



Community Energy

Tim Katz – OVESCO Energy Champion





Photovoltaic Panels (PV) on your roof

Tim Katz

16th November 2024

OVESCO Vision



Our vision is for a future in which 100% of our energy needs are generated locally from renewable sources. We can do this by sourcing our *supply* from renewable sources and reducing our *demand*



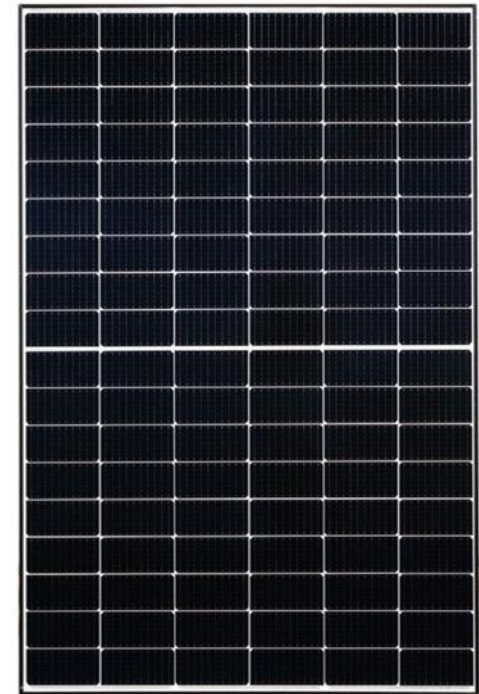
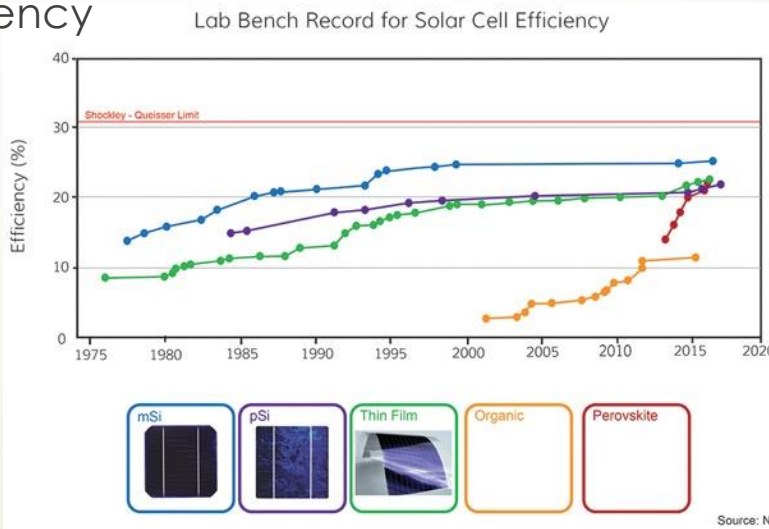
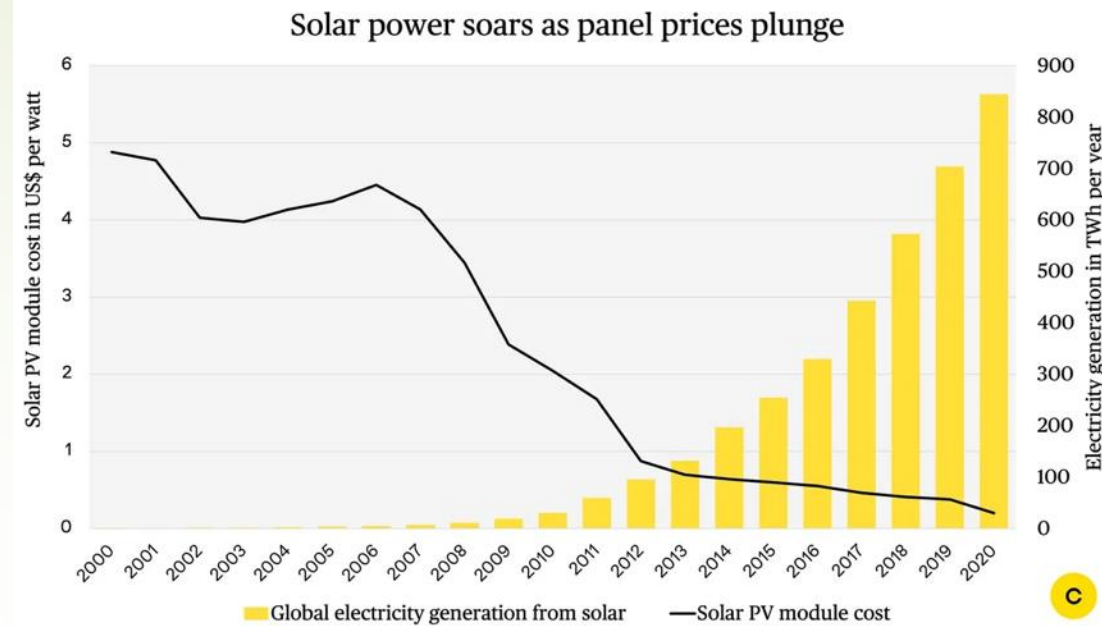
What do we do?

- OVESCO is an Ouse Valley Climate Action Partner
- Energy Advice at Lewes Climate Hub based in Lewes House
- Home visits and out in the community
 - Free advice to homeowners and tenants
 - Advice on energy bills and tariffs
 - Signposting to grants and support services
- Do interrupt me, please!



A Bit of History

- Tariff incentives
 - Panels on roofs from ~ 2009 with FiT
 - FiT reduced until 2019: stopped!
 - No need! – Ubiquitous, now
- Technology
 - Panel efficiency
 - Inverters
 - Batteries



What is it?

- ▶ Panels and array
 - ▶ Semiconductor slabs – absorb solar energy
 - ▶ Panel has many slabs – shading problems
 - ▶ Frame to securely attach to your roof
- ▶ Interconnect
 - ▶ Within / between panels
 - ▶ DC output to an Inverter
 - ▶ AC to house (and meter?)
 - ▶ Synchronised to grid (50Hz AC)
 - ▶ WiFi link for monitor / control
 - ▶ Fuse upgrade (100A) UKPN for FREE!



System Install

Panel

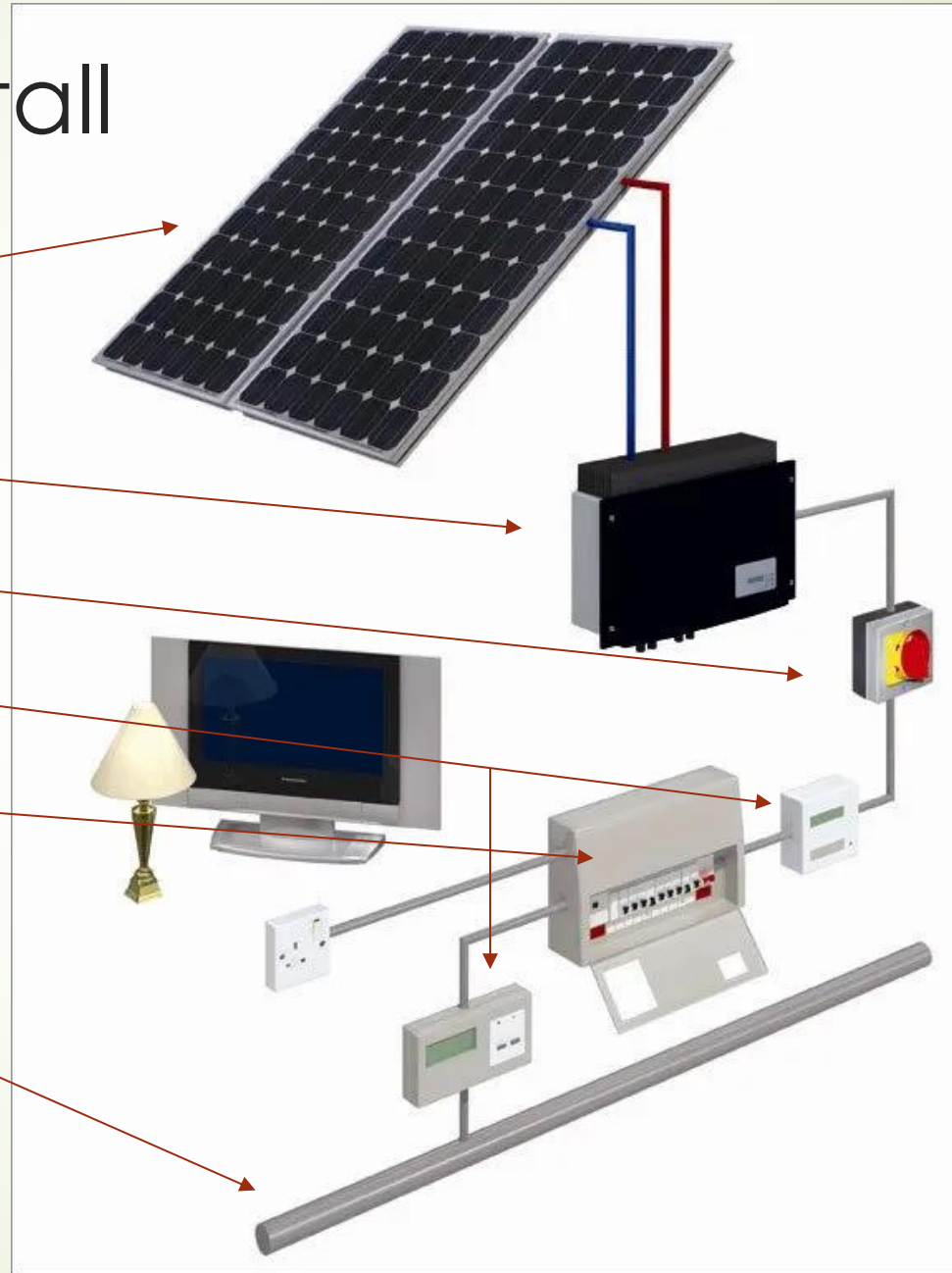
Inverter

Isolator

Metering

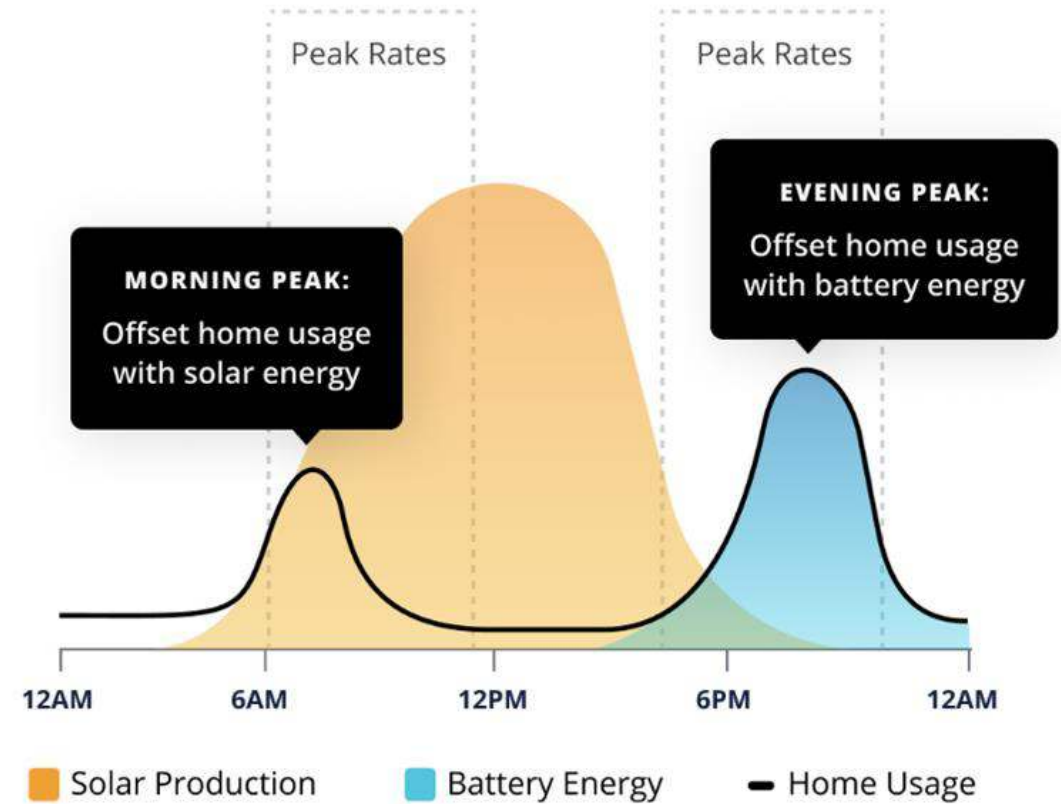
DCU

Grid



Why Do it?

- Save on Bills
 - Export Tariffs
 - (Time shift with Battery)
 - Payback?
- Carbon footprint
 - CO₂ Payback < 2 years
 - <https://www.moneysavingexpert.com/utilities/free-solar-panels/>
- Local resilience
 - National grid independence – can run own house (not straight forward)
- House investment
 - (+4% to 14%)



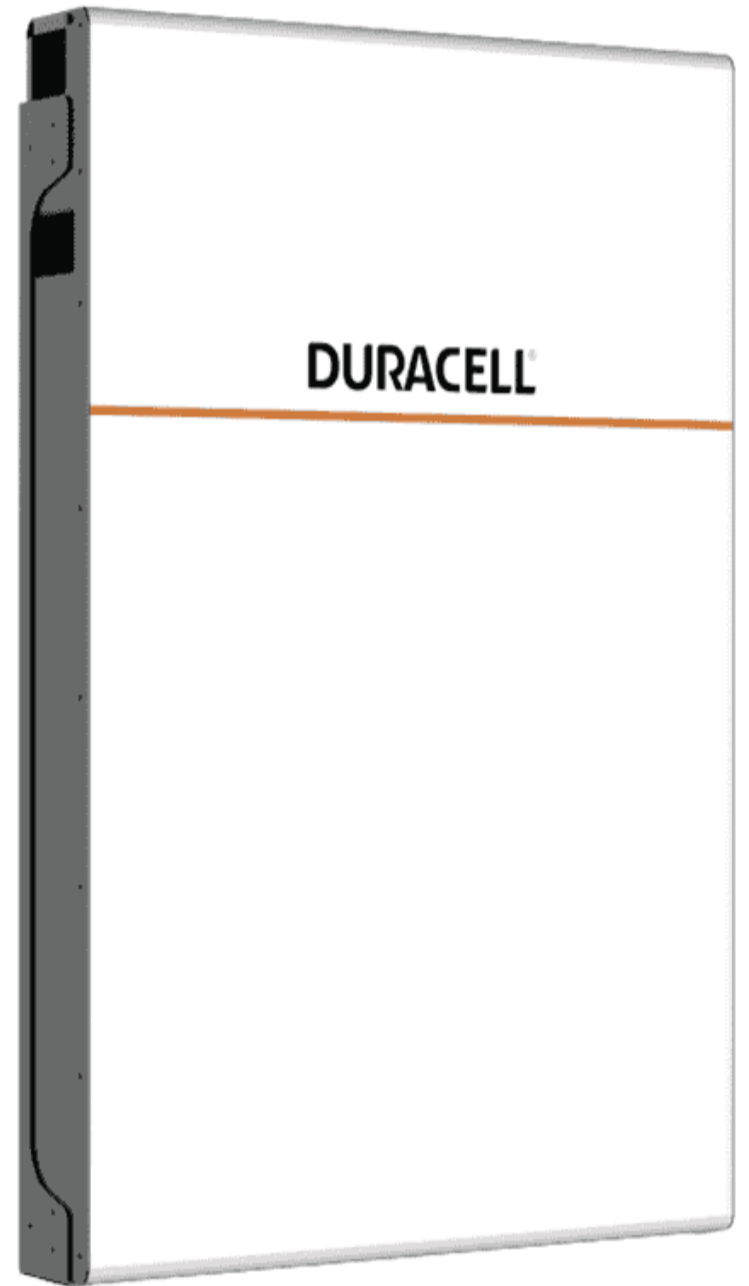
Things to Deal with...

- MCS Installer
- 100A Fuse – UKPN
- District Network Operator
 - Hierarchy diminishing
 - Coordination requirements for locality / regional Network
 - Over 6kWp needs special permission
- Conservation area / planning permissions
 - “Talk to me” (conservation officer quote)
 - Temporary structures! What’s the problem?



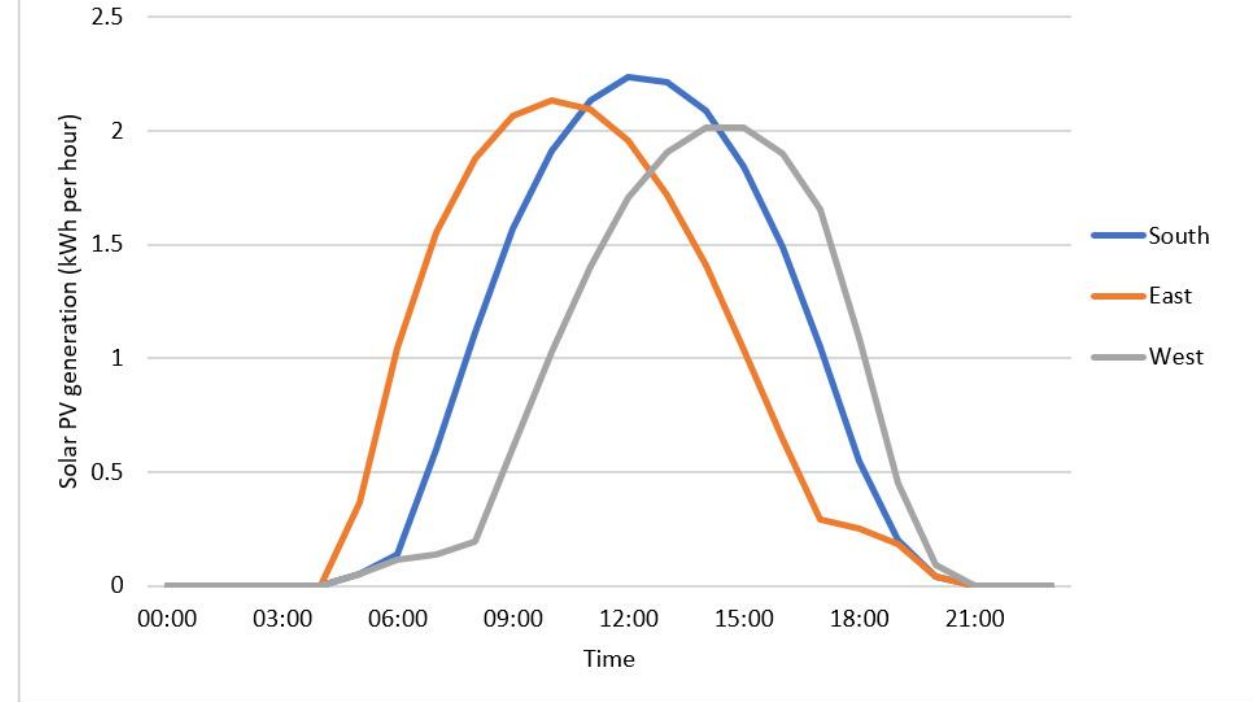
Any Enhancements?

- ▶ Battery + hybrid inverter
 - ▶ Strings to battery (DC) to grid (AC)
 - ▶ Repurposed EV battery
 - ▶ Home assistant (ITTT)
- ▶ Vehicle to house / Grid etc.
 - ▶ Large energy store
 - ▶ “mobile” battery – transport or Home
- ▶ Big generator: >> 6kWp
 - ▶ May need 3-phase grid link (£ ouch!)



Other things...

- ▶ Orientation
 - ▶ South or East / West?
- ▶ Synergy
 - ▶ Add battery (see previous)
 - ▶ Add EV and charger
 - ▶ Use with Air or Ground Source HP
 - ▶ Get rid of gas (and standing charge!)
 - ▶ Big battery or decent tariff required
- ▶ Tariffs
 - ▶ Consistency
 - ▶ Access to better electricity tariffs
 - ▶ Special offers – temporary?



Any Questions?

- ▶ Do try us now...
- ▶ Talk to someone after
 - ▶ Directly after
 - ▶ 11.00 – 15.00 Wednesday – Friday,
 - ▶ @ Climate / Energy Hub, Lewes House

▶ Thank You!

▶ energyadvice@ovesco.co.uk

