

13th May 2019

Environment and Planning Committee
Inquiry into Recycling and Waste Management
Parliament House, Spring St
EAST MELBOURNE VIC 3002

RE: Inquiry into Recycling and Waste Management

Re.Group is an Australian company that specialises in recycling and the recovery of resources from discarded materials. We hate materials being wasted, and believe it is critical that modern society moves toward a 'circular economy' that keeps all materials at their highest and best use, for as long as possible¹. Re.Group strives to provide an equal focus on people, the planet and profit; we are a 'for purpose' enterprise.

Re.Group's business platform spans a variety of focus areas, but our core activity can be summarised as helping clients achieve (and exceed) their resource recovery goals, through the development and operation of quality infrastructure and systems that provide a compelling value proposition.

Our Re.Grow division owns and operates enclosed composting (FOGO) facilities, while our Re.Cycle division owns and operates Material Recovery Facilities (MRFs). Our Re.Fuel division is working with EnergyAustralia to develop an Energy from Waste (EfW) boiler adjacent to the existing Mt Piper power station, which is located near Lithgow and is one of the newest, most reliable and thermally-efficient plants of its kind in NSW. Our Return-It division was specifically founded to focus on the development of modern solutions for Australian container deposit / refund schemes.

If the Mt Piper Energy Recovery project proceeds, Refuse Derived Fuel (RDF) would be combusted in a purpose-built RDF boiler, with steam from the new boiler used to improve the efficiency of the existing power station. The aim of the energy recovery project is for Mt Piper to produce more electricity without requiring any more coal².

The Mt Piper Energy Recovery Project has been designed and would be developed in accordance with the NSW Energy from Waste Policy. We have received Australian Government support via the Australian Renewable Energy Agency (ARENA) to conduct the detailed feasibility study into this project. Secretary's Environmental Assessment Requirements (SEARS) for the project were issued in April 2017 and additional information on the project is available via the Project Overview and Preliminary Environmental

¹ <http://www.re-group.com/>

² <https://www.energyaustralia.com.au/sites/default/files/2017-02/Energy%20Recovery%20Factsheet.pdf>

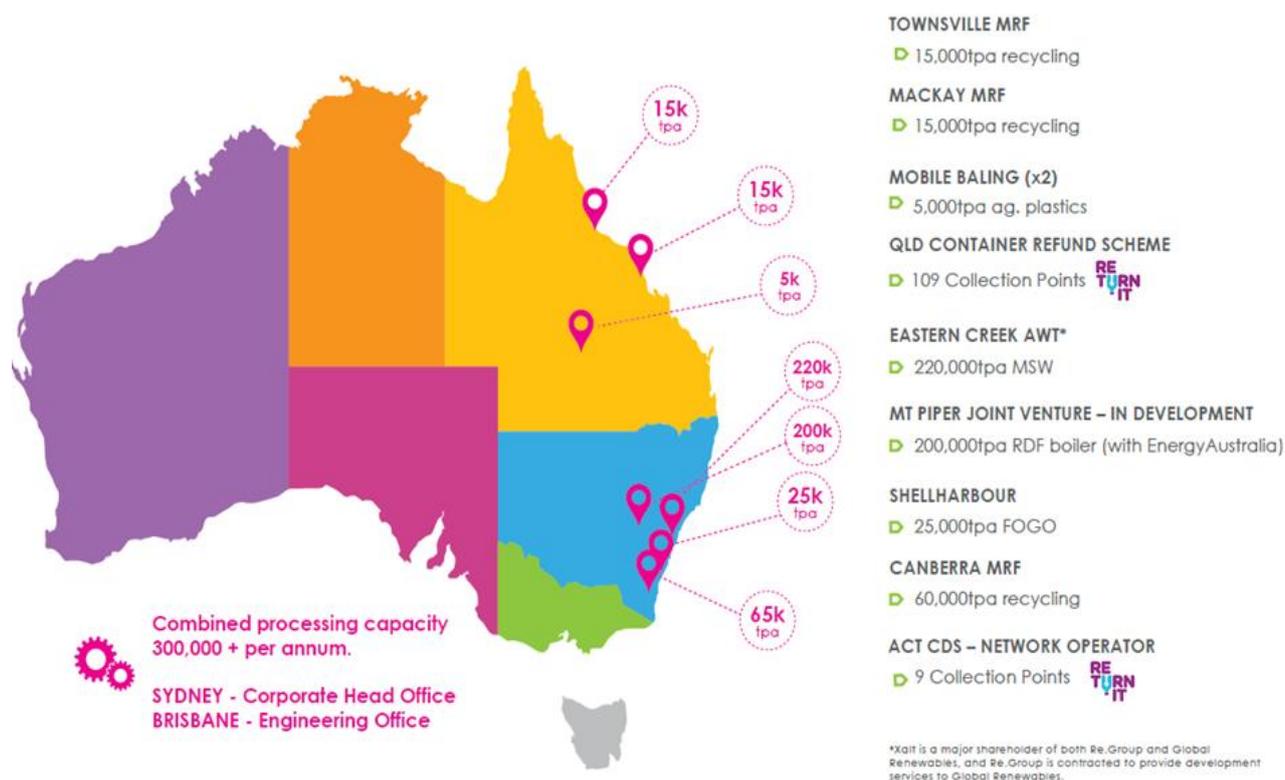
Assessment publicly available via the NSW Government's Major Project Assessments portal.³

Return-It's objective is to maximise the environmental, social and economic benefits of container return systems. We do this by providing convenient services for customers, and by enabling the participation of social enterprise, charity and community organisations where possible.

Return-It is the Network Operator for the ACT CDS, commencing on 30 June 2018 with 9 collection points, and we are on target to reach +18 collection points by the end of 2019. As a Major Operator in the Queensland CRS, Return-It opened more than 100 collection points on November 1, 2018.

Our engineering division, RDT, was founded in Queensland more than 15 years ago, and has designed and delivered more than 60 turnkey waste and recycling facilities in Australia and around the world.

There are circa 300 Australian employees directly employed in resource recovery operations that are controlled or managed by our group and its related entities. The figure below provides a high-level overview of Re.Group's current operations.



In the sections below we have provided Re.Group's responses to the six specific questions outlined in the Terms of Reference. Please note these responses are general in nature, and not specific to any of our existing operating projects or facilities. We would be pleased to provide additional information as required.

³ <https://www.planningportal.nsw.gov.au/major-projects/project/11541>

Terms of Reference

1. *the responsibility of the Victorian government to establish and maintain a coherent, efficient and environmentally responsible approach to solid waste management across the state, including assistance to local councils*

RESPONSE:

We consider that solid waste management represents an essential community and economic service, a service that not only protects human health and the environment, but also creates the foundation for economic growth in the State. Sound solid waste management enables the jobs and economic growth that flow from the circular economy. Unfortunately, the sector is rarely afforded the same consideration as other essential services, such as power and water.

The sector often appears to be “a victim of its own success” whereby the system by-and-large works efficiently enough that the average member of the community has no idea of the complexity of the tasks that take place to ensure their bins are safely collected and emptied. Such an approach is clearly suboptimal, as is suggested by collapsing export markets for recyclables, stockpiling of recycling, fires at waste facilities and landfills that leave long term legacies for the community to bear.

Re.Group believes in the concept of “shared responsibility” for providing essential services, such as solid waste management. It is not possible for industry to solve all challenges without government support, just as government cannot solve all challenges without industry support, and neither industry or government can achieve their objectives without developing community support.

We consider there is a clear role for State coordination of efforts to engage and educate the community about the importance of responsible waste management and recycling practices. To enable the essential service of solid waste management to fulfil the needs expected of a 21st century system, all State governments need to take steps to ensure a stable environment for investment and development. This includes:

1. **A clear vision for, and support of, the waste hierarchy** in making decisions around resource and waste management. Some of the areas where this is typically inconsistent is in the requirements imposed on EfW when compared with landfill, and particularly on the waste permitted to be accepted at EfW facilities. It is common for State Governments to introduce EfW policy statements that require pre-processing of waste prior to EfW. This requirement is rarely if ever imposed on landfill, even though landfill is lower on the waste hierarchy.
2. **Long term support for waste processing facilities**, reflecting the fact that waste processing investments are complex and typically require 10 years or more to pay back. This requires long term security on approvals and waste supply contracts. State government can provide key support to local government in both areas.
3. **A clear and consistently maintained pathway for the approval of waste derived materials**. As indicated above, the investments required to develop processing infrastructure have a long payback period, and the persistent availability of markets for the end-product is critical to their success. As witnessed in NSW with the hastily announced revocation of the Mixed Waste Organic Outputs (MWOO) exemption, the State Government has a critical role to play in market stability and minimising sovereign risk.

4. **Streamlined approvals for the development of waste processing infrastructure.** A key barrier to developing a more competitive waste market is the challenge of gaining planning approvals that are required prior to investing in long term infrastructure. The State Government should consider streamlining current planning and approvals processes, as well as developing more extensive guidance notes, in order to provide the market with a higher degree of confidence in the ability to develop new facilities. We support planning reforms that reduce the time, cost and uncertainty associated with gaining development approval, and we consider that this reform can be undertaken in a manner which does not increase the risk of poor outcomes for the community or the environment.
5. **Development of market settings that discourage mass disposal.** The landfill levy in NSW has underpinned the development of mixed waste processing facilities. There are currently five mixed waste processing facilities in NSW with a combined processing capacity in excess of 600,000 tpa. There are none in Victoria.
6. **Extensive State Government procurement of waste derived material,** and encouragement for local government to also incorporate waste derived materials into tenders. Examples include the incorporation of glass and soft plastics into asphalt, the use of composted organics in parks, and C&D waste derived aggregates in construction. Since local government tends to rely upon State Government specifications for procurement, incorporating recycled material in State Government procurement is a high leverage activity.
7. **Retention of a landfill levy and schedule for robust increases,** with some of the funds collected reinvested back into processing infrastructure. We do not necessarily believe that levies should be 100% hypothecated, as a landfill levy contribution to Consolidated Revenue tends to make the levy more stable. We refer to the first Queensland landfill levy, repealed with the change of Government in 2012, which included 100% hypothecation. Stability and predictability are important.
8. **An “as needs” schedule for the development of landfill,** with the ability to refuse landfill capacity that is not required. Every new landfill cell approved reduces the economic viability of a higher order waste processing facility

We agree that the State Government needs to provide assistance to the sector, though we do not have a firm view on whether that assistance is best provided directly to the sector or via local government. Assisting local government may, for instance, lead to better procurement processes that enable improved waste processing.

2. *whether the China National Sword policy was anticipated and responded to properly;*

RESPONSE:

One of the primary objectives of recycling is to return materials back to the productive economy, displacing the need for virgin materials in the manufacture of new products. Asian export markets have traditionally been important for Australian recyclers, due to the scale of Asian manufacturing. Quite simply, there are materials in the recycling stream which are not manufactured locally, and therefore this material must currently be exported in order for it to be used again to make new products.

The Chinese Government had, for some years, indicated its dissatisfaction with elements of the market importing waste derived materials into China, however this dissatisfaction had been interpreted as focusing on elements of unscrupulous activity and organised crime within China. As a result, China's primary activities related to increased inspections of containers to find contraband.

It is not unusual for commodity markets to open and close, and this is generally met with a strategy of hedging across markets. When China issued notification G/TBT/N/CHN/1211 ("National Sword") to the World Trade Organisation in mid-July 2017, its extent and speed of application was not anticipated. Similarly, the extent and speed at which it was largely replicated across South-East Asia, was not anticipated. The cascading policies led to the prices for exported commodities (fibre, plastics and metals) sharply diminishing, making commingled recycling less economically viable.

Furthermore, the purchasers of commingled recycling services, largely State and local government, were essentially deciding against hedging for commodity risk. Those recyclers that had taken account of commodity risks were typically more expensive, and so won fewer contracts. Less expensive but highly exposed recyclers won more contracts but had limited capacity to respond. In short, those market participants that did anticipate a policy like National Sword were not awarded contracts.

The National Sword policy exposed a fundamental flaw with an approach to procurement where the lowest price is heavily favoured. Measures of highest value need to be developed, in order to provide a more sophisticated assessment covering elements of risk, local employment, and various indirect benefits that may be associated with a focus on on-shore processing versus an export-heavy model.

3. *identifying short and long-term solutions to the recycling and waste management system crisis, taking into account:*
 - a. *the need to avoid dangerous stockpiling and ensure recyclable waste is actually being recycle*

RESPONSE:

Stockpiling is a natural response to fluctuating markets and is especially important for products derived from incoming feedstock that cannot be 'turned off' and must always be received and processed. Where the stockpiled commodities have, or are expected to have, a value in the market, then these stockpiles will clear.

Stockpiles themselves are not a symptom of crisis, except where the stockpiles become too big to sell, the stockpiled product has insufficient value to cover the costs of its transport to market, or where the materials stockpiled are not prepared in a manner which is fit for market and are likely to have a net negative value.

Solutions to the challenge of stockpiled waste, listed in order of how quickly they can be introduced, include:

1. Sharing of commodity risk between the recycler and local government, providing the recycler some protection in times of low commodity values.
2. Imposition and enforcement of requirements that restrict the volume of (unsorted) commingled recyclables that may accumulate at a facility.
3. Government procurement of recycled products, with that procurement not expecting a price discount over virgin materials
4. Government support for local remanufacturing using waste derived materials
5. Development and introduction of a "Recycled in Australia" logomark and campaign.

b. the cleaning and sorting capabilities and the processing capabilities in Victoria and the potential to expand the local recycling industry

RESPONSE:

Decades of low prices paid for commingled recycling contracts, largely supported by high prices paid for commodities in export markets, have led to a concentration of a small number of high-capacity processors willing to take on substantial commodity market risks. Australia in general, and Victoria in particular, has largely exported its reprocessing capacity. Meanwhile, waste generators – especially Councils – have developed price expectations which simply cannot be maintained in the long term.

This situation can be reversed. With the right prices paid for commingled recycling services, coupled with clear enforcement of expected standards and development of robust local markets, the industry is able to rapidly respond with the least cost solution that also reduces the sector's long-term risks. The objective should be to provide the highest value outcomes to the community, taking into account social benefits through new job creation, as well as the environmental benefits of managing local material locally.

These measures may lead to higher prices being paid for commingled recycling services. They will also require whole of government coordination to create local markets. They will, however, make waste management in Victoria more resilient in the face of fluctuating commodity markets. They will also yield dividends for the Victorian economy in terms of jobs and economic activity as discussed below.

c. how to better enable the use of recycled materials in local manufacturing;

RESPONSE:

To better enable the use of recycled materials in local manufacturing, policy settings need to be in place to enable local manufacturing to thrive as a sector. This includes, in particular, robust markets for locally manufactured products and the nurturing of the manufacturing ecosystem. A thriving local sector can then incorporate locally generated recycled feedstock. All of these considerations are elements of industrial policy, and further reinforce the whole of government approach required to improve waste and recycling outcomes.

Whilst Victoria's manufacturing base may be diminished from its heyday, there does remain capacity to build upon. Some of the measures that can assist in support local manufacturing that incorporates recycled materials include:

1. Regulatory settings that remove recycled materials from regulation as "waste" as quickly as possible. The regulatory burden associated with waste products, coupled with the perceived transfer of risk to the purchaser of products made with "waste", is a significant impediment to using recycled materials in manufacturing.
2. Government support for products manufactured locally using recycled materials. This support should be explicit in tender specifications.
3. Development and introduction of a "Recycled in Australia" logomark and campaign.

- d. *the existing business model and economic challenges facing the existing industry;*

RESPONSE:

The industry has been confronted by several decades of low gate fees for commingled recycling, with some local governments securing contracts where they are paid for each tonne of commingled recycling. This business model has been underpinned by a strong reliance upon buoyant export markets.

Prudent operators who hedged against these risks were priced out of the market as they could not match the low gate fees on offer. As a result, the current market has been built around a model that has been proven, in hindsight, to be speculative.

Furthermore, the market conditions have enabled procurers of recycling services to transfer substantially more risk onto industry than can be adequately controlled. This has created a business model where procurers have attracted low gate fees and a low risk profile. This business model is unsustainable, and will need to adjust to reflect:

1. Likely higher gate fees payable by procurers of recycling services.
2. Sharing of commodity risk between the recycler and local government.
3. Contract terms that provide for a greater ability to invest in equipment that adds value to recycled materials.

- e. *the quantifiable benefits, including job creation and greenhouse gas emissions reduction, of pursuing elements of a circular economy in Victoria;*

RESPONSE:

The primary reference for job creation associated with recycling in Australia was prepared by Access Economics, and is now 10 years old⁴. This report concluded that recycling creates 9.2 direct jobs per 10,000 tonnes of waste, contrasted with 2.8 jobs where the same amount of waste goes to landfill. When indirect jobs are included, recycling is estimated to create 16.9 jobs for 10,000 tonnes, and landfill 5.2 jobs for the same quantity (i.e. 1.7 jobs per 1,000 tonnes recycled).

Further, more detailed, work has been done in the North American setting and is summed up in a 2014 report by the Conference Board of Canada⁵. That report has a summary table, replicated to the right. The table suggests that the Access Economics estimate of 1.7 jobs per 1,000 jobs is in the middle of the range from the reports reviewed in the Conference Board meta-analysis.

Table 2
Employment Multipliers and Jobs Created by Diverted Waste Collection and Processing

Jurisdiction	Range of Type II job multipliers	# of jobs per 1,000 tonnes diverted waste
Florida	1.28–3.64	2.84
California	1.52–2.73	1.27
Missouri	2.17–3.20	–
Iowa §	1.56–2.53	2.19
Ontario ‡	2.86	4.88 †
Illinois	1.31–2.56	0.76–4.95
Connecticut*	1.64–2.05	–
Northeast U.S.	1.15–1.93	–
United States	–	2.39–4.05

Note: Data were obtained from studies of several jurisdictions, estimated using input-output models. Jobs include both full- and part-time positions, except where noted, and are the summed result of direct, indirect, and induced effects. The range of multipliers was derived across sub-industries, such as collection and processing, except where noted. Values from U.S. studies have been converted into their metric equivalent.

§ Range of employment multipliers is across different material types; does not include data for collection.

‡ Based on data for only residential PPP recycling from Ontario's Blue Box program. Multipliers are the same across industries.

† Jobs are expressed in FTEs. Adjusted from report to reflect estimated tonnage of waste prior to processing.

*Does not include data from composting.

Sources: R. W. Beck, Inc.; Valentine and Ulmer; AECOM Canada Ltd.; DSM Environmental Services; Connecticut Economic Resources Center, Inc.; Tellus Institute; The Conference Board of Canada.

⁴ <https://www.environment.gov.au/system/files/resources/5cc6a848-a93e-4b3f-abf7-fc8891d21405/files/waste-and-recycling-employment.doc>

⁵ <https://www.conferenceboard.ca/temp/776eb403-62e7-4713-b8a3-46d89620ef64/6233-Economic%20Impacts%20Of%20Waste%20Diversion-BR.pdf> (straightforward sign-up process required)

A further report by the Tellus Institute from 2011⁶ indicates how these jobs are distributed based on material types. Again, the summary table from this report is replicated below:

	DIVERTED WASTE					DISPOSED WASTE		
	Collection 2008	Collection 2030	Processing	Manufacturing	Reuse/ Remanufacture	Collection	Landfill	Incineration
	Jobs per 1000 tons	Jobs per 1000 tons	Jobs per 1000 tons	Jobs per 1000 tons				
MATERIALS								
Paper & Paperboard	1.67	1.23	2.00	4.16	N/A	0.56	0.10	0.10
Glass	1.67	1.23	2.00	7.85	7.35	0.56	0.10	0.10
Metals								
Ferrous	1.67	1.23	2.00	4.12	20.00	0.56	0.10	0.10
Aluminum	1.67	1.23	2.00	17.63	20.00	0.56	0.10	0.10
Other Nonferrous	1.67	1.23	2.00	17.63	20.00	0.56	0.10	0.10
Plastics	1.67	1.23	2.00	10.30	20.00	0.56	0.10	0.10
Rubber & Leather	1.67	1.23	2.00	9.24	7.35	0.56	0.10	0.10
Textiles	1.67	1.23	2.00	2.50	7.35	0.56	0.10	0.10
Wood	1.67	1.23	2.00	2.80	2.80	0.56	0.10	0.10
Other	1.67	1.23	2.00	2.50	N/A	0.56	0.10	0.10
Other Wastes								
Food Scraps	1.67	1.23	0.50	N/A	N/A	0.56	0.10	0.10
Yard Trimmings	1.67	1.23	0.50	N/A	N/A	0.56	0.10	0.10
Misc. Inorganic Wastes	1.67	1.23	0.50	N/A	N/A	0.56	0.10	0.10

The Ellen MacArthur Foundation has published extensively on the benefits of the circular economy in the European setting and has found that there are substantial economic and greenhouse gas benefits from the circular economy.⁷

⁶ <https://www.tellus.org/pub/More%20Jobs,%20Less%20Pollution%20-%20Growing%20the%20Recycling%20Economy%20in%20the%20US.pdf>

⁷ Some references include:

- Growth Within: A circular economy vision for a competitive Europe (2015)
- Towards a circular economy: Business Rationale for an accelerated transition (2015)

- f. *the existing Sustainability Fund and how it can be used to fund solutions to the waste crisis;*

RESPONSE:

We believe that the Sustainability Fund is best used to develop infrastructure and high value markets for recycled materials. The funds available can only be spent once, and so decisions should be made around ensuring the longevity and financial sustainability of investments. We believe the refocus in NSW, from previously supporting a wide range of small initiatives, to having a stronger focus on infrastructure projects via the Waste Less Recycle More grant funding program, has been positive.

Key areas for focus should include:

1. Infrastructure to recover resources from mixed waste streams, given there is already high penetration of source-separation systems and the 'big wins' will come from focusing on materials which are currently disposed *en masse*.
2. Infrastructure to create high value organic products, such as compost and biogas, from organic waste streams
3. Investment in local remanufacturing activities, to displace virgin materials with recycled materials.

These projects are ideally funded through grant funding that is explicitly tied to performance and achievement of defined milestones.

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4. *strategies to reduce waste generation and better manage all waste such as soft plastics, compostable paper and pulp, and commercial waste, including, but not limited to:*
 - a. *product stewardship;*
 - b. *container deposit schemes;*
 - c. *banning single-use plastics;*
 - d. *government procurement policies*

RESPONSE:

The State Government is limited in the scope to which it can apply product stewardship schemes, and of the four strategies approached, this is the one that is best delivered in partnership with the Federal Government.

We believe the single most significant strategy that the Victorian State Government can introduce to help resolve the waste and recycling issues is in its procurement policies. All procurement should be reviewed to understand where recycled material can be substituted for virgin material without compromising functionality (or not significantly compromising), and the specifications should then be amended to require recycled material. This can, for instance, remove recycled glass as an issue, as it will have a ready market in asphalt for road construction. Since State Government specifications are often adopted broadly in the market, including by local government, this change will create an immediate market. It should be pursued as a matter of urgency.

Our experience with container deposit schemes in the ACT and Queensland has reinforced that a well-designed and operated CDS delivers substantially higher quality recycled material than commingled recycling. In times of restricted commodity markets, this can be the difference between being able to sell the recycled materials or not.

Furthermore, with all other mainland states and territories implementing a CDS, Victoria should complete the CDS picture by introducing a Victorian scheme as a matter of priority. A Victorian scheme could enable the existing schemes to be converted into a single national scheme, with cost savings and improved consistency for all Australians.

Finally, a ban on single use plastic is an easily communicated first step in banning products that cannot be readily recycled from being introduced into circulation in the first place. The starting point for the circular economy must always be to design products that can be recovered and remanufactured. This is not the case for single use plastic. A ban on single use plastic has the added benefit of helping to reduce the impact of plastic litter in the environment, and particularly in our oceans.

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5. *relevant reviews, inquiries and reports into the waste and recycling industry in other Australian jurisdictions and internationally;*
 6. *any other related matters.*

Re.Group will be happy to provide additional information as required by the committee, following its review of initial submissions.

Yours Sincerely,



Garth Lamb
Chief Development Officer