



YES 1-Your Energy Saving Conference

April 2 2022

Solar Energy – The Beehive case study

Andy Extance

Director

Exeter Community Energy

Twitter: @ECOEtalk/@andyextance Facebook: ExeterCommunityEnergy

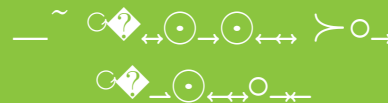
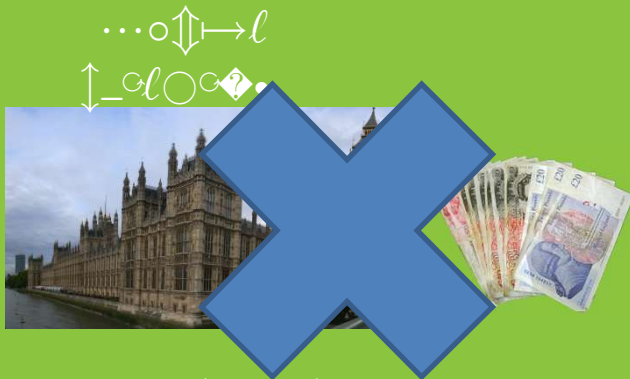
LinkedIn: Exeter Community Energy email andy@ecoe.org.uk



How can solar power help?

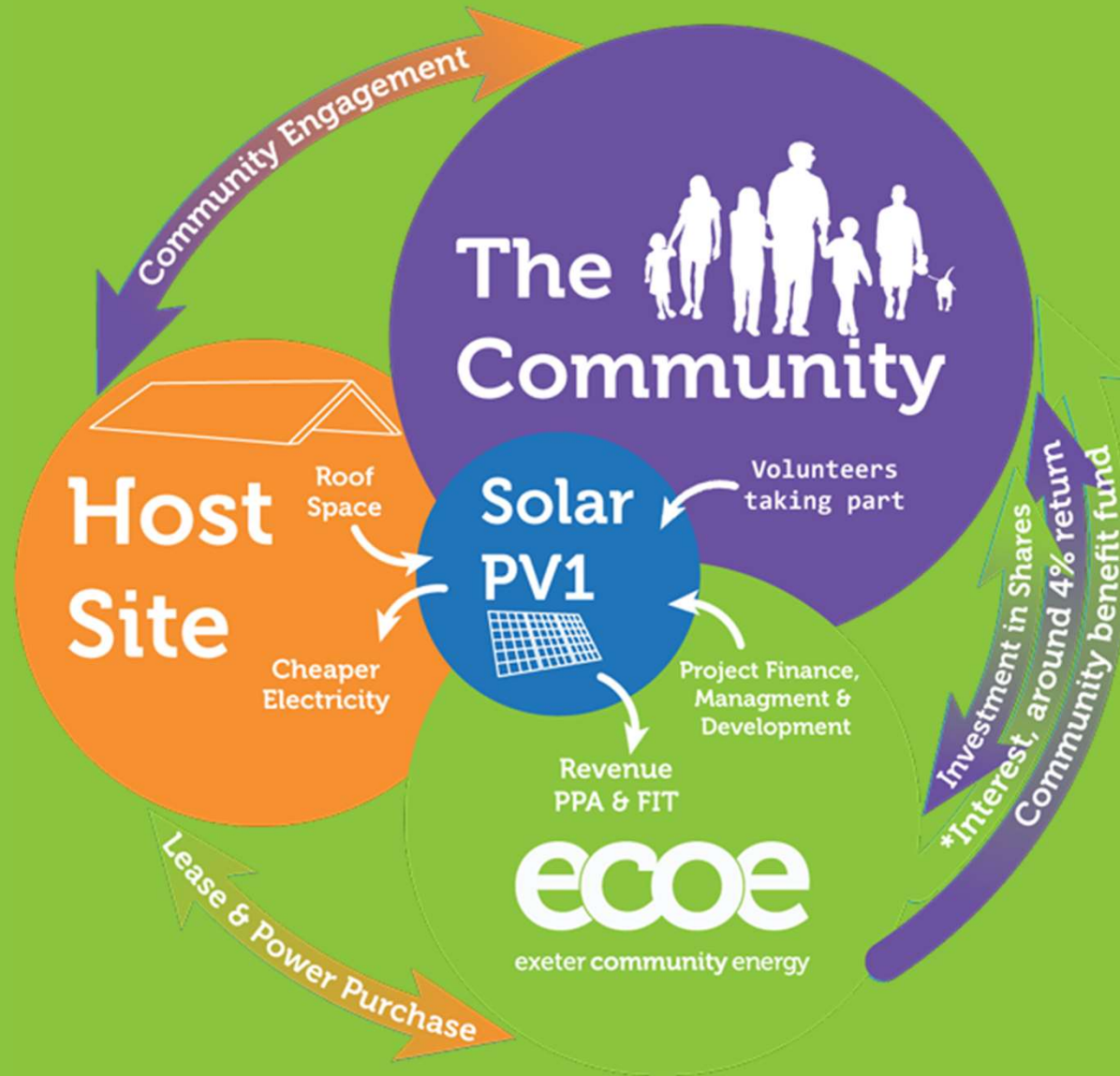
- Solar panels are the opposite of LEDs, turning light into electricity
- Producing solar panels requires just 4% of the energy they will generate in their lifetime
- However they only work during daylight hours
 - Best suited for powering businesses with daytime energy consumption
 - Potential to combine with batteries, but that adds cost
 - Eco-aware home-owners may be better off with green energy tariff rather than solar panels

ecoe What is community energy?





What is community energy?





Exeter Community Energy

- Raised £400,000 from a community share offer in under three weeks in autumn 2015 and then a further £144,500 in loans.
- Ten solar sites around Devon offering peak capacity of 484kW now operational
- Total generation across all sites for 2020 was 380MWh, the equivalent of electricity provision for 95 homes for a year.
- Total carbon saving from solar PV in 2020 was 88 tonnes
- ECOE's total carbon saving resulting from solar PV since 2016 are 363 tonnes, equal to Heathrow-New York return flights for 563 people.





The Beehive Installation

- Difficulty from Honiton Community Complex's 10 year lease
- Last minute weight limitation challenge
- Therefore last site to be completed in ECOE's Solar PV1 round of installations before subsidies fell in 2016
- The Beehive generated 26MWh in 2020, saving six tonnes of carbon.





ECOE's Community Fund

- To date ECOE has made £21,525 available through community fund grants
- Recipients include TRIP Community Transport Association in Honiton
 - In 2021, £1,000 went towards a deposit for an electric vehicle
 - In 2020, £500 went to staffing costs and equipment. They said:
 - 'The grant from ECOE could not have come at a more important time from TRIP. The money has helped us keep the 'doors open' and help the Community during the current pandemic. The money was invaluable in helping towards supporting over 400 community support requests. Thank you!'
- Anticipate total will exceed £150,000 over the solar installations' lifetimes.



New solar projects

- Key challenges for new ECOE projects:
 - Community energy groups previously had strong government support, but that has reduced
 - Under austerity many grants have been cut, so where can we get funding for additional resource from?
 - Large reliance on voluntary resource makes time commitment difficult
 - Difficult legal process of getting approvals when required

The Beacon Community Centre

- Popular location in central Exeter, with nursery, uses electric water heating
- 30kW installation



Westbank Healthy Living Centre



- High energy consumption centre in Exeter with gym and own cafe
- 46kW installation



How can you get involved?

- ECOE is now looking at new installations in its Solar PV4 project
 - New subsidy-free projects around Devon
 - Hoping to launch new share offering in 2022 – public can invest at good rate
 - We welcome volunteers to help support project development
- Help with ECOE's ongoing activities
 - Volunteer support always welcome
 - Sign up for the ECOE newsletter/follow on social media



In summary

Community energy is a real way to get involved in solving the climate problem

But power generation is only a small part of the puzzle

Twitter: @ECOEtalk/@andyextance

Facebook: ExeterCommunityEnergy

LinkedIn: Exeter Community Energy

Email andy@ecoe.org.uk