



Commissioning for a Net Zero Future

Environment & Waste Services Programme 2024 - 2030

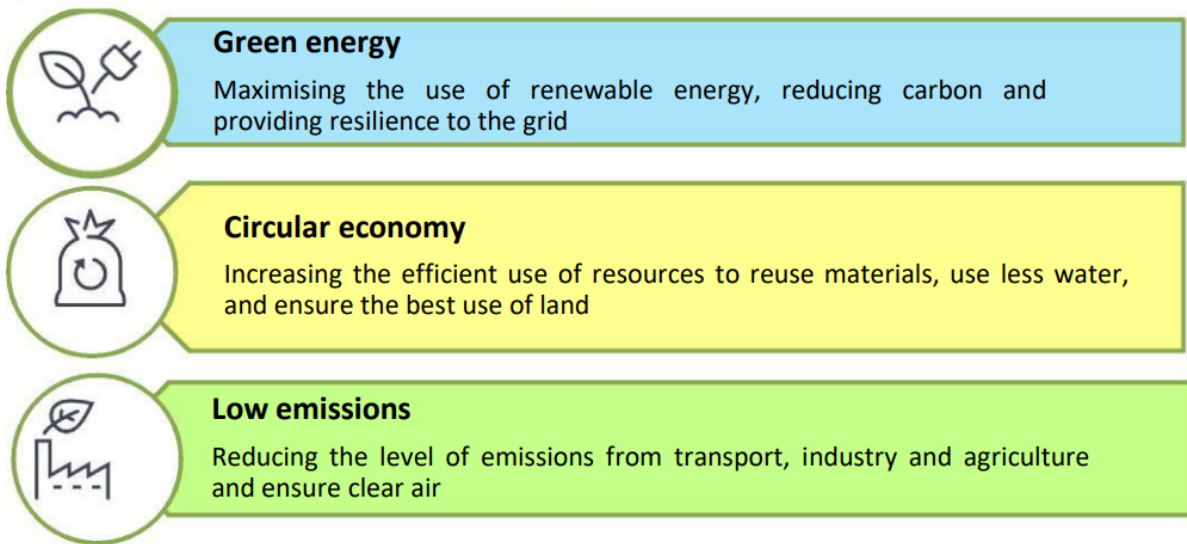


Commissioning for a Net Zero Future: Environment and Waste Services

In the Milton Keynes Sustainability Plan 2020 – 2050 the Authority has outlined its ambition to be the world’s greenest and most sustainable city. Milton Keynes will become carbon neutral by 2030 and carbon negative by 2050.

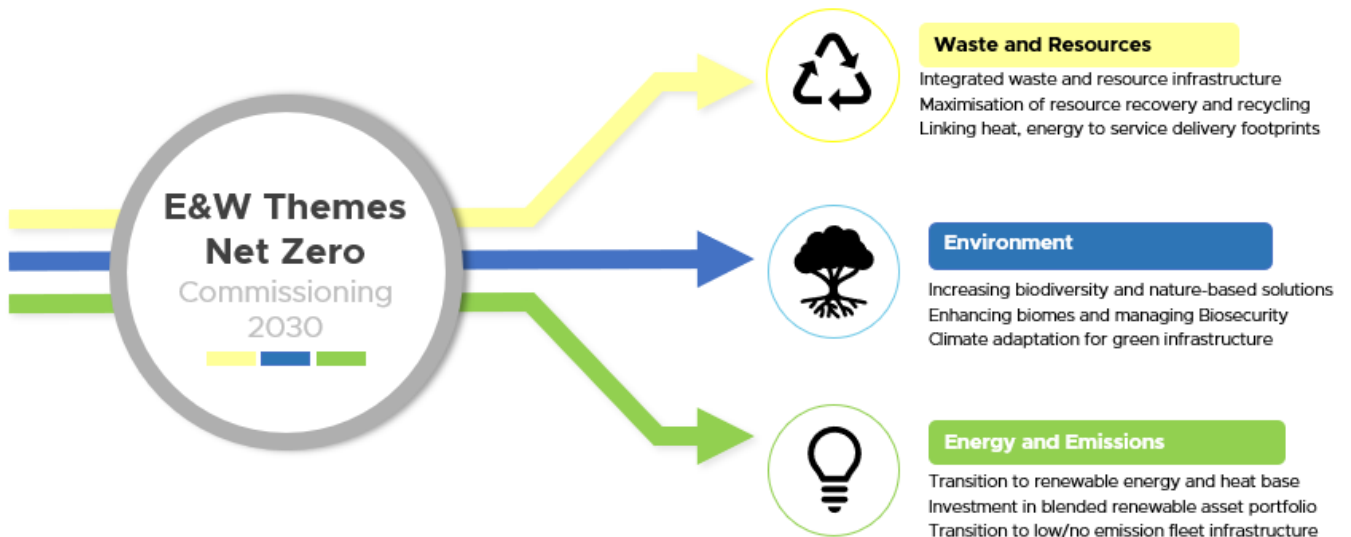
Our three priorities as outlined in this strategy are: a green energy revolution, to ensure the most efficient and low impact use of our resources, and to create a prosperous circular economy.

Figure 1 Sustainability Plan – Three Priorities






The core service themes that the Authority will be commission, procure and deliver for our Commissioning Programme for 2024 – 2030 are outlined below.

Figure 2 E&W Delivery Themes for Sustainability Plan



Each theme works independently for project delivery, but the commissioning programme will be able to demonstrate the interlinked benefits of the projects and how they work to intersect two or even all three themes. This will ensure that we are embedding the principle of sustainability being ‘built into’ as opposed to ‘bolted onto’ our programme and will yield the greatest possible carbon reductions towards reaching our Net Zero 2030 goal.

The core driver for the themes above is the outcome of decarbonisation. This decarbonisation must be undertaken through a range of environmental management principles all of which drive a reduction in the production of carbon or preferably, a complete avoidance in the production in the first place. These environmental management principles carry across the service themes as identified below:

 <p>Waste & Resources</p>	<ul style="list-style-type: none"> - Embedding the Circular Economy system to enable the reuse of materials or products for use within our services. - Transforming our waste to a new fuel for heating, electricity and investing in the infrastructure to undertake this process. - Recycling and pursuing Reuse and Waste Minimisation initiatives while working to reducing single use materials and landfill
 <p>Environment</p>	<ul style="list-style-type: none"> - Biodiversity enhancements and improvements as a core outcome for the environment by expanding biomass and diversity. - Carbon Capture pursuit through biomass increases such as tree planting and improvements to stock. - Biosecurity risk management of pests, enhancing populations and stock in aquatic and ecological habitats - Sustainable Urban Drainage to support flood resilience
 <p>Energy and Emissions</p>	<ul style="list-style-type: none"> - Decarbonisation of our use of fossil fuels for electricity and heat provision and investing in renewable energy production methods - Transitioning from hydrocarbon-based fuels and vehicles to alternative fuel and electrical infrastructure powered by renewables. - Transferring energy and heat to the utilities sectors for most appropriate usage based on demand across Milton Keynes



“We will bring Greenest City and Sustainability outcomes together for Net Zero 2030”

To ensure the delivery of the above principles that can drive the outcome of decarbonisation each theme will have a delivery programme for Commissioning for Net Zero 2030 (Environment and Waste Services). These are outlined below together with the target and delivery timeline.

		
Waste & Resource Programme	Theme / Target	Timeline
Composition, delivery and approval of new Waste Strategy 2025 – 2050 including: <ul style="list-style-type: none"> - Proposals for infrastructure delivery post 2042 - Key strategic goals for authority working with Sustainability Plan on Net Zero and 2050 Plan 	Integration Recycling & Decarbonisation	November 2025
Commissioning and procurement of Milton Keynes Waste Recovery Park (MKWRP) for a new provider to manage our facility and reposition it as our energy and heating hub to power and heat our city, services and assets.	New contractor	April 2026
Commissioning and procurement of the Waste Transfer Station to manage the cities dry recycling, access domestic commodities markets, reduce contamination, manage complex clinical and hazardous waste streams.	New contractor	April 2026
Delivery of Phase 2 and 3 of the Waste Transfer Station (WTS) programme including: <ul style="list-style-type: none"> - Shredder installation (so that bulky /Persistent Organic Pollutants (POPs) can be processed) and integration with private wire. - Mechanical Sweepings Bay (for precious metals extraction from sweepings) - Refurbishment of offices for staff and contractor accommodation 	Cyclical Economy Recycling Integration	September 2024 April 2024 April 2025
<div style="display: flex; justify-content: space-around; align-items: center;"> <div style="background-color: #ffffcc; padding: 10px; border: 1px solid black; width: 30%;"> <p>Phase 1</p> <ul style="list-style-type: none"> Conversion of MRF to WTS Compliance Drainage / Permit </div> <div style="font-size: 2em; margin: 0 10px;">▶</div> <div style="background-color: #ffffcc; padding: 10px; border: 1px solid black; width: 30%;"> <p>Phase 2</p> <ul style="list-style-type: none"> Installation of shredder Mechanical Sweepings Bay Clinical Waste Bay </div> <div style="font-size: 2em; margin: 0 10px;">▶</div> <div style="background-color: #ffffcc; padding: 10px; border: 1px solid black; width: 30%;"> <p>Phase 3</p> <ul style="list-style-type: none"> Refurbishment Integration Procurement </div> </div>		

Redevelopment and re-procurement of Household Waste Recycling Centres (HWRCs). Working to improve the efficiency of the facilities through a capital improvement programme.	Recycling New contractor	April 2026 April 2028
Review of Environmental Services Contract	contractor	April 2028
Review of organics collections service including cost and potential alternative collection options Review and assessment of MKCC managed organics facility such as an open wind row composting facility	Recycling Cyclical Economy	June 2025 April 2028
Completion of Green Farm / GK Switchgear property swap Conversion of GK Switchgear asset to MKWRP Spares facility and Fleet Hub	Integration Cyclical Economy	January 2025 March 2026



“We will use our waste to power all of our waste collection landscaping, cleaning and fleet services and to heat our city”

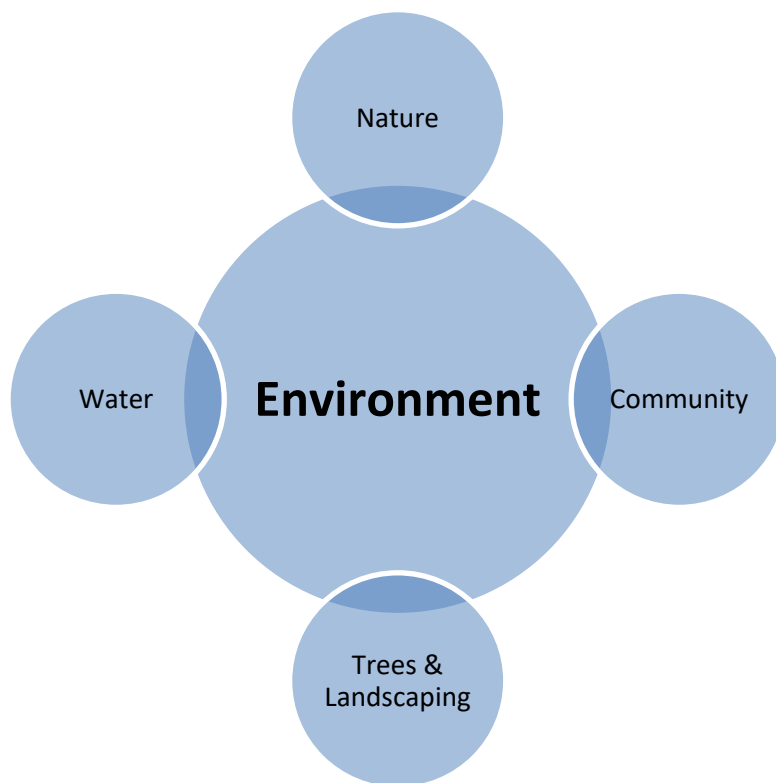
Environment Commissioning for a Net Zero Future 2030 Delivery Programme

To ensure the delivery of the above principles that can drive the outcome of decarbonisation each theme will have a delivery programme for Commissioning Net Zero 2030. These are outlined below together with the target and delivery timeline.



Environment Programme	Theme / Target	Timeline
Update our Greenest City Programme and Action Plan with our Conserve, Restore, Create, Engage principles.	New delivery plan	April 2025
<p>Conserve and protect existing sites of biodiversity, wildlife areas and the principles of multi-functional green spaces, linear parks, wildlife corridors and designated sites.</p> <p>Restore and manage species and habitats appropriate to Milton Keynes and its wider regional physical and geographical context in a way that mitigates against and adapts to a changing climate.</p> <p>Create new green infrastructure and biodiversity assets that are interconnected and integrate with the way ecosystems work and enhance the capacity of our natural environment to provide ecosystem services.</p> <p>Engage people with natural environments rich in wildlife, enabling and promoting access to allow them to enjoy and experience the natural environment and the benefits to public health, regardless of age, race, ability or gender.</p>		
Biosecurity Action Plan	Biosecurity	July 2024
Nature Based Solutions and Pesticides Policy	New delivery plan	October 2024
Delivery of Landscape Transformation Programme across Milton Keynes linking to Conserve, Restore, Create, Engage principles.	Biodiversity and Climate Resilience	Ongoing
Delivery of Local Nature Recovery Strategy working the Natural Environment Partnership	New delivery plan - Biodiversity	July 2025
Delivery of local orchard renewal and improvements across Milton Keynes including supporting local food production with agricultural sector	Local Production & Biosecurity	April 2028
Delivery of new Flood and Water Management Strategy including Flood Resilience programme	Climate Adaptation and Resilience	April 2025


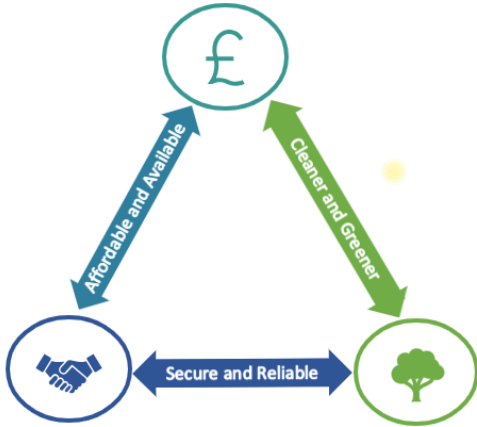
Establishing a Sustainable Adoptions Body (SABs) to deal with the design, approval and adoption of urban drainage systems.	Climate Adaptation and Resilience	September 2024
Right Tree Right Place Tree Guidance to support Urban Tree Action Plan for developers to include trees in the highway in new developments.	Biodiversity & Climate Resilience	July 2024
Delivery of aquatic habitat improvements across Milton Keynes including local pond renewal	Biodiversity & Climate Resilience	July 2026
Use of Biodiversity offsetting funds into programme for long term land purchase for Conservation	Biodiversity & Climate Resilience	September 2024
Community Action Plan working to unify Parish Environmental Programme, Rights of Way Improvement and access into a single delivery body.	Community and Engagement	September 2025



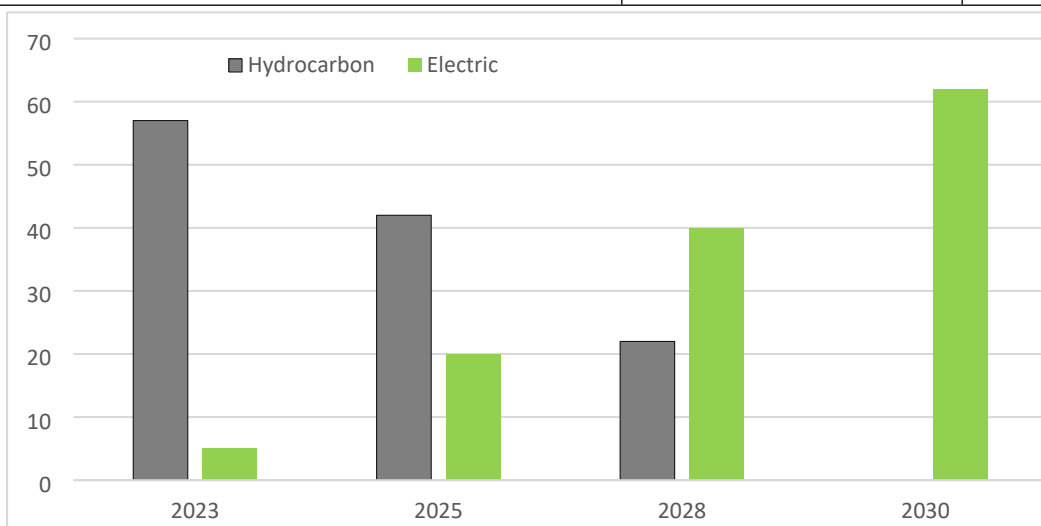
“Our Environmental Pillars work in an integrated programme working with the community to be custodians and delivery agents”

Energy and Emissions Commissioning for a Net Zero Future 2030 Delivery Programme

To ensure the delivery of the above principles that can drive the outcome of decarbonisation each theme will have a delivery programme for Commissioning for a Net Zero Future 2030. These are outlined below together with the target and delivery timeline.

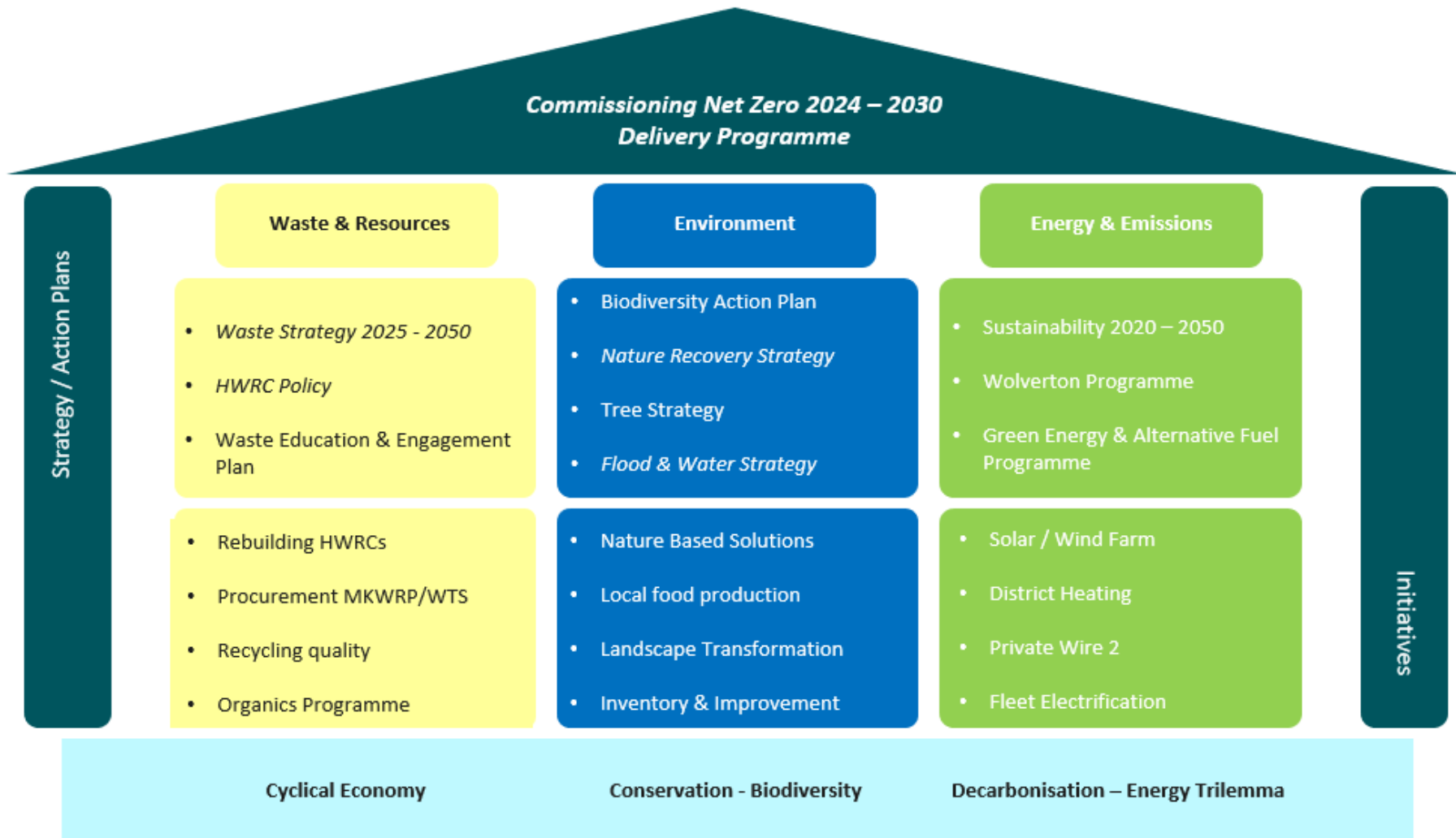
		
Energy and Emissions Programme	Theme / Target	Timeline
Compose a new fuel and energy plan that will deliver the ambitions of the Sustainability Plan within the energy trifacta framework (see below).	Cyclical Economy	July 2024
		
Progress the sleeving of electricity from MKWRP through to Authority assets and infrastructure such as housing, street lighting and buildings as a new Deed of Variation (DOV).	Cyclical Economy Renewables	April 2024
<div style="display: flex; justify-content: space-around; align-items: center;"> <div style="background-color: #76b82a; color: white; padding: 5px; border: 1px solid white;"> DoV 2 Delivery of enhanced boilers Capital Investment Programme Private Wire funding and credit agreement </div> <div style="font-size: 2em; color: white;">▶</div> <div style="background-color: #76b82a; color: white; padding: 5px; border: 1px solid white;"> DoV 3 Capital Investment Programme Bulky Waste enhancements (ATT direct feed in / CMS) Final Disposal Cost </div> <div style="font-size: 2em; color: white;">▶</div> <div style="background-color: #76b82a; color: white; padding: 5px; border: 1px solid white;"> DoV4 Authority Electricity Purchase Catastrophic Risk profile Bulky Waste revenue </div> </div>		
Undertake a review of Private Wire Phase 1 and look to install Private Wire 2 to fully electrify our internal Local Authority fleet.	Integration Cyclical Economy	April 2025
Create the Wolverton Charge Hub for the Local Authority fleet with ANPR and return to base charging with secure.	Integration Decarbonisation	April 2027

We will undertake a two-phase technical review for MKWRP to provide heat to a Milton Keynes heat network and publish the findings to support the re-procurement of MKWRP and the energy industry.	Integration Decarbonisation	April 2025
Delivery of renewable programme including review of Solar and Wind opportunities to create a blended energy stock portfolio for the Council.	Decarbonisation Cyclical Economy	April 2027
To pursue potential Battery Storage for MKWRP and to create an approach for the best use of resources for heat, energy and private wire charging.	Cyclical Economy Integration	April 2028
Pursuit and delivery of Wolverton Campus to allow for integrated delivery hub programme for all frontline services (see separate policy document)	Cyclical Economy Integration Decarbonisation	To 2030
Transition to fully electrified Refuse Collection Fleet (RCV) over three steps and review of options for Hydrogen use and implementation post 2030	Cyclical Economy Integration Decarbonisation	To 2030
Delivery of review for potential review for aggregates depot adjacent to Fleet Maintenance Depot.	Integration Decarbonisation	2028



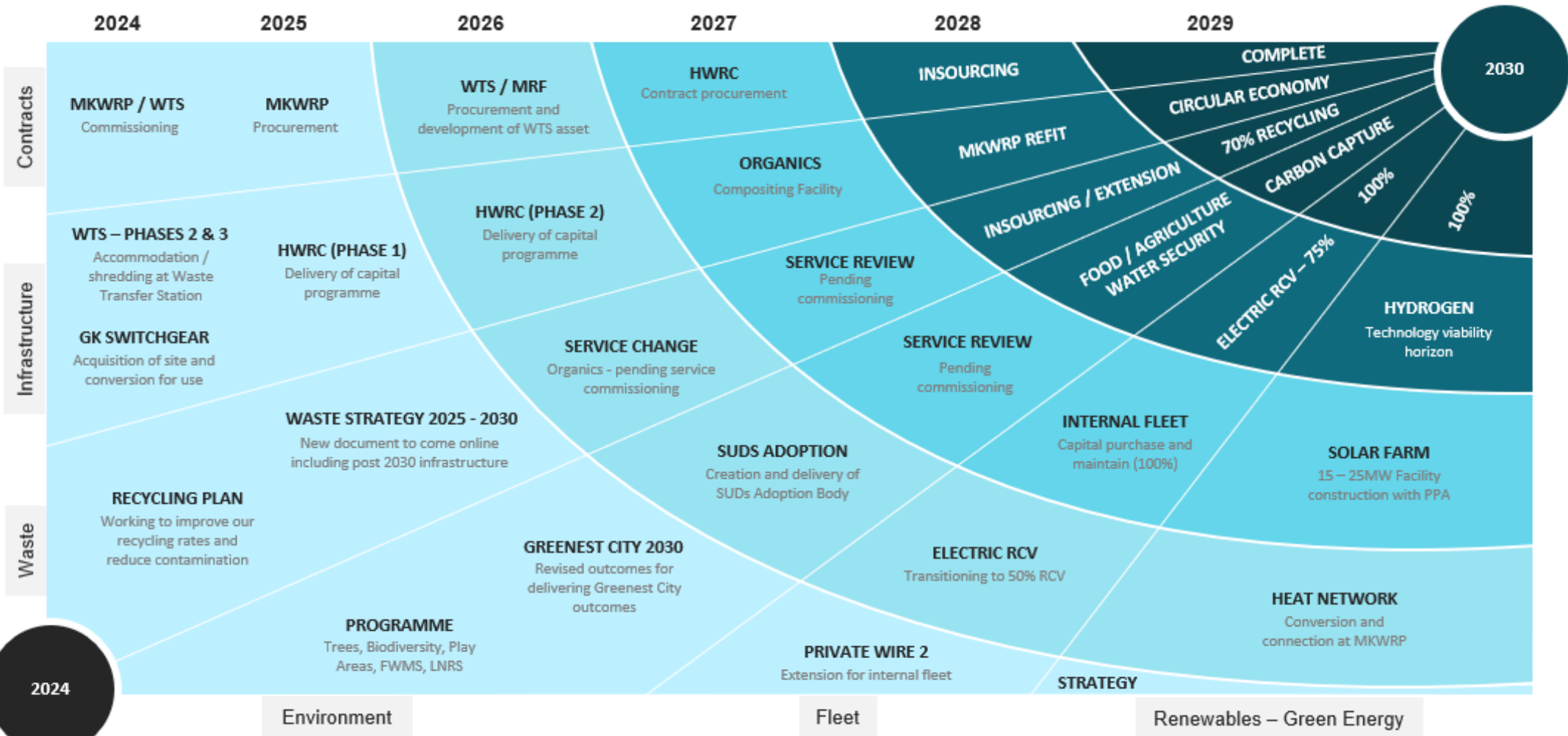
“Our Energy and Emissions Programme is world class assets for future integrated service delivery and will be a major programme for our 2030 target”

Strategy House 2024 – 2030



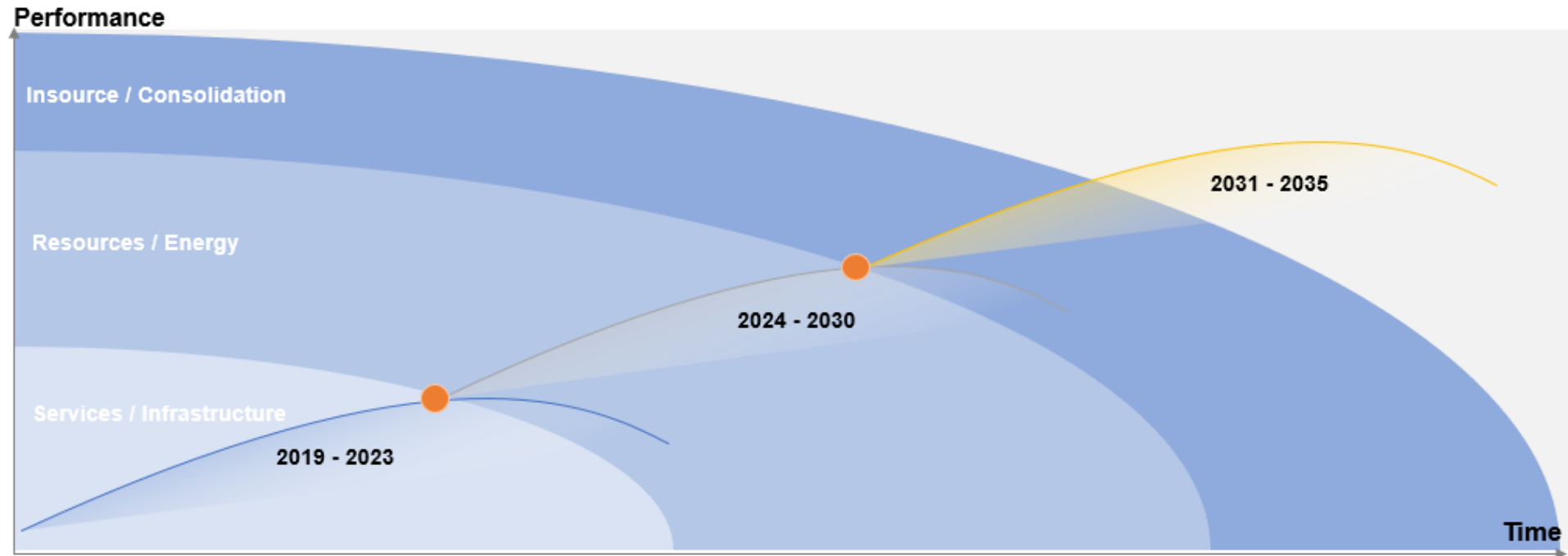
Our strategy house builds on the principles as foundations, outlines our initiatives to deliver these, formulates the delivery of these through operation and strategic plans to outlines the delivery programme to meet our 2030 target date.

Delivery Timeline for Commissioning Net Zero Programme 2024 – 2030



Our delivery timeline looks at ensuring that our programme is managed over short, medium and longer term deliverables including initial targets and key milestones. It outlines the six main projects of contracts, environment, fleet, infrastructure, renewables and waste across the three themes

Three Horizons 2020 - 2035



Horizon 1

2019 - 2023 (SERVICE CHANGE GOAL) ●

Minimise risk for service change by migrating risk to private sector
Seek best value to drive finance and performance. Phase 1 electrification.

Horizon 2

2024 - 2030 (NET ZERO GOAL) ●

Focus on decarbonisation, green energy and fuels, phased infrastructure build, organics, insourcing and procurement of waste / energy assets

Horizon 3

2031 - 2036

Pursuit of new technologies (hydrogen) and expansion of renewable energy / heat programme for green job investment. Programming for 2050 deliverables.

Our three-horizon programme highlights that both Commissioning 2023 and Commissioning for a Net Zero Future 2030 are part of a longer programme to meet our 2030 target date and work towards MK 2050 Programme headlines and



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