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Question 1 - What are the key issues facing the NSW waste system?
Sims Metal Management takes this opportunity to provide a comment on the NSW Government's current waste system. We understand that you are interested in listening to a range of views about the waste sector and how it can be improved, understanding stakeholder priorities for the industry and the development of a circular economy and that our comments will also help inform the development of the NSW Plastics Plan to ban export of certain types of waste plastics. We also understand your focus for the 20 year working strategy and associated policies will be centred around:
(a) Sustainability - to ensure the NSW waste industry is self-sustaining, delivers improved environmental outcomes and avoids the human health impacts associated with poorly managed waste
(b) Reliability - the bins are always collected, and our waste is managed in accordance with community expectations and that capacity and infrastructure restraints are removed from the system
(c) Affordability - waste and recycling services are delivered at a reasonable cost and with the customer in mind.

Sims Metal Management is a global leader in metal and electronics recycling, and an emerging leader in the municipal recycling and renewable energy industries including waste to energy and landfill gas extraction. With more than 250 facilities and operations primarily in Australasia, North America and Europe, Sims plays an intrinsic role in the circular economy by making resources available for future use. Operations encompass the buying, processing and selling of ferrous and non-ferrous recycled metals, as well as electronics recycling. Each year, Sims recycles nearly 10 million tonnes of metal, and in doing so, reduces energy by 60-95% as compared to using virgin materials. The company has more than 100 years of recycling experience but is continuously seeking new ways to broaden its participation in the environmental sector. In early 2019 Sims announced its strategic plan which is closely aligned to the company's purpose, create a world without waste to preserve the planet?. A core new business goal is to expand into waste-to-energy (WTE) by capturing the energy available in the non-metallic residue produced from Sims recycling process to generate electricity or fuels. This strategy encompasses the installation and operation of seven (7) WTE plants globally within ten (10) years with the stated aim of producing zero waste disposal from those operations and leading to self-sufficiency in the energy space energy in the longer-term. Given the comparatively high cost of waste disposal in Australia, Sims is looking to invest in these waste to energy facilities in Australia first and foremost.

Question 1: What are the key issues facing the NSW waste system? Comments from Sims: Key Issues facing the NSW waste system include: Product Stewardship - the idea that the original manufacturers of goods should hold responsibility for their end of life outcomes is important as it provides an incentive for these manufacturers to seriously consider a products sustainability and design for re-use and recyclability. The designated responsibilities of stakeholders prescribed by product stewardship regulations is especially important when considering hazardous and difficult to dispose items of waste. Items like gas bottles and lithium-ion batteries in their various forms have proven extraordinarily hazardous for recycling operations globally because of their propensity to explode or generate uncontrolled heat sources that lead to fires within recyclable stockpiles. To be clear, the uptick in fires at recycling and material recovery facilities around the world is inextricably linked to rechargeable batteries that continue to find their way into waste and recycling streams in

an uncontrolled and often undiscoverable fashion because there are no alternatives to their disposal. This is especially troubling considering the exponential growth in rechargeable battery use in items ranging from cars to everyday household goods. Similarly, gas bottles incorrectly disposed of continue to find their way into scrap piles around Australia despite serious enforcement action by shredder operators in attempting to find and stop them, and this has the ongoing effect of introducing potentially explosive cylinders into our process which can draw the scrutiny of community and EPA stakeholders. To this end, recyclers have generally had to deal with this societal legacy that emanates from such activity. Regulators like the EPA have historically sought to apply punitive controls to MRF and Recycling facility operators when finding and stopping these items from entering their processes were largely out of their control. More recently the NSW Fire Service has sought to apply prescribed stockpile limits to recycling and MRF operations and although now modified to include risk-based alternatives, the mentality still speaks to controls over the bottom end of the value-chain rather than seeking controls and responsibility for production and consumption outcomes at the producer end where controls can be more readily designed and funded. Further to this, it could also be argued that NSW government waste levies are currently targeted at the bottom end of the product life cycle and in particular recyclers, such that recyclers seek to reduce the amount of waste heading to landfill through their own process efficiency. We would argue that purpose of the price signal of a waste levy should be to influence the intended production and consumption behaviour of all value chain stakeholders and the best hope of avoidance of landfill would be to influence production and consumption decisions well before the imposition of a waste levy on recycling residuals i.e. install producer responsibility.

Export Parity - Many countries with steelmaking capacity source their scrap metal inputs from both domestic and global suppliers generally on a competitive supply/demand basis. An Australian metals recycler will sell its processed material therefore in competition with recyclers in other domestic and overseas jurisdictions, meaning they compete with many low-cost jurisdictions. This manifests itself in the sale price of processed scrap metal in that Australian recyclers sell their outputs for the same price as those recyclers in other jurisdictions who may enjoy cost input advantages. In simple terms this means that our industry does not operate on a cost plus mentality to achieve a margin, rather it must reduce its input costs below a globally determined sales price. This is central to the argument around waste levies being applied in that a recycler who processes their scrap metal in NSW will suffer a cost disadvantage compared to a recycler who simply collects and exports unprocessed materials to overseas jurisdictions as the cost increase cannot be passed downstream to the steelmaker due to export parity sale conditions, nor upstream to the customer who supplied the scrap because the domestic processor is competing to buy that material from the customer against a competitor who will avoid the cost impost by exporting the material overseas. Recently the NSW Government negotiated with the three licenced shredder operators in NSW on the basis of a Marsden Jacob report that found that the removal of the waste levy concession currently in place would only reduce the amount of metal recycled in NSW by some 12000Mt per annum. While the negotiation has led to an agreement about a reduction in the concessional amount, the first three months of the F20 financial year have seen the three operators work without a concession and Sims believes the effect in the first two months may have been a reduction of metals collected (by the licenced operators) in the order of 10-12000Mt per month. This clearly demonstrates the competitive disadvantage suffered by the removal of the concession and should serve as notice of the deleterious effects that can be occasioned on our NSW scrap metal processing industry and its investment future.

Global Policy Changes - The Chinese government has pushed forward regulatory action under the guise of the National Sword programme, a programme designed to reduce waste materials being imported into China. This necessary action has had both shorter and long-term effects on the metals recycling business. The immediate issue is the effect of mixed non-ferrous metals that had

traditionally been sold to China. These latest actions have created much tighter fraction specifications for these products and threatens the viability of this process. This is important as these mixed metal revenues underpin the cost of recycling production. Fostering New Technology & Innovation - Sims generates 60,000 tonnes of Automotive Shred Residue (ASR) in NSW, 220,000 tonnes in Australia and 1.3 Million tonnes globally per annum. This material is currently taken to landfill. Sim's strategy is to eliminate waste and become self-sufficient in its use of energy, to only consume energy we produce and only excess energy produced will be provided back into the grid for market consumption. Automotive shred Residue (ASR) produced by Sims will be the raw material used for energy production reducing waste to landfill by over 75% and producing energy to support its operation. Present technologies are unable to further separate this material and as such it remains unrecyclable. The aim of this process is to significantly reduce waste volumes to landfill and produce lower greenhouse gas emissions, reduce the energy demand on the network, reduce cost and the environmental footprint on the community. Sims is looking to invest in these waste to energy facilities in Australia first and foremost however other states within Australia are more willing to foster new technology and embrace innovation.

Question 2 - What are the main barriers to improving the NSW waste system?

Comments from Sims: This issues discussed above in Question 1 are all significant barriers to the improvement of the NSW waste system. Apart from these issues, there are a number of other key barriers to improving the NSW waste system. Fostering New Technology & Innovation - As stated above Sims generates 60,000 tonnes of Automotive Shred Residue (ASR) in NSW per annum which is currently taken to landfill. ASR produced by Sims will be the raw material used for energy production reducing waste to landfill by over 75% and producing energy to support its operation. The aim of this process is to significantly reduce waste volumes to landfill and produce lower greenhouse gas emissions, reduce the energy demand on the network, reduce cost and the environmental footprint on the community. New technology is being proposed for this process. Sims is looking to invest in these waste to energy facilities in Australia first and foremost however. The NSW Energy from Waste Policy Statement, which outlines the policy framework and technical criteria that apply to facilities proposing to recover energy from waste is extremely onerous and a deterrent to investment in NSW. Planning Pathway and Location Permitting - The complexity and uncertainty surrounding the assessment pathways poses a potential deterrent to the development of the waste and recycling industry in NSW. In NSW there seems to be several assessment pathways and associated legislative frameworks for seeking planning and environmental approvals for waste and resource recovery infrastructure. Depending on the proposed activity, the assessment pathway can include a number of legislative requirements under different Acts, as well as a range of local and state planning instruments. There is currently no clear guidance for proponents to identify the most appropriate assessment pathway. Proponents often chose the pathway with the least resistance rather than the pathway which is most appropriate. Sims has concerns with respect to the various assessment pathways available, each requiring different processes, public consultation and involvement from different levels of government. There are particular concerns with length of assessment timeframes and uncertainty in obtaining approval. It also takes a significant amount of time and investment effort to locate and plan for a suitable site which is viable for waste or recycling operations. These sites are often situated in industrial areas and are long term investment decisions which have a payback period associated with them. On many occasions once the site is selected and a significant amount of time and investment has already occurred, onerous permitting conditions are put in place which impact the sites viability. This may be further exacerbated by a demographic change to the area over a long period of time with the community having different expectations. Policy and Practice Misalignment - The waste and recycling industries are currently penalised with a levy to take waste to landfill yet there is currently limited domestic consumption of recycled materials. Recycled materials are often in direct competition with virgin materials and viewed as inferior however often

recycled materials will perform adequately. This is exacerbated by different areas of government not having aligning policies and not incentivising industries to use recycled rather than virgin products.

Question 3 - How can we best reduce waste?
Comments from Sims: There are a number of ways in which Sims believes waste can be best reduced in NSW. First and foremost, the best way to reduce waste is where possible, not to create waste in the first instance. This is however not pragmatic and waste in some form or another is more often than not a necessity. The sustainability consideration and responsibility of a product should commence with the original manufacturers of goods. There should be an obligation for the manufacturers of goods for end of life outcomes of their product. Education and the increased awareness of the concept of sustainability, has been an effective tool to reduce waste over a long period of time. This education and awareness particularly with younger people should continue to provide a positive environmental mindset for future generations. At the present time each state or jurisdiction has different ideas about how to handle waste. Policies in some cases between jurisdictions can be quite different and do often conflict. Furthermore many local government authorities interpret, implement and administer policies in different ways. A good example of this conflict is that local government authorities that lie adjacent to each other group different recyclables together however often both local government entities will take these recyclables to the same facility. Policy harmonisation and the interpretation, implementation and administration where practical would reduce waste taken to landfill.

Question 4 - How can we recycle better?
Comments from Sims: There are a number of ways in which Sims believes we can recycle better in NSW. Design for recycling should be a major consideration in the manufacture of goods. The sustainability responsibility of a product should lie with the manufacturers of goods. Again, education and the increased awareness of the concept of sustainability particularly with younger people should continue to provide a positive environmental mindset for future generations. As above, policy harmonisation and the interpretation, implementation and administration where practical would also provide a better platform for better recycling. Finally, further state and industry investment in new technology and infrastructure in regional and remote areas to improve recycling efficiency would improve recycling in NSW.

Question 5 - What are the main opportunities for improving the NSW waste system?
Comments from Sims: There are significant opportunities for improving the NSW waste system in converting waste that at present is taken to landfill into energy producing lower greenhouse gas emissions, reducing the energy demand on the network, overall cost and the environmental footprint on the community. Waste going to landfill represents lost opportunities to extract materials and energy that can replace the use of virgin resources, and reliance on fossil fuel energy. It also creates land contamination issues for future generations. As stated above, Sims is looking to invest in these waste to energy facilities in Australia first and foremost however at present, other states within Australia are more willing to foster the new technology associated with these facilities. Policy harmonisation and the interpretation, implementation and administration where practical would also provide an opportunity to improve the waste system. Finally, whilst we understand that this may change the way Government and in particular Treasury distributes funding, there is also an opportunity to directly support efforts around legacy items, vulnerable recycling activities in remote areas and regulation enforcement through landfill levy revenue.

Question 6 - Any other information that you would like to contribute to the waste strategy initiative?

Comments from Sims: Ultimately the aim of the NSW Government and waste industry should be to reduce waste volumes sent to landfill and produce lower greenhouse gas emissions than landfill for organic waste, reduce the energy demand on the network, reduce cost and the environmental footprint on the community. Waste going to landfill represents lost opportunities to extract materials and energy that can replace the use of virgin resources, and reliance on fossil fuel energy. It also creates land contamination issues for future generations. With the above in mind the NSW Government has an important role to play in ensuring that the new waste to energy industry and its associated new technologies are developed at an accelerated rate. These developments should be assessed as state significant infrastructure with a streamlined development process where the government takes an active role in developing this infrastructure. In addition, many jurisdictions, including NSW became reliant on recycling models that were based on low-cost transport solutions and an ability to recycle or re-sort low-margin materials by manual means in low-cost overseas countries. That model has been quickly repudiated by many of the same countries now and we must therefore put in place policy, planning and regulatory frameworks designed to support recycling investment and operation and look to develop domestic terminal markets. For too long NSW and other Australian regulators have concentrated their oversight on a few licenced stakeholders without regard for the societal legacy issues those same recyclers are forced to deal with. It is time to develop frameworks that are designed to successfully recycle for the purpose of achieving circular economy benefits.