



KETTERING ENERGY PARK



To achieve energy security, we must end reliance on imported fossil fuels and replace them with cheaper, cleaner, renewable alternatives.



FOOD SECURITY

Advanced agriculture, of the kind planned for KEP, will improve food security because they can produce between 50 and 100 times more food per square foot than traditional methods.

KETTERING ENERGY PARK



ENERGY SECURITY



ECONOMIC SECURITY



ENVIRONMENTAL SECURITY

KEP will make local eco-systems more diverse and resilient. We are targeting a 15% net gain in biodiversity. Purpose designed space for Lapwing will also be provided.

Domestically produced renewable energy will combat climate change and lower and stabilise prices, creating the right environment for sustainable growth.



KETTERING, ENERGY PARK



KETTERING ENERGY PARK



THERE IS A CLIMATE **EMERGENCY**



THERE IS DEMAND FOR NZC DEVELOPMENT

A SHORTAGE OF **EMPLOYMENT LAND**



THERE IS NO NEED FOR SUBSIDIES

THE PRIVATE SECTOR WANTS TO INVEST



THE PROPOSALS FOR KEP ALIGN WITH GOVERNMENT POLICY





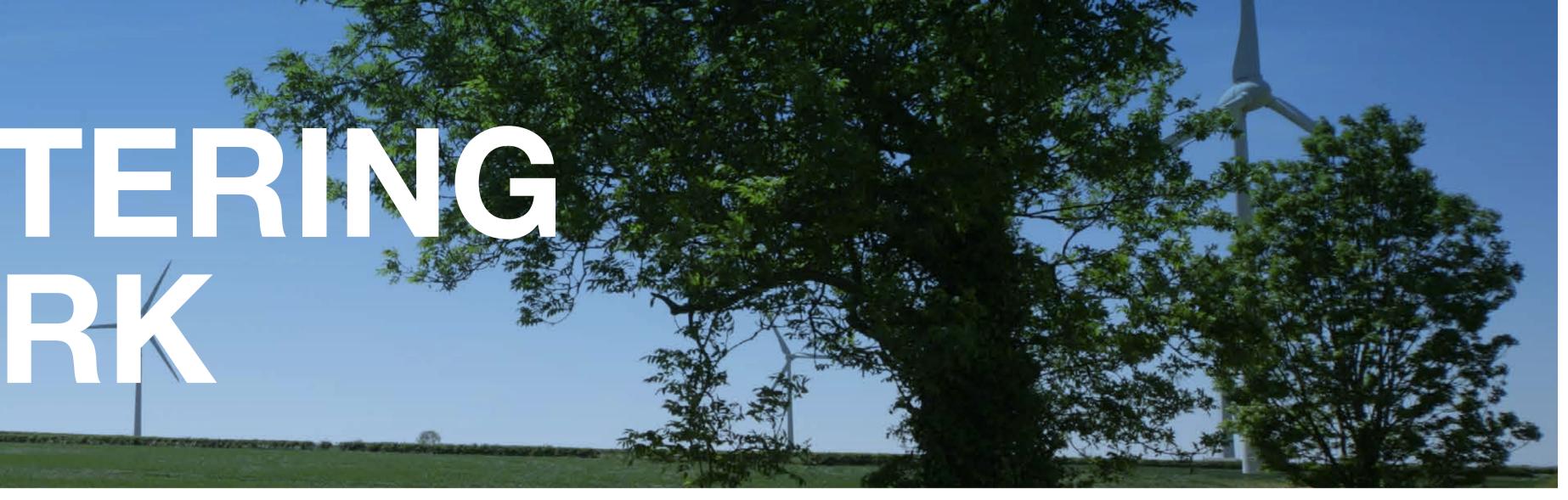
ABOUT KETTERING ENERGY PARK

Kettering Energy Park is located to the east of Burton Latimer, adjacent to the Burton Wold Wind Farm.

It offers one of the best opportunities in the UK to help meet a number of challenges and improve energy resilience based on renewable sources, support food production through advanced methods and also provide energy intensive businesses with access to sufficient renewable energy that will help meet the Government's ambitious 68% reduction target to greenhouse gas emissions.

The existing and approved energy infrastructure at the site provides an ideal starting point, which will be complemented by additional energy infrastructure so that every business at the Energy Park will have the potential to meet up to 100% (50% minimum requirement) of their energy needs from on-site renewable energy, all funded from the private sector.

Kettering Energy Park represents the future of commercial development for a green sustainable economy.



THE PROMOTER

First Renewable

First Renewable Developments Ltd. was created to bring forward infrastructure developments that enable the transition to a low-carbon economy on a commercial, industrial and community scale. We are achieving this currently by deploying highperformance renewable technology to new and existing commercial developments.

However, the main vehicle to achieve our long-term goal of sustainable economic growth is our unique concept: the energy park.

Energy Parks are developments that enable energy consumers to be co-located with sustainable producers, decentralising our energy infrastructure, and transforming the future of energy supply by making it sustainable, more secure, and less prone to price volatility. This founding vision precedes the Paris Agreement of 2015 and the 2019 commitment to UK net zero by 2050. We believe Energy Parks provide a blueprint for achieving that vision while enabling strong economic growth. First Renewable Developments has put together a development team to deliver Kettering Energy Park, including a finance partner to guarantee the delivery of the infrastructure, environmental and financial commitments. It is also partnered with Panattoni Developments to manage and execute the physical delivery of the infrastructure. It is First Renewable's intention, at the time of planning application submission, to also be able to declare the energy and advanced agriculture partners of the scheme.



THE HISTORY OF THE SITE

Kettering Energy Park was first conceived by First Renewable in 2011 as a scheme that could deliver integrated, constant renewable energy.

Subsequently this idea became established in council policy with the adoption of the North Northamptonshire Joint Core Strategy in 2016.

This policy identifies the Burton Wold site as an Energy Park that will link the on-site energy infrastructure with new, complementary employment development. The principle of developing an Energy Park at this location is therefore established by policy.

£70m of infrastructure investment has already been progressed by First Renewable. The wind farm is in place, provision of solar farms has already been approved and an agreement is in place to provide the new Grid Connection to the existing overhead power lines.

The time is now right to complete the original vision:

To maximise renewable energy potential on the site and to locate high energy businesses, using bi products in advanced agriculture; setting a new benchmark for the future of sustainable development in line with the Government's targets.













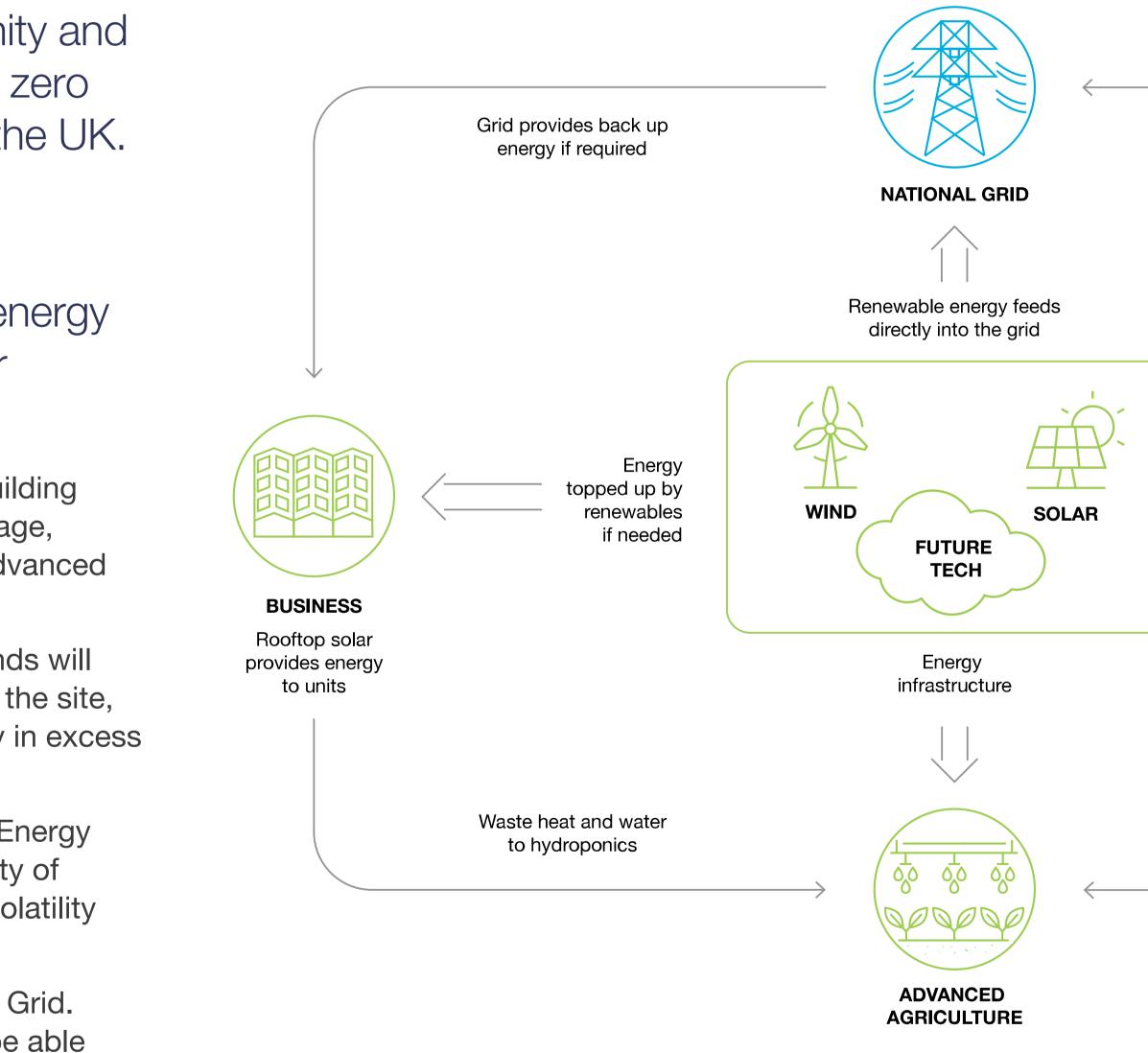
Kettering Energy Park is a unique opportunity and will set a new standard for the future of net zero carbon development and green growth in the UK.

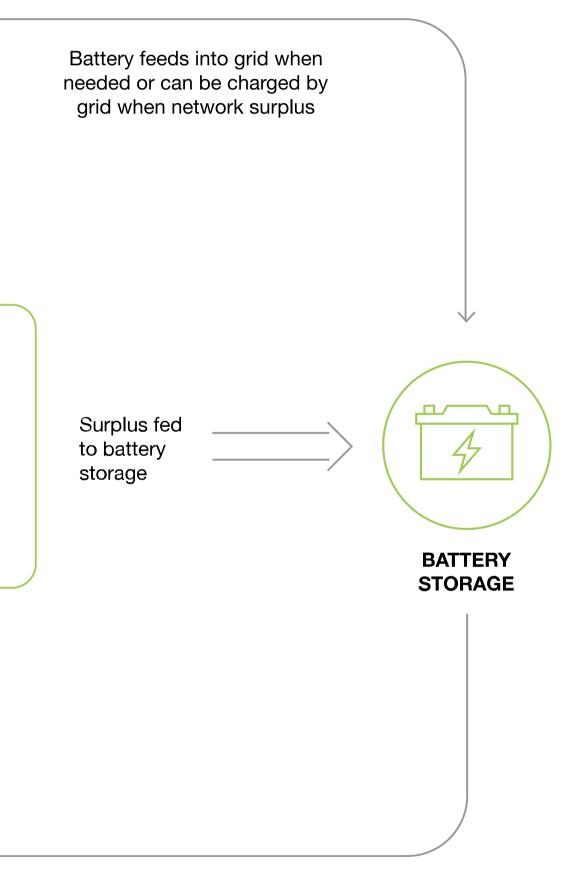
THE VISION

The Energy Park will co-locate renewable energy production and businesses to support their transition to net zero.

- To maximise the sustainable potential of the site by building more than 65mw of solar, up to 150mw of energy storage, renewable fuel production facilities, and 65 acres of advanced food production
- The co-location of businesses with high energy demands will make efficient use of the renewable energy sources at the site, in a well landscaped setting that enhances biodiversity in excess of national requirements.
- Through its renewable energy infrastructure Kettering Energy Park will contribute to energy price stability and security of supply. In the face of the climate emergency and the volatility of energy supply this is critical.
- The Energy Park will improve resilience in the National Grid. Through additional energy infrastructure, the site will be able to further increase the supply of renewable energy with excess energy being released to in the National Grid.
- Provide benefits to local communities through additional public access, dedicate land for ecological benefit and provide a community fund for local projects









EVOLUTION OF THE MASTERPLAN

Following the public consultation last year, North Northamptonshire Council made a number of recommendations for the Masterplan. All recommendations have been reviewed in detail and a number of changes are proposed. The key points are as follows:

IN RESPONSE TO FEEDBACK

ISSUES	BEFORE		AFTER
Scale of Development	Explored potential to create circa 390,000 sq m of new employment space	Ļ	Less employment floorspace 22% to 302,000 sq m
The Proposed Uses	Proposed split of 70:30 for B8 and B2 uses	Ļ	Reduced B8. This has been ree 50%, and occupiers must meet
Landscape and Visual Impact	Maximum building heights up to 30m.	Ļ	Reduced building heights. Th Units opposite the roundhouse
Biodiversity	Initial target of at least 10% Biodiversity Net Gain	1	Increase in biodiversity net ga
Highways & Transport	Previous modelling work identified that the network could accommodate the development traffic, with local improvements	Ļ	Fewer traffic movements with development. Legal commitme improvements
The extent and reach of consultation	Initial consultation between Nov 2022 and May 2023, including: website launch, meetings with local councillors and stakeholders, public exhibition	1	Additional consultation to be councillors, stakeholders and n across 2024



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reduced by 44% to no more than et all three energy criteria

These have come down to 25m. se have been reduced further

gain target by 50% to 15% overall

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e carried out with local members of the community



NASTERPLAN



KEY ENERGY INFRASTRUCTURE (Battery storage, hydrogen, grid connection)

J10



SOLAR POWER + extension land



WIND FARM



ADVANCED AGRICULTURE + extension land



FUTURE TECHNOLOGY CENTRE



EMPLOYMENT



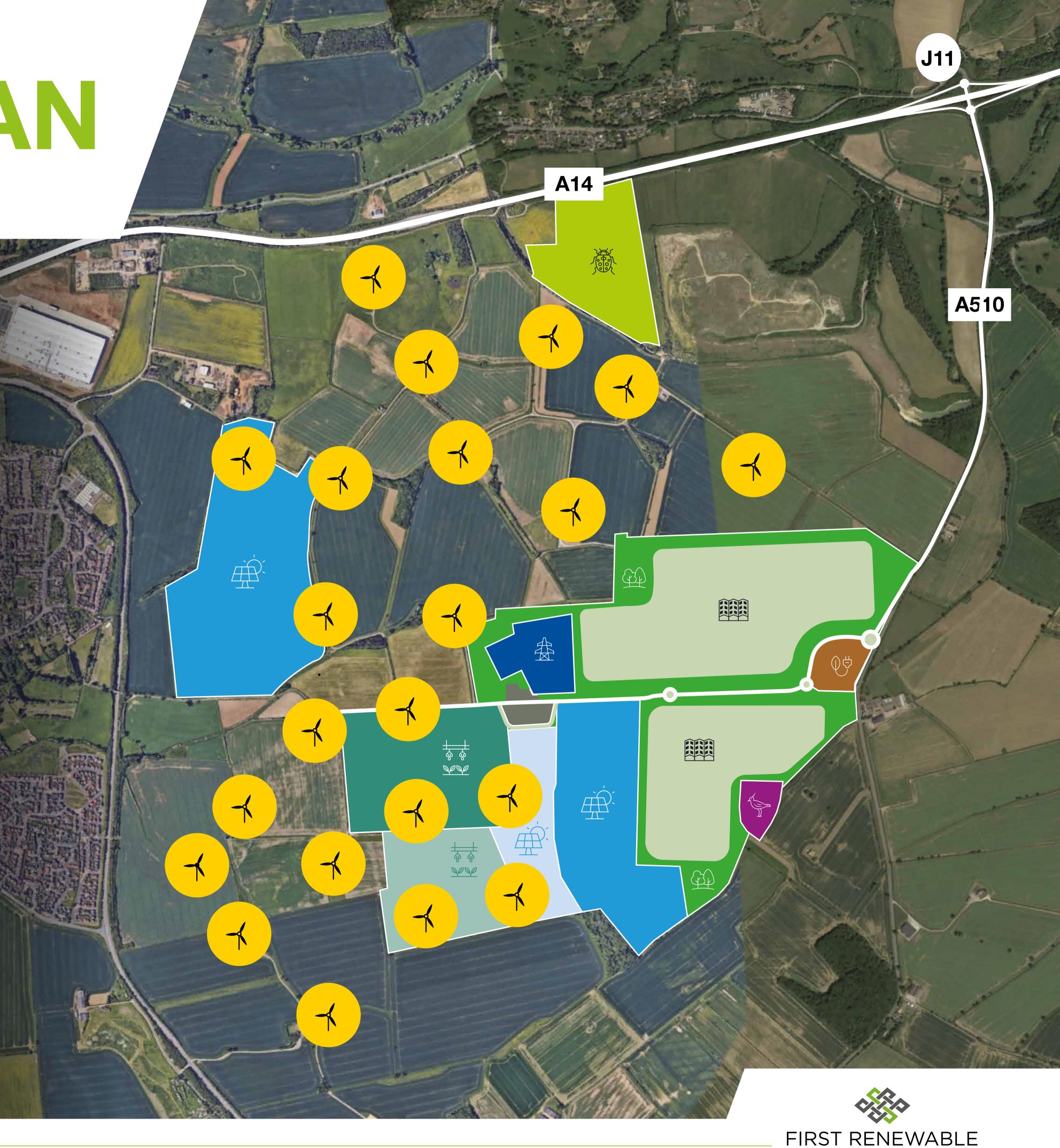
ECOLOGY AND BIODIVERSITY ZONE



STRATEGIC LANDSCAPING



LAPWING BREEDING GROUND



DEVELOPMENTS

At Kettering Energy Park, the wind and solar energy is secured by on-site energy storage and bolstered by a secure, large scale grid connection. This means there will always be enough power, and energy price volatility will be mitigated by most of it being generated on-site.

In fact, it will be possible to meet 100% of the energy needs of some occupiers through the renewable power generated at the scheme. Although, 50% will be the minimum requirement for all businesses.

This is unique to any large-scale employment development across the UK.

Wind farm

Over the last 15 years at Kettering Energy Park, wind farms have been developed that are rated at more than 36mw.

These wind farms supply their energy into the grid, reducing the fossil fuel depending of the UK.

Solar farm

Planning consent to install more than 65MW of ground mounted has been granted at Kettering Energy Park, and development can start now. The consented solar farm will cover circa 178 acres.

There is a further opportunity to extend the ground mounted solar array to meet occupier requirements and to benefit the local energy grid.



To maximise renewable energy production and reduce carbon intensity further, the development will commit to deploying solar panels on all the usable roof space of buildings developed on site.

Energy storage

In addition to employment and other uses such as Advanced Agriculture, the Energy Park site will also be suitable to accommodate further energy infrastructure.

Battery storage is likely to be installed at the site as this is a proven technology that offers flexibility to store surplus energy from renewable energy sources and release it when needed at times of higher demand and when not required to serve businesses at the Energy Park. When combined with a grid connection, it can also act as a buffer to balance peaks in demand for use in other areas.

Renewable fuel production

To generate fully renewable fuel such as hydrogen the use of green electricy is essential. At the energy park this fuel production has the added benefit of security with the onsite renewable generation.

Future Technology

Working with education, R&D and technology stakeholders to provide starter units and an incubation zone for SME's exploring the next generation of sustainable energy production.





Any business intending to locate itself at Kettering Energy Park will have to comply with the Energy Criteria, which will be included as a condition of any planning permission for a building at the site.

There are three criteria, **all** of which must be met by any business based at KEP.



CRITERIA 1 (identifies appropriate users)

The proposed operations must be connected to at least one of the following:

A. Renewable energy infrastructure:

including solar, combined heat and power* (if sustainably powered), hydrogen, air source heat pump, battery storage, and other appropriate technologies.

B. Automation that improves efficiency,

including manufacturing using robotic assistance; logistics and distribution operations that use intelligent robotics, automated scanning or picking and other productivity measures.

C. Low or zero-carbon linked engineering, manufacturing, R&D or other operations that support the transition away from fossil fuel dependency.

*Combined heat and power (CHP) is a highly efficient process that captures and uses heat that is a by-product of electricity generation.



(The renewable energy produced at the site can provide 100% of operational energy needs but because wind and solar production is intermittent 50% is stated as a minimum)

CRITERIA 2 (stipulates renewable energy consumption)

A minimum of 50% of the energy demand from operations within a new unit must be provided by the onsite renewable energy infrastructure.



CRITERIA 3 (must be a high energy user)

Every unit at KEP will have access to a minimum power supply based on the ratio of 1MW per 100,000 sq ft.

(The criteria do not apply to uses such as a visitor centre, educational facilities of ancillary use for café / childcare)





ADVANCED AGRICULTURE





The advanced agricultural land will used for sustainable farming practices.

One technique integrated into the scheme is a new Advanced Agriculture (AA) system. AA is the technique of growing plants using controlled levels of light, heat, water, and co_2 . Many of these inputs are intended to be harvested from other occupiers on the energy park as byproduct of their operations.

The system is far more dependable, uses less water and allows for a greater variety of produce to be grown, supporting food security.

As well as increasing food productivity, the technique leads to significantly higher levels of employment. The 65 acres of initial development is projected to employ 125 agriculture workers.





As part of the Masterplan process, detailed traffic assessments have been prepared and presented to North Northamptonshire Council Highways and National Highways.

This process is ongoing and consultation with the relevant expert statutory bodies will continue to ensure impacts on the local highway network are considered and mitigated against.

Importantly, following the Executive Advisory Panel meeting in November, the development mix has changed and the overall floor area reduced. Significantly, this in turn reduces the total traffic generation of the site.

In total the revised traffic generation is around 25-30% lower than the previous development mix and this will reduce the overall impact on the local and strategic road network for both light and heavy vehicles.

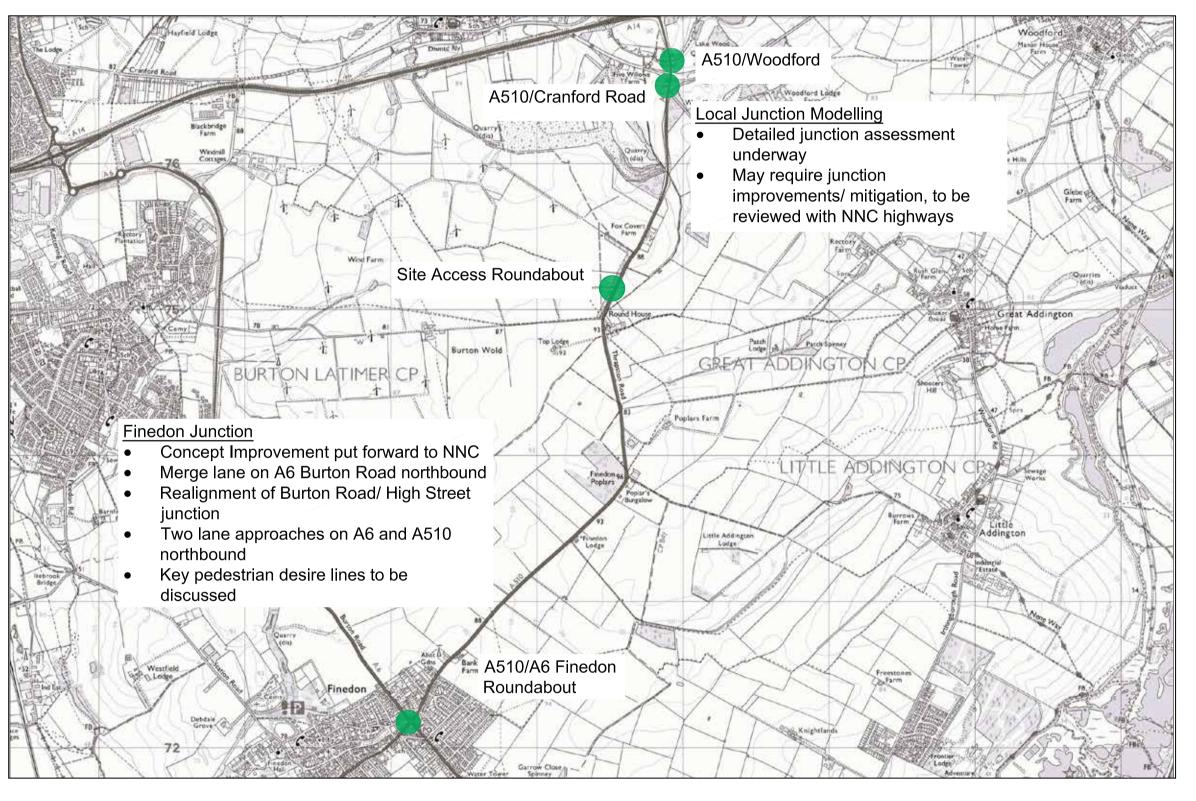
The proposals also include diversions to existing PROWs, and improved cycleway connections to Burton Latimer and over the A14 to the north towards Hanwood Park.

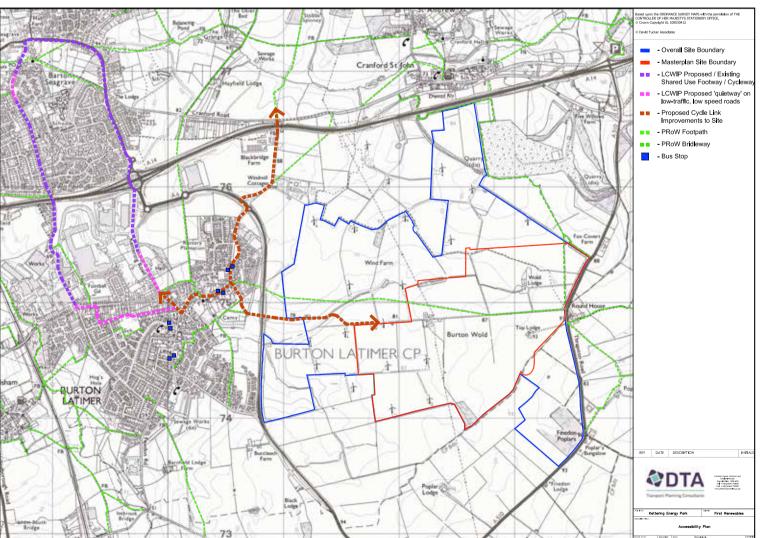
Sustainable Travel Options

Opportunities to access the site from more sustainable methods has been assessed and the following are being explored to identify as part of a wider access strategy for the Energy Park:

- Use of car sharing and on-site pool cars
- Improvements to cycle routes into the site and the local area
- Providing local bus services to the site for new businesses
- Providing a Sustainable Transport Hub at the site with information for businesses and employees







All HGV traffic accessing the site will do so via the A14

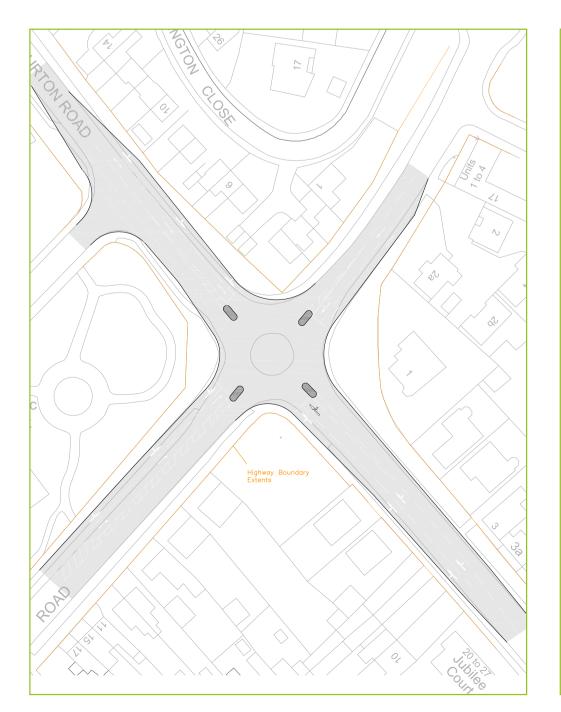


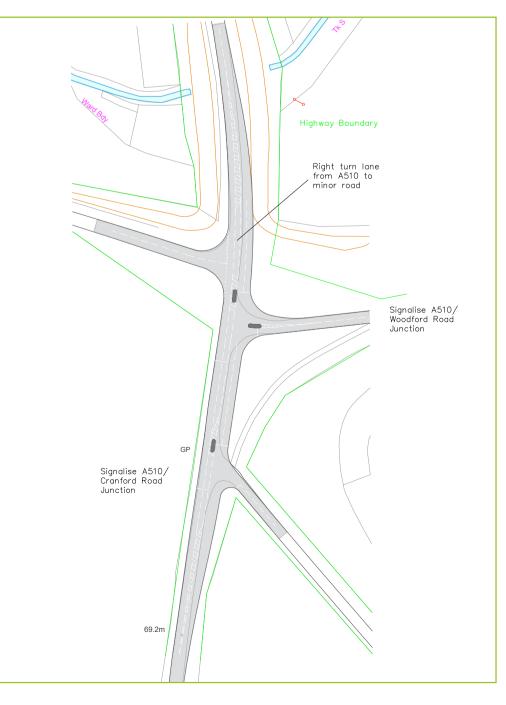
MODELLNGAND

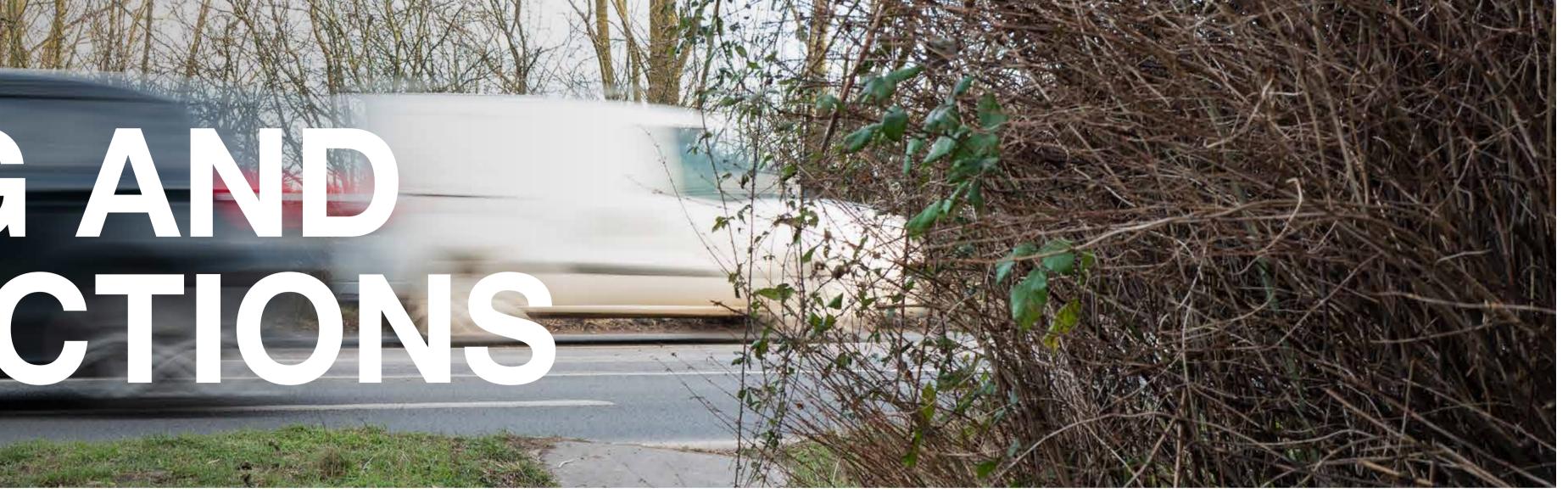
As part of the preparation of the Masterplan, detailed modelling assessments have been undertaken that examine the expected traffic flows of the development. These are based on data at similar sites to determine the forecast traffic generation.

The report found that:

- The modelling shows no capacity issues at J11 of the A14, the first connection with the Strategic Road Network;
- The A14 has been tested in a micro-simulation/VISSIM model and will continue to operate with no material impact;
- Local impacts identified at Finedon and on the A510 will be considered in further detail as part of the Transport Assessment process.



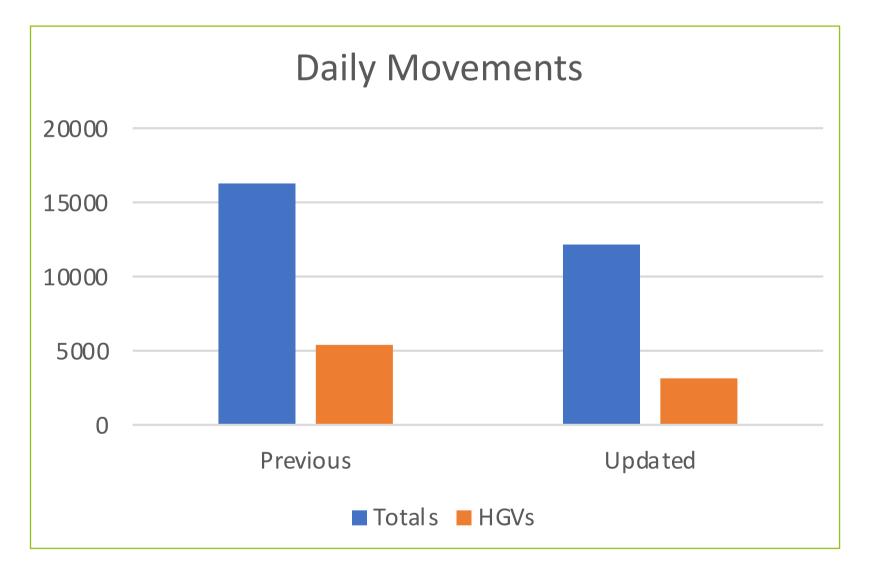




Changes in Traffic Generation

The previous and updated traffic generation are shown in the graph below.

The modelling identifies that existing local junctions will need to be improved, such as those with the A6 at Finedon and where the A510 meets Woodford Road/Cranford Road, as shown on the overview plan Illustrative designs to show how these can be upgraded with traffic signals, which will reduce traffic speeds and improve safety.









KEY Existing Woodland and Hedgerows Proposed Woodland Structure Planting Proposed Species Rich Grassland Proposed Amenity Grass & Amenity Planting Proposed Wildlife Pond and Aquatic Planting Footpath / Bridleway / Permissive Path

As part of any planning application, we will be submitting a Landscape Character and Visual Impact Assessment which will assess any such impacts on the surrounding landscape and how the development plans will mitigate against it.

This will be fully and independently assessed by the council.

In response to the public consultation that was held last year and the feedback that has been received, we have worked to evolve the masterplan to help mitigate against the concerns raised by residents. These changes include:

- c.100 acres of landscape structure planting, 40 acres of which will have a new public route across it.
- Ensuring that the development of the Energy Park is situated within the eastern part of the site as this is the least constrained area and the best location for vehicular access.
- The employment area will comprise 16.7% of the Masterplan area, with the energy infrastructure (consented and new solar farms, new grid connection and battery storage etc.) comprising 17.6% of the Masterplan area.
- Adjusting the proposed building heights to provide flexibility for occupiers but to also respond sensitively to Finedon Round House and reduce visual impact, with smaller buildings adjacent to the listed building.
- Flood risk will be managed through a sustainable drainage scheme that will be based on greenfield run off rates and include an allowance for climate change to store water for gradual release. Systems will also be included to maintain water quality for nearby watercourses.

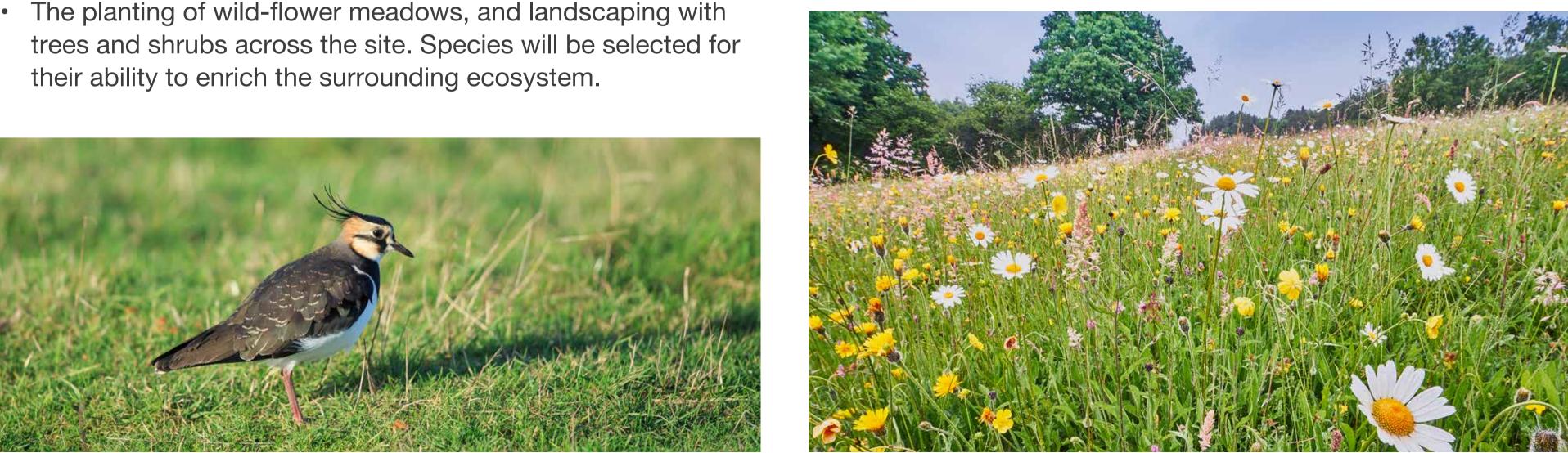


ECOLOGY AND BIODIVERSITY

Kettering Energy Park at a minimum will target a biodiversity net gain of 10% with the intention to better this where possible, with efforts being made to see if a target of 15% can be met.*

To achieve this, most developments resort to off-site compensation. At the Energy Park, this will be achieved on-site by measures including the following:

- The proposals will provide around 1,400 additional new trees as well as additional shrub and wild flower meadow planting.
- New hedgerows will be planted to replace any removed hedgerows as part of the proposals. This new planting will include a mixture of various native species to maximise biodiversity benefits.
- 7.5 acres of designated Lapwing habitat
- The planting of wild-flower meadows, and landscaping with trees and shrubs across the site. Species will be selected for their ability to enrich the surrounding ecosystem.





- Habitats for key species will be created, and shelters will be built for invertebrates, insects, and birds to promote and protect biodiversity.
- Sustainable urban drainage features such as ponds and drainage channels will also be provided to mitigate the effects of climate change as part of a holistic approach to landscaping and biodiversity.

The approach to biodiversity enhancement aims to not only secure a net gain but to provide strong connections between habitat areas. The landscape proposals within the employment part of the Energy Park will include corridors across the site to link with retained hedgerows in the agricultural areas.

These corridors will also connect with the new biodiversity receptor site to the north, where the area currently used for grazing will be made more biodiverse.

*According to DEFRA metrics



Around 500 employment opportunities will be directly delivered during construction and once fully operational, in the region of 4,000 new jobs will be delivered.



Maximising renewable energy production through solar energy storage and renewable fuel production.



Locating high energy users next to renewable energy sources. This will help drive down carbon footprint and Net Zero Carbon, as well as increasing grid resilience with excess energy released to grid.



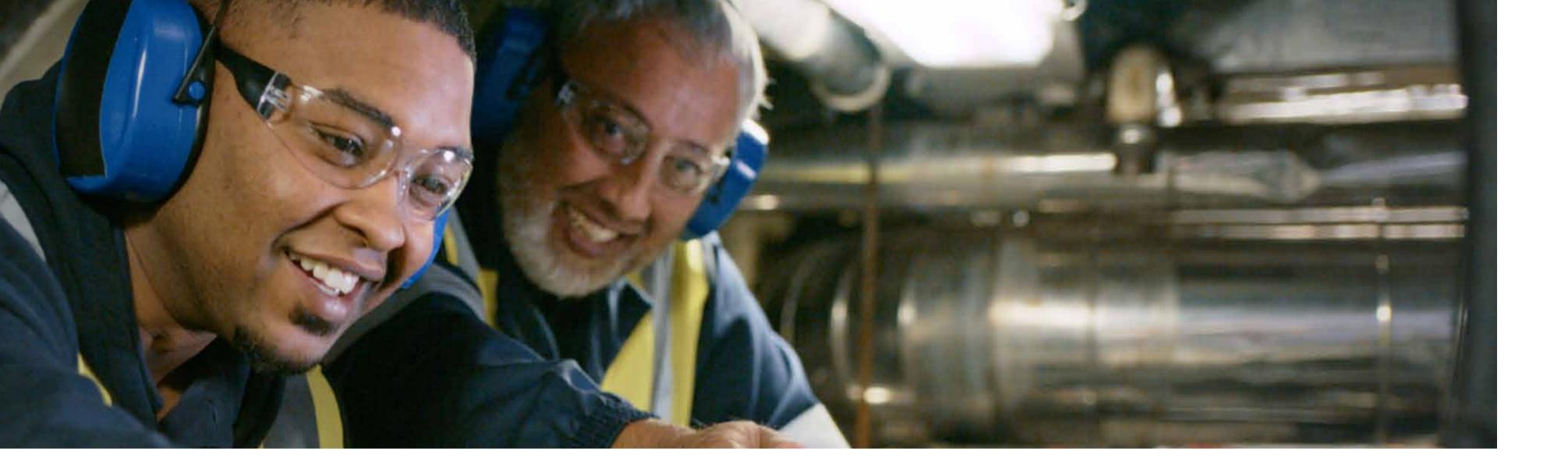
Improving food security with less resilience on imports with Advanced Agriculture which will help reduce food miles and carbon footprint.



Over £500 million of private sector investment during construction and ongoing contribution of circa £129 million annually into the local economy through wages.



In partnership with colleges and Higher Education providers, new dedicated space for research & development to pioneer sustainable technologies.





Business rates of circa £6 million per annum to support local services and amenities.



An employment and skills plan has been prepared in conjunction with the Council to strengthen skills and provide job opportunities to local people. This will include apprenticeships, job fairs, work placements and outreach programmes.



Meetings have also been held with Cranfield University to identify opportunities for collaboration and engagement with occupiers to promote research and development of future technologies to benefit green growth and innovation across the country.



A community fund which neighbouring communities can draw from which will be replenished annually.



Kettering Energy Park is a next generation development. The Energy Park has made a series of commitments to mitigate against the impact on the local environment.

- Net gain in new trees 1,400 additional trees planted
- Net gain of hedgerows New hedgerows will be planted to replace any removed as part of the proposal
- Net Gain in Biodiversity Secure a minimum biodiversity net gain of 10%, with a target of 15% where possible.
- Net gain in Agricultural Production Advanced Agriculture which will increase yield per acre
- Net gain in public access 100 acres of landscaping, with new public routes and improved connectivity to the site







NEXT STEPS

NEXT STEPS

The Masterplan document will support an outline application for the Energy Park proposals, which is anticipated to be submitted later in 2024. This document will act as a template for how development can be planned to realise the vision for the Energy Park proposals.

Thank you for attending our public consultation event. Please fill out one of our feedback forms and register your feedback.

We will be comprehensively reviewing all feedback submitted. If you have any further questions, please do speak to any of the project team or contact us on the following details:

- Phone: 0800 029 7171 Email:
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