Energy Local Bridport

## Wessex Community Energy Network
## 2nd November 2022

# COMMUNITY-BASED LOCAL ELECTRICITY TRADING USING THE EXISTING GRID

**Pete West**
**Secretary, Energy Local Bridport**


# Energy Local Bridport launch January 2020

Energy Local
Bridport

**Existing 50 kW wind turbine owned by a local farmer currently supplies 40 households in the town of Bridport with lower cost renewable electricity through a partnership with Octopus Energy**

# 'Windy Pete' keeps the village lights on

A retired engineer has become the first person in England to supply renewable energy to the local community through his own wind turbine (Laurence Sleator writes).

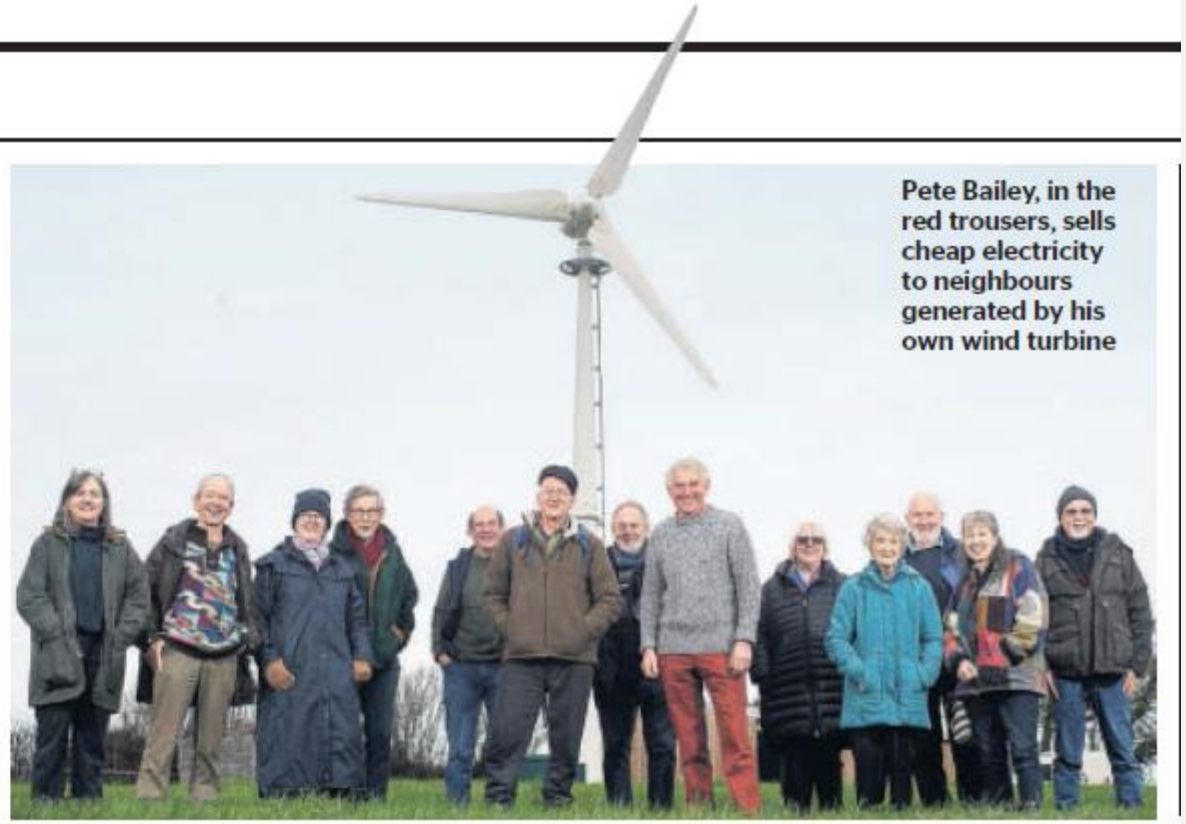
Pete Bailey, 69 — or Windy Pete to his neighbours — provides 17 houses in Bridport, Dorset, with clean energy from a 50kW generator on his land.

Residents can purchase enough wind energy to cover half of their total electrical needs through a community scheme that helps to distribute the power. The cheaper energy supply, which saves locals up to £60 a year, has proved so popular that a waiting list has formed. The scheme aims to expand to more than 50 homes in the spring.

"To be able to supply local people not only makes sense environmentally but economically too," Bailey said.

Having installed the 80ft-tall turbine ten years ago, Bailey first sold his energy to utility providers. When this proved financially unsustainable he offered it instead to the community, where he could make about 50 per cent more. "I was going to have had to dismantle the turbine," he said. "Now, by getting more money for the energy I'm generating, I can keep it for the future."

The scheme is run by



Pete Bailey, in the red trousers, sells cheap electricity to neighbours generated by his own wind turbine

Irelan

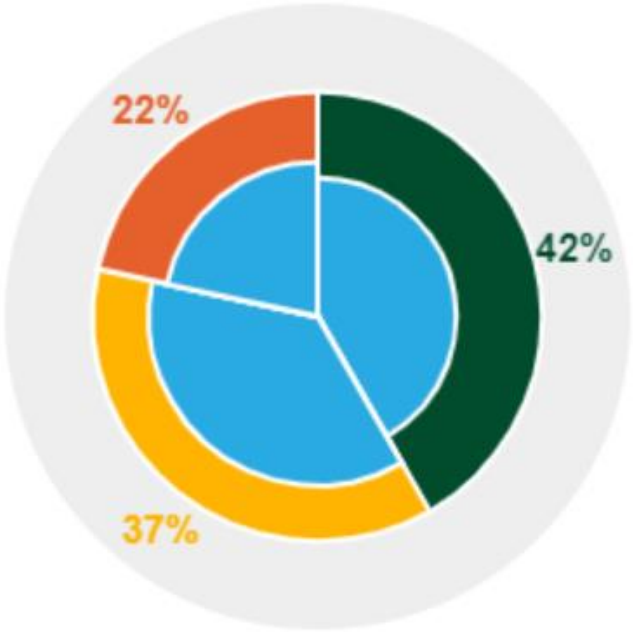
**National press publicity January 2022**

**Annual electricity consumption of an Energy Local Bridport member with 3kW of solar PV on their roof and an electric car driven 6,000 miles per year**

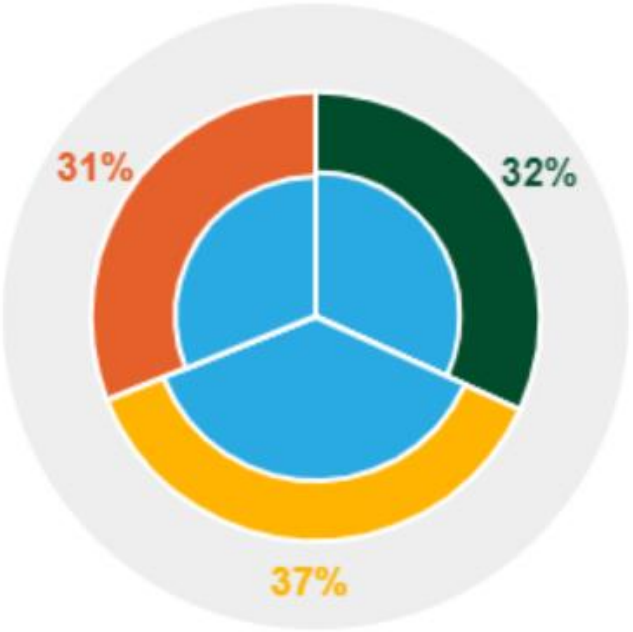
## Club breakdown

Year

### ELECTRICITY
66995.47 kWh




### COST
£9252.45




### SAVING
£1158.65

**Wind**
31342.41 kWh @13.27 p/kWh
Costing £4158.86

**Overnight**
17319 kWh @10.0 p/kWh
Costing £1731.87

**Daytime**
10690 kWh @15.0 p/kWh
Costing £1603.47

**Evening**
7645 kWh @23.0 p/kWh
Costing £1758.26

**Average Price:**
13.8 p/kWh

**Annual electricity saving averages 12% per member compared to 2021 grid electricity cost**

**BBC Wales news feature 18th October 2022**

**Energy Local Bethesda (launched in 2018 – currently 140 members)**

# Cost of living: Bethesda hydro scheme cuts electricity bills by 25%

18 October

**Residents such as Gareth Cemlyn Jones are helping to generate their own power**

Energy Local
Bridport

**250 kW of community- financed solar panels is planned to supply an additional 200 households with lower-cost renewable electricity**

European Commission

# EU Renewable Energy Directive REDII

## *Article 22* Renewable energy communities

**What energy communities can do:**

1. By the end of 2021 Member States shall ensure that renewable energy communities are entitled to:

a) **produce, consume, store and sell renewable energy**, including through renewable **power purchase agreements**;

b) **share, within the renewable energy community**, renewable energy that is produced by the production units owned by that renewable energy community.

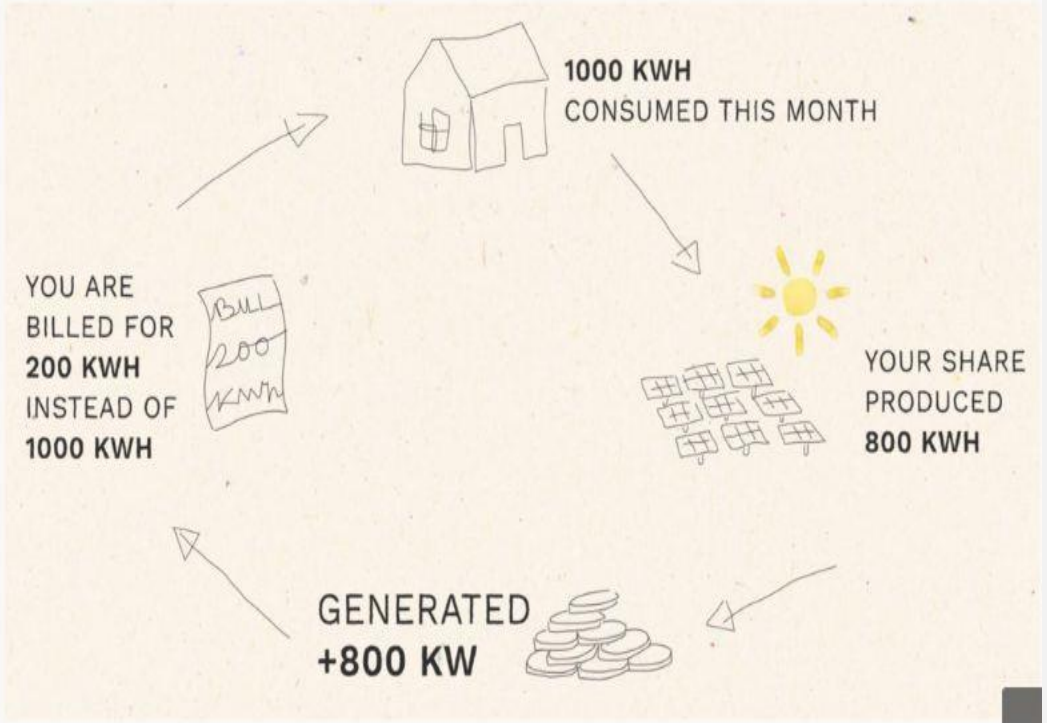
# ELECTRA Energy Co-operative: HYPERION Energy Community in Athens, Greece
# Proposed 180kW ground mounted solar PV to supply consumers 4 km distant

## How community solar works?

A community solar farm is a collectively owned photovoltaic plant distributing electricity to multiple users.

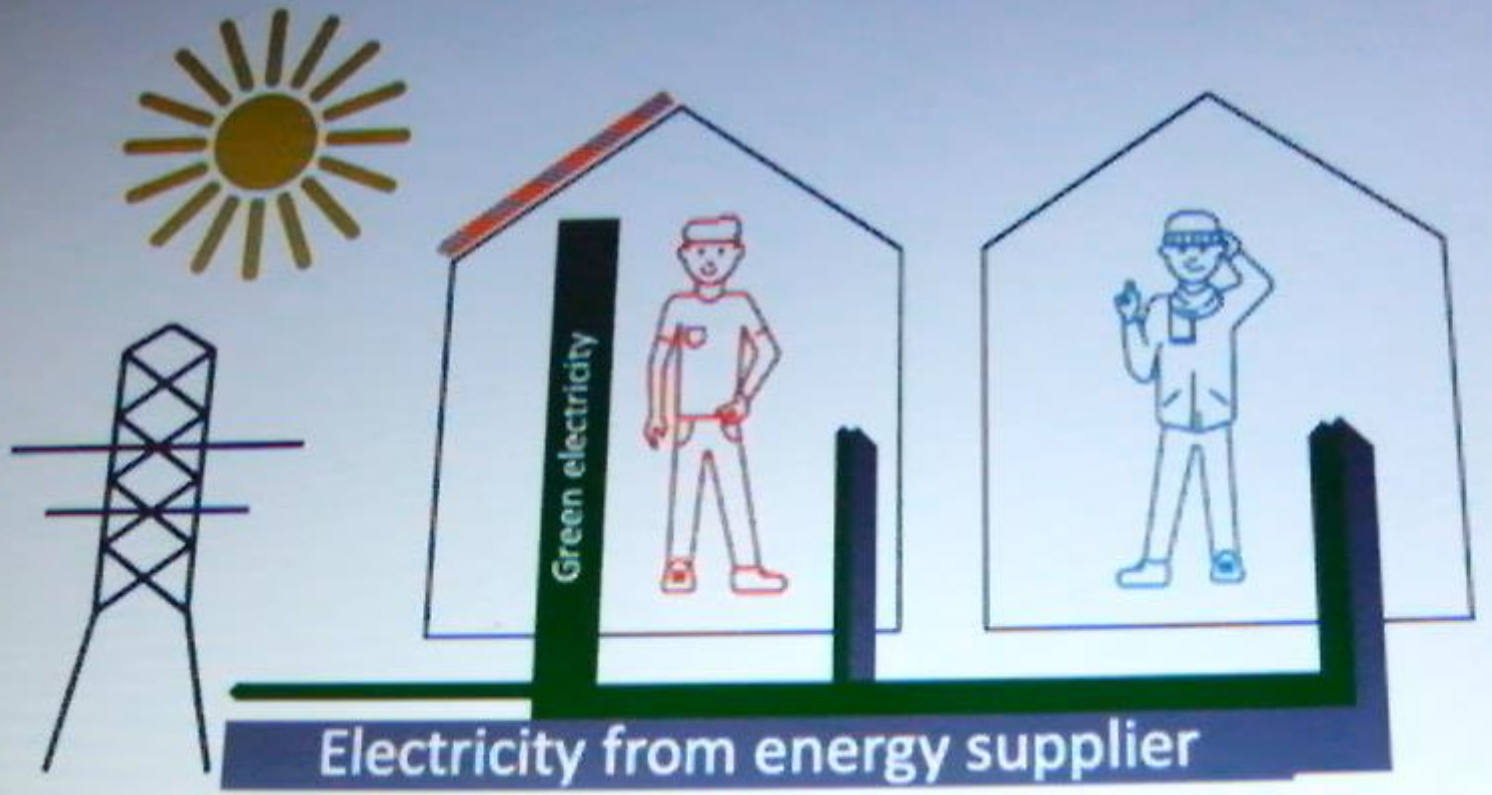
The users are becoming self-producers (prosumers) and co-owners of the solar farm by joining HYPERION Energy Community as members. By becoming members, they are also purchasing cooperative shares and through them a portion of the annual power production of the plant.

The annual energy that is generated by the farm is credited to the member's electricity bill, in proportion to his/her investment and shares (Virtual Net Metering).



PowerZone: Idea

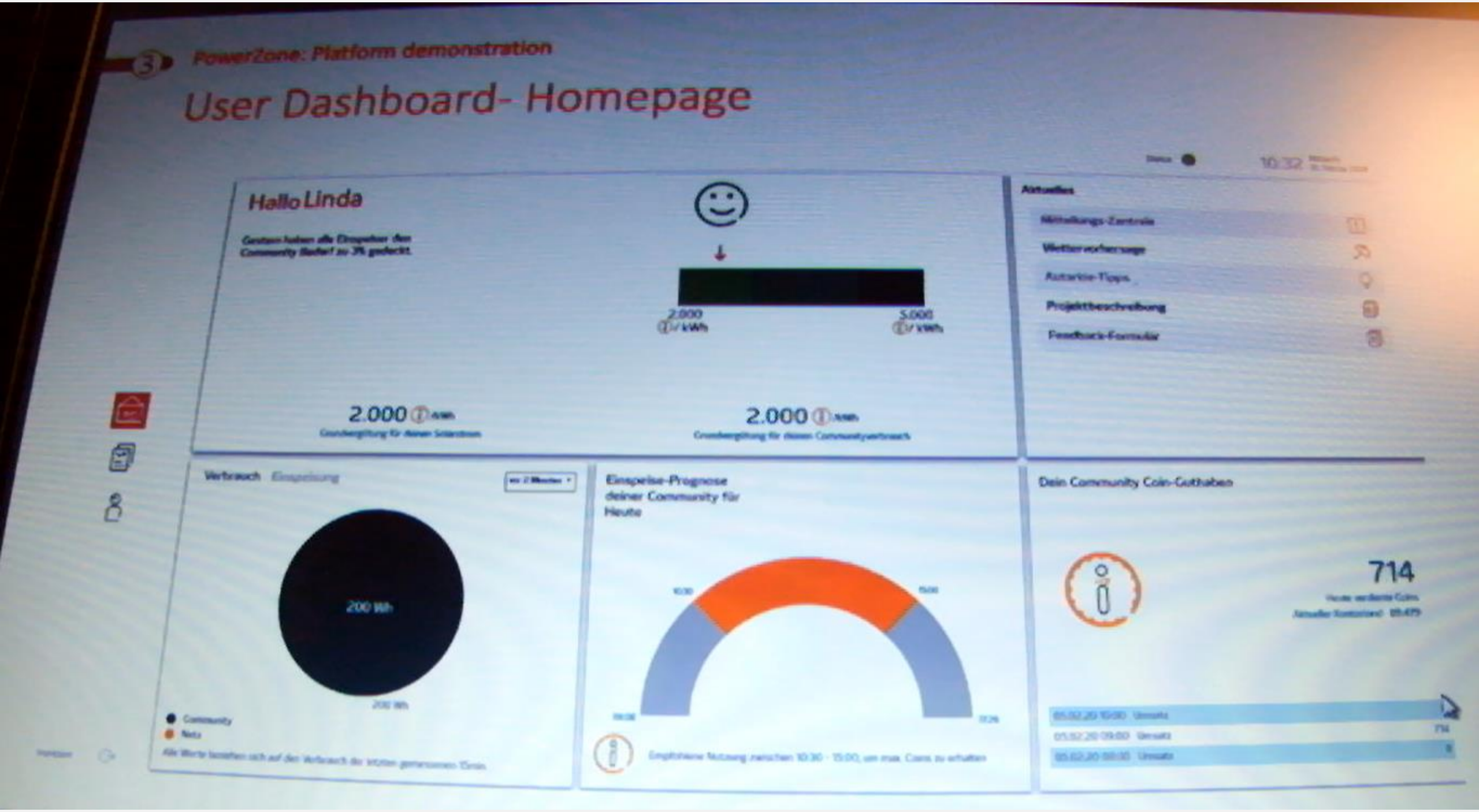
# Our idea for tomorrow's energy supply




Regional self-sufficiency:
Consume valuable, regional green electricity where it is generated!

3 PowerZone: Platform demonstration

# User Dashboard- Homepage



E.ON Innovation project PowerZone, for example, is one easy-to-understand example, whereby whole neighbourhoods within a four-kilometre radius are connected. Local 'prosumers' (consumers who also produce energy through solar panels, for example) share their power with their neighbourhood and the main grid.

There are exciting permutations to consider too. In the future, smart homes could connect to the local green energy supply to make sure that cars charge and dishwashers run automatically at times when there's a ready supply of local green energy with low demand.

By making the future of green energy communal, we would not only be able to create a more sustainable future but, just as importantly, also drive engagement and connection with the topic within communities and neighbourhoods.