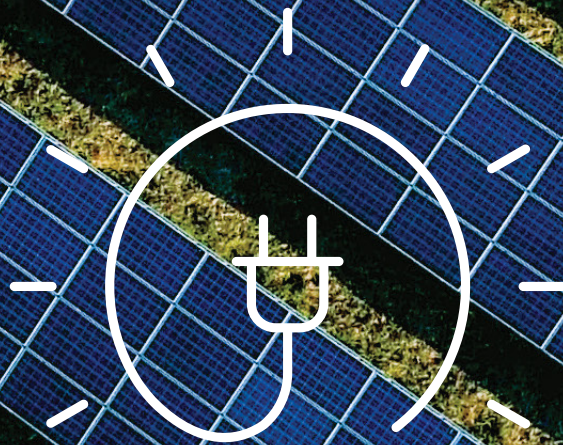


Solar power in action

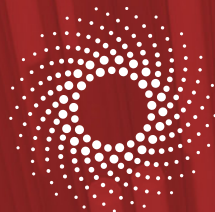
Powering your business forward

Product series
September 2018



centrica
Business Solutions

The Power of Solar



Powering Performance

Solar will significantly cut your costs in a truly sustainable way by providing you with a daily source of onsite energy generation



Powering Resilience

When paired with onsite batteries, Solar decreases your reliance on grid energy and allows you to cut the risk of disruption to your operations, ensuring your business is 'always on'



Powering the Future

Solar can help drive sustainability and unlock opportunities through the use of innovative technology

Harnessing power from the sun

What if you could significantly cut the costs of your electricity by generating your own onsite? A 100% renewable energy solution is right above our heads.

69%

A mortgage lender is using Solar energy to offset 56% of their energy usage from the grid – reducing their energy costs by 69%.

89%

A luxury car dealer combined Solar with our Commercial LED lighting technology to offset 61% their energy usage – the electricity generated from their Solar system reduces their energy costs by 89%.

Solar power can save your business money every day.

What is Solar power?

Solar power enables you to generate your own electricity by converting the power of the sun into electricity. This power can be used directly onsite to deliver a reliable, efficient source of energy at a predictable rate, with an option to store it for later use by adding a Storage solution – lowering energy costs during peak times.

It is 100% sustainable, reliable, and cost-effective – ideal for businesses that want to reduce both energy costs and carbon emissions.

1

Zero cost
electricity generation

2

Reduced operating
expenses

3

Decreased CO₂
emissions

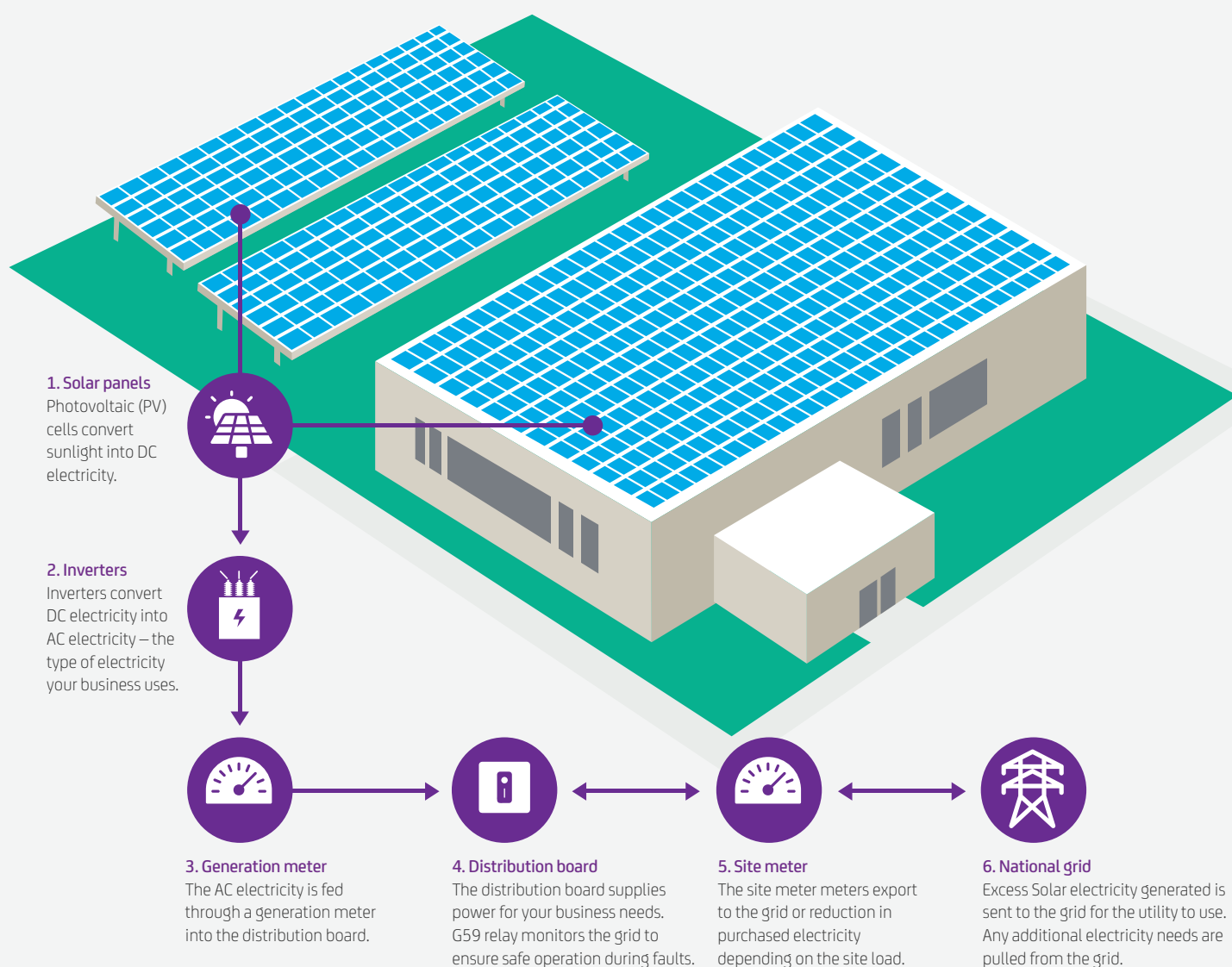


How Solar works

A Solar photovoltaic (PV) system absorbs sunlight and converts it into energy to power your business. Solar panels are mounted on the roof of a building or on the ground, unlocking value from unused assets. They are then oriented and pitched to capture sunlight and maximise production.

How Solar converts sunshine into power

Solar panels work by absorbing sunlight and converting it into electricity. Inside each panel are PV cells made up of layers of silicon. When sunlight particles, or photons, hit the surface of the PV cells, an electric current is formed. Inverters connected to the panels convert the DC electricity made by the panels into the same useful AC electricity provided by the grid.



What can a Solar system do for your business?

Solar is designed to generate electricity using power from the sun, cutting your costs and carbon footprint – while delivering reliable, efficient energy at a predictable rate.



Lower electricity costs

- Generate your own electricity onsite
- Reduce reliance on more expensive grid energy
- Shield your business from unpredictable energy prices
- Lock in predictable energy rates with dependable, efficient Solar energy
- Lower operating costs



Deliver a reliable energy source

- Solar technology is better than ever
- The sun rises every day, providing a consistent source of power, even on cloudy or rainy days
- When combined with a Storage solution, Solar stores excess electricity onsite and uses it when electricity costs are at their highest
- Forecast energy spend and operating costs



Offer an economic option

- Solar is more affordable than ever before
- Financially sound source of energy
- Funding options are available – some with no capital outlay needed
- Every Solar installation is customised to the individual business to optimise the return on investment
- Unlock value from roof and land space
- Source of revenue from excess power generated



Meet sustainability goals

- Solar power is a 100% renewable energy source
- Solar panels produce energy without creating CO₂ or pollutants as traditional energy sources do
- Making your own power is good financially and the right thing to do socially
- The panels on your commercial property are visible and constant reminders of your environmental commitment



Give you reassurance

- Maximum return on investment
- End-to-end solution management
- High quality equipment
- O&M packages tailored to site needs
- Workmanship and product warranties
- Performance guarantees
- Dedicated customer care
- Active monitoring



Solar power in action

The London Borough of Southwark Reducing 337 tonnes of CO₂ annually with Solar

The London Borough of Southwark has invested in our Solar PV package at a cost-effective price that will also reduce carbon emissions in the district.

Delivering Solar PV in a restrictive space

The tight conurbation of the London Borough of Southwark presented many challenges in finding a suitably sized building which offered a cost-effective price to introduce Solar PV.

Finding additional on-site capacity

Veolia worked in partnership with the London Borough of Southwark to provide a long-term integrated waste management solution that diverts over 90% of the borough's household waste away from landfill. The Devon Street facility handles all the borough's household waste and recycling using the best available recycling and treatment technologies.

The recycling and waste management takes place in one integrated building and the roof area of 30,000m² has presented Southwark with an ideal platform on which to mount a large-scale cost-effective Solar PV array.

Centrica Business Solutions worked with the main contractor to build the current design and identified areas with sufficient capacity to take additional loads. It also ensured the integrity of the building, and that warranties remained, while also maintaining compliance with current building regulations.

The site has a supply of 2.3MVA which powers heavy process plant, conveyors and odour extraction on a 24/7 operation. The district network operator (UKPN) – played a key role in modelling the installation to determine any adverse effects of PV on such scale in such a tight conurbation, before granting approval.

The results

We worked closely with CA Building Products to ensure that residual guarantees would not be compromised through the mounting rail and clamp system.

An optimised inverter solution was chosen to enhance the performance of the PV system on a waveform roof.

337

TONNES OF CO₂
REDUCED ANNUALLY

750kw

OF PEAK OUTPUT



Solar power in action

Toyota

Using the sun to power the plant

We created the UK's largest factory-connected Solar PV system for Toyota, allowing them to generate their own power, naturally.

They were looking for a greener solution

Toyota wanted a partner to create a turnkey project for the UK's largest factory-connected Solar PV installation. This was to help power their first European Model Sustainable Plant at Burnaston.

We completed the project in just four months

Following our commission, there was a change in the government Feed-in Tariffs (FiT) scheme for large-scale systems – a programme that promoted the uptake of renewable and low-carbon electricity generation technologies.

This change allowed us to significantly accelerate the project with installation and commissioning being completed in less than four months from project approval.

What we did

We were responsible for the full development of the site including environmental studies and planning support. During the 10-week construction programme we installed nearly:

- 17,000 PV modules
- 240 inverters
- 140km of cabling and associated HV works

The funding for the project

This was a funded project providing the project finance through a funding vehicle. Toyota receive all the electricity generated, and the funding vehicle takes any FiT revenue.

The results

The PV system is now providing 5% of Toyota's site energy consumption, helping to cut costs and reduce the carbon footprint.

The installation has now been sold to Bluefield LLP, a specialist investor in UK renewable energy and solar PV.

17k

PV MODULES
INSTALLED

5%

ELECTRICITY OFFSET
WITH SOLAR

Is Solar right for your business?

The first thing we need to determine is if Solar is the best option for you.

- 1 Do you use a lot of electricity?
- 2 Are you paying a lot for your electricity?
- 3 Do you have available space on your roof or land?
- 4 Do you own you own or rent your building?
- 5 Are you looking to meet certain sustainability goals?

We can help you answer all of the above questions during our free evaluation.

Solar monetises unused space

A detailed analysis of your site viability measures the available Solar resource at your facility to produce a system design that maximises both your available space for Solar and energy production based on your site's available sunlight.



Rooftop installation

Solar panels are mounted to the available Solar-optimal roof space of your facility.

Benefits:

- Monetise your roof and generate onsite Solar power
- A visible testament to sustainability and environmental commitments
- Generally the least expensive, most straightforward option for going Solar



Ground mount installation

Solar panels are installed in the ground either onsite or at another location.

Benefits:

- More versatile than rooftop Solar; installed where conditions are best
- Eliminates any issues with roof angle, orientation, space, and size
- Ideal when your roof is not Solar suitable due to constraints or shading

Delivering a bankable Solar solution

Solar power is an investment that can provide reliable, clean power to your site for decades, so it's important that your Solar solution is professionally designed and engineered to your business needs to maximise returns.

1

System components should be comprised of best-quality Tier 1 equipment – guaranteed to perform

2

System performance should be maximised with O&M offerings tailored to business needs

3

Systems should be monitored and issues immediately addressed by a dedicated team of experts

Why choose Solar from Centrica Business Solutions?

Combining our extensive experience developing rooftop and ground mount Solar projects with our funding options and tailored system designs, our experienced team can provide the right Solar solution for any business.



Energy expertise

As a global leading energy company, providing efficient, cost-effective solutions to businesses of all sizes and sectors, we are perfectly positioned to deliver a bankable Solar solution for your business.



Worry-free investment

Our O&M offerings ensure your system is maintained for peak performance, and our team continually monitors your system and addresses any issues promptly. We will be with you through the 25+ year life of your Solar system, ensuring you are happy with your decision.



End-to-end management

We will help you maximise savings and provide customised service – from designing your system using inverter options that optimise your system's production, to your system installation using high-quality Tier 1 equipment, to the maintenance and monitoring of your system after it has been turned on.



Experience and track record

Our knowledgeable and experienced team of Solar experts has an accomplished track record in the industry and has developed thousands of Solar projects. We are prepared to help you find the best Solar solution for your business.

Want to know more?

Solar power is generating savings across a variety of industries.
Find out how we can help you power new levels of performance today.

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