Strategy Deep Dive – Strategic Infrastructure Growth Pillar

7 June 2022
Prepared remarks

Slide 1 Cover

Good morning, everybody. Thank you to the analysts that have joined us in person today and everyone else that has joined us via the webcast.

Firstly, I would like to acknowledge the traditional owners on the lands on which we meet today and those from lands across Australia that Cleanaway operate on and pay my respects to elders past present and emerging.

In terms of an agenda for the event we will run through the presentation materials and then open to the floor for questions. There is an ability to ask questions through the webcast and we will monitor those for any that have not already been asked. To the extent that we don't have time to address all of your questions we will endeavour to get back to you directly after the event.

We have allowed approximately two hours in total for the formal presentation and Q and A.

Let me start with some introductions.
Joining me today are
Paul Binfield – CFO
Frank Lintvelt – EGM, Strategy, Sustainability and M&A
James Pearce – Energy from Waste Project Director
Taku Ide – Head of Carbon and
Richie Farrell – Head of Investor Relations.

Slide 2 Disclaimer

The disclaimer is on the screen now and I will take that as being read.

Slide 3 Agenda

Moving to the agenda for today's presentation, which is on the screen now.
First up I will set the scene for you in term of the broader strategy and the market context.
Taku will then take you through a bit of a carbon 101 as it relates to the waste sector and how we are thinking about developing relevant targets consistent with the Paris commitments.
We'll then pass over to James and Paul for Energy-from-Waste.
Frank will take us though the C&D and Organics blueprints.
I will cover the landfill optimisation and core infrastructure expansion blueprints.

I'll hand back to Frank for the innovation blueprint.
Paul will take us through the capital allocation framework and returns and then I'll wrap up with a few closing remarks before opening to the floor for questions.

Slide 4 Blueprint 2030

As a refresher we introduced the Blueprint 2030 strategy to you back in February.
Why Blueprint? Blue represents Cleanaway, it represents sustainability and it represent the blue-sky ambition and mindset that we will bring to the strategy, while ''print'' acknowledges this as an extension of our Footprint 2025 strategy, which underpins this strategy evolution
In Blueprint 2030 we will create superior shareholder value by integrating and extending our leading network of infrastructure assets to provide high-circularity low-carbon solutions, seamless customer service and value for money for our customers.

Slide 5 Strategy Evolution

Under our BluePrint 2030 strategy, we will create a competitive advantage and generate significant value by extending and integrating our assets and capabilities to address Australia's increasingly complex waste needs. Doing this in the most sustainable way possible, with an exceptional customer experience, and powered by the passion of our workforce.
Building upon the platform created by Footprint 2025, Blueprint 2030 will be supported by three strategic pillars namely, Strategic Infrastructure Growth, Sustainable Customer Solutions and Operational Excellence.

Slide 6 Our 14 Blueprints

On the next slide we have illustrated how our blueprints come together to enable the delivery of our strategy.

Under our strategic infrastructure growth pillar, we will continue to invest to extend our recycling and landfill diversion infrastructure and services platforms. We will be more innovative and ensure we are well positioned to capture opportunities from emerging at-scale waste streams to meet the country's future recycling needs.

Under our Sustainable Customer Solutions pillar, we will integrate our prized assets for circularity, carbon and seamless customer service. We will create products and services to provide our customers with access to integrated platforms that best meets their needs and the shape of their waste.
Under our Operational Excellence pillar, we will align our culture with our strategy and extend our performance culture to the frontline to both deliver for today and improve for tomorrow. We will better connect our frontline teams to our business and work together for continuous improvement.

We will be able to work smarter through the data & analytics and digitisation programs that we are rolling out. It's through these programs and how we use them that we will achieve a step change in operational productivity.

People and culture sit across all three of these pillars as a key enabler of our strategy and recognising the integral role of our people and how we work together is to fully achieving our mission.

Slide 7 Today's Pillar Focus

So today our focus is primarily on the six blueprints that comprise our Strategic Infrastructure Growth pillar supplemented with an introductory section on how we are thinking about carbon. You will see from today's presentation that we have a lot going on – serving customers today, improving our business today and growing for the future. I've said many times before that I don't think Cleanaway employees could work much harder.

So, for us to do this well and deliver the step change in growth and value that we are looking to achieve, we will and have been bringing in targeted new capability throughout the organisation. The annualised cost of this capability is going to be approximately $15 million.

Slide 8 Strategic tailwinds

So let me begin today by taking you through the context within which we have undertaken the strategy refresh. We are fortunate to have strong regulatory and hence strategic tailwinds that are set by a national waste policy that has broad based political support. The national policy calls for less waste, higher landfill diversion and greater domestic reprocessing and reuse. This is underpinned by the national waste policy key actions.

The waste export ban started back in 2020 with progressively more waste commodities falling under the ban leading to the requirement for onshore solutions. The phasing out of problematic and unnecessary plastics by 2025 will significantly contribute to pushing up the resource recovery rates for plastic.
By 2030 the action plan aims to reduce total waste generated by 10% per person, to have an 80% average recovery rate from all waste streams, and to halve the amount of organic waste sent to landfill. It also looks to significantly increase the use of recycled content by governments and industry and make comprehensive, economy-wide and timely data publicly available to support better consumer, investment and policy decisions.

All states and territories have or are progressing plans that align to or are more ambitious than the national plan.

The next slide is a good illustration of the ambition.

Slide 9 Policy tools

As you can see from this slide, across all states and territories there are numerous policy tools from landfill levies to container deposit schemes to Energy-from-Waste policies in place, with the shared central goal of greater landfill diversion and increased circularity.
Timing and ambition levels of each state varies, but states such as Victoria and Queensland have been thoughtful about the diversion challenges and have supportive Energy-from-Waste settings that allow for residual waste to be managed close to the source of the waste generation. In a world where our carbon budget is rapidly being depleted it makes little sense to transport large volumes of residual waste to far away locations, when it can be treated and disposed of safely close to the source.

Slide 10 Landfill levies

The key policy tool for the industry is the state-based landfill levies, and later in the presentation we have a chart that shows the strong correlation between the levy and resource recovery rates.
With South Australia and New South Wales being the early adopters of high landfill levies, we are now seeing an acceleration in levy rates across the other major metropolitan areas, with most states forecast to have landfill levy rates of more than $125 per tonne by 2025.

This harmonisation of the levy rate removes any arbitrage opportunity to move waste interstate and removes the associated carbon emissions that was associated with that activity.
Furthermore, waste levies are the primary driver of landfill diversion prize so there is a greater and growing incentive to divert waste from landfill.

And with the levy rate increasing each year this can offset volume growth flattening.
Harder to recycle waste streams typically involve innovation and more expensive equipment or processes initially, so increasing landfill levies also have the benefit of Improving the economics of these developments. As more and more resources are extracted from waste streams, we are advancing the circular economy.

Slide 11 Resource Recovery Evolution

This next slide is a visual representation of the evolution of waste collections driven by source separation options. While the illustration is using domestic or municipal bins the same story applies in the C&I segment.

Progressively, we are providing people with more options to source separate their waste streams to enable better resource recovery potential. This naturally leads to more collections. The frequency of

collections may change depending on the bin type but there is typically an increase in number of overall collections services as the bin numbers increase.

With the introduction of a scheme such as the container deposit scheme, we can also benefit from collections related to those schemes to the extent that we are a service provider and/or by connecting CDS materials to our growing plastics recycling infrastructure such as what we have done by connecting the NSW CDS materials to the Albury PET facility.

To achieve national and state landfill diversion targets however, we must firstly have more source separation options and secondly, we must get better at doing the separating at the source.
Those of you in the room will see later today on the facility tour how poorly we as a community are doing the latter, notwithstanding the provision of the source separation service. Contamination rates in mixed recycling bin are still around a third, and the largest single product that leaves this facility each day is contamination that ends up at the Melbourne Regional Landfill.

Moving to the next slide we can see how this is playing out across a broader range of waste stream nationally.

Slide 12 Market context

Unfortunately, waste sector data is difficult to compile and often has gaps. The most comprehensive reports for the sector are the National Waste Reports prepared periodically for the Department of Agriculture, Water and the Environment. The most recent report is the 2020 report that contains 2018/19 data and we reference this extensively through the presentation.

On the left and side of the slide is the major waste categories and their respective recycling rates.
We have mapped these against the blueprints that we will talk to you today.

We see market share growth, market development and market leadership opportunities for Cleanaway across these waste streams.

We see opportunities to transition to EfW for residual waste while maximising the value of our landfills.
In C&D there are market share gains to be made in a large market with already high circularity.
In Organics there are structural changes driving growth in volume and value with opportunities to invest in sophisticated post collections infrastructure.

As recovery rates increase through the provision of more source separation options there will be a need for ongoing investments in MRFs, container deposit schemes and supporting infrastructure such as

transfer stations. There will also be a need to expand and upgrade liquids and hazardous waste processing and recycling infrastructure to meet increased demand.

We are already starting to deliver circular solutions for plastics with more facilities planned. Recovery rates are still very low so further opportunities are expected in the future.

The textile market is large with very low recycling rates at 7%. We expect technological solutions to come to the market and we will look to participate to drive this rate much higher.

Moving to slide 13 where I will outline the Blueprint 2030 growth framework.

Slide 13 Growth Framework

As you can see from the graphic on this slide our strategic pillars build upon each other to generate superior shareholder value while providing customers with great service and value for money sustainable solutions.

Our current business is well diversified across all sectors of the economy and our contracts with our customers have inflation protection mechanisms. Together this drives GDP plus growth to our core business and creates the opportunity to deliver operating leverage.

Our Operational Excellence pillar, which we will touch on in another one of these sessions, will drive improved profitability and the opportunities from the current and changing market dynamics as described earlier and give us the opportunity to deploy capital into new accretive growth infrastructure. Integrating our assets and capabilities will deliver sustainable customer solutions and lead to growth in market share through our compelling customer proposition of service and value and sustainability.
I will now hand you over to Taku to talk to you about managing our greenhouse gas footprint.

Slide 14 GHG Divider

Slide 15 Leadership in Carbon

Thanks Mark. It's great to be with everyone today. To set the scene for today's presentation, I will quickly run through this slide, which many of you have seen before.

Our ambition is to reduce our emissions in accordance with the Glasgow Climate Pact, which reaffirmed the long-term global goal defined in the Paris Agreement to hold the increase in the global average temperature to well below 2 °C above pre-industrial levels and to pursue efforts to limit the temperature increase to 1.5 °C above pre-industrial levels.

By successfully getting on a path to deliver this ambition, we will have the confidence and credibility to offer decarbonisation products and services to our customers from our key strategic infrastructure.
To execute our emissions reduction vision, our internal carbon program is divided into five pillars of key activities.

- Forecasting our emissions of our business units
- Setting 2030 and 2050 targets aligned with latest scientific findings
- Prioritising decarbonisation initiatives by developing a single marginal abatement cost curve
- Defining simple, annual metrics that motivate and prioritize initiative implementation, and
- Tracking our performance through credible reporting frameworks like NGERs and CERT

We will then extend our know-how and position our products and services to help our customers fulfill their climate and decarbonisation ambitions.

Today we will focus on our internal carbon management approach, and specifically on how we are thinking about setting our 2030 and 2050 targets.

Slide 16 Global Carbon Cycle

We are continuing to grow our expertise in carbon and climate at Cleanaway, because we are passionate about getting carbon and climate right for our customers, investors, communities, employees and our planet – and we see an exciting and emerging opportunity at the intersection of waste and carbon.
This IPCC diagram depicts the global carbon cycle, and we present here three opportunity areas where the waste sector intersects with carbon.

A helpful way to navigate this diagram is to divide it into two halves – the upper half with the arrows, and the lower half that highlights the waste sector relevance.

Focusing on the top half of the figure, the arrows show carbon sources and sinks, where upward arrows show carbon entering the atmosphere, and downward arrows show carbon being removed from the atmosphere. Fossil fuel sources, the grey arrow, are the predominant sources of carbon into the atmosphere, along with land use changes.

Once carbon is released into the atmosphere, the carbon can be reabsorbed back into land, remain in the atmosphere, or dissolve in the ocean. This is shown by the light green downward arrow, the blue dot, and the green downward arrow, respectively.

The carbon sources and sinks establish a new, higher equilibrium as more carbon is released; thus the atmospheric concentration of CO2 will continue to rise so long as we continue to release the carbon that is stored in the subsurface today.

Shifting our attention to the bottom half of the figure, three areas of opportunity for the waste sector is highlighted.

First, both landfill diversion and landfill gas capture can reduce the use of virgin fossil fuels. For example, plastic and textile recycling are ways to reduce the need for new fossil fuel-based products, and electricity and pipeline gas created from land fill gas can be sources of low carbon fuels.
Second, food or garden waste can be transformed into lower carbon energy sources through technologies such as Anaerobic Digestors.

Finally, organics that we collect can be transformed into to fertilisers and compost and introduced back into carbon depleted Australian soils to enhance soil productivity and sequester carbon.

Slide 17 Methane and Carbon Dioxide

As a player in the waste sector, we emit two different greenhouse gases – methane from landfills, and carbon dioxide from the use of grid electricity and combustion of fossil fuels in our fleet and facilities. These gases have different impacts on the climate due to their residence time in the atmosphere and molecular structure. One way to quantify relative impacts of greenhouse gases and other atmospheric species to climate warming is by using a term called Radiative Forcing, or RF. Species that have a positive RF contributes to atmospheric warming, while species with a negative RF contributes to atmospheric cooling.

The figures on the left show differing impacts of greenhouse gases and species on climate relative to 1850. By adding up the values at any given point in time, we can assess the species' overall impact on climate since the pre-industrial era.

The goal here is to flatten the shape of each of the warming species as quickly as we can, and decrease them, when possible, back towards 1850 levels. Different magnitudes of RF shows that CO2 growth is the main contributor to warming. The CO2 curve can only flatten when CO2 emissions reach net zero. It can decrease if carbon storage initiatives such as soil carbon and carbon capture and sequestration scale over time.

The CH4 curve is already relatively flat, owing to the oxidation reactions that remove methane out of the atmosphere. Unlike CO2, any decrease in CH4 has an immediate cooling effect. It is important to note,

however, that CH4 decrease alone will not solve climate change without reaching net-zero CO2 emissions – at best, a decrease in CH4 emissions will delay the onset of peak warming.
These differences in both magnitude and nature on warming requires us to establish specific targets for each gas.

Slide 18 Methane and Carbon Dioxide continued

As we noted in the previous slide, we produce primarily produce two greenhouse gases – methane from landfills and carbon dioxide from electricity use, fleet, and facilities. The breakdown of emissions is shown on the figure to the left.

When expressed in CO2 equivalent terms, approximately 80% of our emissions are from landfills in the form of methane, and the remaining 20% is CO2 emissions. The methane emissions are distributed across 10 active and closed landfill sites. Emissions from our fleet is the bulk of our CO2 emissions, followed by emissions from electricity use and combustion of natural gas at our facilities.
This breakdown shows the relative magnitudes of emissions across the key emissions sources, and where our attention will be focused as we deliver on our ambition to reduce our emissions aligned with the Paris Agreement.

Slide 19 International Targets

When establishing targets, we will adopt targets that are both scientifically rigorous and consistent with global commitments.

The first column in this table, titled “IPCC,” summarises 2030 and 2050 targets for CO2 and CH4 that are consistent with a 1.5°C rise in temperature in 2100 compared to pre-industrial levels. These data can be found in IPCC’s latest publication in Working Group III, AR6, which was published in April 2022. The paper called for a net-zero CO2 emissions by 2050, with a deep reduction in methane emissions over the same timeframe – this difference is supported by the Radiative Forcing discussion earlier.

The second column, titled “COP 26,” summarises key global commitments that were made at or leading up to COP26. With respect to CO2, the key commitments that are summarised in the Glasgow Climate Pact include an ambition to reduce CO2 emissions by “45% by 2030 vs. 2010, and a net zero emissions by mid-century”. Accounting for the growth of emissions between 2010 and 2020, this translates to a 48% reduction in emissions by 2030 vs. a 2020 baseline.

There are existing global commitments to reduce methane emissions by 30% by 2030 vs. a 2020 baseline. There are no clear agreements around methane targets in 2050.

We incorporate these IPCC targets and global commitments to our specific emissions forecasts, and we are looking forward to announcing a robust set of CO2 and CH4 targets in August of this year.
I am sure you will have lots of question on this topic, which I'm happy to take at the end of the presentation. I will now hand you over to James who will take you through our Energy-from-Waste blueprint.

Slide 20 Blueprint One divider

Thanks Taku. Hello everyone. My name is James Pearce and I look after the Energy from Waste projects at Cleanaway. Today I will talk to you about why we need Energy from Waste as a solution, the feedstock that we are proposing to use, a bit about the technology and then touch on each of the projects we are currently pursuing. Paul will then take you through the project economics.

Slide 21 Diversion Targets

Energy from Waste is necessary to move the disposal of residual waste up the waste hierarchy. Cleanaway actively participates in all aspects of the waste hierarchy seeing waste as a resource, with value that can be captured at all stages within the hierarchy before disposal.

Energy from Waste recognises the value of residual waste and allows for the recovery of energy prior to disposal.

Australia is lagging a long way behind the world in resource recovery – and adopting Energy from Waste is a key part of moving us towards best in class. Our recycling rates can be further improved through better source separation.

Energy from Waste is a part of the waste hierarchy and can successfully be deployed as part of the solution in reducing waste to landfill without compromising recycling efforts

Slide 22 Feedstock

When complemented with a 3 or 4 bin system, like the system Mark walked you thru on Slide 11, Energy-from-Waste feedstock is residual waste not suitable for recycling.

Cleanaway is committed to ensuring that both mixed recyclables and food and garden organics are separated and that only the residual municipal solid waste and C&I waste will be used as a feedstock. Removal of FOGO or Food Organics Garden Organics has been mandated in many states across Australia by 2030, which will assist in removal of a significant part of the recoverable red bin waste.

We have undertaken detailed waste forecasting and are comfortable that there is sufficient residual waste feedstock available – even with removal of FOGO and recyclables.

Our Energy from Waste facilities will not use recoverable organics and/or recyclables as a feedstock.

Slide 23 Technology

Following significant research and investigation, our preferred technology continues to be moving grate technology paired with an advanced flue gas cleaning system.

We have reviewed similar facilities around the world and have selected reference facilities to inform our design, environmental approvals submissions, and technology.

These reference facilities have been selected on the basis that they:

- Are operational and have available emissions and operational data
- Use similar waste streams for feedstock (also from similar jurisdictions based on compositional analysis)
- Use proven moving grate technology
- Use the same proven advanced flue gas treatment systems
- Have a comparable throughput size to our proposed project

The reference facilities allow emissions and input modelling in local conditions, to prove up and ensure that the feedstock, technology, treatment and operations can provide suitable operations – and compliance with regulations in Australia.

Reference facilities are a critical part of the Environmental Approvals process.

Slide 24 Pollutant Management

This slide compares our reference facility emissions (the Covanta project in Dublin, Ireland) with

- The European Industrial Emissions Directive (IED) limits
- The Best Available Techniques Reference Document (or BREF) high limit for Energy from Waste emissions; and
- The Best Available Techniques Reference Document low limit for Energy from Waste

The BREF is considered the “World’s Best Standard” for Energy from Waste and is the benchmark for the Queensland and Victorian Energy from Waste facilities approvals.

The Covanta and Filborna facilities, as our reference facilities, provides a clear demonstration of superior compliance with the document, when using:

- Similar waste streams for feedstock (also from similar jurisdictions based on compositional analysis)
- Proven moving grate technology
- Proven advanced flue gas treatment systems
- Comparable throughput size to our proposed project

Our technology selection is underpinned by comparisons such as these and evidence-based facts will ensure compliance for our facilities in Australia.
Moving now to an overview of the projects we are developing.

Slide 25 Victoria

We acquired a site in late December 2021 in Wollert, Victoria (Northern Suburbs of Melbourne)
The site is substantial, approximately 82 hectares, and will allow for precinct development, as well as large on-site buffers. The site has many other favourable attributes as outlined on the slide. Site investigation studies are substantially complete and are assisting in the preparation of Environmental Permit documentation.

Stakeholder engagement is ongoing with key Government and Industry stakeholders.
The Victorian Energy from Waste policy has an initial cap of 1 million tonnes per annum of Energy from Waste capacity.

A cap allocation from the regulator will be sought in 2022 for our proposed facility.
Moving to our Queensland development on the next slide,

Slide 26 Queensland

We have exclusivity over a 10-hectare site for EfW in South-East Queensland. We are currently finalising the option agreement and will then commence on Environmental Approvals for the project.
Site selection has been critical based on the changes in the regulatory framework in Queensland over the past 12 months – particularly with the issues encountered at Ipswich.

Our site is in an existing Industrial area and is zoned for heavy industry (but it is not in Ipswich). It has good buffers and heavy industrial neighbours as well as good transport and road and rail access, with additional future infrastructure upgrades planned.

Stakeholder engagement has commenced with key Government and Industry stakeholders.

Absent from this pack is a discussion of a New South Wales project. We are continuing to review the situation in New South Wales, but as you are aware our advanced Western Sydney proposal became unviable because of the revised policy. We also looked to develop an option in Lithgow, but the EPA has indicated that our preferred location on the site of the old Wallerawang power station is also now not acceptable.

Moving now to slide 27

Slide 27 Timetable

Given the stage of development of our Victorian and Queensland projects we felt it was more appropriate to lay out a generic timetable for the development of Energy from Waste projects.
I will hand over to Paul now who will take you through the economics of these types of projects.

Slide 28 Project Economics

Thanks James.
I might start by telling you why we believe we are best placed to be successful in delivering Energy from Waste projects. Cleanaway's competitive advantage stems from the strong municipal customer relationships that we have. We understand our customers' needs and wants. We can couple that with our deeply integrated supporting infrastructure network and our logistics in key markets. This will enable us to deliver sustainable waste solutions that others will struggle to replicate.

As James mentioned our projects are at a relatively early stage of development, which means I cannot give you specific project economics today, but we can set out some high-level benchmarks.
In terms of capex, you should be factoring in a range of $700m to $1bn for project capacity ranging from 300 to 500 kilotonne per annum.

This is a step up from what we have previously guided and unsurprisingly global supply chain issues and general inflation have also impacted Energy from Waste. A bigger contribution to the higher figure however is that what we are calling out here is the all-in costs as opposed to the EPC cost previously quoted. This range now captures substation and connections costs and financing costs.
In term of the profile of phasing of the capital expenditure you can expect it to follow an S -curve – low in the first year, then ramping up significantly and then tapering off as we approach commissioning.

We expect revenue will comprise roughly 85-90% gate fees and 10-15% electricity sales. Our investment case doesn't factor in other benefits that might accrue to the project such as co-location benefits or sale of recovered commodities.

The operating costs are expected to be approximately 50% fixed and 50% variable with fixed costs comprising overheads, insurance, utilities, lifecycle and operating costs. The variable costs comprise maintenance, consumables and ash treatment and disposal costs.

The site will typically shut down for maintenance on average about twice per year for a total of 4 weeks per annum.

Thinking about the waste supply to feed the facility we see this as being a blend of long-term municipal contracts, medium term C&I contracts and then uncontracted volumes.

The contracted base volumes will underpin financing and then we can optimise the base volumes with exposure to market pricing for uncontracted volumes.

The infrastructure nature of these facilities means that they will be largely debt funded. The ultimate level of gearing will be dependent on the extent to which the volumes are contracted, but overseas experience suggests that gearing around 60% would be typical. We believe that there will be strong interest from a number of financial institutions to participate in funding a long term, sustainability linked infrastructure project such as these facilities.

That said, the investment and funding of these projects will always have regard to our commitment to a strong group credit profile.

I will now hand you over to Frank to cover the C&D and Organics blueprints.

Slide 29 Construction and Demolition Divider

Thanks Paul. Good morning everyone. My name is Frank Lintvelt and I'm the executive responsible for strategy, sustainability and M&A at Cleanaway. As Paul said, I will take you through the C&D and Organics blueprints, starting on slide 30 with C&D.

Slide 30 Market Opportunity

This slide is similar to the one Mark took you through for the broader strategy, but applied specifically to the C&D blueprint and showing the growth potential for the market.

Up until now, Cleanaway has been under-represented in the large C&D market. Blueprint 2 is about us taking our fair share of this market AND tapping into structural changes that enable GDP + growth levels. Beyond the ongoing growth in overall activity levels, the overall market benefits from rising levies that will boost gate fees and enable investments in advanced resource recovery infrastructure.

Outside of a few players, the C&D market remains fragmented and there is potential to supplement organic growth with acquisitions.

I'll touch on a few of these key drivers in the next slides before outlining how we plan to benefit from the market dynamics and grow our C&D business.

Slide 31 Market Overview

The C&D market generates 27 million tonnes of materials each year which represents around 45% of total core waste generated (ex ash), making it the largest source in terms of volume.
C&D is also the fastest growing market in terms of volume with a 10-year volume CAGR of 4.1% vs 2.0% for the total market and having increased by 52% in the 5 years to 2019. While this growth tends to be a bit more cyclical, with exposure across multiple customer segments and with C&D remaining only one part of a much larger business, we believe any volatility will be immaterial at a group level.

The trend is set to continue based on forecast building commencements with all sectors trending up.

Slide 32 Growth Opportunity

On the next slide you can see the strong correlation between recovery rates and the landfill levy rate. We can see the significantly lower recovery rates in states where there are lower landfill levies. By way of example, before QLD introduced a levy in 2021 the cost to send waste to landfill was below $50 per tonne. At those gate fees, you simply cannot make a return on capital by investing in resource recovery infrastructure.

Mark earlier talked about the significant increases in landfill levies. We see this driving value in the C&D segment with the increased diversion prize enabling investments in new resource recovery infrastructure in key states. We have already seen the impact of this in QLD which has significantly lifted resource recovery rates 30% shown here.

Cleanaway's focus will be on key markets with a high and growing diversion prize as well as key enabling infrastructure.

Slide 33 Sustainable Customer Solutions

Moving to slide 33.
We have talked a lot today about diverting resources from landfills and capturing the diversion prize created through the landfill levy. But these resources need a new home. In the C&D sector, and like other sectors, there is growing demand for recycled content in products.

We have called out some leaders in building materials and construction on this slide. They are increasingly looking to have more recycled content in their building materials and hence buildings. They will set the standard and others will follow or get left behind. Importantly, as businesses progressively look to tackle their scope 3 emissions, it will be things like the embodied carbon in the building they own or operate from that will be one of the major contributors

So the opportunity for Cleanaway is to have an integrated network to internalise C&D volumes and create high quality products back to our customers.

On the next slide we outline how will approach developing this segment in our business.

Slide 34 Our approach

Consistent with our overall customer proposition, our approach to this segment will be to deliver reliable customer service, transparency in high resource recovery outcomes and value for money. We will have diversity across our customer segments with coverage across infrastructure, commercial and residential construction sectors. We will have targeted solutions to suit different customer requirements.

We will develop a vertically integrated network of resource recovery facilities to maximise the economic benefits of internalisation, to control product quality and provide transparency on resource recovery outcomes.

What will be different to before is that we will establish a focused and specialised C&D team. We will have dedicated management, operations and sales and customer teams. We had previously sought to run our C&D effectively as a bolt on to our C&I business – but C&D is a different business with different operational characteristics and value drivers.

To be great at C&D, it needs to have that dedicated focus where, as a team, we can attack the value drivers and develop those sustainable customer solutions.

Fortunately, we are starting from a fairly good position. We have an existing business that we can expand and with a new, dedicated focus we can optimise Cleanaway's existing C&D collections and resource recovery business. We can leverage our related infrastructure, including transfer stations and landfills which will be critical parts of the vertical value chain.

From there we can grow across the value chain from collections to resource recovery and infill footprint gaps though a combination of green and brownfield developments and selective acquisitions.

I will now move on to our Organics blueprint.

Slide 35 Organics divider

Slide 36 Overview

Organics is the fastest growing Blueprint category, as more and more councils move to source separated organics collections. In our Organics strategy, we will target food and garden organics, as well as grease trap waste through our liquids business. We will develop a vertically integrated business comprising collections, processing, and product sales, with feedstock volumes sourced from a combination of long term council contracts and commercial & industrial customers.

Structural changes in the sector are creating the need for new organics processing infrastructure beyond the traditional open windrow composting facilities, including in-vessel composting, anaerobic digestion, and other innovative solutions. Cleanaway will consider each of these options depending on feedstock, volumes, location and customer preferences, in order to provide fit for purpose solutions.

Slide 37 Growth Opportunity

The organics growth opportunity is significant, with two key factors driving growth.
Firstly, we see a step change in volume growth in an already sizeable market - current recycling rates are relatively low at around 52% and are expected to increase over the coming years as mandated targets are implemented and as customers seek improved resource recovery outcomes.

Organics currently presents the largest opportunity for landfill diversion and resource recovery. Across Australia there are a range of organics recycling targets in place for the coming years. If national recycling rates of 80% are achieved, the organics market will increase by 55%, from 7.5mt today to almost 12 mt.

The second driver is price growth. Much of today's volume is garden organics which attracts relatively low rates compared to when this garden organics is mixed with food organics which requires a shift to more advanced and higher cost processing technologies.

These two factors, market growth and increased product value, present an attractive opportunity for Cleanaway.

Slide 38 Regulations

I won't dwell on this slide, other than to highlight that there are regulatory tailwinds driving the organics sector growth. Across Australia we're starting to see various FOGO and food waste regulations come

into play, with aggressive targets being set for the next five to ten years. If we take NSW as an example, they've recently introduced mandatory council FOGO collections by 2030, and mandatory commercial and industrial food waste collections for certain sectors by 2025. The regulatory and policy changes that we're seeing, to some degree in all states, will significantly increase the need for FOGO processing to meet the growing demand.

Slide 39 Infrastructure

Now, as we transition towards higher rates of food in our organic waste feedstock, the existing infrastructure will become less suitable. Currently, most garden organics are processed at open-windrow composting facilities, which are outdoor and have limited odour controls. Given the odour that can be produced through FOGO processing, these open-windrow facilities are less suited to FOGO feedstock, particularly in or near metropolitan areas. Instead, the industry is likely to move towards the development of in-vessel composting facilities, which are enclosed and can therefore have more effective odour controls. We anticipate that these types of developments would be underpinned by long term council contracts. Smaller regional areas could also be served by in-vessel composting facilities, or other technology solutions for FOGO.

Slide 40 market opportunity

Moving on to the next slide. Given most of the existing organics infrastructure is not suited to FOGO processing, there are emerging market opportunities across the country, particularly on the east coast and in WA. On the right-hand side of this slide you can see a map showing the market size per state, at current rates of organics recovery and at 80% recovery rates. This highlights the potential size of the opportunity over the coming years.

In Victoria, QLD, WA and Tasmania, there is currently limited FOGO processing capacity. This presents an attractive opportunity for Cleanaway to deliver the necessary capacity to meet expected demand.
In NSW, in addition to the growth in the market, the industry is also currently transitioning away from processing mixed waste organics, and is instead looking to source separated FOGO processing. This requires a change in existing infrastructure, which will further increase the opportunity for Cleanaway to expand its NSW footprint.

Slide 41 Cleanaway Opportunity

Our ability to offer integrated solutions to our customers positions us well to win long term organics contracts which will underpin the development of new facilities.

In addition, our existing relationships with key C&I partners will allow us to support these organisations in meeting their landfill diversion targets, by providing a range of organics collection, depackaging and processing solutions.

We have the ability to leverage our existing sites, infrastructure and capabilities and have sufficient capital available to rapidly progress significant infrastructure projects.
That concludes the section on the Organics Blueprint.

I'll hand you back to Mark.

Slide 42 Landfill optimisation divider

Thanks Frank.

Slide 43 Licencing opportunity

While we have spent a bit of time today talking about resources that we are looking to keep out of landfills it is important to note that landfills remain critical infrastructure.

As such it is increasingly important to explore ways to extend the life of existing sites, and selectively invest in new capacity to ensure there is sufficient airspace.

There are also several ways we can look to maximise the value of our existing airspace, including:

- More sophisticated pricing models to better reflect the varying cost of disposal
- Better compaction to increase the volumes per cubic meter of airspace
- Expanding licenses to tap into high value waste streams, and
- Optimising day-to-day operations

As an example, we recently received approval to receive asbestos containing waste at our Melbourne regional landfill.

Importantly, most of these initiatives are capital-lite, and hence high-returns investments
Moving to the next slide on optimising gas recovery infrastructure.

Slide 44 Gas recovery infrastructure

As Taku mentioned earlier, landfill gas is the largest source of our greenhouse gas emissions, so our internal carbon management is the first step towards creating Sustainable Customer Solutions for residual waste. This blueprint is a key enabler of our value proposition to customers.

We are currently exploring optimal ways of reducing emissions from landfills and maximising the economic benefits of the landfill gas produced.

New investment options including generating renewable energy, producing compressed natural gas for vehicles, and other uses will be built into our marginal abatement cost curve and assessed against our capital allocation framework. From the work we have done to date we are confident that increasing gas capture efficiency will be one of the most cost-effective ways of tackling our greenhouse gas footprint.

Slide 45 Core Infrastructure Expansion divider

Moving now on to the core infrastructure expansion blueprint.

Slide 46 Core Infrastructure Expansion

Footprint 2025 saw significant investment in the expansion and upgrade of our resource recovery infrastructure. Under this blueprint we will continue to expand our existing core business across all segments to build on our competitive advantage and capture efficiencies.

As part of our periodic footprint reviews, we do a detailed deep dive across all segments and regions to seek out new and emerging opportunities. This is complemented with regular market developments and opportunities that are being identified by our branches.

As the name of this blueprint suggests it is core to what we do. As no doubt you have observed the blueprints that we have discussed today are all closely tied to the solid waste services segment. That is more a reflection of the scale of those waste streams relative to the other business units.

Investments in our Liquid Waste, Health Services, Hydrocarbons and Industrial and Waste Services are typically much smaller scale, but they are still assessed under the Group's capital allocation framework. On the next slide we have select three examples of these types of investments.

Slide 47 Examples

The Blacktown MRF is being developed off the back of winning the Blacktown Council commingled recycling contract. It has gone through its state significant development approval public exhibition. Site preparation is underway, including demolition of existing structures on site and a builder has been engaged. This will be our first commingled MRF in the Sydney region.

In the Health services business, we are undertaking expansion and enhancement of our autoclaves.

In Yatala in Queensland, we have recently commissioned two new autoclaves, we have one under construction in Tasmania, site mobilisation of another is underway in Silverwater in NSW and we have identified a new site in Victoria.

Finally, the Victorian team identified an opportunity to develop a Bendigo Transfer Station. With the local landfill closing down towards the end of 2023, our team saw the opportunity to capture circa 15 kilotonnes per annum. Due diligence on the land has been completed, the land was purchased and site layout and planning underway.

Moving on to slide 49, which is another core part of our business, container deposit schemes, and one that we hope to see grow significantly over the new couple of years.

Slide 48 Container Deposit Schemes

As you may have seen reported, the TOMRA-Cleanaway joint venture will continue in the role of Network Operator under the New South Wales Container Deposit Scheme (CDS), 'Return and Earn' until late 2026, with the Network Operator Agreement having been recently extended for four years.

Under the extension agreement, TOMRA Cleanaway continues to be responsible for the NSW Container Deposit Scheme network of return points, including Reverse Vending Machines, over-the-counter drop offs and automated depots. The joint venture will also be responsible for recycling collected containers and ensuring this material is sent to appropriate destinations, such as the Circular Plastics Australia facility in Albury. The joint venture has also committed to greater community access to the scheme by increasing the number of collection points across NSW. This extension will support further investment in the collections and processing network over time.

We are also looking to participate in the upcoming Victorian and Tasmanian schemes.
In Victoria, the scheme is expected to commence mid-2023. A two-stage procurement process is being run with final appointments due October 2022. Victoria is going to run a split responsibility model - a Scheme Coordinator and one or more Network Operators, which is the same as the NSW scheme. We are supportive of this approach given the success of the model demonstrated through the NSW scheme. The procurement process allows bids for one of, or up to all of six Network Operator zones. There are three metro and three regional zone. For context there are seven zones in NSW and all are operated by the Tomra-Cleanaway joint venture.

We would hope given the success of the NSW scheme that our credentials will be a key factor through the procurement process. Our ability to deliver bottle to bottle circular solutions should also stand us in good stead.

Similarly in Tasmania the scheme is expected to commence mid-2023. It is also running a two-stage procurement process, which commenced in April 2022. Final appointments are expected late 2022 The same split responsibility model as NSW and Victoria will apply with a Scheme Coordinator but only one Network Operator for the whole of the State.

Success in one, or both, of these procurement process will drive further investment in our core infrastructure and fleet, including the potential opportunity to further expand our plastics reprocessing capacity.

That's a good segue way for me to hand to back to Frank who will take you through our innovation blueprint.

Slide 49 innovation divider

Slide 50 To lead in circularity and carbon

Thanks Mark. I'm now on slide 51.

This Blueprint recognises that continued investment in new solutions and technologies is required to move ever closer to a fully circular economy. There are three key focus areas:

The first is to constantly push to reduce waste sent to landfill. This is about targeting waste streams with low resource recovery rates and identifying new ways to collect, sort and process these. One example is textiles – a large market with very low recycling rates beyond the re-use market. Another example is soft plastics. Both of these require new technologies to enable effective resource recovery.

The second is to create more sustainable solutions for materials already collected. This is about finding the highest order, most circular and lowest carbon outcomes for these materials. Our investments in plastics pelletising which I'll touch on in a moment are a great example of this.

The third is to tap into large, new and emerging waste streams linked to the energy transition and other structural changes.

We will invest in proven technologies and support the development of emerging technologies to achieve these objectives. In doing so we will be able to offer our customers sustainable solutions that will make us a supplier of choice.

Importantly, our national footprint and capabilities in sourcing and sorting materials that can be recovered are key competitive advantages to enable these investments. We understand our strengths and know the boundaries of our expertise so our success will be driven by partnerships across the value chain and through working with technology providers.

The next slide is a great example of those value chain partnerships.

Slide 51 Mechanical Recycling

To provide our customers with the most circular solutions in plastics we have formed a unique cross value chain partnership to create a domestic network of mechanical recycling facilities which create pellets as a substitute for virgin plastics to enable bottle-to-bottle solutions.

There are many different types of plastics. Four major polymers used in packaging which comprise just over half of total consumption are suitable for mechanical recycling, depending on the packaging form. They each require different processing technologies and we are targeting solutions for each of these. The first facility commissioned is the $45million PET plastic pelletising facility in Albury which can process the equivalent of 1 billion plastics bottles. Our volumes from the container deposit scheme in NSW and from our MRFs and plastic recovery facility here at Laverton are processed through Albury. We have a similar second PET facility under construction in Melbourne, supported by a $6m grant from the Victorian and Federal governments. This takes the combined PET processing capacity to around 60kt. Cleanaway is a 33% shareholder in these two businesses through our CPA joint venture with Pact, Asahi and Coca-Cola.

We have entered into a separate 50/50 JV with Pact to develop 20kt HDPE and PP pelletising facility on this site at Laverton on land that was acquired as part of the original SKM acquisition. The Victorian and Federal Governments have awarded $3 million in grant funding for this facility.
Lastly, we are well progressed in developing a mechanical recycling solution for plastic film made from LDPE plastic.

Slide 52 Feasibility Studies

Finally, I will touch on two feasibility studies that we are working on with other joint venture partners. What I would say at the outset is that these are just an illustration of the types of circular solutions we are looking to participate in. Even if they are commercialised, and some won't succeed, they are unlikely to be material to the overall Cleanaway group. However, they are strategically important to our customer proposition, and we believe they will play an important role in making us that supplier of choice.

As Mark mentioned earlier, we would hope our ability to provide a circular solution for plastics will stand us in good stead in the upcoming CDS procurement processes. Similarly, when tendering for large national accounts or municipal contracts, being able to offer a suite of circular solutions for an increasing number of waste stream should prove beneficial.

So, moving to the two feasibility studies that we have called out on slide 52.

We are participating with Qenos in feasibility study into chemical recycling of polyethylene polymers. Australia has set ambitious targets for packaging circularity by 2025, including 50% average recycled content in packaging, with a 10% target for soft plastics initially. Not all plastics are suitable for mechanical recycling and to meet the 50% target requires this to be complemented by chemical recycling.

The second study is relevant to our Liquids business and relates to new processing solutions for our grease trap waste and other fats and oils. Our grease trap is currently de-watered with residuals mostly sent to composters. Through this study we are seeking to convert it into sustainable fuels and other industrial products utilising our partner's proprietary process. It's an early-stage feasibility study with ambition to develop production trial should it pass through the appropriate stage gates.

That concludes the innovation blueprint overview and I'll hand you back to Paul to run you through the capital allocation framework.

Slide 53 Capital Allocation divider

Slide 54 Capital Allocation Framework

Thanks Frank

With regards to capital allocation, our over-arching principle is that we are committed to maintaining a strong balance sheet. In the last 12 months we have increased our focus on how we are allocating capital across the group and have improved our processes to support our capital decision making process, for example:

- We are developing a pipeline of projects so that we have visibility of all of the opportunities we have to deploy capital. This moves us away from the "first come first served" mentality into a focus on risk and return. It also gives a clear view as to the complete opportunity set and helps us be more selective about what new opportunities to go after

- We have a more comprehensive approach regarding how we assess the risk of particular projects, so we have a better understanding of what could go wrong and hence how we can better manage the downside risk.
- We are undertaking detailed post implementation reviews, so that we can learn from past decisions - both good and bad
- We have stronger focus on the split between Maintenance capital and Growth capital - history tells us that we spend about two thirds of our capital on maintenance capex, the major variable in maintenance capex tends to be cell development costs which are lumpy in nature.

You have heard Taku talk about our approach to Carbon and as we develop our thinking in this area, you can expect to see capital being allocated to projects that will deliver on meeting our greenhouse gas emissions targets.

Our benchmark is always relative to a return of capital to shareholders and our growth opportunities are assessed with that in mind. M&A has always been a part Cleanaway's growth strategy and we expect that to continue. We see there being limited opportunity to undertake large-scale M&A but we will consider bolt-on transactions where organic solutions are not available. You should also expect to see that we will continue to deploy capital into JV's or partnerships such as our plastics JV's where it makes sense to draw on the skills of other parties and diversify risk.

Slide 55 Capital Deployment and Returns

As Frank and James have discussed above, for Energy from Waste and Organics, the timing around when we will deploy capital is uncertain. The capital expenditure for these projects is most likely going to be underwritten by contractual volumes and more certain cash flows. Consequently, you should expect that the returns that we will earn will be more akin to infrastructure projects.

Capital deployed into C&D, Landfill optimization and core infrastructure will be similar in nature and quantum to what you have seen Cleanaway spend in the past. We may undertake some limited bolt-on M&A but this would be because there are no superior organic solutions available. With regards to landfill optimization which Mark talked about, there are a number of initiatives in this space which require little or no capital and these will be prioritized.

The maturity of the initiatives in the Innovation Blueprint varies. We have three plastics JV's which are well progressed and where the equity contribution is modest. There are other projects that are in the feasibility stage and for the foreseeable future we do not expect to be deploying significant amounts of capital on these initiatives until the technical and commercial viability is proven.

The returns from these projects and opportunities are all assessed against our capital allocation hierarchy with regard to their risk-adjusted return profile. We are seeking a balanced portfolio of projects that provide us with a blend of risk and return.

I will now pass you back to Mark for closing remarks

Slide 56 Closing Remarks

Thanks Paul.

There was quite a lot covered in today's materials, so I'll try to bring it all together for you.

At the start I said that in Blueprint 2030 we will create superior shareholder value by integrating and extending our leading network of infrastructure assets to provide high-circularity low-carbon solutions, seamless customer service and value for money for our customers.

The supportive regulatory settings and customer demand for sustainable solutions create strategic tailwinds for us. The value of the industry will grow with the increasing diversion prize. The transition to a more circular economy moves investment opportunities further up the waste hierarchy. Sophisticated and vertically integrated participants will be best positioned to invest in the new resource recovery and processing infrastructure.

For Cleanaway, this will make our business more infrastructure-like complemented with the already defensive characteristics that it displays.

Cleanaway has an opportunity to grow its market share in segments that it is under-represented. We will do this thoughtfully and purposefully. We will seek to invest in at scale strategic infrastructure that is necessary to deliver landfill diversion goals. And we will continue to expand and optimise our core infrastructure to deliver for today and improve for tomorrow.

And we will support innovation to deliver on our customer proposition of service and value and sustainability. Setting targets and actioning plans to manage our own greenhouse gas emissions is critical to the sustainability leg of our customer proposition and weaves through our strategy.

As a business and as a Cleanaway team we are united by our purpose of making a sustainable future possible together.
Thank you and that concludes the formal presentation. I'll now open to the floor for questions.