HARNESSING THE EARTH’S NATURAL ENERGY

...an award-winning provider of commercial and utility scale energy schemes.
Lark Energy
– an award-winning company

Lark Energy is the proud winner of several industry awards. In 2013, we won the ‘Most Successful Large-scale Ground Mount Solar Site’ at the Solar Power Portal Awards for our 33MW site at Wymeswold.

In 2014, we won two awards for our innovative solar farm at Ketton. At the Solar Power Portal Awards, we won the ‘Best Ground-Mount Solar Site under 10MWp.’ We also picked up first prize in the UK Solar Awards for ‘Large Ground-Mount Installation.’
Overview

About Us
Lark Energy is part of the Larkfleet Group of companies, a privately owned construction and development group based in the East Midlands. We were originally established to supply site-wide energy solutions for large housing and mixed-use developments. We now supply our expertise to a wide range of clients, offering renewable – particularly solar, biomass and bio diesel solutions.

Established in 2010 we now have a staff of more than 50 people and an annual turnover in excess of £70 million with offices in London, Cambridgeshire, Lincolnshire, the West Midlands and Scotland. Our senior management team has extensive experience in the industry and ensure we work to the highest standards of quality. Our team has unrivalled experience in delivering high quality solar projects for our clients and investors.

We obtain funding, design, build, construct and maintain commercial and utility scale energy projects for clients ranging from SMEs to blue chip corporate clients and global investors. Additionally, we can assist with retrofitting solar PV for social and public sector housing landlords. We can aid the owners or tenants of large commercial buildings with roof top PV, biomass, grid balancing and other energy technologies.

We have a particularly strong track record in the development of large solar farms, where we work with local communities and landowners to bring forward high quality schemes with excellent prospects of obtaining planning consents. High quality engineering is at the heart of what we do. All of our schemes optimise performance using state-of-the art energy technology. Our services are delivered through four operating divisions, each with specialist expertise. We manage each project either independently from within one of the divisions or with an integrated team spanning two or more of them according to the needs of the client.

Lark Energy's Leading Facts and Figures

| CONSENTE | 350MWp |
| CONSTRUCTED | 250MWp (enough clean energy for 65,000 homes) |
| OPERATION AND MAINTENANCE | 180MWp |
| CO₂ SAVED | 112,000 tonnes per annum |

Photo of Ellough Solar Farm
Lark Energy Development Limited

Lark Energy Development maintains an established track record of delivering renewable energy schemes – particularly large-scale solar farms and associated infrastructure.

We work closely with local communities and planning authorities to design and implement schemes which secure planning consent with the active support of local people. Once past the planning phase we can build and maintain the scheme on behalf of our clients. We offer a totally integrated approach from initial feasibility appraisals through to operation and maintenance.

**What we offer?**

Lark Energy Development offers an ‘end to end’ development service under which we can develop, construct and manage your energy scheme, providing the right mix of renewable and other options to meet your needs.

We can provide both client funded schemes – where you meet the capital costs directly – and funded schemes using external finance based on a land lease.

We offer a wider range of renewable energy options than most of our competitors and can deliver these in an appropriate combination to maximise the benefits of the scheme.

Our current products include:
- Solar PV – land and/or roof mounted, at almost any scale
- Floating solar
- Grid Balancing
- Commercial biomass
- Wind Fencing

As an experienced renewable energy developer we can be a ‘one stop shop’, reviewing the options for your site and the available grid connection and advising on the best scheme to suit your needs.

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**What we can do for you?**

**Land Appraisals and Funding**
- Provide an objective appraisal of the renewable energy options for your site
- Appraisal based on technical factors, economics and other various issues
- Secure finance for solar farms
- Offer advice on funding with a range of possibilities

**Local Community Consultation**
- Secure planning consent through effective local community consultation
- Desirable record of success in gaining planning consent
- Careful site selection
- Commitment to engaging with the local community
- Early and open dialogue with local people about our plans

**Planning applications**
- Excellent track record of successful planning applications for large scale solar projects
- Previously achieved planning consent for more than 300 MWp of renewable energy
- Development team has extensive experience of planning
- Proactively manage planning applications
- Undertake planning feasibility studies
- Arrange pre-application meetings with local authorities
- Carry out extensive community consultation.

**Grid applications**
- Offer a complete grid connection acquisition service
- Established relationships with Distribution Network Operators across the Country at designer and delivery level
- Facilitate connection to the electricity network
- Involved in innovative projects such as the UK Power Networks Flexible Plug and Play scheme and a large scale ground mount in the WPD Active Network Management Scheme.
Lark Energy Construction Limited

Lark Energy Construction is a professional construction business, specialising in large scale renewable energy schemes both as part of Lark Energy developments and for third party clients.

Our expertise extends across a range of renewable energy technologies – including biomass and solar photovoltaics (PV) – at a range of scales from individual rooftops to solar farms. We are one of only a handful of UK based construction firms with an established track record of building large-scale PV installations and the associated infrastructure. Having built projects with a combined output of more than 250 MWp, we are one of the largest deliverers of renewable energy schemes in Europe and have been responsible for construction of some of the UK’s biggest solar farms.

What we offer

Lark Energy Construction offers full engineering, procurement and construction (EPC) services for turnkey construction of commercial and utility-scale photovoltaic (PV) solar farms and other renewable energy projects.

Our in-house team of professionally qualified solar designers, engineers and project managers, as well as our equally well-qualified construction team has extensive experience of delivering renewable energy schemes in challenging circumstances and to tight deadlines. We use high quality materials and work to the highest standards in the industry in areas such as construction quality, health and safety and environmental protection.

We work with a range of delivery partners to ensure that resources are appropriate to the specific project and that they provide the necessary experience, expertise and quality assurance.

Construction of solar farms

Lark Energy Construction is one of Europe’s largest builders of solar farms, helping the UK to meet its targets for electricity generation from renewable energy. The installation of solar power is part of the country’s strategy to generate clean, locally produced energy as a way to combat climate change and improve energy security. The UK is legally committed to meeting 15 per cent of its energy demand from renewable sources by 2020.

The site is managed throughout the lifetime of the solar farm so that it can be returned to its original use after 25 years.

As members of the Solar Trade Association we are committed to meeting the highest standards of design, construction, delivery and operation.

Free rooftop PV for housing landlords

Lark Energy Construction can provide free roof-mounted domestic solar PV installations on housing owned by institutional landlords such as RSLs and local authorities. Our novel institutional funding allows us to provide no-cost PV on a greater proportion of landlords’ roofs than previously would have been considered viable through other funding schemes.

We are typically able to provide fully-funded solar PV on over 75 per cent of a landlord’s housing stock and use reputable contractors fitting high quality products and components to provide the reassuring guarantee of a job well done.

The benefits for landlords include:

- Tackles fuel poverty for a higher proportion of tenants than other schemes.
- Off balance sheet financing.
- Fully maintained during 20 year life of the system.
- Ability for landlord to buy up to 25 per cent of the completed installations.
- Fully managed by Lark Energy from pre-construction to completion and beyond.

For more information, please email us on enquiries@larkenergy.co.uk

Free commercial biomass from Lark Energy

Lark Energy Construction can provide fully-funded commercial biomass installations at no cost to the site owner where the site meets certain criteria. We will design, install and maintain these renewable energy systems for 20 years.

On each project we work with the client to find the most efficient and effective solution to meet the specific requirements. We only use efficient high quality boilers which will provide long lasting benefits and savings on your heating costs.

All the capital and maintenance costs are covered by Lark Energy which receives payments through the government-backed Non-Domestic Renewable Heat Initiative (RHI) scheme.

Installing biomass heating means you can enhance your ‘green credentials’ while taking advantage of off balance sheet financing under the RHI scheme and lower costs than conventional fossil fuels.

For more information, please email us on enquiries@larkenergy.co.uk
Lark Energy Services provides a UK-based operation and maintenance (O&M) service for renewable energy plant. We are currently responsible for operation, routine and preventative maintenance and response-based repair for more than 200 MWp of installed solar energy capacity across the country.

All of our sites are remotely monitored from our UK headquarters in Lincolnshire for performance and security. We back this up with a regional presence ‘on the ground’ of trained local staff in all parts of the country to provide a full O&M service for solar farms and other renewable energy plant.

Our O&M contracts provide guaranteed availability of your solar and other energy assets.

About Us
Lark Energy Services is a specialist operation and maintenance (O&M) contractor within the renewables sector, helping our clients to maximise their return on investment by amplifying the uptime and efficiency of installed systems.

In many locations where we are providing O&M services for solar farms, our activities are following on seamlessly from earlier project phases – often right from initial feasibility studies and planning applications. We therefore have a uniquely comprehensive understanding of the requirements for each site and tailor our services accordingly.

On every contract we provide guaranteed levels of availability and continually seek to optimise performance by reviewing energy outputs and making minor improvements.

What we offer
Lark Energy Services provides full support for the on-going operation and maintenance (O&M) of solar farms and other renewable energy installations. We currently have more than 200 MWp of solar farms under long term O&M contract.

Our services include:
- Feed-in tariff and renewable obligation certificate (FIT/ROC) registration, meter readings and management of claims.
- Power purchase agreement (PPA) negotiation and administration.
- Performance monitoring, defects analysis and fault diagnosis.
- 24/7 response to system faults.
- Annual inspection and maintenance
- Security.
- Landscape management.
- Replacement of defective components.

Monitoring on installed PV systems
A key feature of operation and maintenance (O&M) contracts on solar farms is remote monitoring of the installation for purposes of both energy performance, management and security.

Maximising the availability of the installation and the performance of individual components of the photovoltaic (PV) systems is important to ensure a solar farm is delivering the maximum possible return on investment. Lark Energy Services has sophisticated monitoring capabilities which permit its UK headquarters to observe system performance of solar farms around the country in real time and, if required, despatch locally-based staff to deal with any issues detected.

Routine and Preventative Maintenance
Routine and preventative maintenance provided by Lark Energy Services under operation and maintenance (O&M) contracts, is designed to deliver the best return on investment for the owners of solar farms and other renewable energy plant.

We offer services that cover all aspects of operations and maintenance backed with a performance guarantee for the life of the plant.
Ketton Cement

Size: 12MW
Number of Panels: 50,544
Annual Energy Production: 11,400,000KWh
Annual CO₂ reduction: 3,420 tonnes

Lark Energy, working in partnership with Armstrong Energy and Hanson Cement, has designed, developed and constructed an innovative 12MWp project which, for the first time, brings significant solar power to a major UK cement works. Ketton Solar Farm is comprised of 2 phases. The first phase is 9MWp situated on 20 hectares of former quarry belonging to Hanson Cement in Rutland, and consists of 50,544 modules. The second phase is 3MWp and is sited on an adjoining field of 7 hectares, consists of 12,100 modules and together they will generate enough energy to cover around 13% of the Cement work’s annual consumption.

The project was jointly developed by Lark Energy and Armstrong Energy with the latter providing funding partly through an innovative PPA arrangement with Hanson. It also has a pioneering approach to managing the grid connection. Lark Energy has designed the solar farm to enable active and reactive power management and to protect the grid from reverse current. This has a number of advantages, including minimising the need for costly 33kv upgrade work, reducing the energy costs for Hanson and enabling the inverters to be used as capacitor batteries at night. As the proposed project fell wholly within the working cement works, and could not be seen from the adjacent village, the council didn’t receive a single objection and it received unanimous approval from Rutland County Council in late July 2013.

The power from the solar farm connects into Hanson’s private 11kv network on three separate circuits. This means that individual switchgear and transformer sets are required for each circuit. The 11kv network then connects to Western Power Distribution’s 33kv public grid network via a step up transformer. Various upgrades of the customer and DNO substations had to take place to enable the connections.

Wymeswold

Size: 33MWp
Number of Panels: 125,000
Annual Energy Production: 31,350,000KWh
Annual CO₂ reduction: 9,405 tonnes

Lark Energy developed the award winning 33MWp solar farm at the former World War II airfield at Wymeswold, near Loughborough. The project consists of over 125,000 panels, spread over an area of 150 acres and provides 8,500 homes in the surrounding community with their annual energy needs.

The project was the largest to have been developed and built in the UK when it connected to the grid in March 2013. Lark Energy worked very closely with the site owners, the Prestwold Estate, the local community and Charnwood Borough Council and, despite its scale, achieved planning consent without a single public objection. We faced many challenges in building the project, particularly in relation to the grid connection, weather and changes in government policy.

Issues surrounding grid connection slowed the construction process and it was not until the beginning of February 2013 that the first pile was driven into the ground, by which time weeks of continuous rain had made the site waterlogged. At the height of construction some 450 people were on site working in very difficult conditions.

Lark Energy also had to work around the existing users of the site, notably a motorsports company, who use a large part of the runway within the site for track day car experiences. The site was completed and connected in a record 7 weeks, meeting the deadline at the end of March 2013.

Wymeswold demonstrates Lark Energy’s expertise and capability in project development, community involvement and getting even the most complex project completed to time and budget.
To find out more please contact:

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Annual energy production figures are estimated. Lark Energy is part of the Larkfleet Group of companies. Larkfleet Limited is an MCS (Microgeneration Certification Scheme) Approved Installer. MCS is the certification mark for onsite sustainable energy technologies. All illustrated examples are based on the following assumptions: 50% usage of PV-generated energy; 50% export of PV-generated energy; 10p per unit daytime energy cost; 3% RPI; energy cost increases of 7% per annum.

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