

# Shireoaks Plastic Recycling Centre & Energy Recovery Facility

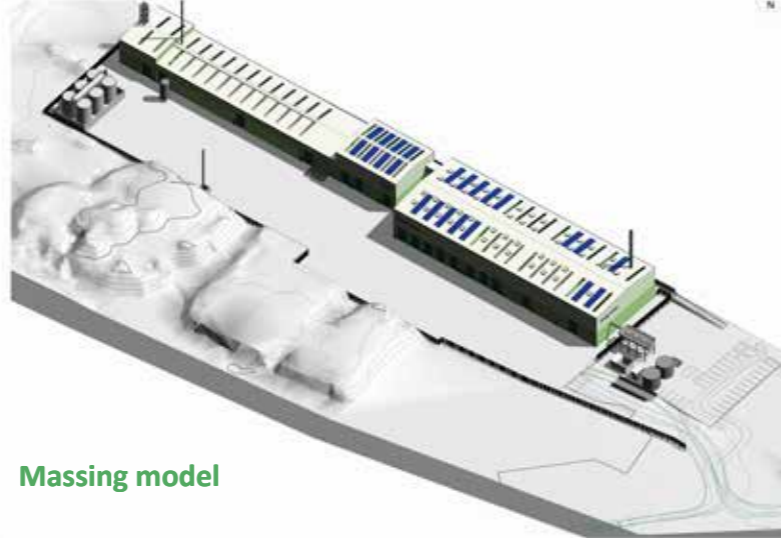
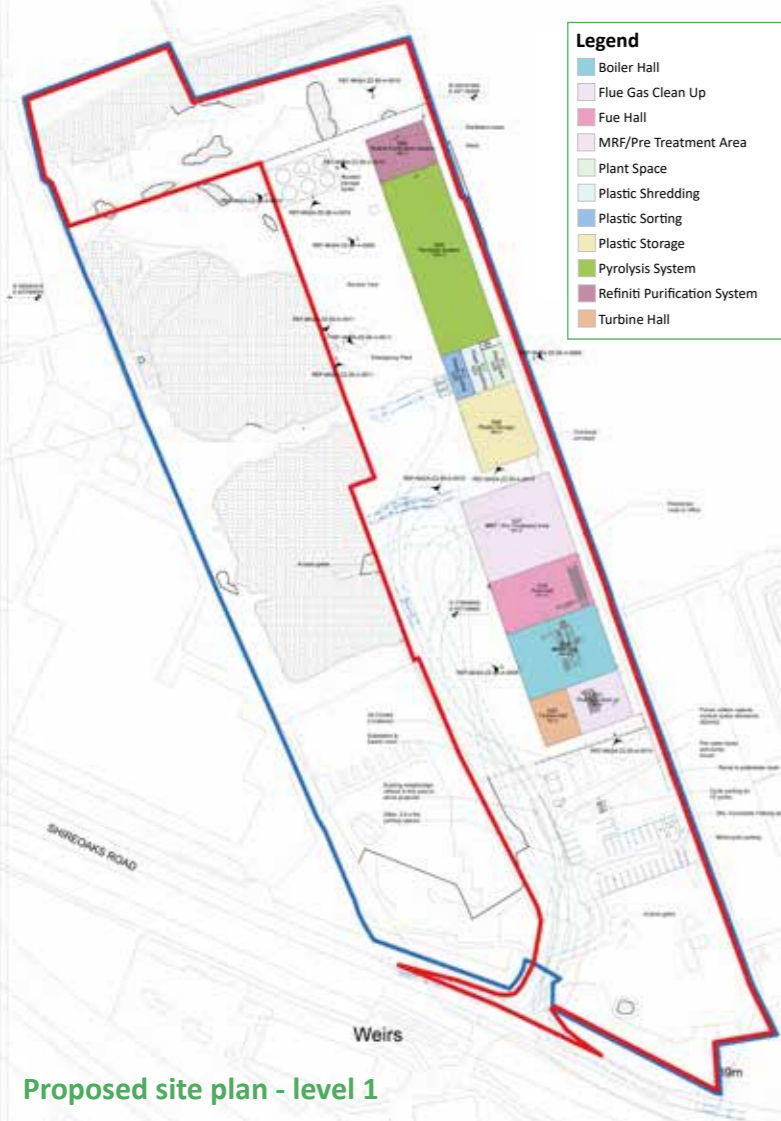
An answer to Nottinghamshire's plastic and residual waste problem



Invitation to a public consultation event

**Wednesday 13th of December 2pm - 7pm**

Portland Suite, The Lion Hotel, 112-114 Bridge Street, Worksop, Nottinghamshire, S80 1HT



Massing model



Level 2

# An answer to Nottinghamshire's plastic problem

The proposed development would be located at the former Nottinghamshire Recycling Site, Shireoaks Road, Worksop, S80 3HA. The proposed development is made up of two facilities:

## 1 Shireoaks Plastic Recycling Centre

The Plastic Recycling Centre will be run by Refiniti. The Shireoaks Plastic Recycling Facility will prevent up to 20,000 tonnes per annum of previously non-recyclable waste plastic from going to landfill.

## 2 Shireoaks Energy Recovery Centre

The Shireoaks Energy Recovery Centre will be run by Envale UK Limited

The Shireoaks Energy Recovery Facility will prevent up to 24,369 tonnes per annum of residual waste material (i.e. waste that cannot be recycled) from going to landfill, generating 2.5MW of electricity and 10MW of heat.



## About Refiniti

Refiniti is dedicated to finding answers to the plastic pollution crisis.

Refiniti is a British company dedicated to tackling the difficult materials unsuitable for traditional recycling methods.



*Plastic bags are hard to recycle, but can be transformed into reusable materials at the Shireoaks Plastic Recycling Centre.*

# Shireoaks Plastic Recycling Centre

The Shireoaks Plastic Recycling Centre specialises in recycling plastic that doesn't fit the criteria for traditional recycling methods.

Our focus is on giving a second life to plastics that might otherwise be discarded, reducing the strain on landfills and lessening environmental impact. With advanced technology and innovative processes, we're committed to turning these discarded plastics into valuable resources.

## What is the problem with plastics?

The UK produces more plastic waste per person than almost any other country in the world. Traditional mechanical recycling methods capture only a fraction of all waste plastic in the UK. The bulk of plastics that we consume defy mechanical recycling methods. We recycle just 45% of plastics in the UK. That means 55% of all our plastic waste ends up in landfills, and even the ocean.

Traditional recycling methods present the UK with a residual waste plastic problem for which a long-term sustainable solution is urgently required. For residual plastics, advanced chemical recycling is the industries only viable route for recycling. The Shireoaks Plastic Recycling Facility is designed to recycle these residual plastics.

## How we transform 'non recyclable' plastics.

Refiniti has developed a unique chemical process that transforms difficult to recycle plastic items (like cling film and shopping bags) back into raw materials that can be used again in the production of new plastic products, reducing reliance on crude oil and promoting the circular economy.



### Pyrolysis

The plastic will be heated in a contained and controlled environment using high temperatures in the absence of oxygen to break down plastics and create a liquid oil.



### Purification

The liquid oil is treated by Refiniti's patented technology to have impurities removed.




**The end product from these processes will then be reused to produce new plastic.**



*The Energy Recovery Facility will be run by Envale UK Limited*

# Shireoaks Energy Recovery Facility

The facility has the capacity to produce up to 2.5 megawatts of electricity, which could power over 650 homes annually. It also generates 10 megawatts of heat that could potentially be supplied to the surrounding area. The facility has the potential to export surplus electricity to the local power grid, enhancing energy security in Nottinghamshire.

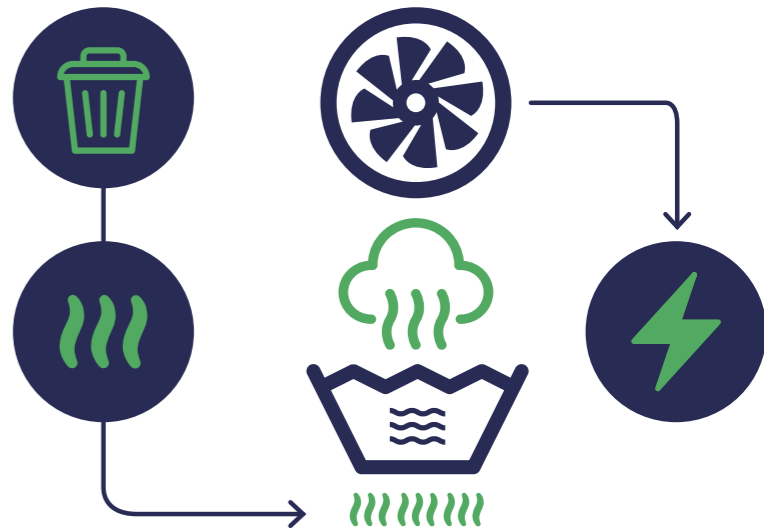


Providing enough electricity to power over 650 homes annually

## How does it work?

The facility will generate heat and electricity (partly renewable energy) from non-recyclable waste within a controlled and monitored environment.

The heat from the waste combustion is used to boil water and generate steam which turns a turbine to drive a generator. The energy produced will offset fossil fuel use.



# Benefits



## Recycling

- The Plastic Recycling Facility will take previously non-recyclable plastics and enable them to be re-used.
- Stop up to 20,000 tonnes per annum of non-recyclable plastic waste from going to landfill.
- Reduces quantities of fossil fuel based waste plastic entering Energy Recovery Facilities.



## Economic

- The development will create approximately 80 jobs during construction.
- It will also create 30 new jobs during operation.
- The recycled plastic will contribute to the plastic manufacturing industry (plastic packaging tax).



## Energy

- Contribute to Nottinghamshire's energy security.
- Generates up to 2.5 Megawatts of electricity - enough to power over 650 homes per annum.
- Reduce Nottinghamshire's reliance on fossil fuels and help combat climate change by producing partially renewable energy.



## Biodiversity

- A 4,000m<sup>2</sup> area of ecological and landscape enhancement to support local wildlife and deliver at least a +10% gain in on-site biodiversity.
- Wildflower seed planting and tree planting will occur in the buffer zone.



# Public Consultation

We invite you to provide feedback on our draft proposals in the following ways:



1.

Attend our public consultation event on Wednesday 13th of December, 2pm - 7pm at the Portland Suite, The Lion Hotel, 112-114 Bridge Street, Worksop, Nottinghamshire, S80 1HT



2.

Fill in the feedback form that accompanies this public consultation brochure.



3.

Visit the dedicated public consultation website: [www.shireoaksrecyclingandenergycentre.com](http://www.shireoaksrecyclingandenergycentre.com)

# Have your say

Please take your time to consider the information within this brochure and don't hesitate to contact a member of our team should you have any questions or matters you need to be clarified.

Comments provided by the local community will be considered in shaping the final planning application submission. Please provide any comments you have on the proposal by email or via the feedback form on the website. We would be grateful if you could complete the feedback form (including your contact details) for the purpose of informing the project design and providing feedback to the Council.

For further information, please do not hesitate to email: [feedback@alpacacommunications.com](mailto:feedback@alpacacommunications.com)

## Register for Updates

Please visit [www.shireoaksrecyclingandenergycentre.com](http://www.shireoaksrecyclingandenergycentre.com) where information about our proposals will be updated, and where you can register to receive updates.

# Feedback Form



To return your completed feedback form please tear it from the brochure, insert into the enclosed pre-paid envelope and pop it in the post by **Monday 1st of January 2024**. Alternatively, you can return your form via email to [feedback@alpacacommunications.com](mailto:feedback@alpacacommunications.com)

|          |                      |            |                      |
|----------|----------------------|------------|----------------------|
| Title:   | <input type="text"/> | Name:      | <input type="text"/> |
| Address: | <input type="text"/> | Postcode:  | <input type="text"/> |
| Email:   | <input type="text"/> | Telephone: | <input type="text"/> |

1. Has this brochure been helpful in understanding our proposal?  
 Yes  No  Not sure
2. Do you support the proposal you have read about within this brochure?  
 Fully Support  Broadly Support  Do not support  Undecided
3. Please use this space to provide any comments on the proposal. We would welcome your feedback on all aspects of the emerging design show in the brochure.

Please provide your contact details if you wish to get a response. Any information provided will only be used for the purpose of the planning application to the Local Planning Authority and will not be disclosed with any third parties. **Your contact details will not be listed on the planning application documentation.**

**Freepost  
ALPACA COMMUNICATIONS LIMITED**

**FOLD HERE**

**Instructions**

To return your feedback form, please fold and put it in the post to us.

If you'd like more space to share your thoughts, send us an email, or just write your comments down and pop them in an envelope with 'FREEPOST ALPACA COMMUNICATIONS LIMITED' written on the front. You don't need any further address or stamp.

Any queries or problems? Get in touch via [feedback@alpacacommunications.com](mailto:feedback@alpacacommunications.com).