquarie City Council's green waste service education program,
- Greater Taree City Council's Recycling in Public Places program,
- The Hills Shire Council The Hills Kitchen Rocks,
- Bankstown City Council Recycle Right, and
- NetWaste's Waste to Art Project

In conclusion, Collier said waste educators would succeed when everyone in the industry could name a successful waste education program in their state.

Panel discussion: waste operations in Australia - can we do better?

Wednesday morning's panel discussion bought together Australia's largest waste management companies to discuss the future of the industry. Represented on the panel was Remondis, Veolia, SITA, Dial-a-Dump Industries and the Australian Council of Recycling (ACOR). Best we put these guys in alpha order!

First up came Danny Conlon, Veolia's Executive General Manager for Australia and New Zealand. Conlon began by noting the "real disparity" in the strategies between the states. He said Veolia as a company can "deliver any technology or solution", but first industry needed to define the problem it was trying to solve. He said the NSW *Waste Less, Recycle More* policy was a step in the right direction. However, for major corporates the biggest issue is risk.

"We can get the technology right, but we need certainty around regulation, and this means planning is critical," he said. He concluded by noting the next domain for development was commercial and industrial waste.

Next came Cleanaway's David Clancy, who reiterated Conlon's point that risk was a critical factor in building infrastructure. However Clancy's speech focused on Australia's collection systems. "If you go around the world looking at the different models, Australia is amongst the best in terms of collection." He also noted how sustainability was a key goal for both the industry and its customers, but "everyone is keen to participate providing it doesn't cost them any more money."

SITA's Emmanuel Vivant was next, who spoke principally on the topic of manufacturing. He said SITA was an early adopter in terms of recovery technology, and described how the company was moving away from waste processing to becoming a manufacturer. This shift is creating new markets and challenges.

Remondis' Mohan Selvaraj took the place of Gary Whitehead from Visy, who was unable to attend. He said the policy landscape has completely changed since he joined the industry 14 years ago, noting how the performance gap between Australia and Europe is closing.

Selvaraj noted there was still plenty of room for investment in resource recovery, as the tonnage in Australia put through recovery facilities is still low, with the exception of South Australia. He noted that a lack of focus on resource recovery was an endemic problem for governments. Selvaraj concluded by asking, "why not ban organics from landfill?"

Next came Ian Malouf, Managing Director and founder of Dial-a-Dump Industries (DaDI). He said the policy settings in NSW were broadly right, but argued that new policies need to be formulated "with regard to the real commercial drivers which underpin the resource recovery industry."

He described how a close collaborative relationship can be formed between industry and the regulator without compromising the role of the regulator, describing how "I am pleased to say we now appear to be approaching this point in NSW."

While noting this, he argued that waste policy in Australia is confused, with each state having varying guidelines on important issues like asbestos, the reuse of stormwater and safe, practical and acceptable levels of contamination in recyclate. He described how in NSW the "blunt" landfill levy has been the single most effective policy for bringing about recycling. He said the regular increase of the levy in NSW allows for businesses to plan for improvement, while consistency in policy allows the industry to invest enormous capital into the sector.

He then turned his attention north, describing how the Queensland government by contrast has failed the recycling industry. He said its 2012 decision to repeal the levy was based on "votes and not sound evidence". He described how the absence of a

levy promotes interstate trucking of waste and discourages recycling - "a complete contradiction of what the world expects."

Malouf then concluded by describing how the next innovation industry would be "a waste to energy revolution", which is around the corner. However, he said it is likely Queensland will miss out, despite being starved for power. He said DaDI would be focusing firmly on energy recovery as a new field for development.

The last speaker was Grant Musgrove, CEO of the Australian Council of Recycling (ACOR). Musgrove's speech outlined six reasons as to why the resource recovery industry isn't rich! His six reasons were: the industry isn't paid for the pollution reduction it creates, the cost of recovering materials remains too high, planners underestimate the seriousness of resource scarcity, the focus needs to be on increasing the quality, not the quantity of recyclate, productivity in recovery needs to improve and levy revenue needs to go back to industry.

At the conclusion of the Day 1 plenary sessions, the remainder of the day consisted of parallel sessions covering infrastructure, organics and education. Subsequent to an afternoon tea break, there were two additional streams on recycling and landfill.

A full list of Wednesday's the presentations and speaker abstracts is downloadable from the <u>Waste 2014 Conference website</u>. Please refer to your email from the conference organisers with the username and password to access this section of the website

CONFERENCE DAY 2 – THURSDAY MAY 8

Day two of the conference began once again with a plenary session, with keynote addresses given by Val Southam, CEO of the Waste Management Association of Australia (WMAA); Janelle Booth, a principal consultant with Hyder; Chris Murphy, the Deputy Chief Executive of the UK's Chartered Institution of Wastes Management UK (CIWM) and Mark Lound, the Director of Environmental Accounts with the Australian Bureau of Statistics (ABS).

Booth about spoke the diversity of roles and opportunities available for young professionals in the industry. She described her own journey, moving from government roles in both Australia and then the UK, before returning home to work in a number of leading consultancies. She described the rapid growth of the Australian industry and spoke about the WMAA Young Professionals program as a doorway to professional development.

Next came Murphy, an international speaker representing one of the oldest waste industry bodies in the world, the UK's CIWM. While somewhat analogous to the WMAA, the CIWM's activities are broader and deeper owing to the larger industry in the UK.

Beyond the CIWM, Murphy contextualised the steady transition of the UK economy from a linear disposal system to a circular economy. He noted how the UK now recovers (including energy recovery) around 58% of all materials disposed. Murphy then went on to discuss the value of professional accreditation as well as challenges and opportunities in the UK sector.

Thursday's final keynote was Mark Lound, the ABS's waste data expert. Lound described the latest "Waste Account", the most comprehensive data set describing the Australian industry. Lound compared national Australian waste generation to both water and energy, noting how the economy had become both more energy efficient and more water efficient, but over the previous decades had declined in its material efficiency.

In this context, Lound described how it was critical that good data be made available so as to inform better decision making. He also described the transition we have seen in the economy since the Waste Accounts were first published, with total waste to landfill falling and recycling increasingly steadily. Despite this good news, Lound noted how the quality of the information available about the industry remained poor.

Panel discussion: product stewardship 2.0 - beyond TVs and computers

After the keynote addresses, there was a panel discussion focusing on product stewardship. The panel included experts from industry, government and consultancy. Questions from the audience had a predictable theme – how do we broaden and strengthen product stewardship in Australia?

Answers from the panel varied. Representatives from the e-waste recovery community argued that despite setbacks like stockpiling, Australia's co-regulatory e-waste product stewardship scheme has been a success. The panel then discussed optimum collection methods, if and when product stewardship schemes were extended. Initially, it was suggested that retail outlets be used as a collection point for the goods they sold, however, broadly the panel agreed that local government's existing infrastructure was the best platform for collection of used goods. The panel also foregrounded the imminent voluntary battery stewardship scheme, and discussed the need for a scheme for paint recovery.

Subsequent to morning tea break, parallel sessions were run covering strategy and policy, problem and hazardous waste and energy from waste. After lunch, four workshops were run on: implementing energy from waste projects, *Waste Less Recycle More*, social procurement and enterprise and regional waste management.

Finally, after an afternoon tea break parallel sessions were run on tenders and contracts, e-waste and collection. A full list of Thursday's presentations and speaker abstracts is downloadable from the <u>Waste 2014 Conference website</u>. Please refer to your email from the conference organisers with the username and password to access this section of the website.

WASTE 2014 FOCUS AREAS

Infrastructure

More than any other focus area, infrastructure holds the key to improving Australia's resource recovery rate. Building on this idea, *Waste 2014's* infrastructure stream focused on the material frontiers where recovery can rise - organics, alternative waste treatment for non-source separated streams and regional infrastructure. Finally, Australia's largest state level infrastructure grants program - *Waste Less, Recycle More* - was covered in detail.

Organics

Clearly, removal of organics from landfill is a key priority nationally, with even large waste companies such as Remondis arguing that organics should be banned from landfill nationally. For local government, the newest opportunity is combined kerbside food and garden organics collection, and this was a key focus of the organics session. Moving up in scale, Victoria's new state wide organics strategy was also discussed.

Education

Education has always been a key theme at the *Waste* conference, and this year was no different. Education at every level was discussed, from the household level right up to national campaigns. Key State level highlights included an update on South Australia's *Recycle Right* campaign and an introduction to NSW's rebirth of the "Hey tosser - it's a dirty look" campaign. Meanwhile, the Australian Packaging Covenant introduced its new recyclability assessment tool.

Recycling

In 2009, Australia crossed the boundary to become a recycling economy, with more than 50% of the nation's refuse material being recycled rather than landfilled. By 2011, this percentage had risen to 56%. *Waste 2014's* recycling stream addressed recovery at many levels, from a local facility in Melbourne's Delgrave Street, to a regional recycling campaign run in the Albury Wodonga region. Perspectives on education to promote recycling were also offered by representatives from Recycle Smart and Planet Ark.

Landfill

Despite the efforts of both government and industry, more than 20 million tonnes of material every year is still sent to landfill. Therefore, landfill performance and consolidation are key goals for the industry. Landfill performance focuses on issues such as gas, leachate, capping and compaction. Meanwhile, landfill consolidation helps to get waste into better performing landfills. These issues were addressed in the landfill stream, as well as decommissioning landfills and managing risk.

Strategy and Policy

In the last decade, "waste strategies" have gone from a niche area to a mandatory requirement for any local government authority, with the NSW EPA now releasing funding to ensure that even regional councils develop a game plan to improve recovery. During the Strategy and Policy session, both councils and consultancies discussed their approaches to improving recovery, offering perspectives from Perth to Launceston.

Problem and Hazardous Waste

Due to a historical lack of scientific understanding, many toxic materials were used in the economy which now have no fate other than landfill. Of these materials, asbestos is the most problematic for the waste industry, and this as well as other toxics were addressed during the *Problem and Hazardous Waste* session. Also addressed was an overall view of hazardous waste in Australia, an overview of the NSW EPA's new litter prevention program and a discussion of the role local government plays in clinical waste management.

Energy from Waste

Currently a super-hot topic in industry, energy from waste was recently given the green light by state EPAs in NSW, Victoria and Western Australia. A standard practise internationally, this sudden turn from regulators has created a flurry of industry interest in the area. Topics covered in this area include the establishment of small scale gasifiers, auditing waste streams to assess their viability as a fuel stream, the value of anaerobic digestion for source separated organics and the value that energy recovery can play in the Australian market.

Tenders and Contracts

While we'd all like to trust each other, tenders and contracts are an essential part of doing business. As the industry has evolved, tenders and contracts have become more complex and multi-faceted. In the tenders and contracts stream, speakers addressed collaborative tendering between councils, contract management for local government and finally GHD presented a case study on a kerbside contract review.

E-waste

E-waste is the world's fastest growing waste stream, and this important and complex stream was covered in detail. An obvious key focus was the national TV and computer recycling scheme, which aims to recover 80% of these products by 2020. Other perspectives included a discussion of what constitutes effective policy in e-waste recovery and smarter approaches for local government to collecting e-waste.

Collection

Waste transportation vehicles are unique in visiting almost every Australian household and business at least once a week. In this context, logistics were addressed in the Collection stream, with speakers addressing optimum bulky waste collection, electric waste vehicles and transfer station optimisation.