

# Adding value

Blue Phoenix Australia is ready to launch a breakthrough facility that will change the way Australia treats waste.

A small team in Western Australia is just months away from changing the course of waste management in Australia.

Blue Phoenix Australia is ready to flick the switch on an Australia-first incinerator bottom ash (IBA) processing facility at Hope Valley in Kwinana.

After almost 12 months of testing, the \$11.3 million IBA project, the first of its type in the Southern Hemisphere, is set to showcase a proven, sustainable, and responsible way to extract, recover and reuse ferrous and non-ferrous metals in high-purity metal products, and aggregates into safe and reliable materials that can be used in civil construction works as a replacement for primary material otherwise lost to landfill.

The importance of the project for Australia's future waste management is not lost on Site Manager Chris Gee and Operations Supervisor Stephanie Lynass.

"We're rewriting the way Australia treats waste," Stephanie says.

"We're no longer putting waste in the ground. We're recycling and recovering materials that will go back into the local community.

"It's a powerful message."

Australia's energy-from-waste (EfW) journey is in its infancy. All eyes are on the EfW plants currently under construction in Kwinana and East Rockingham and expected to be operational in mid-2024.

IBA, the end-product of the EfW incineration process, consists of inert brick, rubble, glass, ceramics, and stones that can be refined to create an



The Blue Phoenix Australia plant in Western Australia is the first of its type in the Southern Hemisphere. Images: Blue Phoenix Australia



Chris Gee, Blue Phoenix Australia Site Manager.



Stephanie Lynass, Blue Phoenix Australia Operations Supervisor.



Paul Visser, Blue Phoenix Australia Commercial Development Manager.

aggregate suitable as a replacement for virgin materials. While the aggregate is widely used overseas, it's not previously been recovered in Australia.

The Blue Phoenix plant in Western Australia will have the capacity to process about 140,000 tonnes per annum, of IBA from the EfWs.

Chris has 20 years' experience with Blue Phoenix, working on some of the largest IBA plants in the United Kingdom, United States and Amsterdam. While the opening of new plants is not new, he admits it's impelling being involved in the first chapter of Australia's IBA journey.

He says the WA plant, which brings together all Blue Phoenix technology, will be a benchmark for IBA management.

"Each time you build a plant, it leads to new technology and new ideas. Every plant we build is always technically better," he says.

"In Australia we've put all our technology into this plant – it's right for the materials and the market.

"The Australian East Coast states are observing the operation of the two Western Australian EfWs, however once they see this plant in operation, we're hoping the uptake will grow. I can't see why it won't. It's no longer waste and has a valuable use in the market."

Chris has used the past 12 months to put the WA plant through its paces, recycling testing material weekly to optimise the processing time and material recovery.

He says the plant has had "some good figures" and he's keen to start running through material from Avertas.

The EfW is expected to process 400,000 tonnes of municipal solid, commercial, and industrial waste under agreements with local governments and other providers in Perth's greater metropolitan area when it's commissioned.

The long lead-in to the plant being fully operational – it's waiting on the commissioning of the EfW – has enabled Chris and Stephanie to fully understand the plant, the site, and the incoming material.

They've also established a maintenance plant as well as developed safety and training procedures. They'll be looking to employ a local workforce within months.

While the plant has grabbed the attention of industry decision makers keen to see it in operation, it's also intriguing the local community.

Chris and Stephanie say the community is keen to embrace the technology.

"It's exciting to see the public get more enthusiastic about recycling and what happens to their waste," Stephanie says.

"It's incredible to be a part of helping people realise there is a different pathway to deal with Australia's waste."

While the plant is set to play a key role in the state's landfill diversion and circular economy aspirations, education and increasing community knowledge is just as important for Blue Phoenix.

Perth councillors and businesses have been invited to tour the site. There are also plans to introduce a school program. Blue Phoenix welcomes other state's representatives to tour the plant to gain an appreciation of the opportunity to divert material from landfill through IBA processing.

"Education is the key," Chris says. "A lot of people don't understand what we do. Once they come to the site, see the process and the result, they see the benefits."

"Australia is on a circular economy path, striving for landfill diversion, less reliance on resources and emissions reduction."

"This is an answer." ■

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