



Dr Sally Murrall-Smith
TRESOC Managing Director



Energy Local Totnes



Trials & Tribulations Time Line

April 2022 – Seed funding for £25,000.00 from Devon County Council (Team Devon's COVID -19 Economic Recovery and Business Prospectus Funding).

September 2023 – TRESOC awarded Redress Energy Innovation Scheme grant for £120,000, to develop the club in the domestic market for 2 years.

September 2023 – 100Green announced they were not taking on any more customers until January 2024.

January 2024 – 100Green accepting new customers, but had changed accounting software over Christmas and now had IT problems.

March 2024 – 100Green announce they were ready to start the club

March 2024 – 15kW original solar generator pulls out

April 2024 – 300kW Hydro Generator signs up - phew

October 2024 – Hydro starts supplying Energy Local Totnes.



Energy Local
Totnes





Totnes Weir Hydro 300kW on the River Dart

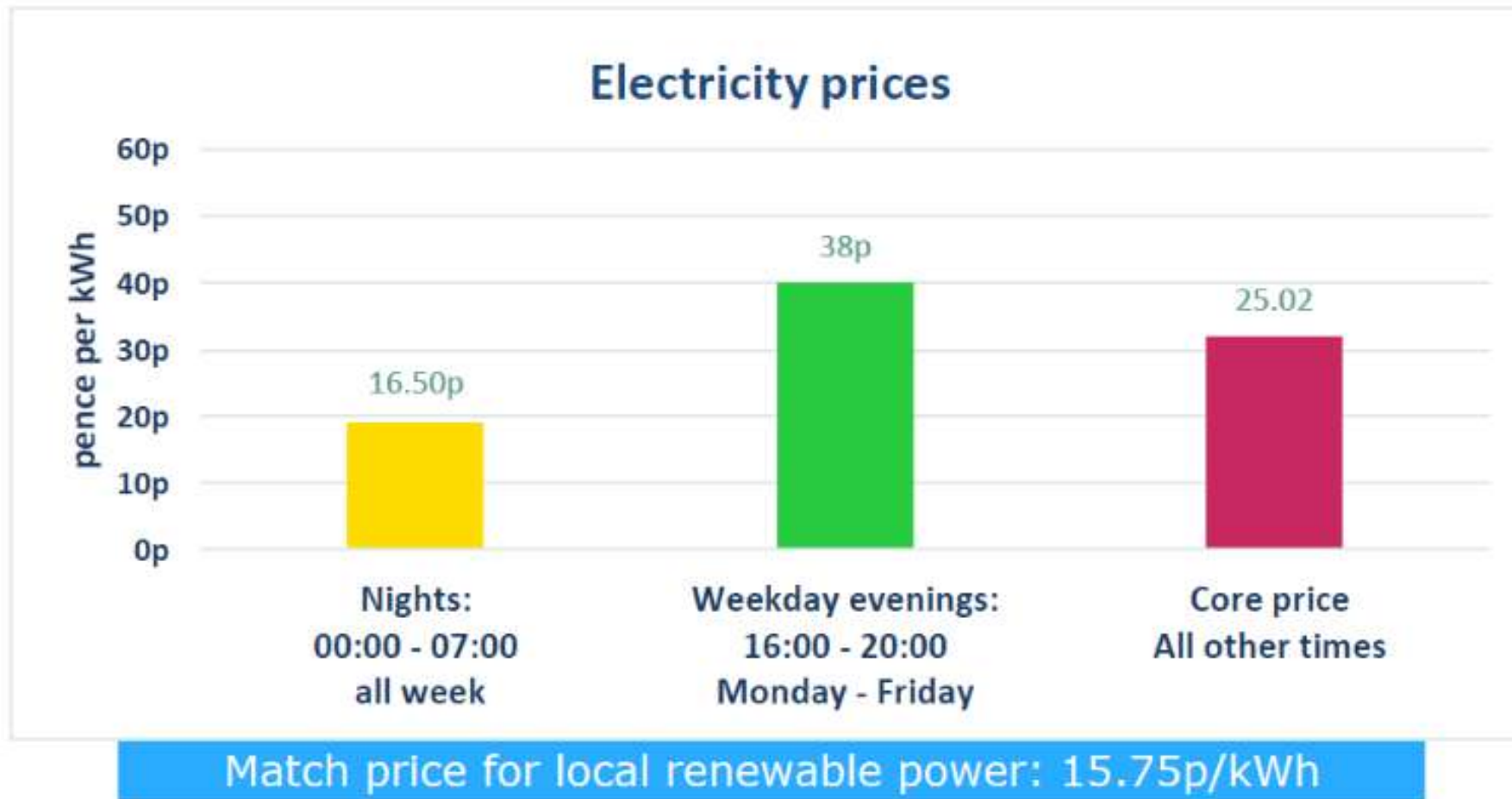


Devon
County Council

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ELT - Pricing

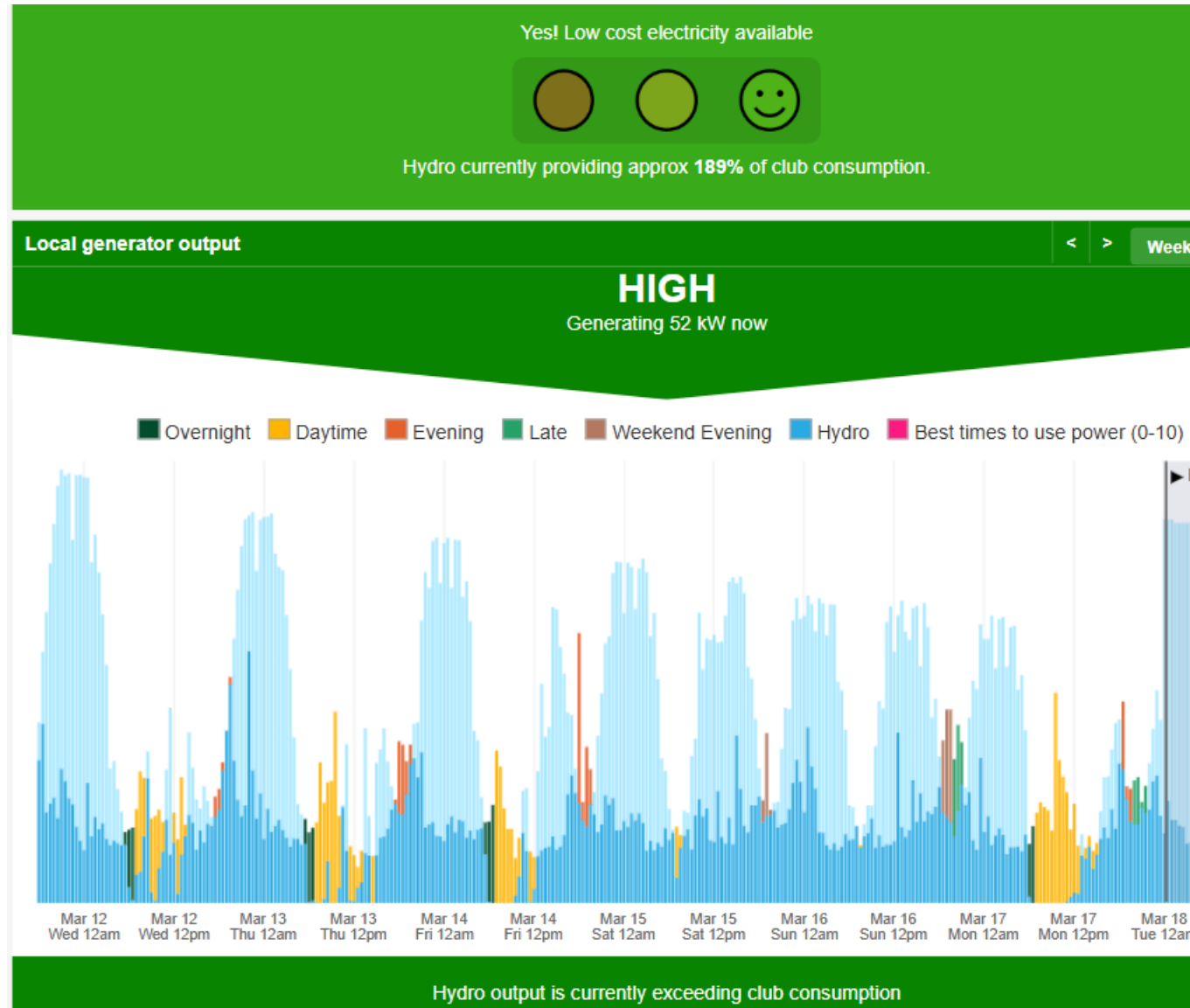


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- When there is no local renewable electricity available in the club, members will revert to 100 Green Time of Use Tariff
- Standing charge is 65p/Day inc VAT
- Annual Club Membership £10

ELT - Dashboard



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- Blue is hydro – dark blue is club consumption. Light blue is excess, ie unused by the club
- Other colours are TOUT
- When there is no local hydro available in the club, members will revert to 100 Green Time of Use Tariff
- Tidal influence, creates 12-hour cycle

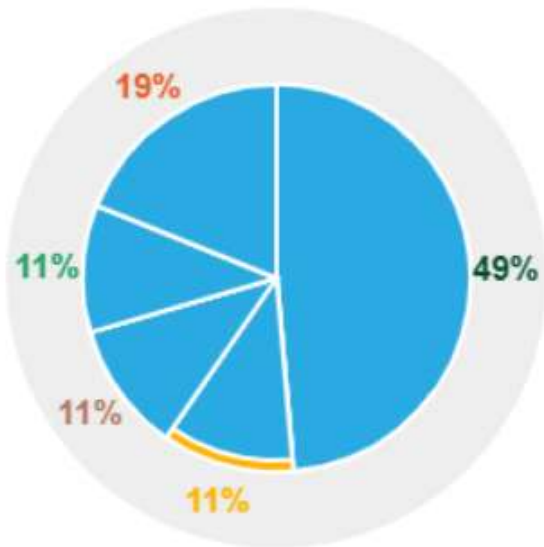
My Energy Use



This means that 99% of your electricity came from hydro

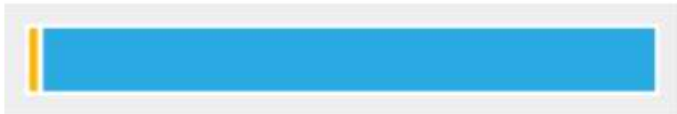
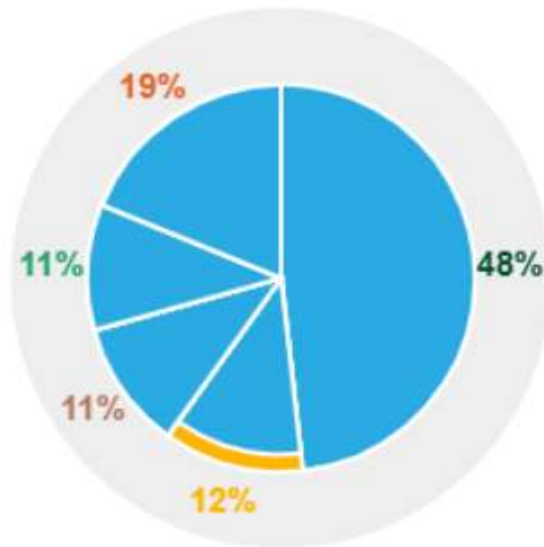
ELECTRICITY

449.18 kWh



COST

£67.95



SAVING

£39.09

- Hydro**
442.92 kWh @15.00 p/kWh
Costing £66.44
- Overnight**
0.26 kWh @15.6 p/kWh
Costing £0.04
- Daytime**
5.73 kWh @23.8 p/kWh
Costing £1.37
- Weekend Evening**
0.00 kWh
Costing £0.00
- Late**
0.00 kWh
Costing £0.00
- Evening**
0.27 kWh @36.1 p/kWh
Costing £0.10

Average Price:
15.1 p/kWh

Growing the Club

- The amount of generation dictates the number of customers
- 300kW Hyro generation = 140 domestic customers
- Redress Target – 400kW Generation, including 25% new install and 20 domestic households with solar PV – balanced by 200 customers
- Solar pipeline –
 - 12kW pv from domestic property in Harberton
 - Harrisons Garage 30kW Array,
 - Totnes Library 25kW (new install)
 - Dart Marine Buildings on Steamer Quay 100 kW (new install) CEF Grant
 - St Mary's Church 12 kW (new install)
- Hydro and solar annual generation profiles compliment each other well.



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Energy Saving Trust- Redress Grant

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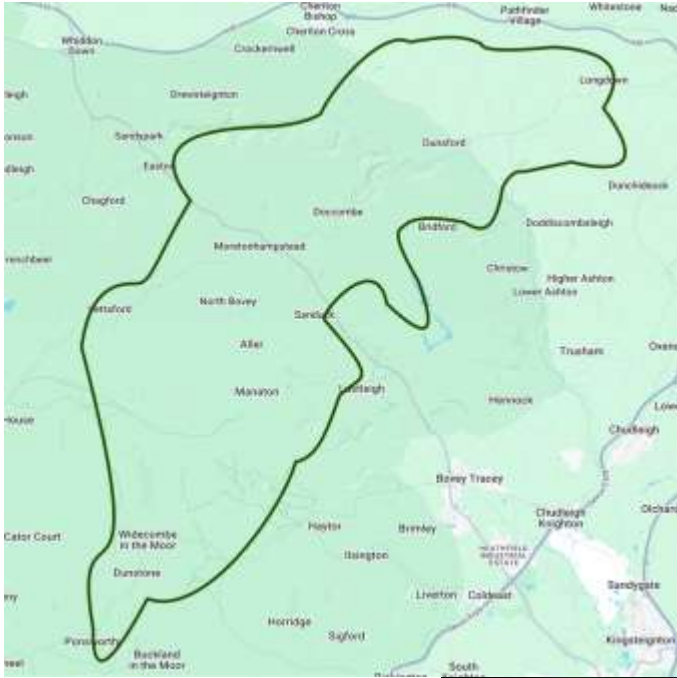
- To save households members between 10 to 30% off their energy bills and to reduce their carbon emissions by a target of 30%.
- To engage all 200 household members in workshop on energy consumption reduction and demand shifting to maximised the use of local renewable electricity.
- To evaluate the financial, environmental and social viability of a local renewable energy market, using the Energy Local Plus model (EL+).

Directed by Professor Ian Bailey, University of Plymouth



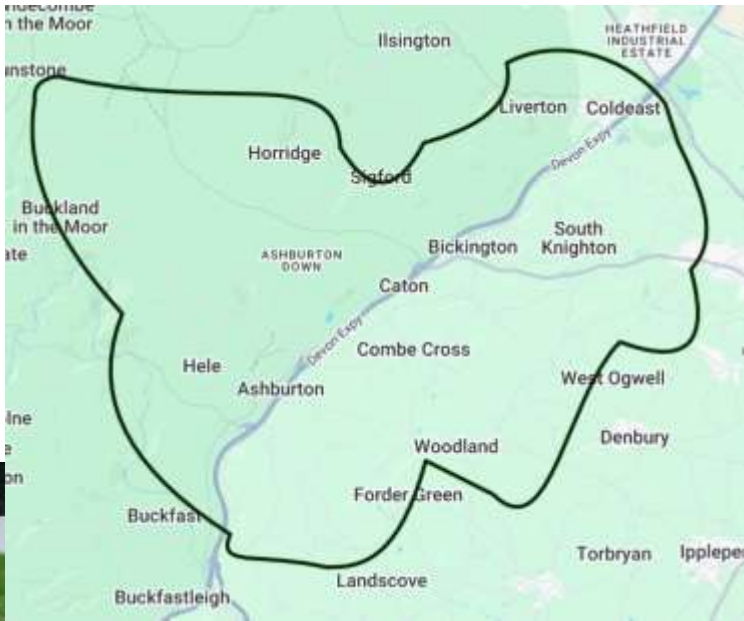
Energy Local
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Energy Local Moretonhampstead

100kW Hydro



Energy Local Ashburton

100kW
Roof Top
Solar PV



Questions and Comments

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Energy Local
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Sally.murrall-smith@tresoc.co.uk



Energy Saving Trust- Redress Grant

- To share the Energy Local Plus model with other GB wide community energy organisations through knowledge dissemination via improving the Energy Local website and materials, 4-minute mpeg, case study pdf, events and workshops.
- To replicate the model, by training 10 more Energy Local advisors and establishing, to operation and including incorporation, 2 new EL clubs (in addition to ELT).
- To engage the next generation in community-scale energy through pre-school and primary school renewable energy education programmes.
- To examine the potential for EL+ clubs to provide additional income streams for people on low incomes who have had solar-pv installed as part of the ECO Grant scheme.
- Work with National Grid Distribution to balance local supply and demand and reduce network upgrades.



Dart Marine Buildings

- 125kW across 4 roofs
- Capital raised through a community share-offer = community owned
- Grant to provide legal, economic, technical studies and administration of the share-offer
- CEF Stage 2 grant – deadline 14th Jan
 - Heads of terms letter from Council to lease the roofs
 - Technical appraisals of all buildings
 - System model of all buildings
 - DNO connection request
 - Access to tenants HH Data for modelling and to gauge interest

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Totnes Weir Hydro 300kW plant, on the
River Dart, Totnes

2 x 150 kW Archimedes Screw

Installed 2015