ABOUT EDEN RENEWABLES

Eden Renewables is an international renewable energy and energy storage project developer, working across the UK, USA and in sub-Saharan Africa through our partner GridX Africa.

The senior management team has been developing renewable energy projects since the early days of the industry from 2010 onwards. Eden Renewables was founded in 2017 by the team behind the successful, award-winning, UK solar company, Solstice Renewables.

From our UK offices in Wiltshire and London we are working on a pipeline of utility-scale and commercial and industrial rooftop solar, wind, battery storage and hydrogen projects.

Eden is known for setting industry-leading standards for:

- Biodiversity and ecological enhancement
- Continuing agricultural use
- Community and educational benefits
- Shared or community ownership

SOLAR POWER PORTAL AWARDS 2015 **WINNER** Best ground-mount project: SOLSTICE RENEWABLES

AWARD WINNING TEAM

"In 2016, Minnesota legislators unanimously adopted the nation's first standard for pollinator-friendly solar, now adapted to more than a dozen states and adopted into law by several. Learning from Solstice Renewables' best practices and viewing the images of their sites was a major contributor of the work of US scientists and stakeholders to establish standards here."

ROB DAVIS, FRESH ENERGY

"Projects such as these could lead to self-sustaining nature reserves, which would be a huge boost to wildlife, the local environment and the local community."

LANCASHIRE WILDLIFE TRUST

OUR TEAM

HARRY LOPES
CHIEF EXECUTIVE OFFICER

GIOVANNI MARUCA
CHIEF DEVELOPMENT OFFICER

ALEC GREENWELL
DEVELOPMENT

GERRARD MCKILLEN
DEVELOPMENT

ROSS WOLHUTER
TECHNICAL

MALCOLM EVANS
ELECTRICAL

DR. GUY PARKER
BIODIVERSITY

OWEN PIKE
DEVELOPMENT

LORNA LYLE
EDUCATION

SOPHY FEARNLEY-WHITTINGSTALL
COMMUNITY

REBECCA SYMON
COORDINATOR

GEORGE BARRON
COORDINATOR

NADIA ASSAD
COORDINATOR

MAX HENDERSON
COORDINATOR

JACK CHILTON
COORDINATOR

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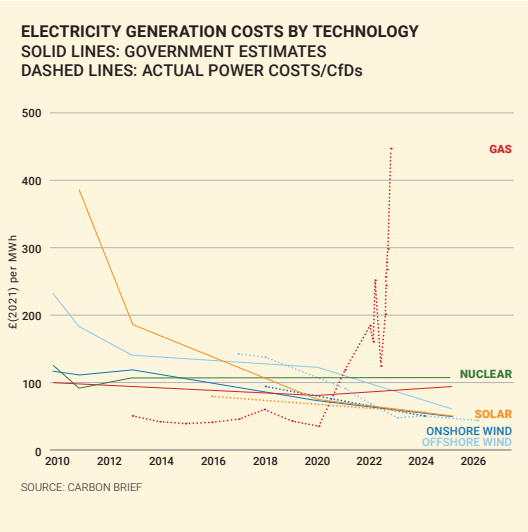
WHY SOLAR POWER?

ENERGY SECURITY

Solar is now one of the cheapest sources of new energy generation – a fraction of the cost of new gas and nuclear power. Russia's invasion of Ukraine has caused a huge rise in international gas prices underlining the need to develop more homegrown sources of clean energy. The more solar we have, the lower our energy bills can be.



SOURCE: CARBON BRIEF

CLIMATE EMERGENCY

Extreme weather events are happening more often, here in the UK and across the globe. In 2019 the UK government became the first in the world to set a legally binding target of Net Zero carbon emissions by 2050. We have an urgent need to decarbonise our energy supplies and solar power is temporary, quick and easy to deploy, with a light impact on the land.

GROWING DEMAND

Renewables already contribute over 40% of our electricity – a fantastic achievement. However electricity demand is expected to triple as we continue to move away from fossil fuels for heating and transport. There is a vast amount still to do to meet the government target to fully decarbonise the grid by 2035.

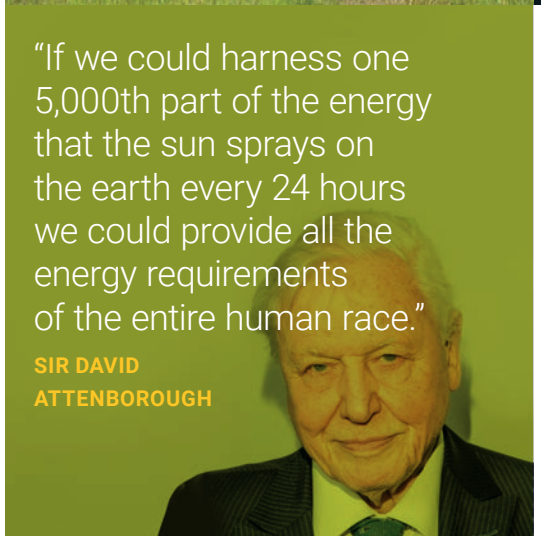
UK GOAL NET ZERO BY 2050

LOW IMPACT

Solar electricity is carbon free. Taking into account the manufacturing and installation, a solar farm is expected to pay back its energy and carbon footprint within 1.5 years of its 40 year lifetime.

(Fraunhofer Institute Report, Sept 2020, & others)

5-FOLD INCREASE IN SOLAR BY 2035



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AGRICULTURE & BIODIVERSITY

Wildflower meadows in Britain have decreased by 97% since the 1930s due to intensive farming practices. The resulting decline in pollinators like bees and butterflies has an economic as well as environmental impact – they are worth around £400m a year to the UK economy.

We are addressing this and delivering Biodiversity Net Gain at our solar farms through:

- Creating diverse and tussocky grassland and native wildflower areas across our sites to provide habitats for wildlife
- Planting new hedgerows and trees for habitat enhancement as well as screening
- Introducing ponds, bat and bird boxes and beehives and hibernacula for amphibians
- Annual ecological surveys to regularly monitor progress

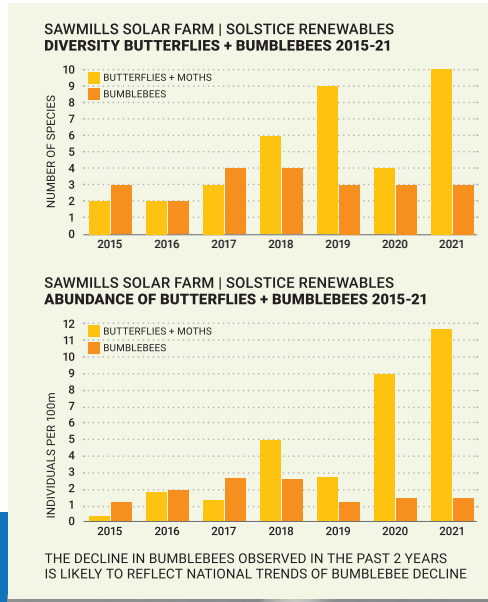
Solar farms do not lead to the loss of productive agricultural land. To deliver the UK target of 70GW solar by 2035 would use less than 0.5% of farmland (SEUK, 2022). Agriculture can continue alongside solar generation:

- Sheep graze among the panels to maintain grass and contribute to food production
- Apiaries on site produce honey
- Farmers benefit from a predictable rental income which allows them to continue to farm the rest of their land

70GW = LESS THAN 0.5% OF FARMLAND

"A shining example of how you can turn a basic, unremarkable grassland site into an improved site and newt haven."

LANCASHIRE WILDLIFE TRUST



THE DECLINE IN BUMBLEBEES OBSERVED IN THE PAST 2 YEARS IS LIKELY TO REFLECT NATIONAL TRENDS OF BUMBLEBEE DECLINE

"Solar farms could be a real asset in our countryside by giving declining wildlife like bees and farmland birds a home."

RSPB

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COMMUNITY AND EDUCATIONAL BENEFITS

We believe that people living near a solar farm should share in the economic benefits it brings as well as the environmental ones.

These include:

- c. £100,000 p.a. in business rates to the local authority for a 50 MW solar farm.
- A community benefit fund for the lifetime of each of our solar farms. The community decides how to spend the income to bring economic, social and environmental benefits to the area.
- The opportunity for shared ownership or community investment where feasible.
- An educational benefits fund for nearby schools to educate future consumers and inspire careers in climate change, energy and ecology; relating this to their schools, communities and the wider world. Classroom-based learning plus field trips to our solar farms.
- More than 5,000 pupils have benefited from visits to solar farms developed by the team behind Eden Renewables.

COMMUNITY FUND

"Thanks to the community benefit fund from the solar farm, at last Ashcombe has joined the 21st century. This new Broadband technology, which has the potential to be upgraded in future, is a huge boost to everyone who lives or works here or enjoys their holidays here and should really help the local economy."

RALPH RAYNER, DIRECTOR OF THE ASHCOMBE ESTATE, DEVON *

* Here the community fund paid for the village to upgrade from dial up internet to high speed broadband, revolutionising social and working life for the residents.

"It has been a fantastic opportunity for the children to discuss possible future renewable energy solutions and to be able to relate these to their own schools and local community."

MRS. PRICE, HEADTEACHER, PACKINGTON PRIMARY SCHOOL, LEICESTERSHIRE

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CONSTRUCTION AND MAINTENANCE

Solar farms are quick to build and construction is expected to take around six months.

Eden Renewables will implement best practice during construction to minimise any nuisance to the local community where reasonably possible.

The majority of vehicle movements centre on the delivery of the panels and frames for the panels. A Construction Traffic Management Plan will be agreed with the local Highways Authority before building starts, which will ensure the safety of all road users.

During the installation period, construction noise is comparatively low aside from the 4 to 6 weeks when the legs of the solar framework are driven approximately 2 metres into the soil, removing the need for deep foundations. Plant associated with the solar park such as substations will be supported on small concrete platforms.

At the end of the solar farm's life (typically 40 years) all hardware can be easily dismantled, removed offsite and largely recycled. Planning authorities granting consent for a solar park will apply a condition to restore the site to its former use.

Once the solar farm is operational a small number of vehicle movements would be required for maintenance – about twice a month, typically in a small van.

MINIMAL NOISE

"The record rainfall and storm surges that have brought flooding across the UK are a clear sign that we are already experiencing the impacts of climate change."

LORD STERN

FAST BUILD

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FREQUENTLY ASKED QUESTIONS

CAN WE BUY POWER DIRECTLY FROM THE SOLAR FARM?

We would love to be able to sell you power at a reduced price from the solar farm but this isn't possible yet due to government legislation. The Local Electricity Bill is currently going through parliament which may change this in future. In the meantime energy suppliers such as Octopus and Coop Energy do offer renewable electricity tariffs.

IS THERE GLARE FROM THE SOLAR PANELS?

Solar panels are designed to absorb light, not reflect it. Any glare is minimised through using translucent coating materials to improve light transmittance through glass. Where there is glare, we will screen or angle the panels away at the appropriate hours. There are many solar farms next to main roads and major airports.

HOW IS THE LAND MANAGED?

A specialist land management team will maintain the site throughout the operation of the solar farm. The team will be responsible for implementing the landscape strategy that includes tree planting, hedges, a wildflower meadow and sheep grazing. Chemical pesticides and herbicides will be avoided wherever possible, to restore the land organically.

DO THEY INCREASE FLOOD RISK?

Rainwater runoff from the site will not increase and the solar arrays will not displace any floodwater. A flood risk assessment will be commissioned and form part of any mitigation that might be required.

DO SOLAR FARMS AFFECT HOUSE VALUES?

There is no evidence to suggest that house prices are affected by proximity to solar farms. They generate clean power, silently, without emitting pollution, in a setting that supports biodiversity, so are great neighbours.

CAN I PROVIDE MY COMMENTS DIRECTLY TO THE COUNCIL?

Yes, the local planning authority will carry out a public consultation after the planning application is submitted when you will have the opportunity to make formal comments.

IS THERE ANY NOISE FROM SOLAR FARMS?

PV panels convert sunlight into electricity with no vibration. The only noise is from inverters and battery storage, while the sound dissipates and becomes inaudible within about 100 feet, so these units are always located more than 100 feet from the edge of the solar farm.

CAN THE PANELS BE RECYCLED?

Solar arrays are comprised of glass, silica, aluminium, steel, copper and plastic which are largely recyclable with a good salvage value. PVCycle.org reports achieving recycling efficiency of c. 95% for solar panels, well above the EU requirement of 80%.

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CHANGING TECHNOLOGY

In the decade or so since the first solar farms were built in the UK, there have been huge improvements in technology increasing the efficiency and reducing the costs of solar and other forms of renewable power generation.

ENERGY STORAGE

Batteries can store the energy generated at times of low demand and release it back onto the grid when it is needed. This helps to 'balance' the grid, to mitigate the variable characteristics of solar generation, contributing to lower energy bills overall.

Energy storage systems typically consist of Lithium Iron Phosphate batteries, stored in shipping containers usually painted green to blend in with the landscape. Similar batteries are widely used in laptops, phones and electric vehicles.

Battery storage systems must comply with stringent health and safety regulations both for installation and operation. Continuous remote monitoring ensures that any irregularities during operation are quickly and safely rectified. Heating and cooling systems ensure they operate at safe temperatures with fire detection and suppression systems inbuilt for added protection.

BIFACIAL MODULES

These generate solar power on both sides of the solar panel, utilising diffuse light that would otherwise be wasted and helping to increase the total amount of energy generated by 5%-20%.

SINGLE AXIS TRACKERS

Panels are fixed to a north/south axis which moves silently through the day from east to west in order to maximise generation. Where practical, combining single axis trackers with bifacial modules can increase power generation by about 10%-20% compared with traditional south facing 'fixed tilt' solar panels.

ELECTRICITY DEMAND TO TRIPLE

EV CHARGING

Decarbonising the transport sector is one of the biggest challenges the UK faces in getting to Net Zero, and the transition to electric vehicles will be a major part of this.

New sales of petrol and diesel vehicles will be banned from 2030 requiring a massive increase in EV charging infrastructure. Our solar farms can support the grid infrastructure needed for superfast EV charging hubs on site or nearby so that in future cars can be charged in the local community by renewable electricity.

The electrification of transport and heating are expected to cause electricity demand to triple by 2035. (CCC).

HYDROGEN

Hydrogen is expected to play a key role in the clean energy transition. Eden is developing hydrogen generation facilities at some of our renewable generation projects.

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GOVERNMENT POLICY

NATIONAL

In May 2019 the UK Government was the first in the world to declare a Climate Emergency and to set a legally-binding target of Net Zero emissions by 2050. It has an interim target to fully decarbonise the electricity grid by 2035.

The Government's Powering Up Britain policy paper, published March 2023, reiterated its target for solar to increase 5-fold by 2035.

Renewables now account for over 40% of UK electricity consumption averaged over a year, and this is growing fast, proving they are a viable alternative to fossil fuels. However to achieve our Net Zero targets requires an exponential increase in capacity in order to decarbonise power, heat and transport, so there is much work still to do.

LOCAL

83% of local authorities in the UK have declared a Climate Emergency and 78% have a climate action plan in place to reach Net Zero. Many have ambitious targets well ahead of the UK's national target of 2050. Increasing numbers are also declaring ecological emergencies; both issues are inextricably linked.

Wiltshire has a target to achieve Net Zero by 2030 and published its five-year climate change strategy in February 2022.

The strategy highlights that Wiltshire only generates 6% of its energy from renewables so there is a long way to reach the Council's target of net zero by 2030. With no wind generation in the county, limited biogas and very few opportunities for hydro power, Wiltshire needs to build more solar to achieve that target.

The county enjoys high levels of solar irradiation compared with the rest of the UK, with lots of open space available to accommodate panels (almost 3,000 km² of farmland) meaning solar is an ideal technology for Wiltshire!

PUBLIC OPINION

Government studies consistently show that solar power is the most popular energy-generating technology in the UK. The BEIS quarterly public attitudes tracker survey shows support for solar energy has remained consistent between 80% and 90% throughout its life, and at 89% in the most recent survey (Winter 2022).

Public concern about climate change is also very high, at 82% in the Winter 2022 tracker.

People are also increasingly worried about rising energy costs, with 77% saying the government should use new wind and solar farms to reduce energy bills, and 76% saying they would back schemes in their local area. (Survation, September 2022)

77%
WANT MORE RENEWABLES TO CUT BILLS

89%
SUPPORT SOLAR

"Solar has huge potential to help us decarbonise the power sector. We have ambitions for a fivefold increase in solar by 2035, up to 70GW, enough to power around 20 million homes. We need to maximise deployment of both ground and rooftop solar to achieve our overall target. Ground-mount solar is one of the cheapest forms of electricity generation and is readily deployable at scale. Government seeks large scale solar deployment across the UK, looking for development mainly on brownfield, industrial and low/medium grade agricultural land."

POWERING UP BRITAIN, MARCH 2023

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MAXIMISING LAND USE
THREE LAND USES TO TACKLE THREE CRITICAL CHALLENGES OF OUR TIME

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CLEAN ENERGY

1

Reduce carbon emissions and pollution through large-scale solar power generation, electricity storage, facilitating EV charging.

CLIMATE EMERGENCY

"Climate change is happening and is due to human activity, this includes global warming and greater risk of flooding, droughts and heat waves."

BEIS, UK GOVERNMENT

BIODIVERSITY

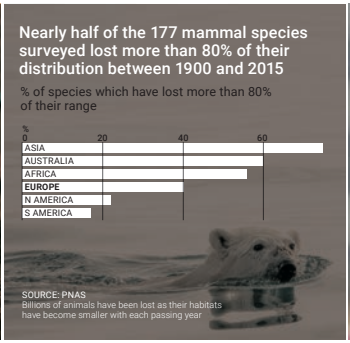
2

A range of ecological measures combined with stopping intensive high-input farming on the land means a solar farm is like a wildlife reserve that lies untouched for a generation or more.

ECOLOGICAL EMERGENCY

"This is definitely human impact, we're in the **sixth mass extinction**."

WWF CONSERVATION SCIENTIST MARTIN TAYLOR



FARMING

3

Land continues in food production and sheep stocking density can remain high, sequestering carbon and regenerating degenerated soils.

AGRICULTURAL EMERGENCY

"This is an emergency and the way we eat and farm lies right at the heart of it."

SOIL ASSOCIATION

"The world is losing 32 bn tonnes of fertile soils a year due to unsustainable farming practices, affecting 3.2 billion people. **Loss of soil carbon costs the UK over £3 billion a year**."

SOURCE: SUSTAINABLE FOOD TRUST

The **Environmental Land Management Scheme** (ELMS) has been described as the "**Fourth Agricultural Revolution**". It aims to incentivise farmers to achieve environmental enhancement and protection and restore and improve natural capital and rural heritage.

RED BARN SOLAR FARM KEY FACTS

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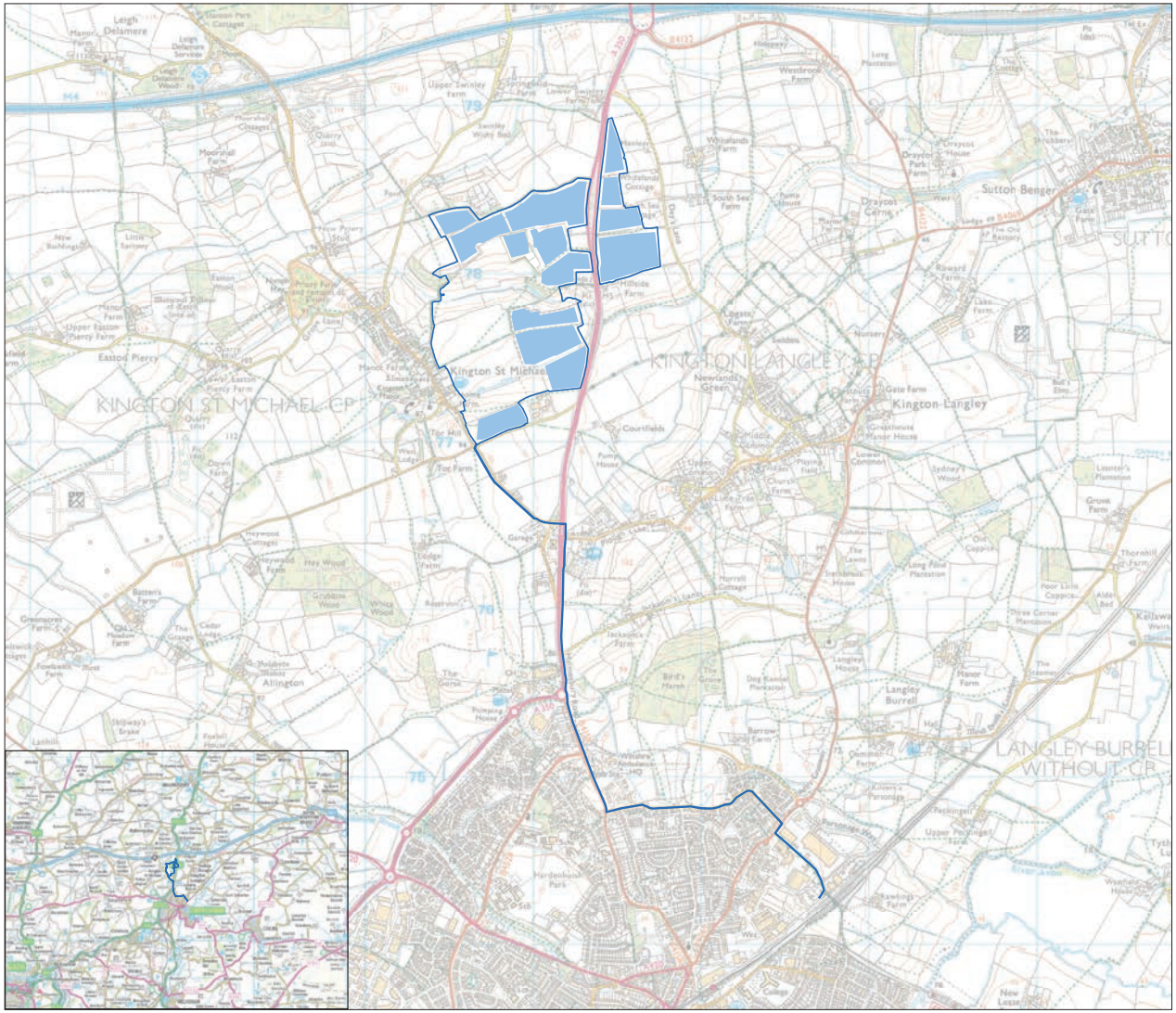

- Total site area 307 acres (124 hectares)
- Enclosed panel area 144 acres (58.4 hectares)
- Agricultural Land Classification of the enclosed panel area: 76.5% Grade 4 (poor quality); 23.5% Grade 3b (moderate); currently used for arable for animal fodder
- Installed capacity: c. 60 MWp to generate clean electricity equivalent to consumption of approx 15,000 Wiltshire homes and save approx 13,700 tonnes CO_2 annually
- Temporary, completely reversible land use for 40 years
- Fixed tilt bifacial panels, south facing
- Access from A350 and Kington Farm via 3 separate existing field entrances; no construction access through Kington St. Michael
- Onsite construction time 6 to 7 months, average 8 HGV deliveries (16 HGV movements) per day
- Grid connection secured at Chippenham sub-station
- Existing hedgerows and trees retained, protected and enhanced
- Biodiversity and ecological enhancements resulting in substantial net gain of >25%
- All footpaths & bridleways retained, with new hedgerows for screening
- Solar arrays maximum 2.8m high and 0.8m off the ground
- Agricultural use will continue with sheep grazing around panels
- Panels cover only 23.5% of the site area; less than 2% disturbed by the actual footprint

COMMUNITY BENEFITS

- New permissive access paths to create circular walking routes, including parallel to stream
- New community access area in centre of site with woodland pasture, wildflower meadows and benches
- County Wildlife Site to be managed as hay meadow to encourage wildflowers
- Total area for community access over 45 acres
- Area provided near Kington St. Michael for allotments and off-lead dog-walking area
- Community benefit fund £350 per MWp index-linked for the lifetime of the solar farm – this could amount to c. £21,000 a year
- Additional £3,000 a year educational fund shared among local primary schools, Sheldon & Hardenhuish schools, to fund site visits and in-class resources
- Total fund over £960,000 for project life
- Potential opportunity to own a share of the solar farm and receive a discount on electricity bills relating to project performance

Printed on fully recyclable board, ecologically manufactured in ISO 14001 / ISO 50001 certified plant

RED BARN SOLAR FARM SOLAR FARM DESIGN

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This plan is for illustrative purposes only, not to scale.

EDUCATIONAL BENEFITS

We organise trips to the solar farm so children from local schools can learn about science, technology and energy, and provide interpretation boards and benefits for community visits.

TREES AND HEDGES

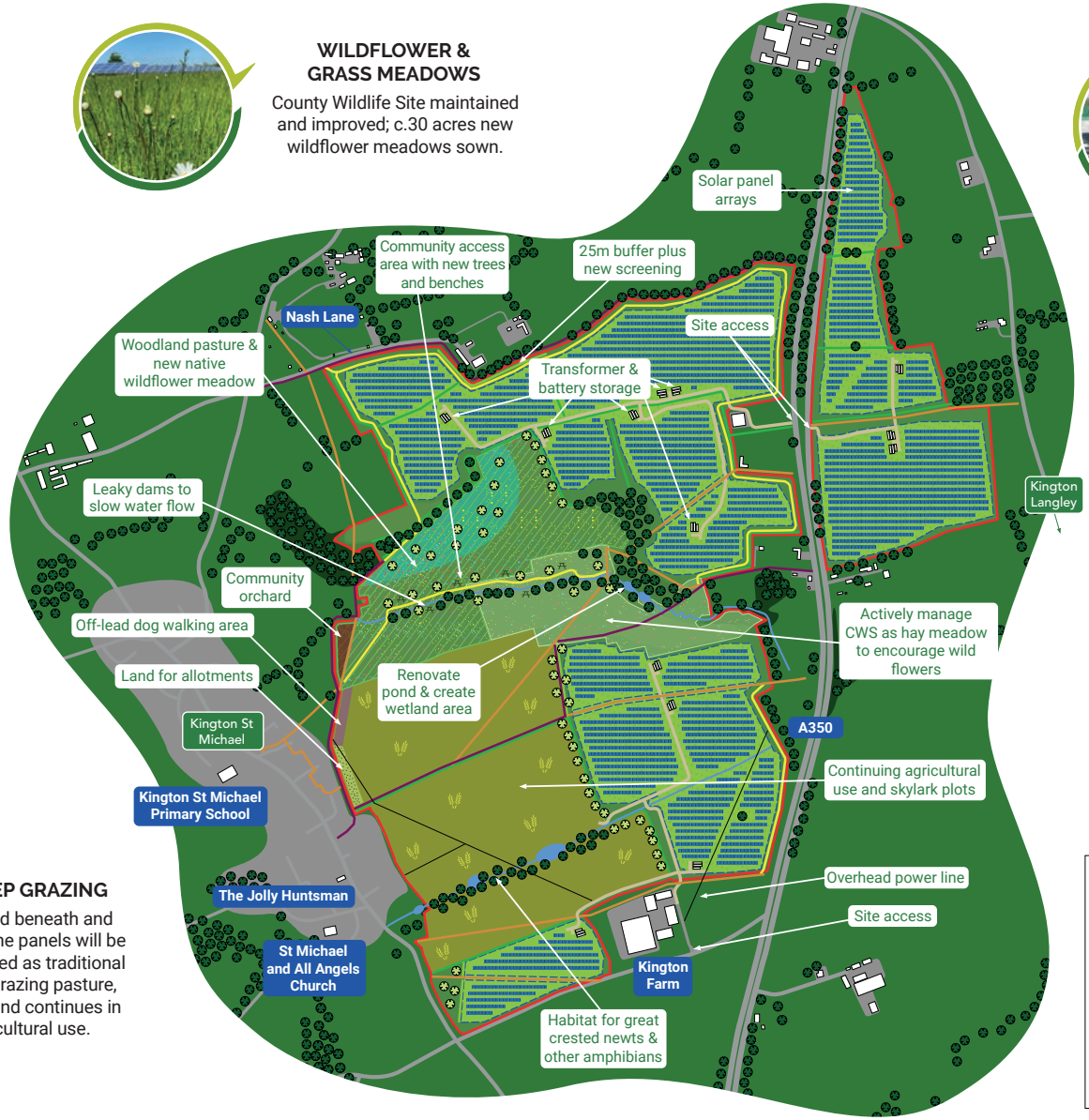
Existing hedges to be infilled and grown up, interspersed with new trees 3m high at outset. New hedges and trees will be added across the site for screening and biodiversity.

SHEEP GRAZING

The land beneath and around the panels will be maintained as traditional sheep grazing pasture, so the land continues in agricultural use.

WILDFLOWER & GRASS MEADOWS

County Wildlife Site maintained and improved; c.30 acres new wildflower meadows sown.



ENERGY STORAGE

Batteries store electricity from the solar array, enabling export to the grid when the power is needed most.

SECURITY

Traditional rural fencing and discreet CCTV cameras will be used around the perimeter of the site to maintain security.

BEEHIVES

Local beekeepers will be invited to keep hives to make honey.

BIRD AND BAT BOXES

These will be located around the perimeter of the site to encourage bats to roost and birds to nest.

Key

- County Wildlife Site
- Traditional sheep grazing pasture
- Fixed-tilt solar panels
- Existing footpath
- Existing bridleway
- New permissive access
- Perimeter fence
- Site boundary
- Existing hedgeline
- New hedgeline
- Construction and maintenance track
- New wildflower area
- Community Access Area
- New trees

N

Printed on fully recyclable board, ecologically manufactured in ISO 14001 / ISO 50001 certified plant

VIEWPOINT 1 | WINTER

VIEWPOINT 1 | WINTER | LOOKING EAST FROM BRIDLEWAY KSTM1 ON THE EASTERN EDGE OF KINGTON ST MICHAEL

VIEWPOINT 1 | WINTER | YEAR 0 | LOOKING EAST FROM BRIDLEWAY KSTM1 ON THE EASTERN EDGE OF KINGTON ST MICHAEL

VIEWPOINT 1 | WINTER

VIEWPOINT 1 | WINTER | YEAR 5 | LOOKING EAST FROM BRIDLEWAY KSTM1 ON THE EASTERN EDGE OF KINGTON ST MICHAEL

VIEWPOINT 1 | WINTER | YEAR 10 | LOOKING EAST FROM BRIDLEWAY KSTM1 ON THE EASTERN EDGE OF KINGTON ST MICHAEL

VIEWPOINT 1 | SUMMER

VIEWPOINT 1 | SUMMER | LOOKING EAST FROM BRIDLEWAY KSTM1 ON THE EASTERN EDGE OF KINGTON ST MICHAEL

VIEWPOINT 1 | SUMMER | YEAR 0 | LOOKING EAST FROM BRIDLEWAY KSTM1 ON THE EASTERN EDGE OF KINGTON ST MICHAEL

VIEWPOINT 1 | SUMMER

VIEWPOINT 1 | SUMMER | YEAR 5 | LOOKING EAST FROM BRIDLEWAY KSTM1 ON THE EASTERN EDGE OF KINGTON ST MICHAEL

VIEWPOINT 1 | SUMMER | YEAR 10 | LOOKING EAST FROM BRIDLEWAY KSTM1 ON THE EASTERN EDGE OF KINGTON ST MICHAEL

VIEWPOINT 2 | WINTER

VIEWPOINT 2 | WINTER | LOOKING WEST FROM BRIDLEWAY KLAN36

VIEWPOINT 2 | WINTER | YEAR 0 | LOOKING WEST FROM BRIDLEWAY KLAN36

VIEWPOINT 2 | WINTER

VIEWPOINT 2 | WINTER | YEAR 5 | LOOKING WEST FROM BRIDLEWAY KLAN36

VIEWPOINT 2 | WINTER | YEAR 10 | LOOKING WEST FROM BRIDLEWAY KLAN36

VIEWPOINT 3 | WINTER

VIEWPOINT 3 | WINTER | TAKEN FROM THE BUS STOP ON THE A350 SOUTH WEST

VIEWPOINT 3 | WINTER | YEAR 0 | TAKEN FROM THE BUS STOP ON THE A350 SOUTH WEST

VIEWPOINT 3 | WINTER

VIEWPOINT 3 | WINTER | YEAR 5 | TAKEN FROM THE BUS STOP ON THE A350 SOUTH WEST

VIEWPOINT 3 | WINTER | YEAR 10 | TAKEN FROM THE BUS STOP ON THE A350 SOUTH WEST

VIEWPOINT 4 | WINTER

VIEWPOINT 4 | WINTER | LOOKING SOUTH FROM FOOTPATH KSTM4 ADJACENT TO NASH LANE

VIEWPOINT 4 | WINTER | YEAR 0 | LOOKING SOUTH FROM FOOTPATH KSTM4 ADJACENT TO NASH LANE

VIEWPOINT 4 | WINTER

VIEWPOINT 4 | WINTER | YEAR 5 | LOOKING SOUTH FROM FOOTPATH KSTM4 ADJACENT TO NASH LANE

VIEWPOINT 4 | WINTER | YEAR 10 | LOOKING SOUTH FROM FOOTPATH KSTM4 ADJACENT TO NASH LANE

VIEWPOINT 4 | SUMMER

VIEWPOINT 4 | SUMMER | LOOKING SOUTH FROM FOOTPATH KSTM4 ADJACENT TO NASH LANE

VIEWPOINT 4 | SUMMER | YEAR 0 | LOOKING SOUTH FROM FOOTPATH KSTM4 ADJACENT TO NASH LANE

VIEWPOINT 4 | SUMMER

VIEWPOINT 4 | SUMMER | YEAR 5 | LOOKING SOUTH FROM FOOTPATH KSTM4 ADJACENT TO NASH LANE

VIEWPOINT 4 | SUMMER | YEAR 10 | LOOKING SOUTH FROM FOOTPATH KSTM4 ADJACENT TO NASH LANE

VIEWPOINTS 2 & 3 | SUMMER

VIEWPOINT 2 | SUMMER | LOOKING WEST FROM BRIDLEWAY KLAN36S

VIEWPOINT 3 | SUMMER | TAKEN FROM THE BUS STOP ON THE A350 SOUTH WEST