

**Thank you for coming to this public information day about our plans for development of a new energy recovery facility at the Ratcliffe-on-Soar power station site – known as the East Midlands Energy Re-Generation (EMERGE) Centre.**

Members of the project team are present at today's event and are happy to discuss any queries or comments you may have about the proposals.

Please share your thoughts on the plans with us by completing a feedback form at the end of the exhibition. If you would like to be kept updated on the progress of our proposals, please provide your contact details on the feedback form.

## About us

Uniper is an international energy company with around 11,000 employees and operations in 40 countries. In the UK, Uniper operates a flexible generation portfolio of seven power stations, and a fast-cycle gas storage facility. A broad range of commercial activities are offered through the Engineering Services division, while the Uniper Engineering Academy delivers high-quality technical training and government-accredited apprenticeship programmes for the utility, manufacturing and heavy industry sectors. Uniper owns and operates the Ratcliffe-on-Soar power station.



Aerial view of Ratcliffe-on-Soar site

Ratcliffe-on-Soar power station has been generating reliable electricity for the UK energy market for over 50 years. The future of the power station site is changing, as the UK is now moving away from coal to lower carbon energy solutions, and the Government has committed to ending coal-fired generation by October 2025. A decision on a closure date for the power station is yet to be made; but will be in line with Government policy. In the meantime, the power station continues to contribute to Britain's energy supply security.

Freephone:  
**0800 169 5290**

Email:  
**[emerge@uniper.energy](mailto:emerge@uniper.energy)**

Web:  
**[uniper.energy/emerge](http://uniper.energy/emerge)**



Uniper UK Limited is putting forward plans for development of an Energy Recovery Facility (ERF) at the Ratcliffe-on-Soar power station site – known as East Midlands Energy Re-Generation (EMERGE) Centre. The facility would use safe, environmentally sustainable and reliable technology to generate energy from non-recyclable, non-hazardous domestic and commercial waste.

The EMERGE Centre would be located on previously developed land within the north-east boundary of the site.



Yellow line showing proposed location of the EMERGE Centre at Ratcliffe-on-Soar

This project forms part of a wider vision for the Ratcliffe-on-Soar site to move towards becoming a zero carbon technology and energy hub for the East Midlands region.

The EMERGE Centre is the first step towards delivering this vision, and would bring direct benefits to the environment and local community, including:

<p>Generate up to <b>49.9 MW</b> of lower carbon electricity</p> <p>Enough electricity to power around <b>90,000</b> households</p>	<p>Create around <b>45</b> full time jobs once operational</p> <p>Create up to <b>600 jobs</b> during the peak construction period</p>	<p>Reduce landfill or export of waste by around <b>500,000</b> tonnes/year</p> <p>Help the East Midlands region <b>meet its</b> landfill diversion targets</p>
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Catalyst for wider vision for  
**zero carbon technology**  
and energy hub at Ratcliffe-on-Soar

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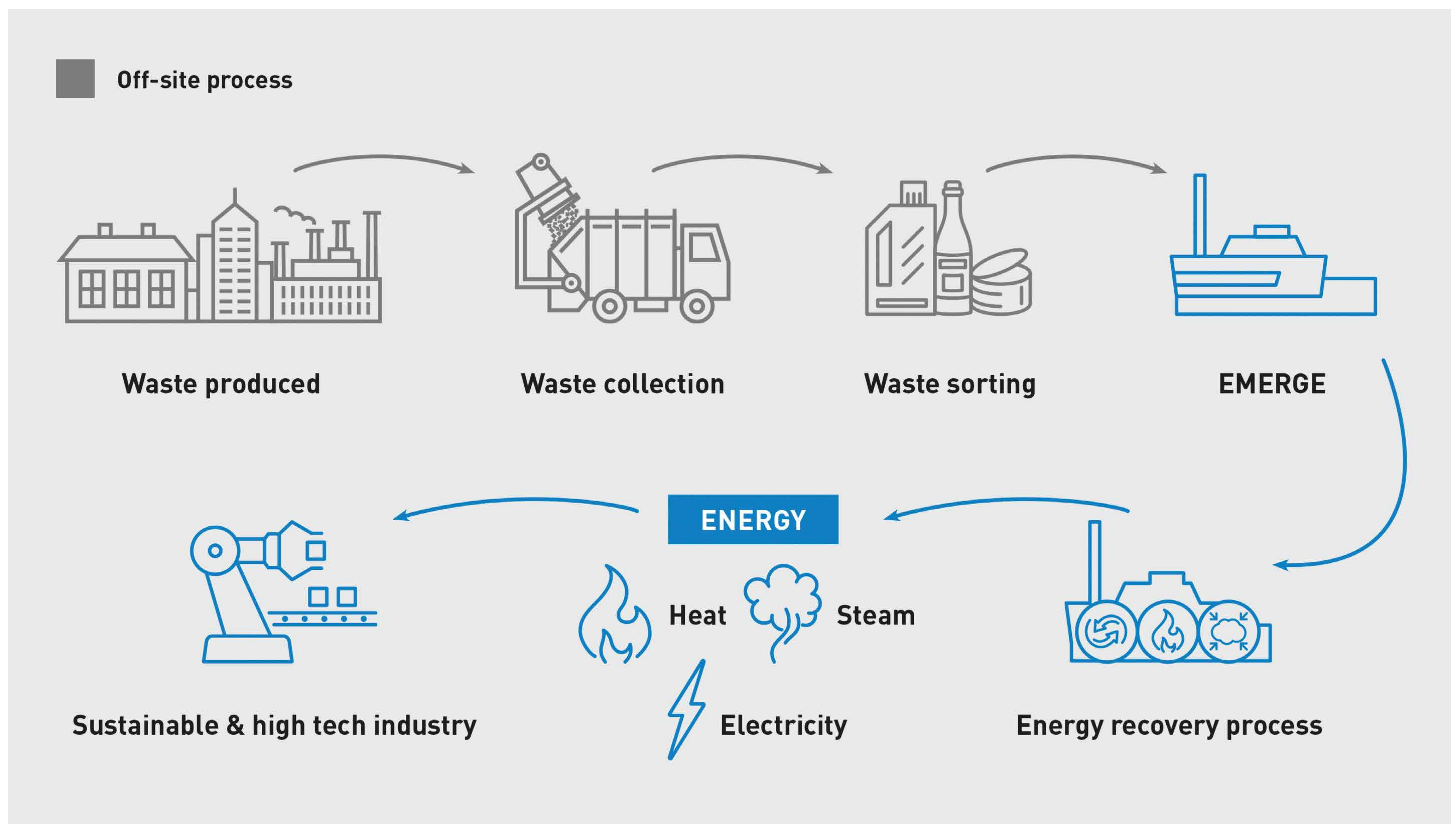
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Energy recovery facilities use well established technology to convert residual waste into useable energy under carefully controlled conditions. With over 400 similar facilities in operation across Europe, they play an important role in helping meet the UK's ambitions to effectively and efficiently reduce waste and manage its impact on the environment by:

- Converting non-hazardous and non-recyclable waste into useable energy
- Providing reliable, sustainable and lower carbon electricity
- Diverting non-recyclable waste from landfill



## How energy recovery works

- Pre-sorted commercial and household waste is brought to site in enclosed lorries and unloaded in a fully enclosed building (tipping hall)
- It is then deposited into a bunker where the crane grabs the waste and feeds it into the hopper
- The waste drops into a feed chute onto a moving grate generating heat to burn waste at 850 degrees centigrade
- The heat produced makes steam which then drives a turbine that creates electricity for export to the National Grid
- Gases produced during the combustion process are carefully treated to meet strict emissions regulations before being released into the atmosphere through the chimney. Emissions are continuously monitored and regulated by the Environment Agency
- Residues, including ash produced by the process, will be recycled or reused where possible

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**The EMERGE Centre would be designed to thermally treat a wide range of non-recyclable wastes sourced from both commercial and local authority sources. This includes the waste people put into their non-recyclable (usually black) wheelie bins.**

It also has the ability to include biomass as part of the fuel mix, which would allow the EMERGE Centre to cope with any future changes in waste composition, for example, as a result of improved recycling, reduced plastic use, or separate collection of food wastes. After reducing, reusing and recycling, the recovery of energy from waste is considered to be the most sustainable option for treatment of residual waste. There are a number of benefits, including:

- Treating waste that cannot be recycled or composted and is currently buried in landfill or exported outside the UK
- Reducing the amount of methane released from landfill (methane is over 20 times more damaging compared to carbon dioxide)
- Generating energy in the form of electricity and heat
- Supplying lower carbon energy to the National Grid
- Delivering much-needed sustainable residual waste management infrastructure within the East Midlands region



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The Ratcliffe-on-Soar site benefits from excellent transport links, including road and rail. There is also existing infrastructure to allow for sustainable energy projects, including the EMERGE Centre, to connect easily to the National Grid. Uniper is proud of the contribution Ratcliffe-on-Soar makes to the East Midlands regional economy, and to understand how the site can be part of sustainable growth in the region, we have been working closely with the Midlands Engine and local councils who are currently undertaking a feasibility study for the creation of a development corporation. This initiative has identified the proposed HS2 station at Toton, the East Midlands Airport and the Ratcliffe-on-Soar sites as amongst the most strategically important catalysts for future economic growth in the East Midlands region.

Our vision for the Ratcliffe-on-Soar site is to create employment based around modern industrial and manufacturing uses, underpinned by a sustainable energy theme.

The vision seeks to deliver:

- High value jobs
- Modern industry and manufacturing served by an on-site sustainable 'Energy Hub'
- Research, development and innovation
- A centre to foster regional talent (including universities and established industry)
- A national focal point for low and zero carbon technology.

The first step in delivering our vision will be the East Midlands Energy Re-Generation (EMERGE Centre). It would be the anchor project for a zero-carbon technology and energy hub for the East Midlands, helping to attract other businesses and institutions who can benefit from the availability of reliable, lower carbon energy generated on site. In addition, the EMERGE Centre would support the future addition of advanced recycling and reuse technologies.

This project will be the first step towards a lower carbon future for the Ratcliffe-on-Soar site and will help the East Midlands meet its landfill diversion targets.



Computer generated image showing what the EMERGE Centre could look like

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Web:  
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**The impact on the environment will be well managed and within the latest environmental standards. As part of our planning application we will be submitting a full EIA which will assess the potential impacts on:**

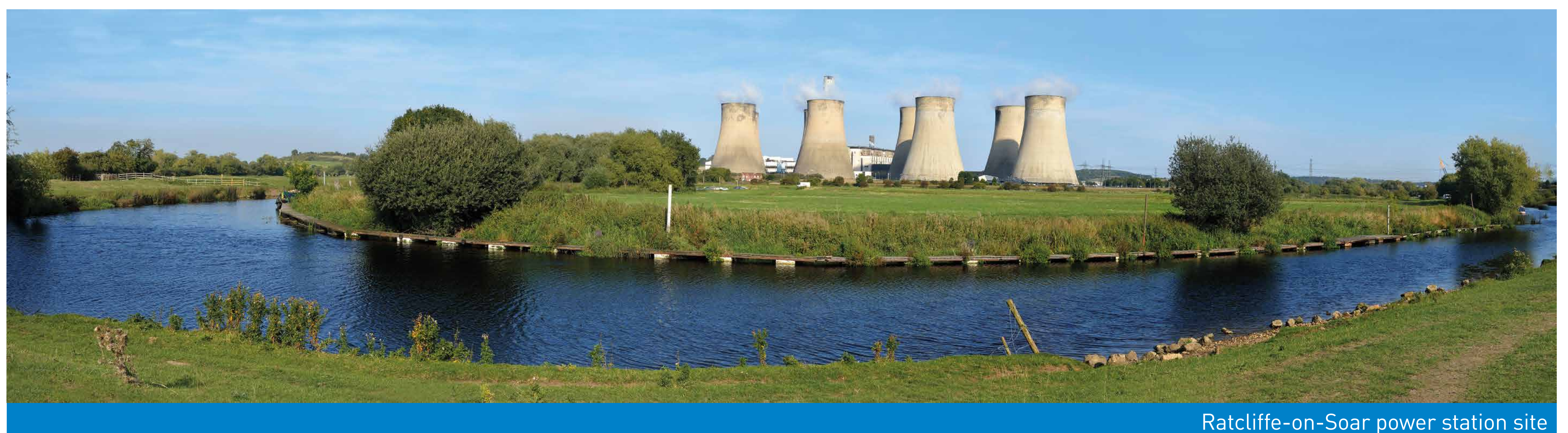
- Air quality and odour
- Landscape and visual
- Surface water and flood risk
- Ecology
- Noise
- Traffic and transportation

## Air quality and odour

The EMERGE Centre will require an Environmental Permit from the Environment Agency (EA) before the facility comes into operation. The permit will only be granted if the EA is satisfied the facility would meet the requirements of the Industrial Emissions Directive and the Best Available Technologies conclusions, regulating emissions limits for facilities like the EMERGE Centre.

The air quality assessment will look into the potential impacts of emissions to air from the proposed development and provide details of any recommended mitigation measures. The assessment will include:

- Cumulative impact
- Human health risk
- Monitoring at sensitive receptor points
- Potential impacts on air quality
- Dispersion modelling
- Impact of dust during construction
- Odour control measures
- Vehicle movements



Ratcliffe-on-Soar power station site

## Ecology

Assessments of the local ecology and habitats surrounding the site will be undertaken as part of the EIA. This will look at:

- Impacts when operational and any mitigation measures needed
- Likely or possible impacts during the construction phase on habitats
- Mitigation, compensation and enhancement measures
- Nearby statutory designated sites

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## Landscape and visual impact

The proposed development lies within the existing power station site. A landscape and visual impact assessment will be carried out to show:

- Existing baseline conditions and landscape character
- Photomontages from agreed viewpoint locations
- Screening and landscaping features of the proposal
- Visual changes with and without the existing power station structures



View from footpath near Redhill Lock

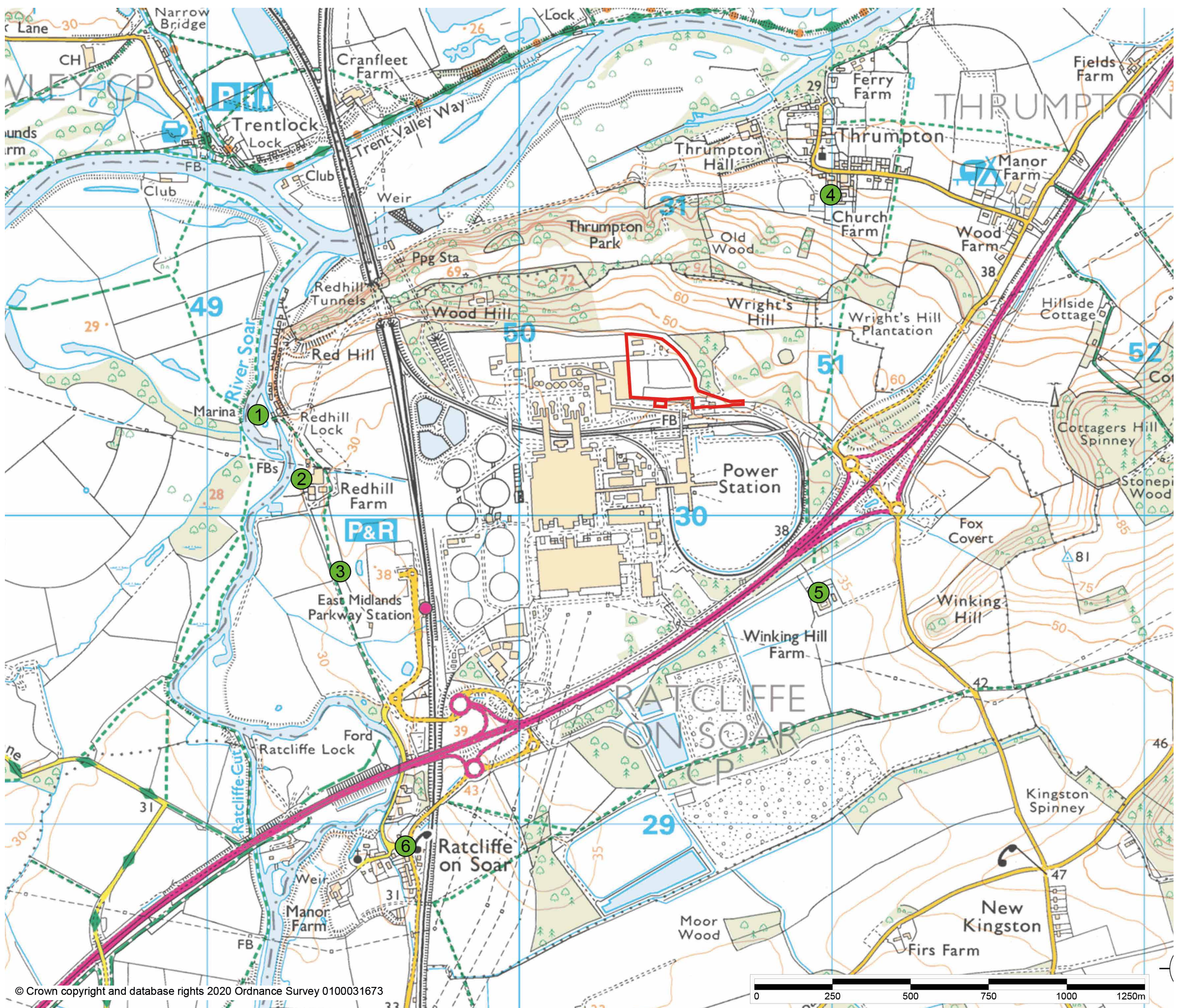


View from Bridleway, Cottagers Hill

## Noise

A full assessment will be undertaken of the potential noise impact of the proposed development on sensitive receptor points during construction and operation. The scope of the assessment will be agreed with Nottinghamshire County Council and Rushcliffe Borough Council Environmental Health Officers. The assessment will include:

- Development of a detailed noise model, based on the proposed site layout
- The potential effects during the construction period
- The potential effects in operation
- A survey of existing background noise levels at agreed locations



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## Surface water and flood risk

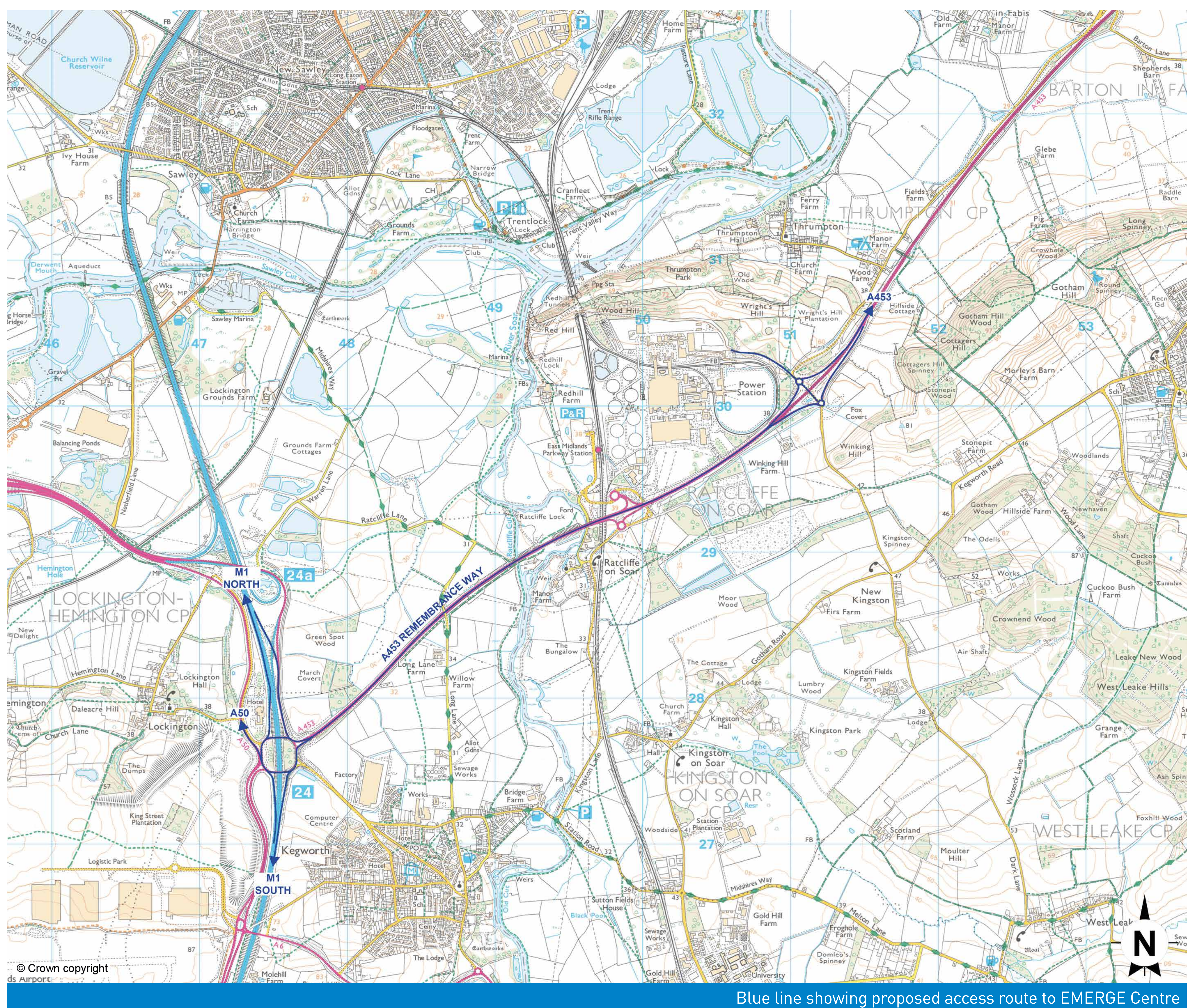
The Environment Agency (EA) Flood Zone mapping shows the site to be entirely within Flood Zone 1 (defined as land having a less than 1 in 1,000 annual probability of fluvial or tidal flooding).

The EA Flood Risk for surface water mapping shows that the majority of the site has a 'very low' risk of surface water flooding; however, a small proportion of the site has a slightly higher risk of surface water flooding. A detailed Flood Risk Assessment would be prepared to assess the potential flood risk, describe the existing drainage infrastructure and define a drainage design. The design would demonstrate that the proposal would not result in a flood risk either at the site or in the wider area.

## Traffic and Transportation

The impact of traffic associated with the proposed development will be considered through the preparation of a formal Traffic Assessment (TA). The scope of the TA will be agreed with Nottinghamshire County Council and Highways England. The TA will look at:

- Assessing the impact of additional traffic generated by the development on the road network, now and in the future
- Baseline conditions of road networks around the A453 Remembrance Way
- Impact of traffic both during construction and operation including forecasting the number and type of traffic movements
- Options for rail deliveries



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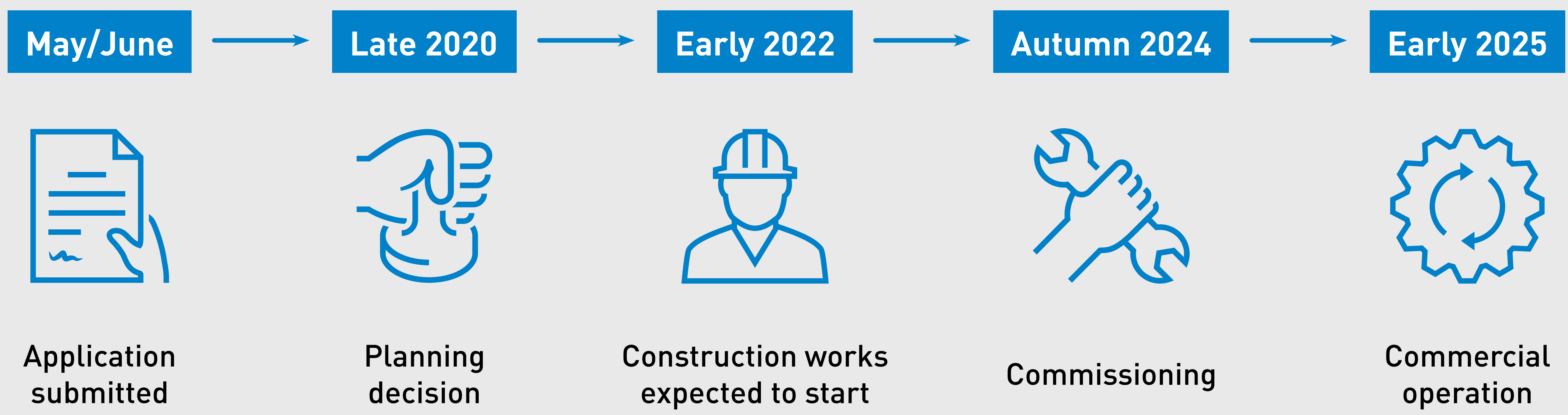


**Over the coming months, Uniper will be carrying out the Environmental Impact Assessment and preparing the Environmental Statement that will accompany our planning application. As part of this process, we want to hear from you.**

Please take a moment to fill in our feedback questionnaire and post it in the box provided or return it in the postage-paid envelopes available from staff here today. We welcome your views, which where possible will help to shape the application that is submitted.

Nottinghamshire County Council will carry out its own consultation process once the application is submitted, seeking the views of local stakeholders and statutory consultees, before reaching a decision.

## Proposed timeline



## Keep in touch

If you have any further queries or have any questions or comments, you can contact the team using the following methods:

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**0800 169 5290**

Email:  
**[emerge@uniper.energy](mailto:emerge@uniper.energy)**

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