Project LEO Newsletter



Newsletter

HAPPY NEW YEAR

January 2021, Issue 5



Local Energy Accelerating Net Zero

Project LEO aims to test how opportunities can be maximised and unlocked from the transition to a smarter, flexible electricity system, with a focus on renewable and low carbon energy.

Ray Valley Solar

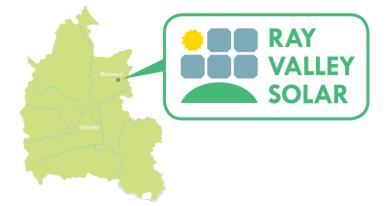
The Low Carbon Hub are pleased to have recently announced their plans for Ray Valley Solar, a 19 MW ground mount solar park, situated near Arncott, three miles south east of Bicester.

Planning permission has now been secured for the location next to an MOD logistics site, HM Bullingdon prison, and two existing solar parks. Planning permission has also been secured for a significant battery storage on site. The final project design is in development but is anticipated to comprise 45,000 solar panels on an 80-acre site.

Ray Valley Solar will:

- Be the largest community-owned solar park in the UK
- Generate 18 GWh of clean green electricity every year, enough to power over 6,000 homes
- Keep £2.6 million worth of energy spend in the local economy each year
- Provide £13 million community benefit funding over the project lifetime.

The solar park will be owned by Ray Valley Solar Limited, a Special Purpose Vehicle (SPV) which is 100% owned by the Low Carbon Hub IPS Limited. Low Carbon Limited will be acting as project managers until commissioning, as they are an experienced and specialist developer of this scale.



The project will be paid for through a combination of equity, loans, and grant funding. Capital raised through the Community Energy Fund will be important to the success of the project—*find out more on page 3*.

Ray Valley Solar will provide an important 'anchor load' for the LEO trials throughout the project and enable us to run trials to test the system and demonstrate the potential a smart and co-ordinated use of local generation, storage, and demand has in decarbonising the energy system as a whole.

Ray Valley Solar—Project Timeline

Dec 2020	Agreement of full construction contract
Jan 2021	Final design signed off We exercise our option and take a 40 year lease on the land
March 2021	On site construction starts
Autumn 2021	Installation is commissioned and starts generating

In the market for an opportunity?



Starting in 2021 we will be running Flexibility Market Trials and are looking for people in Oxfordshire to get involved. The trials will help us to design the flexibility markets of the future.

Why should I take part?

As well as providing an opportunity to be part of a cutting edge project shaping the future of the electricity network and enabling the journey to net-zero, you could also be able to access a new revenue opportunity.

Who can take part?

We are looking for anyone who;

- Owns or manages an electricity generation asset or storage (such as batteries) located in Oxfordshire.
- Owns or manages a business in the county that could take part in 'demand response', altering your usual electricity consumption pattern to balance the local demand for electricity.

You will need to be able to;

- 1. Turn your consumption, or the generation of your asset up or down on request.
- 2. Monitor your asset at least every 30 minutes.
- 3. Initially, your asset (or your combined assets) should total 50kW in order to participate in a market.

LEO is currently looking at how we can open this opportunity up to people with under 50kW and will be sharing this information with you as soon as it is available.

Market stimulation packages

We are keen for as many people and individual assets to be able to take part in our flexibility market trials in Oxfordshire as possible. We want to support people and businesses who might need financial investment to meet the three requirements. This is why we are developing a range of Stimulation Packages.

So long as you meet eligibility criteria, the packages will offer financial support for capital investment required to help you to take part in the trials. This could, for example, include improving the control or monitoring of your asset.



We are currently developing the plans for our flexibility market trials which will be led by our sister project 'TRANSITION'.

We will be sharing new information with you as our plans evolve through this newsletter and our other communication channels.



Visit our Market Trials web pages here

https://ssen-transition.com/get-involved/

PFER Webinar - Data and Digitalisation



If you're part of the 'smart systems community' the webinar 'Data and Digitalisation' from the Prospering From the Energy Revolution (PFER) Industrial Challenge Fund will be a must see. LEO is delighted to have been invited to take part on the panel. The session will be held on 4th February from 10am-11am.

https://ktn-uk.org/events/prospering-from-the-energy-revolution-data-and-digitalisation/

This is one of a range of 'Six in Sixty' PFER sessions covering six key topics in just 60 minutes.

Fairness and equitability an Ethical Framework



The LEO project is based around the three pillars necessary to build a smart local energy system - these are 'Technology', 'Markets' and most importantly of all, 'People'. We need <u>everyone</u> to change their relationship with the energy they use and to play an active role in interacting with the network, so how important is it to ensure fairness and equitability that enables this participation?

As well as the technical challenges that LEO needs to overcome, it is also considering how we ensure we *leave no one behind* in the journey to a smart local electricity system. The social, environmental and economic opportunities and benefits from the transition to a smart local energy system must not just be confined to, for example, people with money to invest in new technology or advanced digital skills.

The UK needs mass participation to meet its 2050 net zerotargets, so fairness and equitability isn't just 'the right thing to do' but is necessary to unlocking the potential in the



energy network. The recently published Energy White Paper also expresses the government's desire to ensure that any cost in realising the transition to net zero is distributed fairly and is affordable.

Equitability isn't the same thing as equality—it isn't about treating everyone the same way and giving them the same thing, it's about giving people what they need as individuals to thrive. Research suggests* that a smart local energy system perceived to be unequitable and unfair, is also unlikely to obtain the wide social acceptability and trust needed for mass participation.

LEO has taken a closer look at these challenges and has published its report '<u>Developing an ethical framework for local</u> <u>energy approaches</u>'. The report sets out ethical principles to guide the delivery of our 'Smart and Fair trials' and development of flexible energy service offerings we will be testing as part of LEO.

low

arbor

* Individual Factors Influencing Acceptability for Environmental Policies: A Review and Research Agenda ; E Ejelöv & A Nilsson

Make your resolution for a better future



Invest in the Community Energy Fund 2021

Capital is at risk; no returns guaranteed.

The Low Carbon Hub has reopened its Community Energy Fund and is inviting investment from as little as £100 up to £100,000.

Investors in the Fund will be joining over 1,300 people who together have invested £7 million in support of community energy in Oxfordshire. Before the Fund even opened, over £250,00 of investment had been pledged.

https://www.lowcarbonhub.org/invest/

Join our mailing list to Stay Connected to LEO



2021 is going to be a busy time for LEO so don't miss out on our news and events! Visit our website to stay connected by joining our NEW mailing list

www.project-leo.co.uk/stay-connected/

If you sign up with us we will keep you up to date with:

- Project news and updates
- Opportunities to take part in events including webinars and workshops
- Our key insights from the project
- Opportunities to get involved in our trials

You can change your mind at any time by unsubscribing.



Working with the Oxfordshire Authorities

In December it was our pleasure to engage with a group of over 50 Councillors and Officers representing Oxfordshire's local authorities.

As is necessary in the current situation, this was virtual engagement using a webinar format introducing the LEO project, the benefits of smart local energy systems for the people of Oxfordshire and the role these systems can play in achieving net-zero commitments. The session was presented by Professor Malcolm McCulloch (Oxford University) and introduced by Cllr Hayes (Oxford City Council) and Cllr Constance (Oxfordshire County Council).

Smart local energy systems promise to deliver multiple benefits to people, local businesses and communities. This includes new sources of income from the sale of changes to one's energy demand, increased opportunity for low carbon energy generation to be connected locally, employment opportunities in the installation and maintenance of the required technologies, a more resilient electricity supply and more besides. Local authorities are critical in providing support and in creating the right policy, planning and regulatory context allowing these benefits to be realised. So LEO will be organising further engagement and liaison with the local authorities of Oxfordshire over the coming months. Next, we are planning a workshop for the planning officers and exploring the role planning has in supporting the transition to a smart local energy system.

You can view the recent presentation by visiting https://youtu.be/8YQUgguhUes



Project LEO is funded through £13.8m from the Industrial Strategy Challenge fund, managed by Innovate UK, and is supported by £26m of private funding from project partners.

