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In 2012, Dial A Dump Industries opened the Genesis Recycling Facility in Sydney's western suburbs (pictured). Now, the company wants to build an EFW plant - The Next Generation - and is urging the community, sector, and governments to judge the project on its merits. More on page 16. (Source: Dial A Dump Industries)



More on Dial A Dump Industries
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EfW, a vital component of sustainable waste management

By Jacqueline Ong

"JUDGE the project on its merits, rely on the science and not the politics." That is the message Dial A Dump Industries (DADI) CEO Ian Malouf is seeking to drive home about the company's proposed \$700 million energy from waste facility in Eastern Creek, 35km west of Sydney.

DADI specialises in collections, recycling and landfilling of commercial, construction and demolition waste. In 2012, it opened the Genesis Recycling Facility in Sydney's western suburbs, which is achieving a mixed waste recycling ratio of more than 80%. The remaining 20% is currently being landfilled.

Now, DADI wants to build The Next Generation (TNG), which promises to divert a million tonnes of residual non-putrescible solid waste per annum from landfill, eliminating three million tonnes of greenhouse gas a year.

Questions, doubts, and concerns have been raised by local government, industry, and the community about the facility, ranging from why the plant is so large, to potential health impacts. And unsurprisingly, there is a strong sense of NIMBY-ness among the residents.

Addressing concerns

Potential air pollution is an area of concern in the community and the primary emissions from an EfW facility, as determined by the EU Industrial Emissions Directive, are anticipated to be particulate matter (PM), assumed to be emitted as PM₁₀ and PM_{2.5}.

Malouf, who spoke at Waste 2017 in Coffs Harbour in April, revealed that it has engaged with community, including distributing DVDs to 8000 households, two public exhibitions, multiple tours and open days, radio public service announcements, and

attending public meetings, all in a bid to allay community concerns.

He pointed out that more than 2000 EfW facilities are operating in more than 35 countries safely and efficiently, adding that: "NSW Health wrote the following about the TNG proposal - the conclusion from this review is that the proposal would have limited impact on Western Sydney Local Health District facilities and had the potential to make a positive contribution to a number of priorities and actions outlined in the Greater Sydney Commission draft West Central District Plan"

According to DADI, the outputs will be well below the limits set out by the NSW EPA and strict European directives and in many cases, these outputs will not be detectable as TNG's design includes "sophisticated technology that captures any particulate matter and adsorbs heavy metals and dioxins, while cleaning any gases before they reach the atmosphere."

Moreover, DADI will employ a Continuous Emissions Monitoring System (CEMS), giving the regulator the ability to monitor the plant's pollution controls 24/7, with real-time feedback to process controls.

The company has submitted for public exhibition, more than 4000 pages of information about its proposed plant and amongst the extensive research, DADI has noted that its proposed technology is based on existing facilities in the UK and Europe, and will incorporate best available technologies for flue gas treatment.

In its proposal, the company said the flue gas treatment is designed to meet the in-stack concentrations limits for waste incineration set by the EU IED, as well as those prescribed within the POEO (Clean Air) Regulations.

The flue gas treatment system includes:

- Selective Non-Catalytic Reduction

(SNCR) for reducing emissions of oxides of nitrogen (NO_x).

- Dry lime scrubbing for reducing emissions of acid gases, including hydrogen chloride (HCl) and sulfur dioxide (SO₂).
- Activated carbon injection for reducing emissions of dioxins (including PCDD) and mercury (Hg).
- Fabric filters for reducing emissions of particle matter (PM) and metals.
- Following flue gas treatment, emissions will be dispersed via a 100m stack.

The typical waste composition will result in 26.5% wet bottom ash and 4% flue gas treatment residues. Minus the metals that are recovered from the bottom ash, the remainder will be sent to landfill. TNG will strive to

recycled, and will not compromise recycling. It is only the residual waste already destined for landfill that will be processed.

"The people who say energy from waste detracts from recycling don't care that one million tonnes of waste every year is being trucked to Queensland and landfilled," Malouf said.

"These trucks on the road are costing \$135 million in lost revenue. And these trucks are the equivalent to 35,000 B-doubles going up to Queensland every year, ripping up the roads, costing the government and therefore the NSW taxpayers tens of millions of dollars on top of the lost revenue. It's also destroyed employment opportunities and the chances of a meaningful recycling industry in Queensland."

The silly part is all the arguments the knockers are producing are the same arguments that they hurled at us when we were seeking approval for the landfill. Now it appears they are supportive of creating more landfills around Sydney. It's hard to compete with the bias, inaccuracies and contradictions.

recycle this bottom ash to aggregate for recycling as is done overseas.

Malouf noted that today, there is no regulatory framework in NSW facilitating the recycling of residues from EfW. Therefore, it will have to be established once real material is available for testing and until that time, the bottom ash will go to landfill.

"The flue gas treatment residues are classified as restricted solid waste due to the heavy metals. Recycling of such material is more difficult compared with bottom ash and only done in a few countries overseas," Malouf added.

Not a compromise

Malouf also reiterated that TNG will only process what cannot be sold and

Why so big?

But does NSW really need such a massive EfW facility?

"The project is staged and this is clearly stated in our submission that we will only build half the plant in stage one. Therefore 550,000 tonnes per annum," Malouf said.

"TNG is a privately constructed project and we're not putting our hand out to the government for funding. What we're doing is correctly calculating the future needs of Sydney. We're not building an M4 or M5 [motorway] that needs to be upgraded as soon as it's built. We are building a four-line plant, which consists of two plants side-by-side and we're building them in two stages so we're first constructing half the plant as stage one.





Today, Genesis is achieving a mixed waste recycling ratio of more than 80%. The remaining 20% is currently being landfilled.



In 2006, DADI acquired a former hard rock quarry at Eastern Creek and developed the Genesis facility, a C&D and C&I recycling and recovery centre and landfill.

"To think that this plant is too big for the future needs of Sydney is ridiculous. As population grows, so does waste. Regardless of our recycling efforts, waste is still increasing to landfill year-on-year and this is just one part of a better solution. We're not looking to thermally treat everything that comes along, there are very strict guidelines on what we can thermally treat and there's a commercial driver behind it as well.

"There are 140 million reasons why we won't put the wrong things in this plant because we won't get the levy off if we do. If we don't respect the 75% recycling ratio for C&D and the 50% recycling ratio for C&I, which is part of policy, we won't get the levy back."

\$700 million is not a small investment and one has to wonder how TNG will compete on price, particularly with the interstate waste transport situation.

However, Malouf is confident that "common sense will prevail" in Queensland before the plant is constructed and commissioned.

"It's a three-year build program and [interstate transport of waste to Queensland] has been going on for four years now and that's enough. It's escalated to a million tonnes a year and rising, and it's \$134.7 million out of pocket for government this year alone so common sense will prevail, it's just a matter of time. Otherwise, it's just another business to compete with and we'll do that," he said.

"Energy from waste will assist with cost control on escalating disposal fees with an output of a much needed renewable energy compared to nothing from old fashioned landfilling."

A message to local government

Malouf will be in London at the end of May for the World Waste to

Energy and Resources Summit, where he'll be speaking and holding a roundtable discussion.

He said the UK and Europe, where big EFW facilities are commonplace, are pushing for higher recycling rates and when TNG comes online, Sydney would become a world leader in resource recovery.

"NSW has nailed recycling. We are probably the world leaders when it comes to recycling percentages and the levy is a huge driver of that, and now we've got an EFW policy. We're doing great recycling but we don't have an EFW plant so it's time we caught up and when we catch up, we will lead the world with the integrated combination of our recycling credentials and the added innovation with this plant, in concert with the rest of the Genesis facility... We'll be the best in the world."

And he is urging local government not to let an opportunity pass them by. Instead, councils should get involved and be a part of DADI's plans, allowing the greater community to possibly have some kind of shareholder ownership of the EFW facility.

"Overseas, some of these plants are owned by their local communities, and they are proud of it. Instead of spruiking against this great technology, councils should be working out how they can help with the waste problem, bring the waste to us and become a part of this facility in some type of fashion of ownership. And maybe, for the first time ever, the community could own a part of the facility and return an annuity of income directly to the benefit of the people," Malouf said.

"It's a completely different concept for NSW but it's an opportunity that's walking straight past councils. Instead of pretending this is the worst thing in the world, they should be proud of it. This is a commercially viable and responsible

solution to waste. The alternative is to remain reliant on landfill. The silly part is all the arguments the knockers are producing are the same arguments that they hurled at us when we were seeking approval for the landfill. Now it appears they are supportive of creating more landfills around Sydney. It's hard to compete with the bias, inaccuracies and contradictions.

"While we consume we will produce waste. There is no single magic solution for waste disposal and many technologies need to play a role, and landfill does have its place. But within a decade, landfilling of combustible material should no longer be an option. Energy from waste is a vital component of the solution for sustainable waste management in Australia going forward."

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