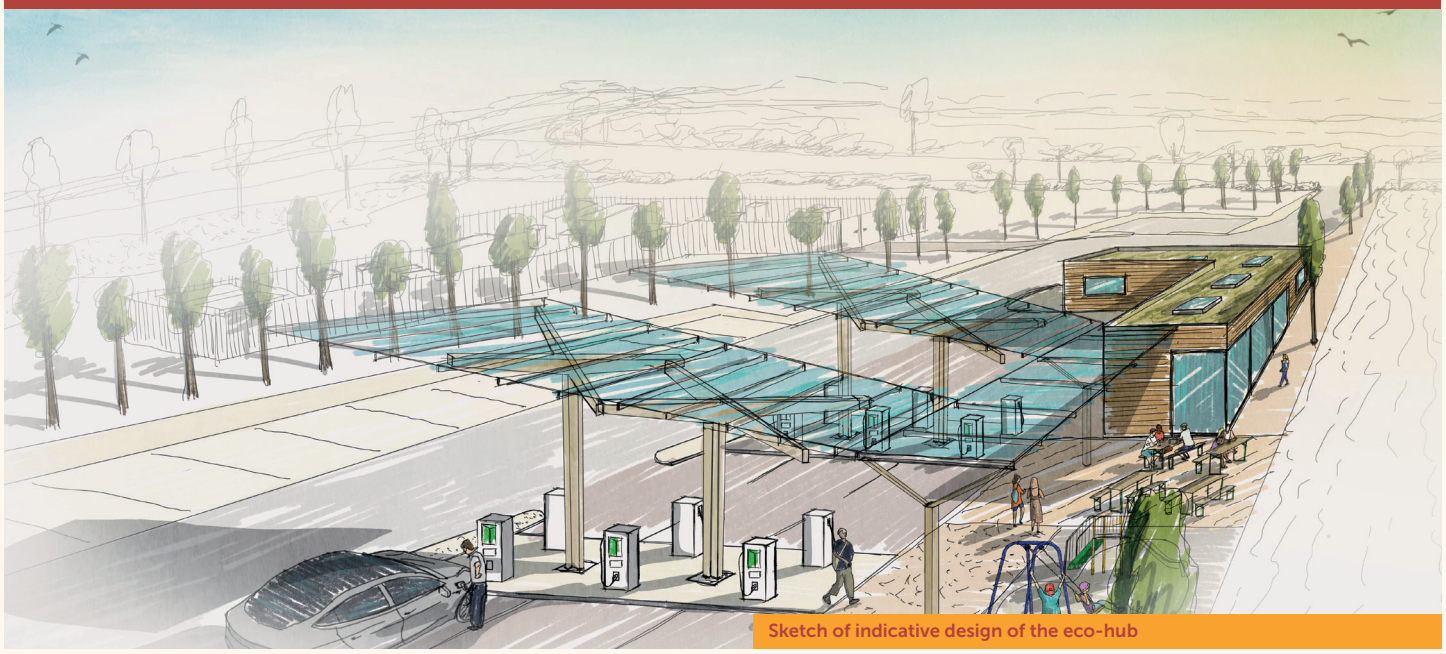
Invitation to attend a public consultation on plans to build an eco-hub in Kirby



Sketch of indicative design of the eco-hub

A leading renewable energy developer, Naturalis, is proposing to build a £12-15million eco-hub on land between Kirby-le-Soken and Kirby Cross.

The eco-hub is all-encompassing and sustainable. It will produce electricity to power homes, businesses and vehicles while helping to manage the National Grid through the provision of battery storage.

The eco-hub includes:

- **A public electric vehicle (or 'EV') station** with at least 12 rapid charging points.
- **Battery storage to help the National Grid** manage its network.
- **Solar panels that will generate electricity at source in Kirby**, powering electric vehicle chargers and homes.

Indicative project timescales:

1. **Submission of a planning application:** December 2021
2. **Receive planning decision:** Q2, 2022
3. **Financial investment decision:** Q1, 2023
4. **Construction:** Q2 – Q3, 2023
5. **First generation/operation:** Q3, 2023

Britain: a global leader in renewables

Whether it is petrol or gas, fossil fuels are imported from various locations around the world such as the Middle East and Russia to meet British demand.

Britain's reliance on imported energy is minimised by projects like the eco-hub. As the Secretary of State said recently:

"...it is the case that the UK is still too reliant on fossil fuels. Our exposure to volatile global gas prices underscores the importance of our plan to build a strong, home-grown renewable energy sector to strengthen our energy security into the future."[1]

1 https://www.gov.uk/government/speeches/uk-gas-market-and-prices

The consultation

Local residents will be able to view the proposals, ask questions and comment on the emerging scheme. All feedback will be reviewed and considered by Naturalis to inform the final proposal ahead of the submission of a planning application to Tendring District Council.

The consultation will take place over the following two days:

Dates and times

- Tuesday 16 November 2021 (from 1pm until 8pm)
- Wednesday 17 November 2021 (from 4pm until 8pm)

Venue

- St Michael's Church Hall, The Street, Kirby-le-Soken, Essex CO13 0EF

No bookings required. Just drop in at any time.

The Naturalis project team will be in attendance and on hand to provide information and answer questions throughout the course of the consultation.

If you cannot attend these events, you can view our consultation materials online and provide feedback via our website or via the FREEPOST feedback form that can be found on the reverse of this leaflet.

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Why are we proposing to build an eco-hub on these sites?

With the ban on new petrol and diesel cars only eight years away, every community – urban and rural – across the UK will need to have access to electric vehicle charging stations in the same way that most drivers today need to use garages for petrol and diesel.

Naturalis chose this site in Kirby as it is suitably located next to a vital connection to the National Grid and lacks good quality EV public charging. Without the ability to connect an eco-hub to a grid connection, this infrastructure simply doesn't work.

The location of this eco-hub would preserve the Green Gap. It would prevent new homes from being built on 40-50 acres of this sought-after development land during its 40-year life, ensuring Kirby-le-Soken and Kirby Cross remain separate villages with separate identities.

Why do we need a public electric vehicle charging station?

Example of an operational electric vehicle charging station

The Society of Motor Manufacturers and Traders believes, even taking account of EV charging at home, work and supermarkets in future, that at least 700 public charging points must be installed each day for the next 8 years.[2] That's the equivalent to building 50 Halstead Road projects every day!

Electric vehicle sales are growing fast but there are concerns that investment in public electric vehicle charging is missing out large parts of the UK, especially smaller towns, and rural areas.[3]

The £12-15million eco-hub investment will ensure that Kirby avoids this risk and benefits from cheap, clean electricity generation that will power homes and vehicles alike. The project will be designed to "rapid charge" at least 12 electric cars at the same time, no matter the make or model.

2 SMMT (March 2021) Delivering the Triple Bottom Line: A Blueprint for the Electric Vehicle Revolution.

3 Chief Secretary to the Treasury, Simon Clarke MP, 2 February 2021.

4 The UK average for solar photovoltaic project capacity factors in 2020 was 11.2% (Source: 2021 Digest of UK Energy Statistics, BEIS, table 6.5). 25MWp (the project's assumed capacity) x 1,000 (converting from MW to kW) x 8,760 (hours in a year) x 11.2% (assumed capacity factor) = 24.5m kWh, to one decimal place. The Department for Business, Energy and Industrial Strategy, "Energy Consumption in the UK" Table C9, 22 October 2020, average, temperature-corrected domestic consumption in 2019 @ 3,772 kWh. 24.5m kWh divided by 3,772 kWh = 6,495 homes.

Why is a solar farm a part of the eco-hub proposal?

National Grid expects peak demand for electricity will significantly increase due partly to additional demand from electric vehicle charging. As such, there is a need to generate more electricity to meet a growing demand across the UK.

The eco-hub concept is all-compassing and sustainable. The solar farm would generate electricity needed to power local homes and cars. The power will feed into the electric car chargers or the national grid with some electricity stored in the battery storage units to assist the smooth operation of the local grid.

Did you know that this project would produce enough electricity to power about 6,500 typical homes?[4]

The western site would comprise the electric vehicle charging station, the battery storage units and the grid connection.

The electric vehicle charging station comprises:

- Construction of a new access off the Halstead Road by the Kirby Playing Fields.
- Around six ultra-rapid (up to 350kW) and six rapid (43-100kW) charging points (more could be added over time, to meet demand).
- These chargers would allow all types of EVs to charge at the eco-hub.
- Public rest facilities including a small café/shop with lounge area and an outdoor seating and play area.
- Inclusion of at least 30 car parking spaces, for EVs as well as non-EVs, to help reduce congestion and traffic on the Halstead Road during peak school drop-off and pick-up times.
- New wild flower, hedge and tree planting.

The battery storage and grid connection comprise:

- Up to three battery storage containers located adjacent to the electric vehicle charging station within a fenced compound for safety and security, and to screen the containers from view.
- The batteries would meet recognised fire safety standards and would be fitted with automatic fire suppression technology.
- Two switching stations (single storey height) and associated electrical equipment.

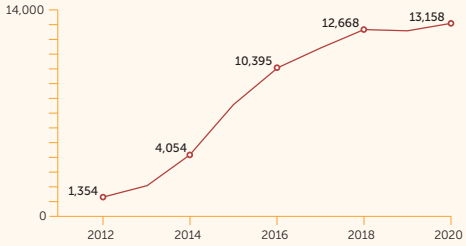
The solar farm would be located in the larger, eastern site and would comprise:

- Photovoltaic modules installed on a simple metal framework mounted on piles driven into the ground.
- The panels would have a maximum height of up to 2.8m (existing ground levels would be unaltered).
- An improved access via an existing field entrance from the Halstead Road.
- Approximately four inverter/transformers located across the site.
- Deer-proof fencing and a CCTV system (looking inwards) within the site boundary would be installed around the site's perimeter while access tracks will be constructed within the site.
- All public footpaths within the site to be protected and maintained.
- New wildflower, hedge, and tree planting.
- Improved biodiversity – hedge/tree planting, bat boxes, improved soil structure from no farming (reducing flood risk).

Economic benefits: The Halstead Road eco-hub

Supporting a growing sector

Power generated from solar PV (GWh) in the UK[1]



Jan-May 2019
For the first time since the Industrial Revolution, Britain obtained more power from zero-carbon sources (48%) than fossil fuels (47%).

Supporting the move to zero emission vehicles

Sales of new petrol and diesel cars and vans to end from 2030.[2] So far in 2021, electric car sales in the UK exceed diesel car sales.[3]

Operational benefits

Generating electricity equivalent to the demand of **c. 6,500** typical homes each year.

Investment of approximately **£13.5million** To develop a c. 25MWp solar project, a battery storage facility, ultra-rapid electric vehicle chargers and a shop and cafe area.

£75,000 Estimated annual business rates generated by the solar farm.[4]

Up to **117** Temporary jobs, both on-site and in the wider supply chain during the 6-month construction phase.

Supporting **6** Permanent direct and indirect jobs once the proposed development is built and operational.

c. £360,000 Community benefits fund over the project's operational life.

Up to **£4.2million** In gross value added to the economy over the 6-month construction phase.

Contributing **£3.1million** In gross value added[5] to the economy over the next 10 years.[6]

1. Based on data in the 2021 Digest of United Kingdom Energy Statistics (DUKES), published by the Department for Business, Energy & Industrial Strategy.
2. As outlined in Powering our Net Zero Future: Energy White Paper, December 2020.
3. Based on research by SMMT. (Available at: www.smmt.co.uk/2021/10/battery-electric-vehicles-power-on-despite-supply-issues-bedevilling-new-car-market/).
4. Based on the 2021/22 average, capacity-adjusted forecasts from REG Power Management's experience of managing 8 English Solar projects.
5. GVA, or gross value added, is the measure of the value of goods and services produced in an area, sector or industry.
6. Where future benefits are calculated over a longer timeframe, they have been discounted to produce a present value.

Decommissioning: returning the site to green fields

At the end of its expected 40-year life, the site would be fully decommissioned, and this will incorporate all elements; solar farm, charging infrastructure and battery storage facility and associated infrastructure such as the seating area etc.

The detailed decommissioning arrangements would be expected to be included in the list of planning conditions associated with any future planning permission.

Nearer the time of decommissioning, a decision would be made as to how much of the underground infrastructure should be taken away, given that the environmental disturbance may be significant if it is to be removed after 40 years.

That said, the project is completely reversible, and all aspects could be fully removed if that is the preferred option at the time. After decommissioning, farming could continue.

An example of sheep grazing on a solar farm

Key benefits

The scheme will deliver the following local benefits:

- **£360,000 over the project's operational life** of 40 years.
- Ensuring the local area gets ahead with **hi-tech electric vehicle charging**.
- **Improved biodiversity** – hedge/tree planting, bat boxes, improved soil structure from no farming (contributing to flood risk mitigation).
- **Local jobs** – employment opportunities at the EV charging station and café/shop.
- Business rate payments of **up to £75,000 every year** to Tendring Council.
- Helping to **improve energy security**.
- Ensuring the local area contributes to Tendring District Council's Climate Emergency and the Government's **"Build Back Greener" strategy**.

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Get in touch!

You can keep up to date with the progress of this development by visiting our website:

www.halsteadroadecohub.co.uk

Feedback form

When completing and returning this feedback form, please provide your contact details so that we can respond to your questions with answers.

Please tick here ☐ if you want us to contact you.

Please complete and return this survey to:

FREEPOST GNL CONSULTATION

Name:

Address:

Postcode:

E-mail:

Questions

1 Do you support or oppose the principle of building an eco-hub in this part of Kirby?

☐ Support ☐ Oppose ☐ Unsure

2 The eco-hub is in a suitable location as it is located next to the National Grid infrastructure. Do you agree or disagree with this statement?

☐ Agree ☐ Disagree ☐ Unsure

3 Do you support or oppose the UK government's decision to ban the sale of petrol and diesel cars and small vans by 2030?

☐ Support ☐ Oppose ☐ Unsure

4 Do you plan on purchasing an electric vehicle in the near future?

☐ Yes ☐ No ☐ Unsure

Please explain why

5 Do you believe that eco-hubs strengthens Britain's energy security as homegrown electricity production reduces our country's reliance on importing fossil fuels from abroad?

☐ Yes ☐ No ☐ Unsure

6 Do you welcome projects such as the eco-hub as a way to respond to the global climate change emergency?

☐ Yes ☐ No ☐ Unsure

7 The proposal provides additional parking spaces on Halstead Road to help alleviate the pressure of overspill parking problems at school times. Do you welcome this measure?

☐ Yes ☐ No ☐ Unsure

8 Please suggest the names of any local businesses that might benefit from potential opportunities to support the construction and operation of this eco-hub.

9 What is your overall opinion towards this development proposal?

☐ Support ☐ Support with reservations
☐ No opinion ☐ Some concerns ☐ Oppose

10 Please use the space below to ask questions or provide comments that you would like Naturalis to consider.

GDPR and Data Protection: This information is collected by GNL Strategic on behalf of Naturalis and will be shared with them and the project team, securely stored and destroyed at the end of the planning process.

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