



NORTH LINCOLNSHIRE GREEN ENERGY PARK

SUMMER 2021

Public Consultation Information



A more sustainable future

Our vision is to create a pioneering green energy park in North Lincolnshire.

The UK has set legally binding targets to reach net-zero carbon emissions by 2050, which will require huge transformations in the way we heat our homes, power our industries and travel around the country. Carbon capture, storage and usage will need to be part of the strategy to achieve net zero carbon within 30 years.

The need for a new approach is especially urgent in the Humber, where industry currently releases more carbon into the atmosphere than anywhere else in England, and where millions of tonnes of waste go to landfill every year.

The North Lincolnshire Green Energy Park will help meet these challenges while fulfilling a vital public service and furthering the country's green revolution.

Our plans could see up to 257 new jobs created, jobs that will help develop new skills that support the region's transition to net zero. Up to 600 jobs in construction will also be created. The North Lincolnshire Green Energy Park could help establish the right conditions for another 1000 new jobs overall by attracting businesses to the area.

PUBLIC CONSULTATION IS OPEN

This booklet explains how we've taken on board the feedback received during the first stage of consultation last year and how the plans for the North Lincolnshire Green Energy Park have evolved.

We are now launching our second stage of consultation and look forward to hearing your views. See back cover for details.

Cover image: The North Lincolnshire Green Energy Park energy recovery facility from the south west. Artist's impression of illustrative design.

More than the sum of its parts, this will be a truly sustainable project, with as little waste as possible.

Why is it needed?

Decarbonising our world and making the best use of our resources are some of the most important challenges of our times. The North Lincolnshire Green Energy Park will respond to these challenges and will support the UK's goal of net-zero carbon emissions by 2050.



CHALLENGE

MANAGE OUR WASTE MORE SUSTAINABLY

Landfill creates harmful greenhouse gases which contribute to climate change. In line with the Government's waste hierarchy, we will always seek to reduce, re-use or recycle waste. Where this isn't possible, we will generate low-carbon energy from it and use as many of the by-products as possible, ensuring minimal waste goes to landfill.

CHALLENGE

FIND SOURCES OF LOW-CARBON ENERGY AND HEAT

We need to find alternatives to fossil fuels and our plans will see enough low-carbon energy to power over 221,000 homes every year.

We're also planning hydrogen, heat and battery storage. This supports the use of renewable energy sources by helping to manage demand when the sun doesn't shine or the wind doesn't blow.

The hydrogen produced could be used as a clean fuel for vehicles, including potentially a hydrogen bus pilot scheme in Scunthorpe.

CHALLENGE

REDUCE CARBON DIOXIDE EMISSIONS

Reaching net-zero carbon emissions by 2050 is going to require us to produce less carbon dioxide in the first place but also to remove carbon dioxide from the atmosphere. We are proposing to develop one of the UK's first Energy Recovery Facilities (ERFs) with carbon capture, storage and utilisation.



Your feedback

We have listened to what you said



You said...

During the first stage of consultation, we received lots of useful feedback from local residents and stakeholders which has influenced how the project has evolved.

You were concerned about the impacts of extending Flixborough Wharf.

We are no longer proposing to extend Flixborough Wharf.

You said that recycling facilities should be included within the North Lincolnshire Green Energy Park.

We have added a plastic recycling facility to the proposals. This is where polymers in plastics are broken down and reformed into plastics that can be used again in new products. In addition, we will recycle the bottom ash and the fly ash produced by the energy recovery process into concrete materials. Some of the carbon dioxide produced by energy recovery will be utilised in this process.

You were concerned about the use of agricultural land for the proposals.

We are locating the Energy Recovery Facility and most of the facilities that will let us treat and use the by-products from the process on brownfield land, minimising the amount of agricultural land used for development.

Traffic surveys should take into account vehicle movements from periods outside of COVID 19 lockdown.

We extended our traffic surveys to measure vehicle movements in the surrounding area once these had returned to normal after the first COVID 19 lockdown. We have agreed our approach to traffic surveys with North Lincolnshire Council.

You were concerned about HGVs using local roads.

We propose to create a new access road to the Flixborough Industrial Estate which will help divert HGVs away from local roads.

You were concerned about the risk of flooding.

We carried out detailed flood risk modelling with involvement from the Environment Agency and the Local Drainage Board. As a result of this, we updated the proposed layout of the North Lincolnshire Green Energy Park to avoid any adverse impact on surrounding properties and businesses even in the event of extreme events – such as a breach of the existing riverbank. Some local businesses will see a reduced risk of flooding due to the prevention measures proposed.

You suggested that the proposals should improve the area around the River Trent by rewilding the river edge and improving walking access.

Our plans now give the public access to an area of wetland created next to the River Trent. We will close Stather Road to through traffic so that it can be used as a recreational path along the riverbank. Additional footpaths and cycleways will join up with the existing network to facilitate greater public access. The planting schemes we are planning seek to attract and sustain more flora and fauna than were previously in the area (biodiversity net gain) and will make it easier for plants and animals to move from one habitat area to another.

You were concerned about increased rail traffic due to the re-instatement of the railway line.

We are proposing to create rail sidings at Dragonby, and sidings and a rail head south of Stather Road to reduce, as far as possible, the need for rail movements at night.

You were concerned about the level of noise from the operational facility.

The facilities where processing will take place have been located away from homes and will be provided with sound insulation to minimise any noise experienced in nearby residential areas.

You were concerned about the potential impact of RDF storage on site.

The proposed storage of RDF (refuse-derived fuel) has been reduced from 55,000 tonnes to 15,000 tonnes – less than one week's supply. Although dust, odour and vermin are all readily controllable, the reduction in volume should help allay concerns.

You asked if the district heat and power network would be available to other residents in Scunthorpe.

The district heat and power network has been extended to a length of 12km so that it has the capacity to supply domestic and commercial properties in the centre of Scunthorpe, including the proposed new Scunthorpe Hospital.

Our plans

A FIRST IN THE UK

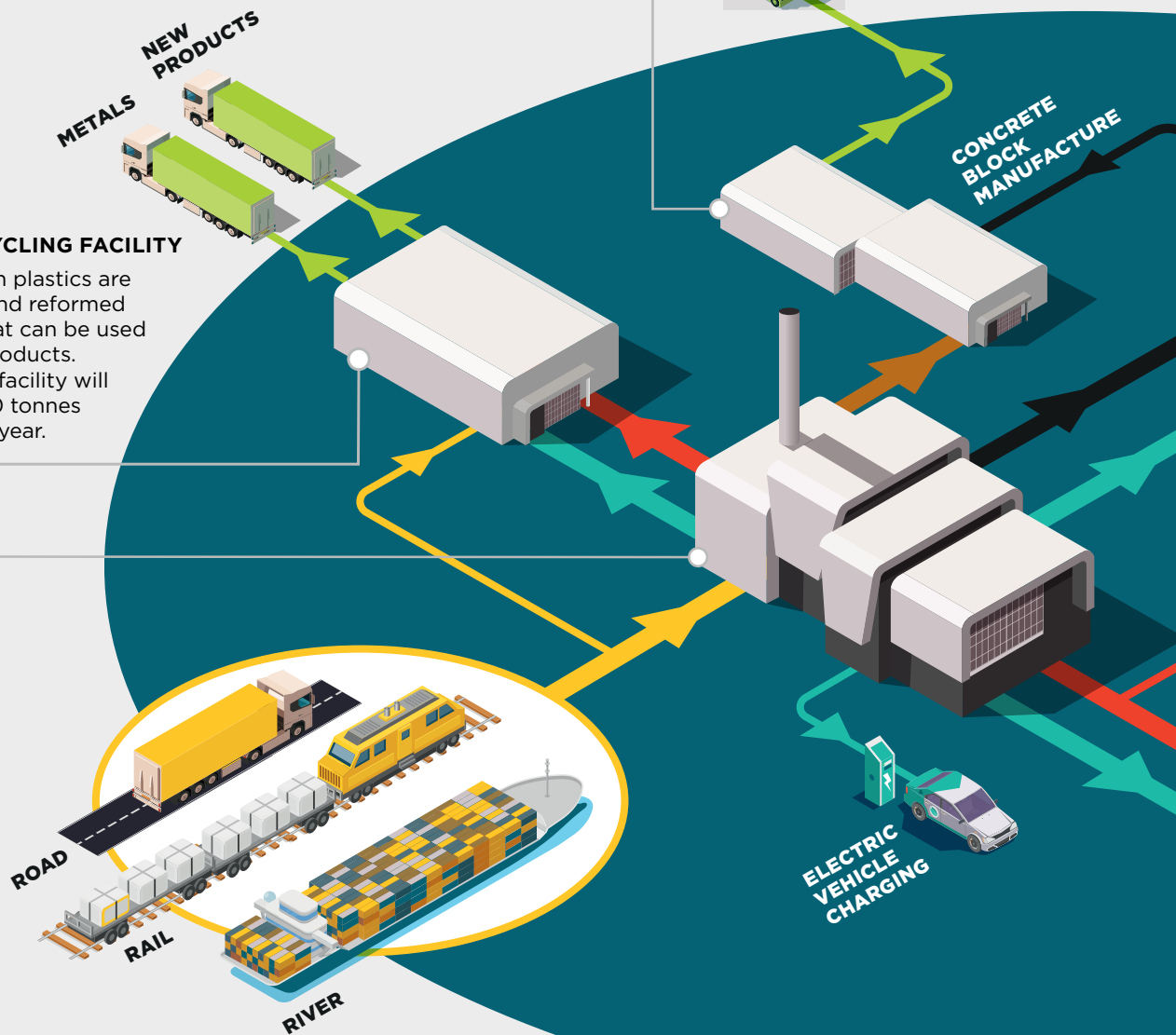
Our plans bring together proven technologies in an innovative way to recover energy from waste and use as many of the by-products as possible.

PLASTIC RECYCLING FACILITY

The polymers in plastics are broken down and reformed into plastics that can be used again in new products. We expect the facility will process 20,000 tonnes of plastic each year.

FLY ASH AND BOTTOM ASH PROCESSING

Ash produced by the energy recovery process will be used on site to make concrete blocks which can be used in the construction industry.



ENERGY RECOVERY FACILITY

Waste left after recycling is used to generate enough low-carbon energy to power over 221,000 homes every year. It will convert up to 760,000 tonnes of refuse-derived fuel and non-hazardous household and commercial waste annually into energy in the form of electricity and heat.

THE DCO APPLICATION

The enclosed elements are part of the proposal to the Planning Inspectorate.



CARBON CAPTURE STORAGE AND UTILISATION

Carbon dioxide will be released during the energy recovery process. Some of this will be captured, stored and utilised on site in the manufacture of concrete blocks using fly ash from the energy recovery process. We are exploring the possibility of linking to the Drax carbon pipeline planned for the Humber once that project is consented and built.

CARBON
PIPELINE
CARBON
UTILISATION

GREEN HYDROGEN PRODUCTION

We will use electricity to extract hydrogen from water by electrolysis. This hydrogen could be used as a clean fuel in cars, HGVs and buses, to create a range of hydrogen products or injected into the gas network to decarbonise the gas supply.

HYDROGEN
PRODUCTS

INJECTION
TO GAS NETWORK

ENERGY STORAGE

Because renewable energy generation can be intermittent by nature, energy storage is necessary to balance supply and demand. Energy is stored when there is high production or low demand in order to ensure a constant supply. In addition to storing steam and hydrogen, we will use batteries to store electricity generated at the North Lincolnshire Green Energy Park.

BATTERY
STORAGE

NATIONAL
GRID

LOCAL DISTRICT NETWORK

Heat and energy produced by the energy recovery process could be supplied to local homes and businesses.

Masterplan

We are currently preparing a Development Consent Order (DCO) application for the North Lincolnshire Green Energy Park, to be located at Flixborough Industrial Estate. Since the previous stage of consultation, the plans have evolved to take into account your feedback.

Using river, rail and road

One of the reasons we chose the site was because it has the potential for transport by river and rail. We will reduce road movements as much as possible by providing a new rail link and using the existing port.

RIVER

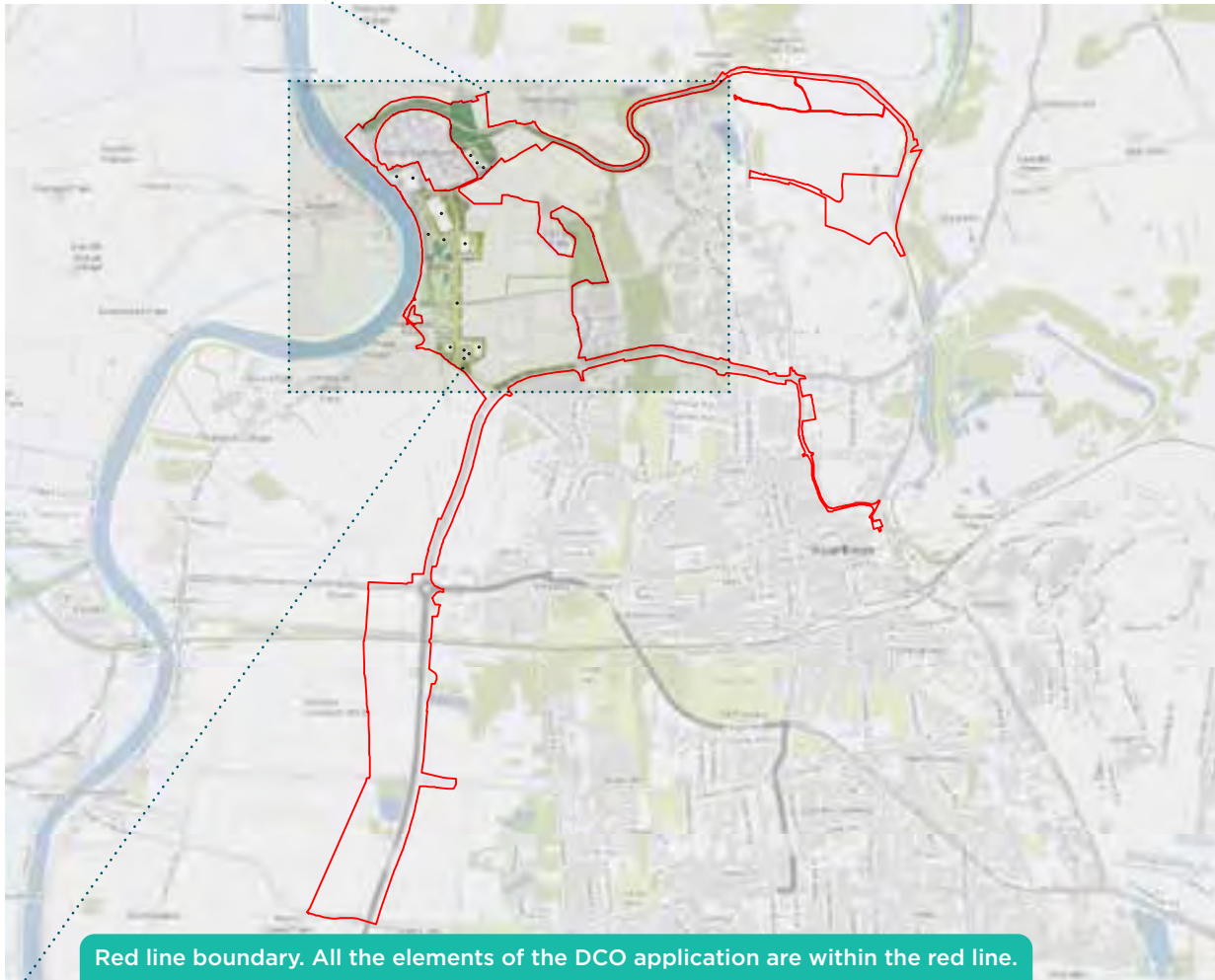
While we need to work with the tides when using the River Trent, it will still provide an important way for material to get to and from the North Lincolnshire Green Energy Park. Following feedback from the last round of consultation we are no longer planning to extend Flixborough Wharf. We are continuing to investigate what other infrastructure might be needed to support use of the river including the use of new, quieter and more energy-efficient cranes.

RAIL

We will reinstate around 6 kilometres of disused railway and build a new railhead. This will allow us to load and unload containers from trains. We will also improve the sidings at Dragonby to allow trains to wait and pass between Flixborough Wharf and the main line. This will enable us to maximise the number of deliveries that can arrive at the North Lincolnshire Green Energy Park by rail.

A NEW ACCESS ROAD

We propose to create a new access road to the Flixborough Industrial Estate which will help divert HGVs away from local roads. We would like your feedback on the access road as part of the consultation.



1. Energy recovery facility
2. Carbon capture, storage and utilisation plant
3. Concrete block manufacturing plant/ash treatment facility
4. Visitor centre
5. Railhead

6. Plastic recycling facility
7. New access road
8. Gas network connection
9. Electric vehicle (EV) charging
10. Hydrogen refuelling

11. Battery storage
12. Hydrogen production facility
13. Hydrogen production facility
14. Gas network connection
15. Electrical substation



View from south showing proposed new access road with plastic recycling facility on right, visitor centre and concrete block manufacturing plant on left. Artist's impression of illustrative design.

How it might look

We are committed to good design.

The images of the North Lincolnshire Green Energy Park included in this booklet are artist's impressions of the current illustrative design of the proposed development and will be subject to change during this iterative process.



Illustrative image of a view from Amcotts



Illustrative image of a view from Flixborough



Due to the nature and scale of the North Lincolnshire Green Energy Park, its final design will only be completed in the event of a Development Consent Order (DCO) being granted. The proposed development is defined at this stage by a series of maximum parameters within which the final design will be fine-tuned. The illustrative design you see

in the consultation materials suggests how the future final design might be realised within those maximum parameters.

It will also inform the development of a series of Design Codes. A design code is a set of design rules that are applied to ensure that the completed detailed design remains appropriate.





The visitor centre. Artist's impression of illustrative design.

A space to enjoy

The way the project interacts with people, the landscape, water and the local environment has been a key consideration for our design. Beyond supplying low-carbon energy, we want the North Lincolnshire Green Energy Park to leave a positive legacy.

Highlights of our proposal include:

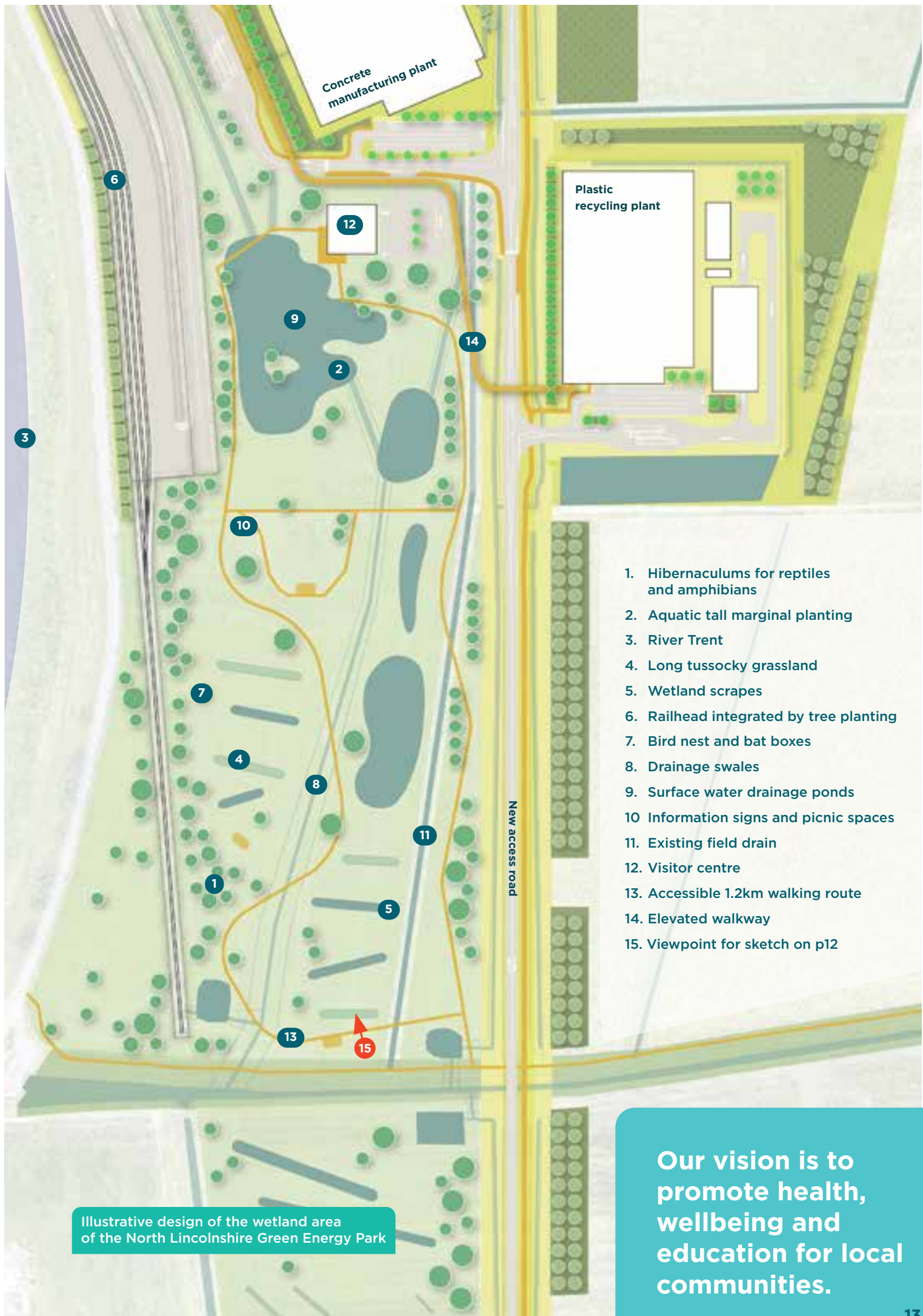
- Helping enhance biodiversity by providing habitats for nature including a new wetland landscape with a variety of habitats
- Woodland planting to create corridors for wildlife
- New walking and cycling routes providing circular trails
- A new walking and cycle way safely connecting Scunthorpe with Neap House and the Flixborough Industrial Estate

A visitor centre with community facilities

Actively reducing our waste, and re-using and recycling things we would otherwise put in the bin are going to have to become the norm. The visitor centre will be dedicated to educating children and adults on how to live a more sustainable life. The visitor centre, which will look out on the attenuation pond and wetland landscape, will also be available for community use. We very much want your feedback on the wetland, new routes around the area and visitor centre.

Artist's impression of illustrative design of wetlands (view from the south)





1. Hibernaculums for reptiles and amphibians
2. Aquatic tall marginal planting
3. River Trent
4. Long tussocky grassland
5. Wetland scrapes
6. Railhead integrated by tree planting
7. Bird nest and bat boxes
8. Drainage swales
9. Surface water drainage ponds
10. Information signs and picnic spaces
11. Existing field drain
12. Visitor centre
13. Accessible 1.2km walking route
14. Elevated walkway
15. Viewpoint for sketch on p12

Illustrative design of the wetland area
of the North Lincolnshire Green Energy Park

**Our vision is to
promote health,
wellbeing and
education for local
communities.**



Green jobs for the future

The Government has set out its plans for a green industrial revolution, which could see billions of pounds invested and create 250,000 highly-skilled green jobs.

We expect to create up to 257 new jobs at the North Lincolnshire Green Energy Park. These will be a mix of full and part-time jobs including operatives, shift team leaders, mechanical engineers and thermal energy specialists. As part of our commitment to developing local skills, we plan to create 100 new apprenticeships, incorporating the re-training of mature participants, a funded post-graduate scheme, and PhD and specialist research positions.

These will be skills for life. People who train at the North Lincolnshire Green Energy Park will be equipped with the skills to work in other projects helping the region transition to a net-zero-carbon economy.

We are working with North Lincolnshire Council, the Greater Lincolnshire Local Enterprise Partnership and education providers to ensure as many local people as possible are aware of these opportunities and have the right skills to take advantage of them.

We already have a strong track record in creating local jobs at other sites in the region, such as at Tansterne Biomass – where 79% of jobs have been filled by people living in a 20 mile radius.

If you are interested in working or training at the North Lincolnshire Green Energy Park, you can register by going to our website:

www.northlincolnshiregreenenergypark.co.uk

Development of the wider site

As part of the previous consultation, we set out how, by providing low-carbon heat and power, the North Lincolnshire Green Energy Park could create an attractive place for businesses to locate. Overall, this could see more than 1,000 jobs created at the site.

This is still an important part of our vision for the site. However, we need to get permission to build

the Energy Recovery Facility and the facilities that will let us treat and use the by-products first. They will help create the right conditions for further investment in jobs and skills.

Separate planning permission for any development associated with the wider site would need to be sought from North Lincolnshire Council.

Working in a green energy power plant



ANTONY DAVISON

**Operations Manager
at Tansterne Biomass**

I am from Scarborough but now live in Filey, about 30 miles from Tansterne. I started at Tansterne Biomass as a Shift Team Leader in 2018 and was promoted to Operations Manager for GB-Bio* in 2019. It was always my goal to achieve the role of Operations Manager – it came a lot sooner than expected, but I like a challenge! It is very rewarding to set standards I have learnt and to share my 12 years' experience and knowledge with the team. Before Tansterne, I gained mechanical experience and trained as a Royal Navy marine engineer and worked for Veolia specialising in boiler operation techniques.



NICK PEPPER

**Operator Technician
at Tansterne Biomass**

Since 2017, when I began with GB-Bio*, I've received the industry-accredited training I require to safely perform the role of Operator Technician including the IPAF MEWP (mobile elevating work platforms) course, the PASMA mobile access course, First Aid at Work, Fire Training, and IOSH - Managing Safely. I am on track to progress to Shift Lead Technician. This is a company that encourages people to gain experience and move up the ladder while making sure we are being adequately challenged along the way. I enjoy the work and I love that I live a 1-mile cycle ride from Tansterne Biomass. I look forward to a long and prosperous career here.



RASHELLE TAYLOR

**Site Administrator
at Tansterne Biomass**

I live in Beverley, just 16 miles from the Tansterne site. I started at Tansterne Biomass in April 2021. It's important to me to work in renewable energy. Before Tansterne I worked for M+W Group in South Lanarkshire, Scotland on their energy recovery facility. I had previously worked on two of their projects in Hull. I enjoy working here at Tansterne Biomass. It's a very wide-ranging role – I look after office and purchasing admin and manage site budgets. GB-Bio is very supportive of the development of its staff. The team spirit is always positive; we all have one goal – the successful running of the plant.

*Tansterne Biomass is owned and operated by GB-Bio Ltd, a subsidiary of Solar 21.

Who is behind North Lincolnshire Green Energy Park?

Solar 21 is proposing to develop the North Lincolnshire Green Energy Park. Solar 21 sources, develops, and manages green energy projects across a range of technologies including solar, biomass, biogas and energy recovery.

Its UK portfolio currently includes Tansterne Biomass, a 23 megawatt biomass plant which generates energy from up to 150,000 tonnes per annum of waste wood that would otherwise go to landfill, and a 2 megawatt biogas plant at Plaxton Bridge which will produce energy from up to 80,000 tonnes of potato pulp and vegetable waste each year.

Under construction is a 35 megawatt energy recovery facility which has planning consent to turn 250,000 tonnes of refuse-derived fuel that would normally go to landfill or export into energy.

The sites, which are all located in East Midlands or the East Riding of Yorkshire, employ 28 local people. Solar 21 has invested £260m in assets which will have an operational value in excess of £750 million.

Solar 21 also owns and operates an established portfolio of solar assets in Italy.

SOLAR | 21

Low-carbon heating for the locality

Heating is one of the main ways that homes and businesses use energy. Around 31% of the UK's carbon dioxide emissions come from heating homes, which accounts for around 70% of household energy bills.

We will capture and store heat produced by the energy recovery process as steam or hot water. This can then be supplied to local homes and businesses by way of a district network. Supplying heat to homes and businesses in this way will help reduce their costs and reduce their impact on climate change.

We have identified a number of potential users of low-carbon energy from the North Lincolnshire Green Energy Park. These include the planned new Scunthorpe Hospital, local housing development, a local business park and our on-site plastic recycling and carbon capture facilities. Once the district network is in place, there will be the opportunity to add other utilities over time.

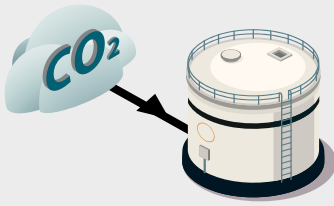


Benefits for you

LOWERING CARBON EMISSIONS

Generate enough low-carbon energy for

221,000
homes

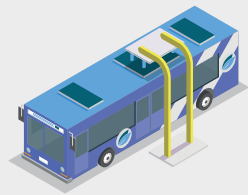


Capture up to
650,000
tonnes of CO₂
per annum

Prevent up to

150,000

tonnes of CO₂ being released from landfill



Providing
Hydrogen
as a clean fuel for
buses and HGVs

IMPROVING THE ENVIRONMENT



Prevent up to
760,000
tonnes of waste
going to landfill
or being exported

Improving
local biodiversity

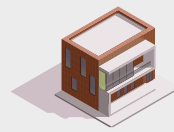
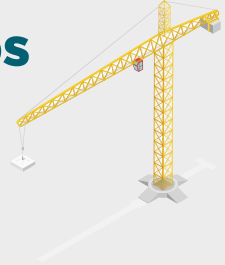


LOCAL ECONOMY

250+ new jobs

600 jobs

during construction



£5.7m to
local economy

up to

£30m

spend in the local area
during construction



Heat+
power



Providing heat and
power to local homes
and businesses

QUALITY OF LIFE

New routes

New cycle and walking routes



Better access
to the river and countryside

Visitor centre

A visitor centre for the
community to use



Protecting the environment

The DCO application will include an Environmental Impact Assessment which will show how we have assessed the potential impact of the scheme on the environment and any measures that are required to reduce their impact.

As part of this stage of consultation we have published a Preliminary Environmental Information Report (PEIR). The topics assessed in the PEIR include air quality, climate, noise and vibration, ground conditions, hydrology and flood risk, ecology, landscape and visual amenity, archaeology and cultural heritage, socioeconomics and cumulative effects.

Find out more

Further information on the PEIR and how we will safeguard the environment can be found in the accompanying booklet.

How we will safeguard the environment during construction and operation

During construction

- Employ considerate contractors
- Keep local people updated and provide clear channels for people to get in touch
- Include a Construction Environmental Management Plan in the DCO application

During operation

- Run a well-managed, modern facility using proven technologies
- Comply with an Environmental Permit which sets limits on how we operate
- Be monitored by regulatory bodies such as the Environment Agency



What happens next?

Planning process

The North Lincolnshire Green Energy Park is classified as a Nationally Significant Infrastructure Project. This is because the Energy Recovery Facility will be able to generate more than 50 megawatts of electricity. This means the application must be made to the Secretary of State for Business, Energy and Industrial Strategy by way of a Development Consent Order (DCO).

Unlike local planning permissions, which are considered by local planning authorities, DCO applications are processed by the Planning Inspectorate on behalf of the Secretary of State.

DCO applications follow a fixed, statutory process which requires the applicant to consult with the local community and key stakeholders before the application is submitted. These stakeholders include North Lincolnshire Council, Natural England and local parish councils, among others. You are receiving this booklet because we want you to know about the North Lincolnshire Green Energy Park and would like to know your opinion of it.

Timeline

2020

Pre-application Stage

We held our Initial round of consultation (non-statutory) in summer 2020.

We have developed our proposals and are carrying out a statutory consultation. A Statement of Community Consultation, available on our website, sets out how we will consult with the community.

**AUTUMN
2021**

Application Stage

Having had regard to the responses received during the statutory consultation, we plan to submit our DCO application to the Planning Inspectorate.

**WINTER
2021 /
2022**

Acceptance Stage

The Planning Inspectorate, on behalf of the Secretary of State, has 28 days in which to decide if the application meets the required standards to proceed to examination, including whether our consultation has been adequate. Based on our current timeline, we would expect this to take place in late 2021 or early 2022.

Pre-examination Stage

The Planning Inspectorate will hold a preliminary meeting and set the timetable for examination. Based on our current timeline, we would expect this to take place in the first half of 2022. You can register as an interested party so that you may be kept informed of progress and have an opportunity to put your views forward.

Examination Stage

The Planning Inspectorate has 6 months to carry out the examination. During this time, you can send your comments in writing. You can also request to speak at a public hearing. Based on our current timeline, we would expect this to take place in the second half of 2022.

2023

Decision

A recommendation by the Planning Inspectorate will be issued to the Secretary of State within 3 months. The Secretary of State has a further 3 months to issue a decision on the application. Based on our current timeline, we expect this to be in the first half of 2023.

Post-decision

There is the opportunity for legal challenge.

2023

Target date for beginning construction.

2026

Target date for completing construction.

Consultation



How the statutory consultation works

This second round of consultation, called the statutory consultation, is taking place between 14 June and 25 July 2021.

We are carrying out the statutory consultation in line with the requirements of the Planning Act 2008. You can find out how we are meeting the requirement to consult with the community by reading the Statement of Community Consultation (SoCC) available on our website. We have developed the consultation programme considering best-practice guidance and advice from North Lincolnshire Council.

We will carefully consider all the comments we receive as part of the consultation and set out how we have taken them into account in a Consultation Report. This will form part of our DCO application.

We want to hear from you

To ensure you can respond to the consultation as we come out of COVID 19 pandemic restrictions, we have arranged lots of ways for you to find out more and have your say.

For more information

- Book an appointment to speak individually to members of the project team about our proposals (in person at a venue in the local area, should Government guidance allow). To book an appointment, contact us via phone or email.
- Join one of our online Q&A webinars (details below) at which you can ask the project team questions. To book a place, contact us via phone or email.

7pm on Thursday 24 June 2021

2pm on Saturday 26 June 2021

- View a virtual public exhibition on our website
- Review the PEIR and other consultation documents by going to our website or at one of the below locations.

To have your say

Responses to the consultation must be made in writing. You can respond by:

- Going to our website and completing a consultation questionnaire
- Completing a paper copy of the questionnaire and returning it to our Freepost address
- Emailing us or writing to the Freepost address

We will consider all consultation responses received by the deadline of 11:59pm on 25 July 2021.

Get in touch or find out more:

Visit the website:

www.northlincolnshiregreenenergypark.co.uk

Call us: 0800 130 3353

Email us:

info@northlincolnshiregreenenergypark.co.uk

Write to us:

North Lincolnshire
Green Energy Park Consultation,
FREEPOST reference RTRB-LUJJ-AGBY,
c/o SEC Newgate UK, Sky Light City Tower,
50 Basinghall Street, London, EC2V 5DE

LOCATION	OPENING HOURS
Fenestra Conference Centre 24 High St, Flixborough, Scunthorpe DN15 8RL	By appointment only - please contact us if you would like to view documents at this location.
Scunthorpe Central Library Carlton Street, Scunthorpe, North Lincolnshire, DN15 6TX	Monday 9:30am-12:30pm / Tuesday 9:30am-12:30pm / Wednesday 1-4pm Thursday 1-4pm / Friday 9:30am-12:30pm Saturday - Closed / Sunday - Closed
Crowle Community Hub The Market Hall, Market Place, Crowle, North Lincolnshire, DN17 4LA	Monday 9am-12:30pm / Tuesday - Closed / Wednesday 9:30am-4:30pm Thursday - Closed / Friday 9:30am-12:30pm Saturday - Closed / Sunday - Closed
Winterton Library 54 West Street, Winterton, Scunthorpe, North Lincolnshire, DN15 9QF	Monday 9am-12pm, 4:30pm-7:30pm / Tuesday - Closed Wednesday 9am-12pm, 4:30pm-7:30pm Thursday 9am-12pm, 4:30pm-7:30pm Friday 9am-12pm, 4:30pm-7:30pm / Saturday - Closed / Sunday 9am-12pm

Please check our website or contact us for the latest information before making plans to visit one of these locations.