



Australia's First Energy Recovery Facility

*Infrastructure and Technology to support
the Circular Economy*

Presented By:

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THE ENERGY RECOVERY JOURNEY



Energy Recovery Facilities:

- use reliable world leading industry technology
- are safe for people and the environment by design
- are highly efficient in the recovery of energy



Common positive messages to avoid misconceptions:

- a. **Energy Recovery** not “Waste to Energy” or “Energy from Waste”
- b. True **Resource Recovery** - both Materials & Energy
- c. **Thermal Treatment & Processing** not Burning or Disposing



Energy Recovery does not interfere with recycling performance

EU countries with the high recycling rates all use Energy Recovery extensively to process residual waste



Overall, Energy Recovery:

- Underpins every **Waste Strategy**
- Supports the **Waste Hierarchy**
- Powers and closes the **Circular Economy**

KWINANA ENERGY RECOVERY



Australia's first Energy Recovery facility using proven world leading technology to deliver safe, clean and reliable resource solutions



Backing the decarbonisation agenda by providing sustainable energy solutions and supporting the circular economy



Up to 460,000 tonnes of waste diverted from WA landfill annually reducing 35% of Perth and Peel's non-recyclable waste.



Exporting up to 38MW of renewable baseload power, equivalent to supplying more than 55,000 Perth households



Certified by the Clean Energy Regulator (CER) to produce Large-scale Generation Credits (LGC's)



Supporting the Waste Hierarchy by recovering ferrous and non-ferrous metals for recycling



Producing IBAA, a sustainable construction aggregate product, avoiding virgin material use



ACCIONA - Experts In Designing A Better Planet



ACCIONA has become the largest global energy operator dedicated to renewable energies, excluding Chinese operators



ACCIONA owns and operates renewable energy assets such as onshore wind, photovoltaic, biomass, hydroelectric and solar thermal power facilities



ACCIONA is committed to meeting the demand for large and complex projects worldwide. Few organisations have the required skillset or are better suited than ACCIONA to deliver challenging projects



ACCIONA's mission is to develop renewable technologies at a global level to help the world move towards a more sustainable, balanced and efficient energy system

ACCIONA GLOBAL THERMAL PROJECTS



NESS WTE – ABERDEEN, UK

Throughput • 150k TPA

Electrical Export • 14.0 MW



CUBILLOS DEL SIL BIOMASS – LEON, SPAIN

Throughput • 370k TPA

Electrical Export • 41.5 MW



NLHPP WTE – LONDON, UK

Throughput • 700k TPA

Electrical Export • 66.9 MW



KELVIN WTE – BIRMINGHAM, UK

Throughput • 370k TPA

Electrical Export • 41.5 MW

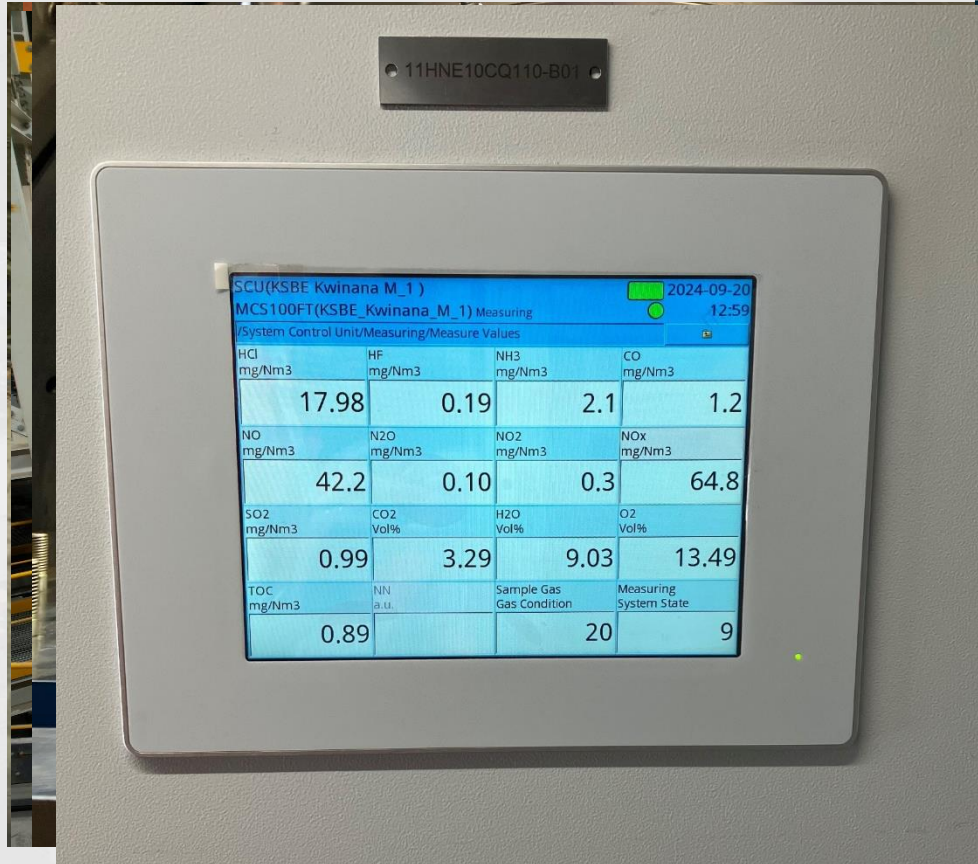
FACILITY UPDATE



- ✓ March 2024 – Change of Ownership
- ✓ May 2024 – Pre-Commencement Approvals Completed
- ✓ June 2024 – First Boiler Firing on Gas
- ✓ July 2024 – First Waste Delivery
- ✓ July 2024 – Steam Blow Complete
- ✓ August 2024 - First Fire on Waste
- ✓ September 2024 – First IBA Off-Take



ENERGY RECOVERY PROCESS



6. CONTINUOUS EMISSIONS MONITORING SYSTEM

Once the flue gases have been treated, the cleaned gases comprising mainly of air and moisture are blown to the stack where they are continuously monitored to ensure compliance with air quality standards

The entire process is controlled to optimize efficiency in the combustion, heat and steam recovery and electrical energy generation while maintaining environmental process control. All of which are monitored by the Operations team 24 hours a day

The facility adheres to strict air quality standards set by the Environmental Protection Authority which accord with the EU Industrial Emissions Directive



ALIGNMENT WITH NATIONAL ACTION PLAN



Achieve 80%
Resource Recovery
by 2030



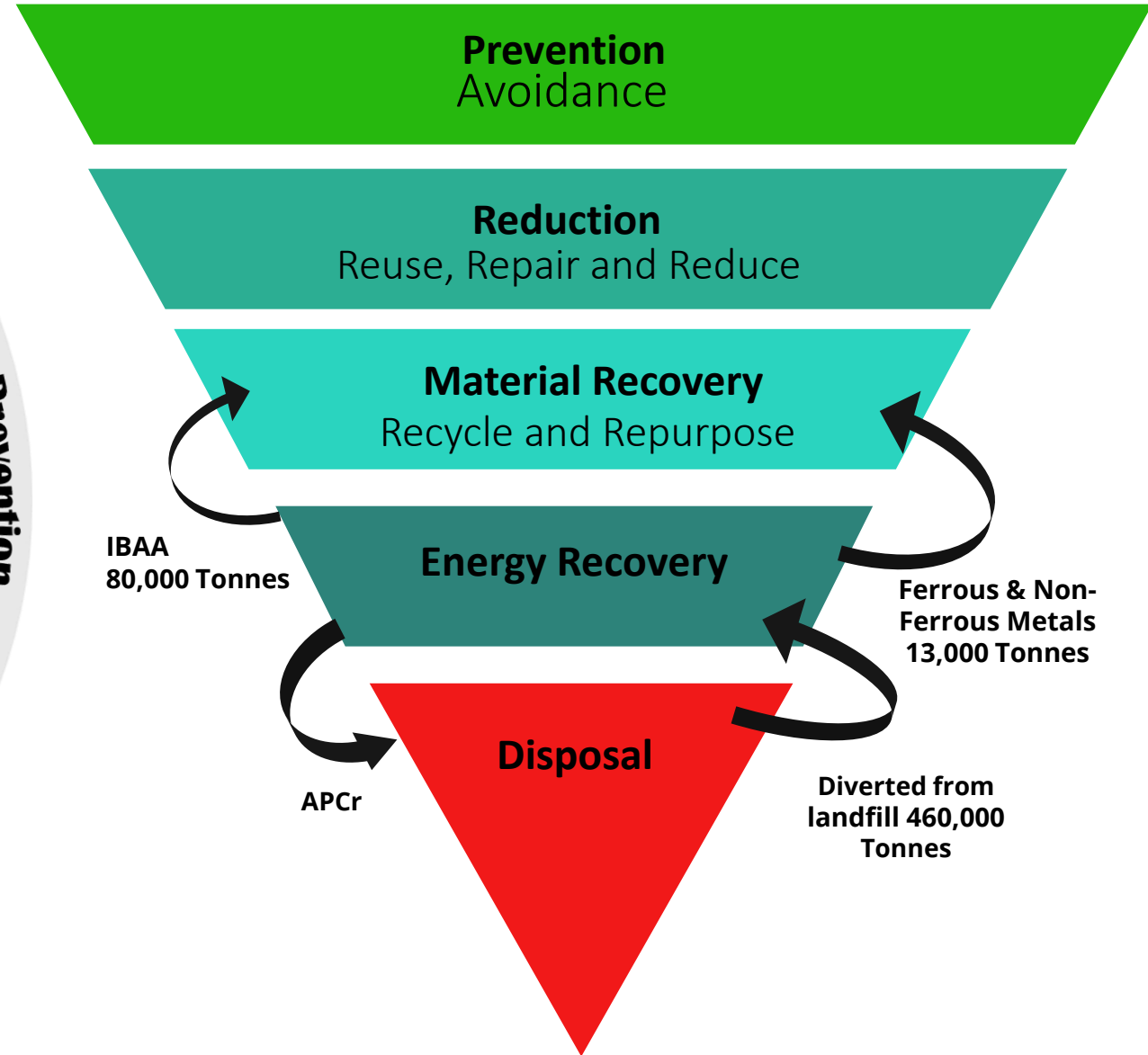
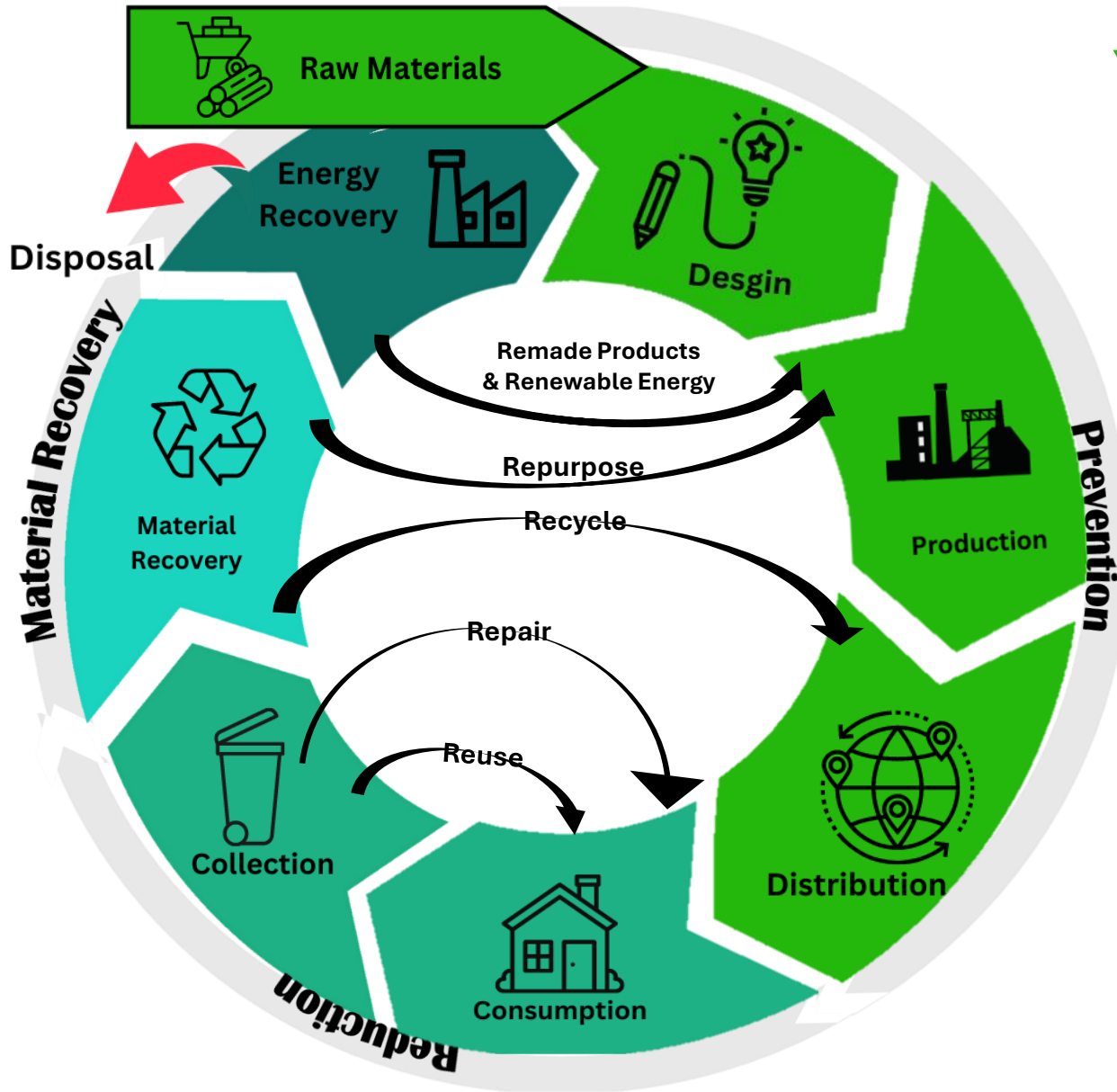
Significantly
increase the use of
recycled content by
governments
and industry



Halving the
amount of organic
waste sent to
landfill by 2030



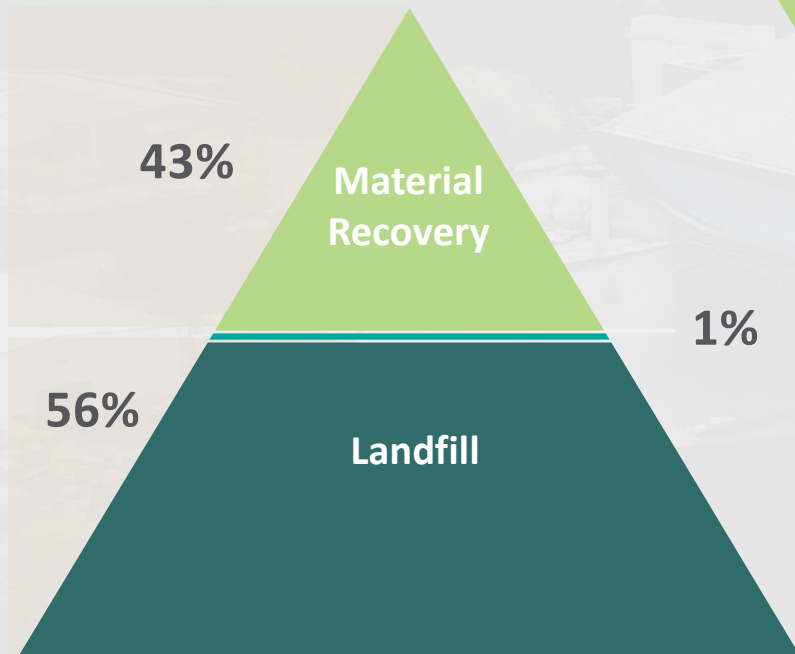
CLOSING THE CIRCULAR ECONOMY



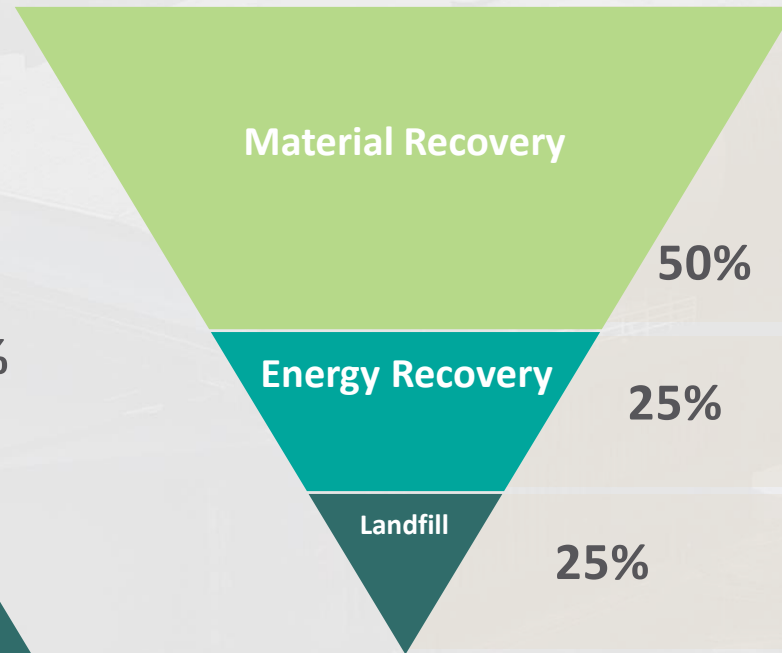
THE IMPACT OF ENERGY RECOVERY IN WA



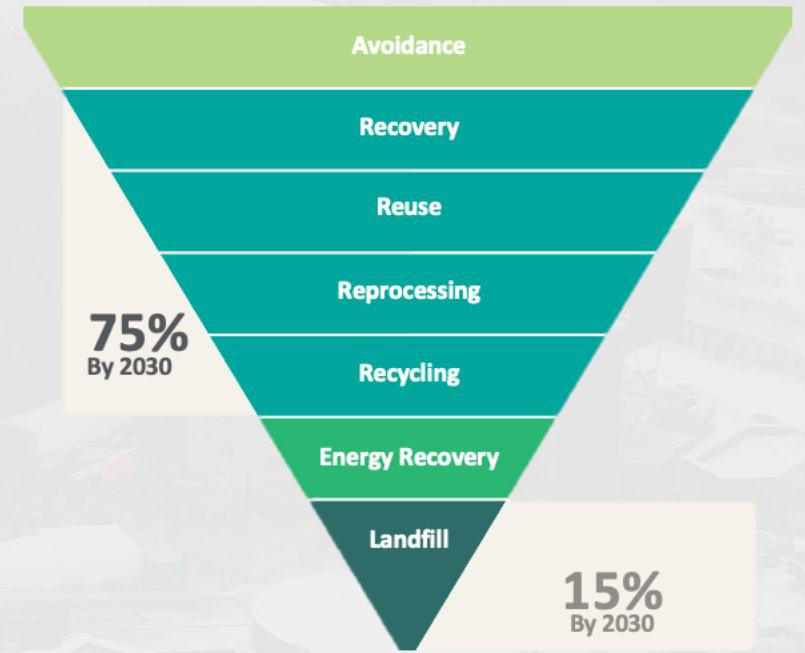
2022 ACTUAL



2025 PROJECTION



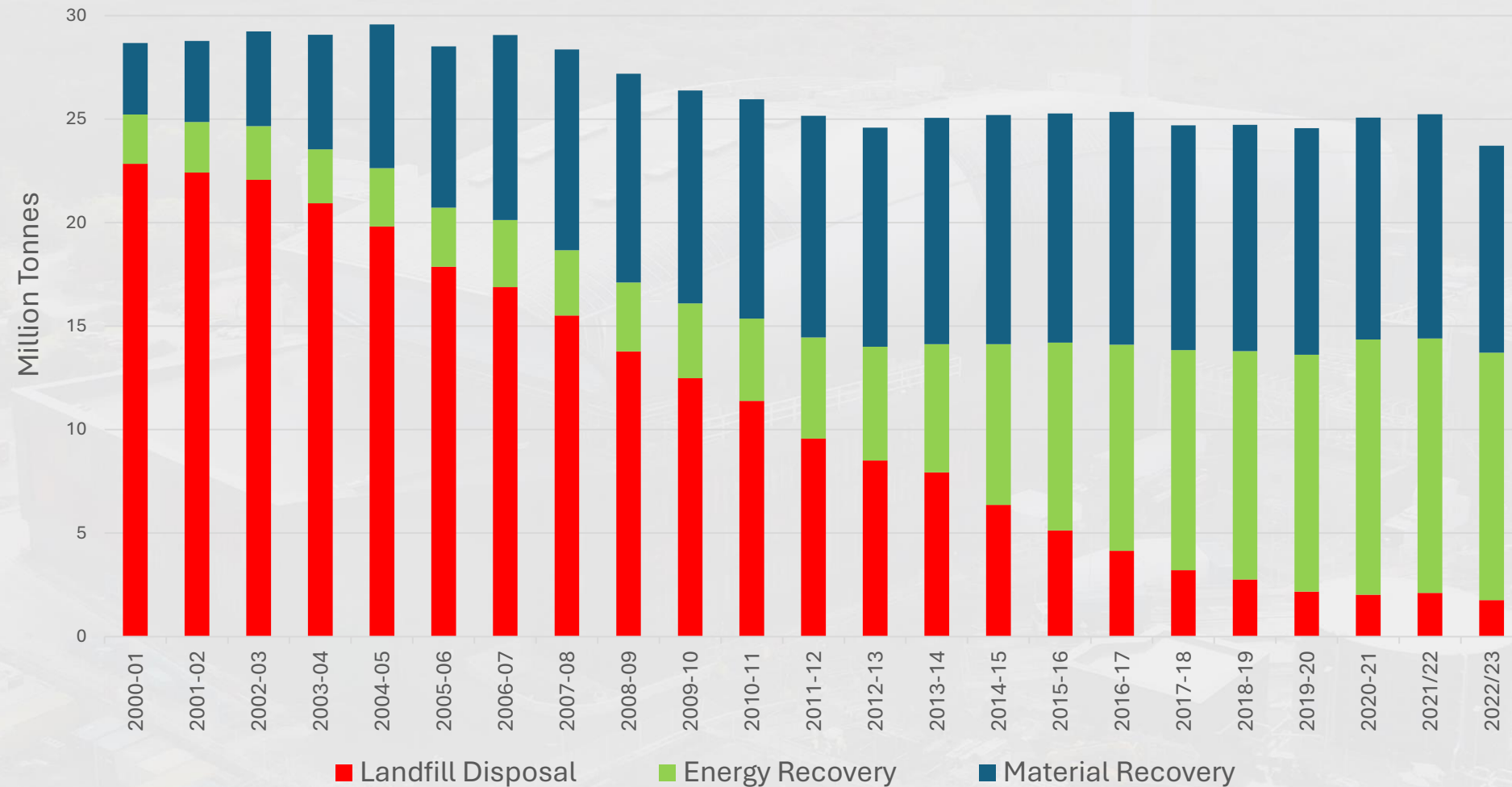
WA WASTE STRATEGY



THE UK ENERGY RECOVERY JOURNEY



MANAGEMENT OF LOCAL AUTHORITY COLLECTED WASTE FOR ENGLAND





Questions?



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