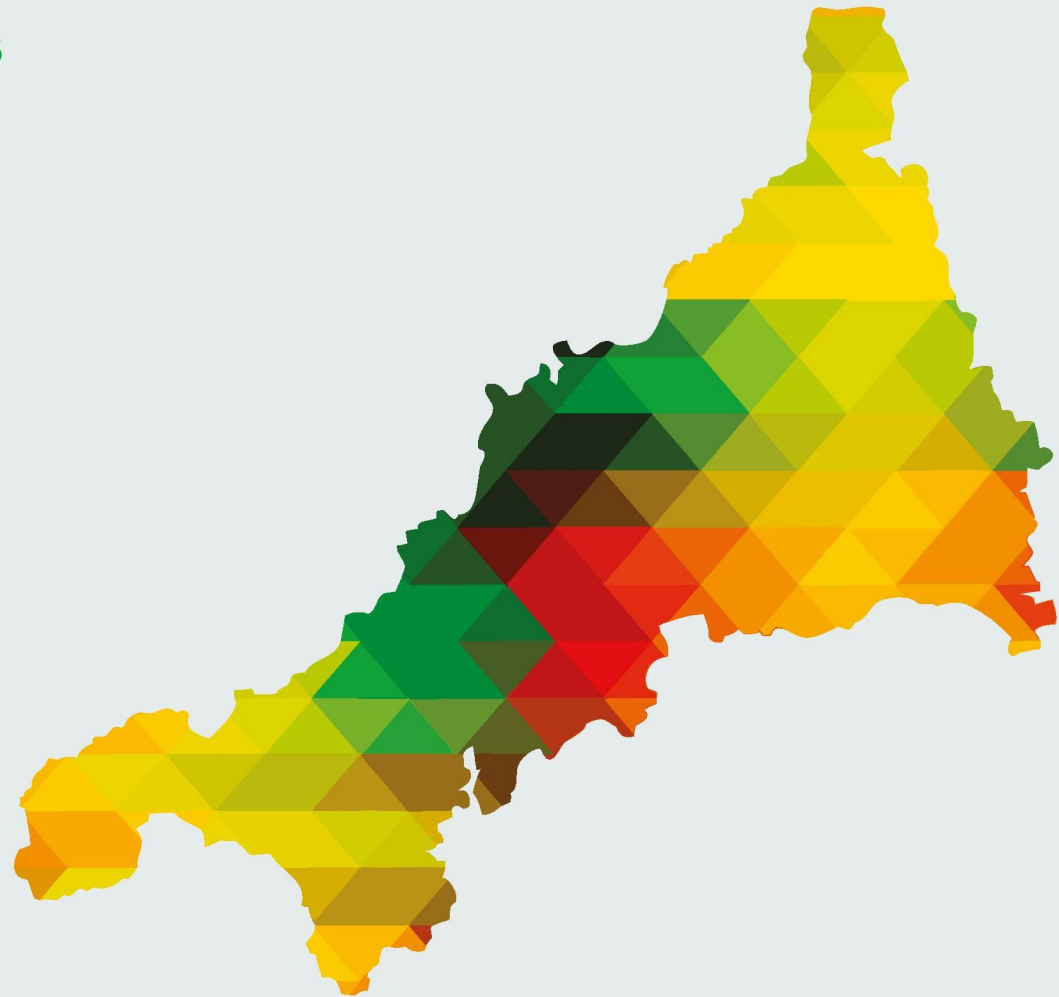


Recommended Service Providers for Renewable Energy Installations



PRP



HM Government



European Union
European Regional
Development Fund



CORNWALL &
ISLES OF SCILLY
LOCAL ENTERPRISE PARTNERSHIP

CORNWALL
NEW ENERGY

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Clean Earth

About



website:

cleanearthenergy.com

Office location: Wadebridge, Cornwall

Founded: 2010

Employees: 25

CleanEarth work with businesses in the South West and across the UK to control their energy costs and reduce their carbon footprint. We develop solar PV and wind turbine projects that generate carbon-free energy at commercially competitive rates, benefiting both the environment and the client's bottom line.

We believe it is obvious that the adoption of carbon-free energy generation is a necessity if we want to minimise the consequences of global warming for future generations. Energy prices, carbon targets, corporate conscience, and consumer sentiment have all driven rapid change in the energy market, creating unprecedented challenges for UK businesses. CleanEarth was founded to meet those challenges.

CleanEarth are the UK market leader in single-turbine wind projects and have also installed over 500 solar PV systems. With more than 50 megawatts of generating capacity we have more experience than most in getting renewable energy projects up and running. We have a highly qualified team of in-house electricians, project managers and are ISO 9001 and 18001

accredited, members of the Carbon Trust and Solar Trade association (STA) along with the MCS and Renewable Energy Consumer Code (RECC).

We take pride in getting the job done whatever barriers stand in the way. We've completed projects that others have walked away from and found innovative ways of overcoming regulatory, logistical and financial hurdles that less determined companies would see as insurmountable.

At CleanEarth we will continue to drive the adoption of renewable energy in the UK. To achieve this, we will maintain our focus on the wind and solar technologies that we know so well but will also look for innovations that can earn their place in the renewables mix. In the short term that means exploring emerging products such as battery storage. In the longer term it will mean adapting to the changing energy landscape and adopting solutions that are yet to be realised.

To learn more about CleanEarth or to see some of our existing projects visit our website at; cleanearthenergy.com



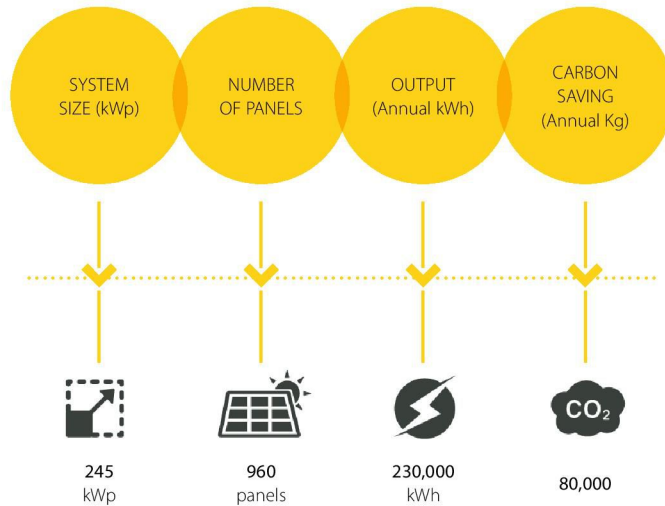
CleanEarth have proven to us that they can deliver on time, that they engage with the communities around them and work to very high levels of environmental and safety standards.

John Hodkin – Business Development & Services Manager, Imerys

Case Study

The Hill Brush Company

Roof Top Solar PV



The 245kWp, 960 - panel roof-mounted solar array will generate around 230,000kWh of electricity a year to use directly on site. The installation is a key element of Hillbrush's environmental policy which also includes sensor controlled LED lighting, energy-efficient moulding machinery, and electric car charging points.

The Hill Brush Company, established in 1922 by brothers Fred and Bill Coward, are now the UK's largest manufacturer of high-quality brush ware and hygienic cleaning tools. They recently opened a purpose built manufacturing and office building at Norwood Park which clearly demonstrates their environmental credentials.

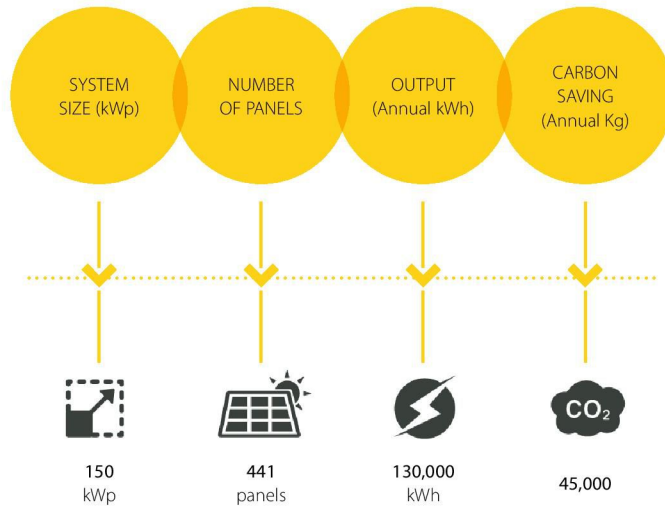
As well as meeting the company's sustainability goals, the solar PV system will also help protect Hillbrush against volatile energy prices. The system was designed so that almost all of the self-generated electricity is consumed on-site. As CleanEarth's Operations Director, Tristan Grimes, explains: *"this means they can fix a substantial part of their electricity costs for the next 25 years, helping them remain competitive in the global market."*

Being a busy manufacturing site, it was important that the project was managed without disruption to the day-to-day operations, CleanEarth completed the installation within two weeks with minimal impact on the business.

Case Study

St Austell Printing Company

Roof Top Solar PV



Sitting pride of place on the state of the art factory the 150kWp Solar panel array, split across both buildings, will generate around 130,000kWh of electricity a year!

Environmental responsibility is fundamental to the St Austell Printing Company and this project demonstrates their on-going commitment to improve their sustainability standards. The company also have plans to incorporate electric car charging points and LED lighting in the future.

The St Austell Printing Company (SAPC), established over 35 years ago by Managing Director Peter Moody, moved into their purpose built facility on the outskirts of St Austell in 2013.

Going solar had always been part of the plan for the company, with the new factory built to 'Excellent' BREEAM standards and incorporating rainwater harvesting and natural light and ventilation in it's design. The announcement from the government to close solar feed in tariff (FIT) on **1st April 2019** combined with soaring electricity costs meant that the timing was now right.

As CleanEarth's Commercial Manager, Ed Lennon, explains: "with rising energy costs solar is proving more and more attractive for business's and now makes both sound economic as well as environmental sense."

Being a such a busy site, it was important that the project was managed with minimal disruption to the day-to-day operations. CleanEarth completed the installation within two weeks and will continue to monitor the system as part of a comprehensive O&M package"

GreenGenUK

About



website:

greengenuk.com

Opened in 2011 by Managing Director Rob Carey, GreenGenUK has grown to become one of Cornwall and the South West's leading providers of renewable energy solutions to both domestic and commercial customers.

Launched to provide free, impartial guidance to customers looking to make the leap to renewable energy, GreenGenUK provides domestic and commercial customers with guidance, design and installation of a number of renewable energy alternatives, including solar PV, solar thermal, air source heat pumps, ground source heat pumps and battery storage.

How is GreenGenUK different?

GreenGenUK provides an all-in-one renewable energy installation package, covering everything from initial survey and consultation through to complete installation and certification. As such, all of the renewable energy installations we undertake are designed on a completely individual basis and are bespoke to the needs of the customer and the nature of their project.

GreenGenUK's plumbing and electrical background enables our installations to cover as much of a project as our customer requires – be it just the installing and commissioning of the renewable technology, complete installation of a hot water heating system or the

complete plumbing and electrical work required in a new build property – GreenGenUK can do it all. Furthermore, with our experience working on a variety of projects that vary in size and scope, GreenGen is capable of integrating and combining our renewable expertise into larger projects.

As we are able to offer a wide variety of renewable technologies to each and every customer, we are able to offer truly impartial advice to anybody looking into switching to a renewable technology. By offering almost all modern, renewable solutions, we use our knowledge and experience to guide our customers into making the most financially and environmentally beneficial system that meets the capabilities of their property. We aren't looking to sell any one product over the next, our goal is simply to encourage customers to make the transition to a renewable solution by providing them with all the information required to make a justified, informed decision.

Are we Qualified for the Job?

GreenGenUK is fully certified and accredited in all of the renewable energy solutions we offer. This means that all customers opting for a GreenGenUK renewable installation can rest assured that their system will not only be to the highest consumer standards but will also be eligible for various government incentives.



We are very happy with all aspects of the work. Very good service, excellent workmanship! Would highly recommend GreenGen to everyone. Top class!

Mrs Parkinson - 29/09/2017

GreenGenUK

About (continued)



website:

greengenuk.com

MCS Accreditation

GreenGenUK is fully MCS approved to install, commission and certify each of the following technologies:

- Solar PV
- Solar Thermal
- Air Source Heat Pumps
- Ground Source Heat Pumps

Our MCS accreditation is the standard by which installers of renewable energy technologies abide to and guarantees the quality of our work. To be approved as an MCS registered installer, GreenGenUK undertake annual inspections to ensure the quality of our workmanship and installations. As mentioned above, only renewable systems installed by an MCS accredited provider are eligible for government incentives, such as the Renewable Heat Incentive and Feed-in Tariff. These schemes provide financial benefit to customers installing a renewable solution and make such technologies stable financial investments.

RECC Membership

The Renewable Energy Consumer Code is the trading standard renewable energy installers abide by. Registered members of the RECC are committed to providing the highest levels of workmanship standards and customer service. GreenGen's RECC continued membership is a commitment we make to our customers and the work we undertake.

How do we work?

GreenGenUK undertakes all of their renewable, plumbing and electrical projects on a contractual basis – we provide our customers with an accurate proposal pack that details the materials they are purchasing, the nature of the work and our payment procedure. As such, our customers never pay more for their installation than quoted and specified on their order form.

We provide customers in the South West with proposals free-of-charge and with no obligation. We believe that once customers see our combination of quality, experience and competitive pricing our argument speaks for itself. GreenGenUK participates in no on-the-day selling and the purpose of a survey is simply for us to be able to gather all the information we need to generate an accurate proposal that is sent to the customer at a later date.

In addition, we are also able to generate proposals from architectural plans and drawings. This is particularly popular and relevant for customers undertaking new build and conversion projects.

How can GreenGenUK help you?

Whether you've decided you're ready to make the step into renewable energy and are looking for a quotation or you're just looking to gather some information to further your understanding, we are ready and happy to help.

Our team of renewable experts are on hand to provide you with free, impartial assistance to guide you down the path towards a renewable solution.

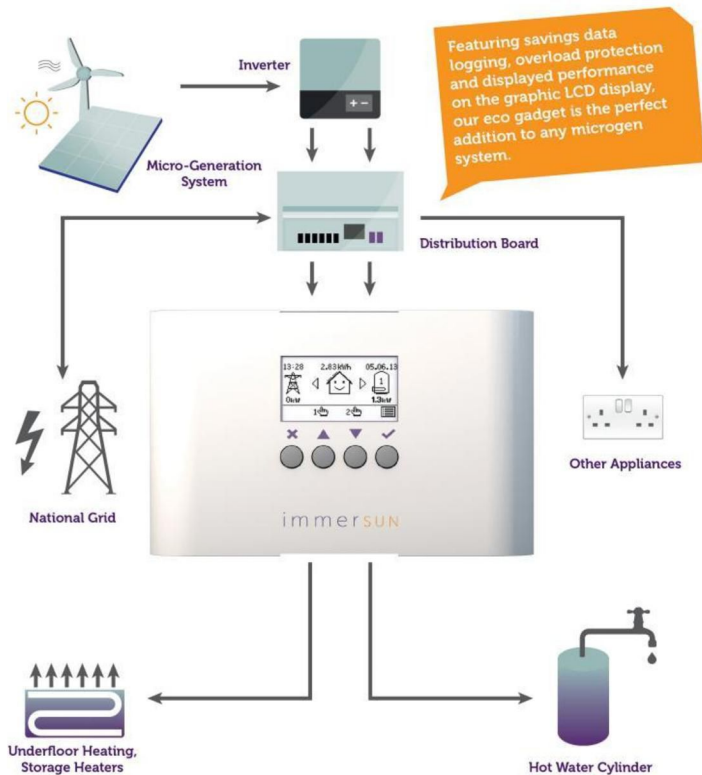
To find out exactly how we can help you or to book your consultation, contact us today at:

The office on **0800 093 3299**

Case Study

Tower Meadows, St Buryan

Slate Mounted Solar PV System



A Slate Mounted Solar PV system installed near Lands End, Cornwall using Black SolarWorld Modules.

Our customer's initial enquiry was for a solar pv system to help support their electricity usage within their property. They had also done their research and requested that GreenGenUK supplied an Immersun Solar Switch to help heat their hot water tank with the excess electricity generated by the solar system.

We proposed the following:

- 16 x Solar World 250w Black/Black Modules
- 1 x Fronius IG 3.6 TL Inverter
- 1 x Schletter Slate Roof Mounting System
- 1 x Immersun Solar Switch Mk2

Case Study

Pendennis Super Yachts, Falmouth

25kW of Q.Cells modules



25kW of Q.Cells modules help Pendennis Super Yachts achieve BREEAM rating for new workshops and offices.

GreenGenUK were contracted by the Main M&E Contractor, EIC Ltd. Given the location of the new build, we proposed the Q.PRO series of modules as they come with salt air resistance warranties as standard as well as being competitively prices. We proposed the following:

- 96 x Hanwha Q.CELLS Q.PRO 260w Modules
- 1 x PowerOne Aurora TRIO Inverter
- 1 x Rensuol Trapezoidal Roof Mounting System



Naked Solar

About



website:

naked solar.co.uk

Advances in solar panels and storage mean systems are now better value, longer lasting and more efficient than ever. Solar is running homes, cars and businesses across the UK and giving people control over their energy supply for the first time. You just need to know what's out there, and what works for you.

At Naked, we work for you. Not the manufacturers. We're not tied to any product, and we're only comfortable installing solar when we're certain you've made an informed choice.

Expert installation

We're NICEIC accredited & go above & beyond MCS quality standards & the Renewable Energy Consumer Code.

Guaranteed work

Our installers are reliable, courteous & tidy. We never sub-contract & all workmanship comes with a 10-year warranty.

Accurate forecasts

Informed choice relies on good information. We show clearly how much energy you'll produce & what returns to expect.

Real choice

Our 'no commission, no ties' policy means you can compare & combine systems to source the best set-up for your needs.

Fast surveys

Site or home visits take about 1.5 hours. We'll email you a personalised forecast with a range of options in 2 working days.

Regular contact

From start to finish, you're kept in the loop about options, costs and timings. No nasty surprises, no waiting around.

Award-winning

We believe passionately in solar & want you to feel the same way. Our honest approach has won us multiple awards.

After care

Problems are few, but if you need help, we're always there. We treat people the way we like to be treated – with respect.

You can view Naked Solar's Case Studies by visiting their website:

naked solar.co.uk/going-naked/your-stories



We wanted to be ethical and make a sound commercial investment. Naked Solar made it all very easy.

Julian Foye, The Furnishers, Cornwall

Natural Generation

About



website:

naturalgen.co.uk

Natural Generation Ltd was incorporated in 2006, one of the first companies to register as a renewable energy specialist (number 39 on the MCS register). Primarily installing micro wind turbines (5-25kw) we soon expanded into Solar Energy, by 2014 the core team had expanded operations to include a full design and install service for Domestic and Commercial Solar PV and Solar Thermal, (including operating as main contractor for MW size solar farms) mid-size wind turbines (up to 250kw) Ground and Air source heat pumps and Biomass boilers.

Based in Perranporth, Cornwall our location was ideal for the large expansion of renewable energy installations which saw the SW UK have the highest take up. With the onset of the end of the Tariff system looming, Natural Generation moved its core business away from installation to concentrate on the operations and maintenance of installed assets. We are now the largest O&M operator in the wind turbine market with maintenance contracts on 500+ wind turbines, also operating over 50 solar farm sites.

In 2017 the company was purchased by Constantine Wind Energy (part of the Constantine Group) with considerable investment and opening 2 new engineering bases in Avonmouth and Glasgow. With a secure financial base our customers can be confident that we will be here to cover both the manufacturers and our installation warranties in the years ahead.

Whilst our expansion has been significant over the past 2-3 years, we have retained our core design and installation team and added experienced personnel along the way. We can cover every aspect of a renewable Energy project including grid connections, planning assistance, through to design and installation.

Installations off the UK mainland include 6MW solar farm on the Isle of Wight and partnering with Hitachi for the recent Smart Island Project on the Isles of Scilly.



The surveyor explained in great detail how everything worked, what type of system would best suit my requirements, along with an explanation of the shading issues given off by certain features of our house. I cannot recommend Natural Generation highly enough, a first class system and job.

Mr Lampitt, Redruth

Natural Generation

About



website:

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Mr Lampitt, Redruth

Case Study

West Country Renewables

Solar PV Installations

Natural Generation have worked with West Country Renewables on a number of projects covering seven roof and ground mount Solar PV installations totaling 800kw.

The project at Mount Hawke covered two separate installations, both roof mounted, one of 100KW and one of 50KW. The choice of product is very important and Natural Generation have always recommended using Tier 1 panels – the rating is governed by Bloomberg and is based on the manufacturer's bankability and financial stability, Tier 1 panels are stipulated for large solar farms.

As panels have a 20 year + warranty it is very important to make every effort to ensure the product being installed is backed by a financially secure manufacturer. In this case REC250 Panels were used.

Similarly the choice of inverters is very important, whilst it is highly likely that the inverters will require changing during the life of the installation a quality product, backed by a good warranty is the key, on this installation Fronius Inverters were the inverter of choice, in 13 years we have experienced minimal faults and the when the warranty service has been required the service has been excellent.

In 2016 following severe storms across the South West, our client was unfortunate enough to suffer severe damage to a 50kw ground mounted solar array installed by another contractor, Natural Generation salvaged as much as possible and carried out a re-installation project, re-stringing the array to create a more efficient generator. For West Country Renewables, Natural Generation have become the partner of choice, not just for installation but also for ongoing maintenance and support, we carry out annual maintenance programmes on all 7 sites along with remote monitoring to diagnose any faults and carry out any re-active maintenance requirements.



Case Study

Isles of Scilly - Smart Islands Project

Solar PV and Air Source Heat Pumps



In 2017 Natural Generation won the tender for the survey phase for the IOS smart Islands project, surveying in excess of 74 domestic properties and 8 commercial sites for the installation of Solar PV and Air Source heat pumps, to carry out this work involved designing a tablet based survey protocol, design template and reporting procedure that ensured accuracy and continuity of information. Following the successful completion of this we won the tender for the installation contract.

The logistics involved were considerable, working off the mainland brings in considerable risk in terms of additional costs, the logistics of shipping large quantities of materials plus accommodation and travel for specialist staff. Natural Generation resourced as much on Island skills as possible during the course of the installation. Our experience installing a 6MW solar Farm on the Isle of Wight was of great benefit, also in particular the type of product for the installation was of high

priority in what can be a harsh environment. Tier 1 panels and high quality inverters, reducing system complications were the priorities aware that future maintenance costs were kept to a minimum.

The project has honed our efficiency, ensuring our survey costs are kept within reasonable limits, the on line survey format we designed for this project allows us to transmit the information to our design team in Perranporth within minutes of the survey taking place, who can then identify any issues. Experience in coordinating projects across multiple sites for scaffolding, materials and labour off the mainland has resulted in an efficient service for this type of project. A major factor for us was also ongoing maintenance provision, and of course our own warranty provision, quality of workmanship and good quality kit drove the design parameters.



Commercial Roof Mount – Isles of Scilly



Domestic Roof Mount – Isles of Scilly

ZLC Energy

About



website:

zlcenergy.co.uk

ZLC Energy are engineering and environmental specialists dedicated to providing Zero or Low Carbon Energy solutions for homes and businesses throughout the United Kingdom.

ZLC Energy is fully accredited under the Microgeneration Certification Scheme, the Building Regulations Competent Persons Scheme and the Contractors Health & Safety Assessment Scheme (CHAS). We are focussed on high quality training and staff competence and are a founding member of the National Skills Academy for Renewable technologies. We are an NICEIC Approved Contractor.

We are able to offer a full range of renewable energy technologies, which means that we are technology and product agnostic and will only recommend solutions that we believe are right for you. Our expertise lies in the complete integrated renewable solution. Beyond renewable energy, we can also offer professional, Eco-Build design and delivery services to meet the requirements of Merton (PPS22), Part L2, BREEAM and Code for Sustainable Homes.

Our team have implemented over 3MWp of Solar PV, and has experience in several markets that it operates in planning, grid applications, licensing, designing and construction of PV projects. With its network of international tier 1 supplier partners, ZLC Energy is able to deliver world leading PV systems at low cost that meets the requirements of project investors even without government subsidies.

Our commercial clients include:

- Plymouth City Council Holywell Bay Fun Park
- Mabe Primary School
- St Austell Brewery
- Trewithen Dairy
- Millbrook CofE School
- David Salisbury Conservatories

Please visit zlcenergy.co.uk/home-2/case-studies-2 to view case studies and videos of our installations.

Each of our commercial projects is designed specifically by one of our dedicated design engineers to ensure the maximum efficiency is obtained whilst ensuring the least disruption to the business. Our design team are constantly checking the latest technologies available to

ensure we remain able to offer the most cutting edge technology available, which offers a high level of efficiency in a rapidly changing market place.

We are proud to have developed our very own in-house battery storage solution back in 2013 and are still leading the way in Cornwall by designing and installed new Combined Heat & Power systems.



The service from ZLC Energy has been excellent throughout with every deadline for particular elements being kept without fail. We found ZLC Energy very good at organising the whole project from start to finish.

Robin Freight DipCEA,
Compliance Officer,
St Austell Brewery Co Ltd

Case Study

Trevornick Holiday Park



Solar PV

250kWp Solar Array
8x27.6kW ABB Trio inverter
25 year coastal warranty
Carefully selected discreet site in AONB
6.5 years payback
ROI – 15%

Air Source Heat Pump

2 x 70kW heat pumps
4.86 Coefficient of Performance
6-8 Year Payback

Ground Source Heat Pump

35kW CTC Heat Pump
550m 'slinky' ground array
Payback 4.8 years

About the Client

Trevornick is a family owned and run 5 star holiday fun park near Newquay. Providing exceptional customer service, and 800 pitches, overlooking Holywell Bay, the business has achieved a Gold award for 'Holiday Park of the year' at the Cornwall Tourism Awards.

What was their goal?

The site had a high power demand during the Summer season. The goal was to reduce energy costs by investing in a sustainable solutions. Reducing operating costs provided the opportunity to reinvest savings into the business and further renewable technologies.

About Us

ZLC Energy are a team of Chartered Engineers, established project managers and fully qualified installers with decades of experience in the industry, based in Cornwall. We are dedicated to providing zero or low carbon solutions for homes and businesses. We are able to offer a full range of renewable energy technologies, which means that we will recommend only solutions that we believe are right for you.

Our expertise lies in the complete integrated efficient and renewable energy solution.

How did we help?

We undertook energy appraisal of the whole site and its energy use and produced a prioritised investment plan to identify and justify where to invest in renewables and energy efficiency for the business. We secured planning permission for 250kw ground mounted panels then supplied, installed and commissioned the system. We then designed and installed the Air Source heat pump to assist with summer pool heating along with a separate Ground Source Heat pump for a newly refurbished toilet block.

Testimonial

ZLC Energy were invaluable in helping us to get planning permission. They designed it sensitively and installed without disruption to our guests. Generating clean energy is important to us and we continue to celebrate what has been achieved. We continue to work with ZLC Energy and our only question is, What next?

Adrian Tribe, General Manager



Case Study

Bosinver Farm Cottages Swimming Pool

Solar PV and Solar Thermal



System & Products

9KW Solar Thermal using Schuco C520 Flat Plate Panels
7.5KW Solar PV using 30 no. Renesola 250W panels & SMA Tripower Inverter

Key features

Heat metering, install on concave roof, cascade energy control to optimise renewable energy use

Install time

April/ May 2013 (in 3 weeks)

Payback

5 years

About the client

Bosinver is a multi award winning self catering holiday business in Cornwall, now ranking in the top 4 in the UK. The site excels in environmental performance from recycling, to ecobuild, wild kids events to car free holidays

What was their goal?

To extend and expand the business into a longer holiday season, the business built a new indoor swimming pool. The clients asked zlc energy to control the estimated annual 150,000KWh gas use & 40,000KWh electricity use.

How did we help?

ZLC energy worked with the architect and client during the design stage which led to the convex south facing roof and high insulation specification for the building. We provided all heat loss analysis for the design.

We worked in partnership with the client's swimming pool engineers to specify an energy efficient swimming pool plant room which included an Air handling and heat recovery system, Solar Thermal system with 'energy dump' system for peak season summer heating and Solar Photovoltaic Panels on the roof. The solar panels were all mounted on the complex convex slate roof. To make sure it all fitted perfectly zlc energy's workforce slated the curved roof too.

About Us

ZLC Energy are a team of Chartered Engineers, professional project managers and fully qualified installers with decades of experience in the industry, based in Cornwall. We are dedicated to providing zero or low carbon solutions for homes and businesses throughout the United Kingdom. We are able to offer a full range of renewable energy technologies, which means that we will recommend only solutions that we believe are right for you. Our expertise lies in the complete integrated efficient and renewable energy solution.



Before



After

Cornwall New Energy would like to thank the following businesses which have facilitated the production of this piece of work, which is designed to assist any business on the Isles of Scilly in benefitting from the BEES grant.

Bennett Boat Yard

Bryher,
Isles of Scilly

Carn Ithen

Trench Lane,
Old Town,
St Mary's,
Isles of Scilly

Dibble and Grub

The Old Fire Station,
Porthcressa Beach,
St Mary's,
Isles of Scilly

The Paper Shop (CJ Mumford)

Hugh Street,
St Mary's,
Isles of Scilly

The Turks Head

The Quay,
Saint Agnes,
Isles of Scilly

Veronica Farm Cottages

Bryher,
Isles of Scilly



HM Government



European Union
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Development Fund



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ISLES OF SCILLY
LOCAL ENTERPRISE PARTNERSHIP

CORNWALL
NEW ENERGY