

## Case Study:

# Plymouth Energy Community (PEC Renewables)

Community Shares | Council-backed | Schools & Public Buildings | Fuel Poverty



## Plymouth Community Energy raised money on Ethex to create a legacy which:

-  proved councils can use community finance at scale
-  showed solar can fund social programmes
-  created one of the UK's first city-wide community energy portfolios
-  became a blueprint for modern energy-equity partnerships

"Plymouth built **one of the UK's first** council-enabled, crowdfunded Net Zero delivery models with Ethex's crowd"

# £2.5M raised for City-wide community solar

3 offers over 3 years | over 600 investors

## Mission:

- Cut energy bills
- Fight fuel poverty
- Keep energy wealth in Plymouth



**Plymouth Energy Community (PEC)** and its delivery arm, **PEC Renewables**, were created in 2013 with the support of Plymouth City Council to tackle fuel poverty, reduce carbon emissions and keep energy spending circulating locally.

Tens of thousands of households in Plymouth were in fuel poverty, around one in four in some neighbourhoods, and so for example in one raise a solar scheme was required to make fuel poverty the purpose, not a by-product.

Through a pioneering blend of council-backed loans and a community share offer run on the positive impact investing platform Ethex, PEC Renewables built one of the UK's first city-scale portfolios of community-owned solar on schools and council buildings.

It turned sunlight into a long-term funding stream for social good and powered by individual investors.



# How did it work in action?

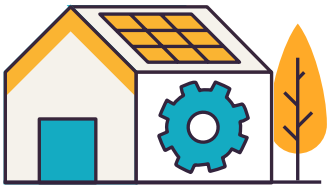
An integrated finance-to-impact system was set up.



## Step One: A civic anchor was created

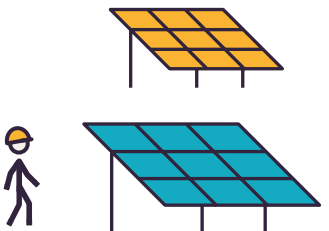
The council helped establish Plymouth Energy Community (PEC) – an independent not-for-profit cooperative with three goals:

- Reduce energy bills and fuel poverty
- Improve energy efficiency
- Generate green energy locally



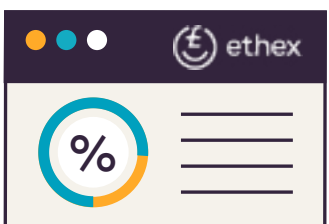
## Step Two: A delivery vehicle was required

PEC created a wholly owned special-purpose society PEC Renewables Ltd to own and operate solar installations on public and community buildings.



## Step Three: Council-backed catalytic capital was included

Plymouth City Council provided loan funding to PEC on patient, CPI-linked terms, with no repayments for 5 years, allowing projects to get built before investor returns were due.



## Step Four: People-powered investment kicks in

PEC Renewables then raised up to £2.5m through a series of community share offers on Ethex, giving local people and ethical investors ownership, returns and a vote.

# How the money flowed

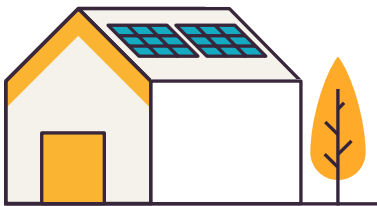
1. Council loan funded early development and installations



2. Community investors invest in PEC Renewables via Ethex



3. PEC Renewables installed solar on community and school buildings as well as a ground-mounted solar farm, also generating rental income for a local community trust



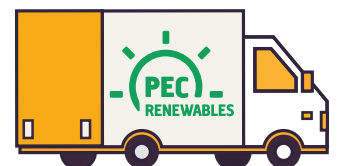
4. Buildings bought cheap solar power via long-term PPAs



5. Investors receive returns and surplus is flowed back to Plymouth Energy Community



6. PEC used this to fight fuel poverty, support community-led projects, and improve homes across the city



# The result?

**Over 30 community sites, a 4.1 MW solar farm, delivering clean energy, CO<sub>2</sub> savings, and ongoing social and environmental impact**

## **Over the three raises completed on Ethex the results were:**

- Over 5.6 MW of community-owned solar, saving around 8,921 tCO per year tangible financial, educational, and social benefits to Plymouth
- Proof of concept for successful community-driven renewable energy scaling from rooftop installations to large-scale solar farms
- Developed a model for a first-of-its-kind Local Authority virtual power purchase agreement with a community energy group.

## **And a further:**

- 15 MW in advanced pipeline
- 1.5 MW in development pipeline

## **What buildings received**

### **As a result of the raise on Ethex, host schools & council buildings received:**

- Solar power at around half the price of grid electricity
- No upfront cost
- 20-year PPAs
- Energy display screens for pupils
- Reduced carbon footprint
- Education resources linked to real-time energy data

## **What did investors get?**

### **Community investors could invest from £50 to £20,000 and received:**

- 6% target annual return for 20 years
- Capital returned over time
- One member, one vote
- Inheritance tax exemption
- A direct stake in tackling Plymouth's fuel poverty

## Why this matters for the community energy sector?

This model solved a number of problems at once:

Challenge councils face	What the Plymouth model delivered
Limited budget for solar	Solar installed using community investment – reducing pressure on council finances
Political and delivery risk	An independent community-owned model with strong local accountability
Need for public buy-in	Local residents became investors and owners, strengthening support and engagement
Pressure to deliver social value	Profits reinvested back into fuel-poverty work and community benefit

It was an early prototype of the Net Zero Delivery Vehicle, now being called for by the government. For further details, please refer to the **Plymouth Community Energy Impact Report 2025** at <https://plymouthenergycommunity.com/about/news/our-impact-2025>

## Ethex infrastructure

PEC Renewables used Ethex to:

- Run a community share offer
- Manage investor onboarding & payments
- Provide governance, registrar & reporting systems
- Make a complex civic finance model accessible to ordinary people

Ethex acted as the financial infrastructure and service layer between: council capital, community investors and public buildings.

**The result was city-scale deployment, and more than a single pilot.**

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Ethex  
The Old Music Hall  
106-108 Cowley Road  
Oxford OX4 1JE

01865 403 304  
[help@ethex.org.uk](mailto:help@ethex.org.uk)

[www.ethex.org.uk](http://www.ethex.org.uk)