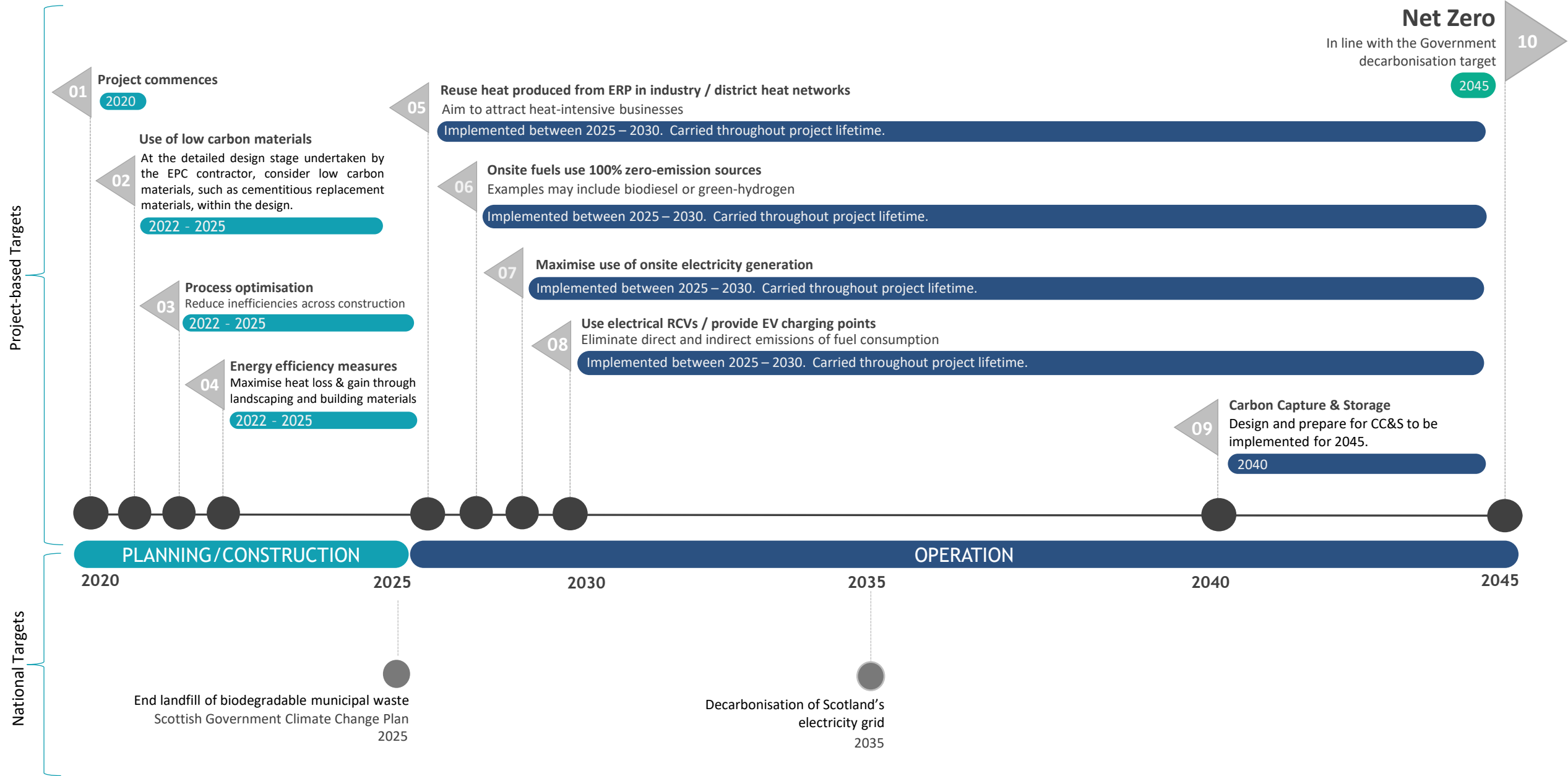


Killoch ERP Net Zero Strategy

Net Zero
 In line with the Government
 decarbonisation target
 2045



CLIENT:	BARR ENVIRONMENTAL LIMITED
PROJECT:	KILLOCH ENERGY RECOVERY PARK
SUBJECT:	Net Zero Strategy
JOB NO.:	GM11372
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KILLOCH ERP NET ZERO STRATEGY

Following the Draft release of NPF4 a requirement policy 20(i) requires that any proposals for new energy recovery plants should be supported by a decarbonisation strategy in line with Scottish Government decarbonisation goals. Such goals require the proposed development (Killoch ERP) to be net zero by 2045.

2020 – 2025: Planning and Construction

Initiatives that are projected on the net zero strategy, within the first 5 years, are proposed within the construction phase as they impact the design of the development;

1. The use of low carbon materials will reduce embodied carbon associated with the development.

Low carbon materials may include;

- Recycled materials e.g., recycled aluminium and steel
- Low carbon bricks and concrete
- Sustainable materials e.g., materials sourced with region/country

2. Adopt energy efficiency measures into design

This is important to adopt from the start of development to ensure and sustain an optimal energy efficiency across the lifetime of the development.

3. Process optimisation will exist across the project lifetime but with regard to construction, it is important to optimise processes that ensure emissions are minimised where possible.

This may include minimising;

- construction material waste
- transportation of materials to / on site

- working during winter / non-daylight hours (decrease electricity and potentially heating use for construction workers)

2025 – 2030: Operation

National targets with regard to the waste industry are detailed within the 2018 update to the Scottish Government Net Zero Climate Change Plan. Within the plan, it is stated and expected that emissions from waste will fall up to 2025 as landfill is phased out.

With this date in mind, all operational emissions are proposed to be initiated between 2025 – 2030, when the ERP is likely to be operational and the impact of phasing out landfill has taken effect.

The following initiatives proposed in the operational phase of the development include:

1. Reuse heat produced from ERP in industry / district heat networks

2. Onsite fuels use 100% zero-carbon sources

Use of zero-carbon sources of fuel may include bio-fuel or hydrogen. Using a zero-carbon alternative will allow emissions associated with onsite fuel consumption to be eradicated.

3. Maximise use of onsite electricity generation

4. Use electrical RCVs and provide EV charging points for employees

5. Carbon Capture and Storage (CC&S)

To achieve the net zero target by 2040, it is proposed that a CCS facility is developed on site to remove the remaining 656,570 tCO₂e, following the savings associated with the exportation of heat and the replacement of current HGV/RCVs with electric alternatives. More details can be found in the Climate Change Chapter (Chapter 8) of the Environmental Impact Assessment Report.