Solar Canopy Car Parks: local energy solutions

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November 2025

On behalf of:

Grand Union Community Energy

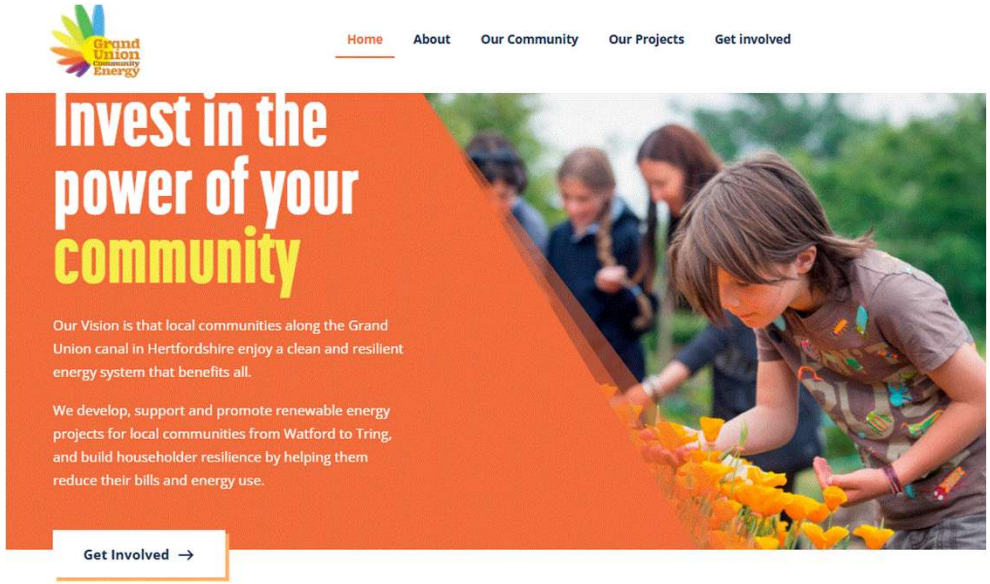
THREE RIVERS DISTRICT COUNCIL

Agenda

1. Who is GUCE
2. Solar canopies on Three Rivers Car Parks
3. Getting involved

Grand Union Community Energy (GUCE)

- Community Benefit Society 2012
- Volunteer Board
- South West Herts
- 40 members
- Community benefit driven
- TRDC partner on Solar Canopy project



Solar canopy car parks across the UK

North Norfolk District Council /
Reef Leisure Centre

Northumberland County Council

Cornwall Council,
New County Hall

Work to date

2019	TRDC declare a climate emergency and set a net zero target of 2030 (council)/ 2045 (district).
2019	Assessment of net zero trajectory identifies that 800KW of additional solar PV is required.
2020	TRDC does not have enough available roof space or greenspace for rooftop solar or a solar farm of that magnitude. Solar canopies in council-owned car parks is a potential solution to that challenge.
2024	220KW solar PV system installed on William Penn Leisure Centre.
2024	£40k award from Community Energy Fund to test feasibility of solar canopies in 7 car parks.
2024	Identifies Rose Garden, William Penn and South Oxhey Leisure Centre car parks as best locations.
2025	Procurement completed for 47.70KW additional rooftop solar PV at Three Rivers House.
2025	Procurement underway for ~140KW additional rooftop PV at South Oxhey Leisure Centre.

What's happening now

- March 2025 - TRDC was awarded £75k grant from the Investment Readiness Service (IRS) of the Greater South East Net Zero Hub (GSENZH).
- Funds used for further assessment of potential solar canopy installations at:
    - William Penn and South Oxhey leisure centre car parks
    - the Rose Garden car park
- This will develop:
    - evaluation of the financial viability of the locations
    - business cases to enable the council to make informed decisions
- A public consultation is underway to gain feedback on:
    - whether or not solar canopies are a good idea on the council car parks
    - and if so – which of the provisional designs are preferred

Community Engagement

Drop in sessions:

Three Rivers House: 14th October 12-1.30pm and 5.30-7.30pm

William Penn Leisure Centre: 18th October 10-12noon

South Oxhey Leisure Centre: 21st October 11am-1pm

Presentations:

Oxhey Library: 7th November 945am-11.15am

Waterways Education Centre: 11th November 7-8.30pm

Online 12th November 7-8pm

Canopy Structure Option 1
SIG Canopy Structures

Prioritises a minimal structural footprint.

Its double post configuration offers a stable and balanced structure.

This makes it a more cost-effective option rather than a single post design.

Canopy Structure Option 2
Bluetop Canopy

Features a single-post cantilever structure with a single ground contact point.

This configuration maximises usable parking space by reducing obstructions, making vehicle access and manoeuvring easier while minimising the risk of damage to both vehicles and the structures.

Canopy Structure Option 3
Solfit Canopy

Can support a much larger-scale PV system by spanning the entire car park with a continuous canopy.

The smaller-footprint posts minimise disruption to parking layouts.

PV panels form a watertight cover – providing both energy generation and all weather protection across the full parking area.

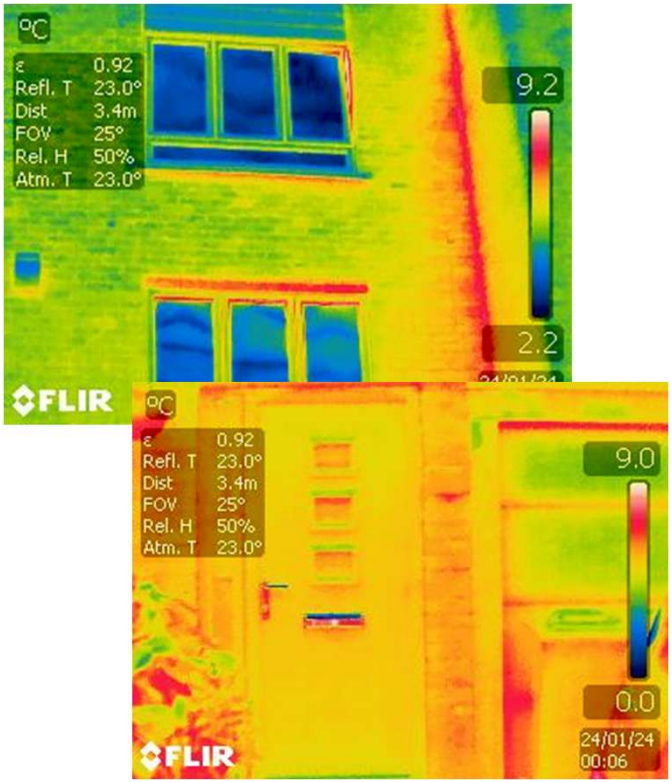
Next steps

- **Q4 2025**: Produce a business case and report summarising the findings of financial analysis and community engagement sessions.
- **Q1 2026**: The business case and report will be published on the TRDC website and scrutinised by the Climate Change, Leisure and Housing Committee.
- **TBC 2026**: If approved - the business case/report will progress to the Policy & Resources Committee and potentially a full council vote.

Questions

Power Down: Sustainable Streets

- Award winning programme
- Community connection and engagement
- Seven workshops - Six key topics:
  - Energy
  - Water
  - Food
  - Resources
  - Travel
  - Nature
- Any type of group



Thank you

Website: http://guce.org.uk
Facebook : @GUCELTD
Instagram: @GUCE_UK

Outcome from the initial feasibility test

Site	South Oxhey LC	William Penn LC	Rose Garden
Annual Generation (MWh)	134.7	421.1	180.9
No. Panels	318	972	456
Local Consumption (% Generation)	93.8%	41.0%	89.0%
Self-Sufficiency (% demand met)	23.1%	19.7%	22.9%
Carbon Savings (lifetime, tCO_2e)	815	2,548	1,095
Indicative Capital Cost (£)	£287,868	£923,167	£407,410
Breakeven Year	9	14	10

Images of solar canopies security lighting

Power Down: Energy Champions

- Home Visits and Group Presentations
- Up to date grant information
- Answer fuel bill questions
- Heating setting and programming
- Information on decarbonising and retrofitting