
ACTIVITIES UPDATE

HIGHLIGHTS

- Pearl continues its growth plans, underpinned by its recent successful capital raise, with full commissioning of its third tyre processing thermal desorption unit at its showcase Stapylton facility.
- Pearl has secured supply agreements to ensure attractive gate fees are generated for used tyre collection. Market indicators point to rising disposal fees as large collectors and exporters of Australia's used tyres increase collection fees.
- Pearl has secured offtake agreements to supply its fuel oil into large and attractive local markets, along with markets for its steel and carbon char.
- Pearl to expand into crumb rubber market with agreement to deliver up to 1,500 tonnes p.a. of crumb rubber to a domestic supplier of bitumen and bituminous products.
- Pearl plans to continue its expansion with further tyre processing capacity additions along with the further development of the crumb rubber market.
- Current production of used tyres through Pearl's clean conversion process is on track to exceed the June quarter.
- Further tenders won from Queensland councils for the removal and clean conversion processing of the State's waste tyres.
- The Federal Government announces \$600 million of recycling investment including support for solutions to the issue of waste tyres.

Pearl Global Limited (**Pearl or the Company**) (ASX: PG1) provides an operations activity update to shareholders.

Production volume gains and further council tender wins

The Company is on track to record greater production volumes this quarter over the June quarter. A combination of constructing and commissioning our third TDU and access to greater available used tyre feedstock has positively contributed to production gains. Pearl has won several council tenders for removal of used tyres on top of regular collections. To date Pearl has either won tenders for collection or already collects used tyres from:

- Gold Coast City Council (Pearl's local shire)
- Maranoa Council
- Fraser Coast Council
- Scenic Rim Council
- Rockhampton Shire Council
- Central Highlands Regional Council

The Company will continue to support councils where possible in the removal of their waste tyres, given the high level of ongoing support Pearl has received from the Queensland Department of State Development.



Image 1: Pearl's first stage waste tyre shredding process. Tyres are placed whole in the top of the above shredder and shredded down to 80mm with all steel and nylon left in, ready for Thermal desorption processing. Source: Company

Pearl planned production and sale of crumb rubber

Pearl has long identified an opportunity to leverage its tyre collection operations to access the rapidly developing crumb rubber market. The ability to process used tyres into crumb rubber is a natural fit with Pearl's existing business model and provides further market expansion opportunities, along with the benefits of greater diversification of customer base and revenue streams.

Crumb rubber, produced by machines that grind tyres down to small rubber pieces is used, amongst other things, as a binder in bitumen, as it improves its characteristics. Usage is growing rapidly as both bitumen and asphalt manufacturers realise the benefits of promoting a circular economy approach to the production of asphalt.

According to industry sources, the demand for crumb rubber used in bitumen manufacturing is increasing significantly, due to Australia's leading asphalt association promoting a circular economy approach to asphalt manufacturers. Currently, a high percentage of crumb rubber is imported into Australia, which provides Pearl an opportunity to be price competitive.

The Asphalt Institute states that annual production of asphalt is approximately 10 million metric tonnes per annum with 120 asphalt plants across Australia. Annual use of bitumen (the binder manufactured and added to dry asphalt to complete the asphalt process) in Australia is over 800,000 metric tonnes with the percentage of imported binders expected to grow as much as 100 percent within the next few years.

To underpin the crumb rubber business which is expected to develop in early 2021, Pearl has reached an agreement to supply up to 1,500 tonnes per annum of crumb rubber to a domestic bitumen manufacturer once the Company has established its crumbing operation. The bitumen manufacturer is interested in securing supplies of up to 1,500 tonnes of crumb rubber per annum for an initial three-year term at attractive pricing to ensure that crumb rubber is a highly competitive ingredient for their processing. This will provide a base for the expansion into this market with further details to be provided as the process develops.



Image 1: Rubber crumb comes in various sizes depending on commercial applications. Finer sizes (far right) is 30 mesh and typically used in asphalt. Far left image is 2mm sizing for sporting and rubber moulds, with the image in the middle 10 mesh.

For Pearl, the opportunity is to extend its product offering by supplying a key bitumen binding ingredient (crumb rubber) that is in high demand, made locally from used tyres already being collected by Pearl to the bitumen industry, that supplies the Asphalt industry. Key advantages to the Company include;

SUPERIOR PRICING	Ability to offer superior pricing by offering both carbon char (already proven as a highly attractive asphalt binder) and crumb rubber as binders to the bitumen industry
SUPERIOR PRODUCT OFFERING	A leading asphalt manufacturer has identified Pearl’s carbon char provides 10 enhanced characteristics, including durability, stability, cost competitiveness and reduced environmental impacts. Offering both crumb rubber and carbon char as a bundle will provide a superior product offering over competitors
ATTRACTIVE AUSTRALIAN MARKET	There is a large available market (800,000 tonnes of bitumen produced annually) for Pearl to sell into, with the market growing strongly. It also receives strong government and industry support
EXPANDED PRODUCT OFFERING	Attracting new customers to Pearl’s suite of products with cross selling and bundled pricing assisting in our competitive advantage
BUSINESS ALIGNMENT	Pearl already collects used tyres for its clean conversion thermal process which produces fuels, carbons and steel. The addition of crumbing is another product being created from Pearl’s used tyres
ATTRACTIVE ECONOMICS	The process of crumbing is aligned to Pearl’s current business model of receiving income from used tyre collections through its gate fee and producing a product for resale, creating attractive economics.
ATTRACTIVE ENVIRONMENTAL BENEFITS	The use of both crumb rubber and Pearl’s carbon char offers customers strong environmental gains over using virgin resources



Image 2: Pearl’s carbon char powder. The Company’s carbon char has similar properties to crumb rubber with the carbon char having less impurities given it has been exposed the Pearl’s thermal desorption heat process. Source: Company

Managing Director, Mr. Andrew Drennan said that, “from a production perspective the process of making crumb rubber from used tyres aligns well with our current production process and utilising the used tyres we receive. Being able to extend our product offering further differentiates Pearl in the asphalt and bitumen market. Being able to offer multiple superior environmental outcomes to the industry further imbeds us to our customers.”

Australian Federal Government to provide \$600 million of recycling investment including for waste tyres

Recently, the federal government advised that, “By mid-2024 when the full waste export ban comes into effect, Australia must recycle around 650,000 additional tonnes of waste plastic, paper, glass and tyres each year.” The full article relating to the recycling investment is available on the Australian Government website.

The Company believes that based on available information, Pearl is well positioned to receive financial support in the recycling of waste tyres. The Company’s strategy of cleanly converting tyres back into valuable products to be consumed by domestic infrastructure industry players aligns perfectly to several available grants, with Pearl aligning to the National Waste Policy guidelines.

Having already received strong support and grants from the Queensland government, Pearl intends to pursue opportunities provided by the above federal and state level grants that offers financial advantage to its expansion plans.

Summary

Pearl has continued to operate and expand its capacity throughout the Covid-19 pandemic. Pearl has worked with customers and suppliers to overcome delays and interruptions due to the pandemic, and now sees “light at the end of the tunnel” with further success expected in the coming quarter.

As Pearl becomes more active in the asphalt and bitumen markets, the Company is attracting strong interest from several established players as to how the Company’s alternative recycled products can replace and enhance current virgin products. Further, Pearl is well positioned to take advantage of both federal and state policy changes that will occur in the recycling industry, as indicated by the recent \$600 million recycling investment announcement from the Federal government.

Operationally, the company will continue to focus on safe and efficient production and making strategic decisions that maximise benefit to shareholders. It will continue its strategy of being domestically focused for its offtakes and working with industry, government and councils to solve the global and national challenge of waste tyre disposal.

Chairman Mr. Gary Foster said that, “we are pleased to work with the State of Queensland’s councils, given the strong support that the Queensland government continues to extend to us. Operationally, the next stage of growth is consolidating our sales offtakes to the domestic market, through targeting the asphalt and bitumen industries to diversify our customer base in large and attractive markets. We expect that in the coming months we will be able to show shareholders not only solid sales growth, but also be able to articulate a demonstrable path to significant business growth. We believe that we have the only proven technology that is commercially operating to fully process used tyres into valuable end products, and we are expanding and diversifying our operations to fully leverage our business model.

The Company will continue to keep the market updated.

Authorised by:

Gary Foster
Chairman

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About Pearl Global Limited

Pearl Global Limited (Pearl) (ASX:PG1) is a revolutionary tyre processing company that applies unique, next-generation thermal desorption technology to cleanly convert tyres into valuable secondary products including waste to energy opportunities. Pearl has Australia’s first environmental approvals for the thermal treatment of rubber and is in the process of commissioning its first commercial scale production plant in Stapylton, Queensland.

Pearl’s technology is a significant advancement on other methods of processing waste tyres because it has low emissions, no hazardous by-products, requires no chemical intervention and is the only process that meets the standard emissions criteria set by the Australian regulators for this type of technology