Net Zero in Peril? The case for a new 'low carbon social contract' in the UK

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Key themes for today

- Net Zero represents an opportunity to regenerate our communities; reduce energy, housing and transport costs; and build social cohesion and greater prosperity
- However, most people in the UK have felt their living standards worsen for over a decade
- Far right parties are capitalising on this discontent, and are blaming decarbonisation and broader progressive agendas for this malaise
- The mainstream low carbon policy regime is failing to address the material concerns of low- and middle-income communities, through an over reliance on private ownership, market mechanisms and individual choice as the driver of change
- I will argue that, without a course correction towards a new 'low carbon social contract', net-zero, and the decarbonisation agenda is in existential peril in western nations like the UK







UK Net Zero Delivery Paradigm



Source: Brown et al., (2019) What is prosumerism for? Exploring the normative dimensions of decentralised energy transitions - ScienceDirect

Sector Housing Electricity

Transport

Low carbon electricity sold on volumetric basis with new generation funded via long term price subsidy and most 'policy costs' passed on to end user, regardless of income/ level of consumption.

Electrified/ active travel

vehicles are sold to end

users who purchase fuel

undertake O&M. Public

majority of cost recovery

commodities and

transport reliant on

from usage fayres.

Decarbonisation

Business model

Households procure

individually, largely self

financed with means test

grants for lowest income

retrofit/heat pump

deciles < 20%.

Private retail, and generation markets. Distribution and transmission are governed by private monopolies.

Governance

Limited public

weak regulatory

coordination, left to

SMEs to deliver with

drivers. Limited role

for public housing.

Private retail and wholesale generation 'markets', lead to most efficient outcome, which is passed onto consumers.

Value logic

as private

assets, with

consumer

choice and

dominant

market logic

Homes viewed

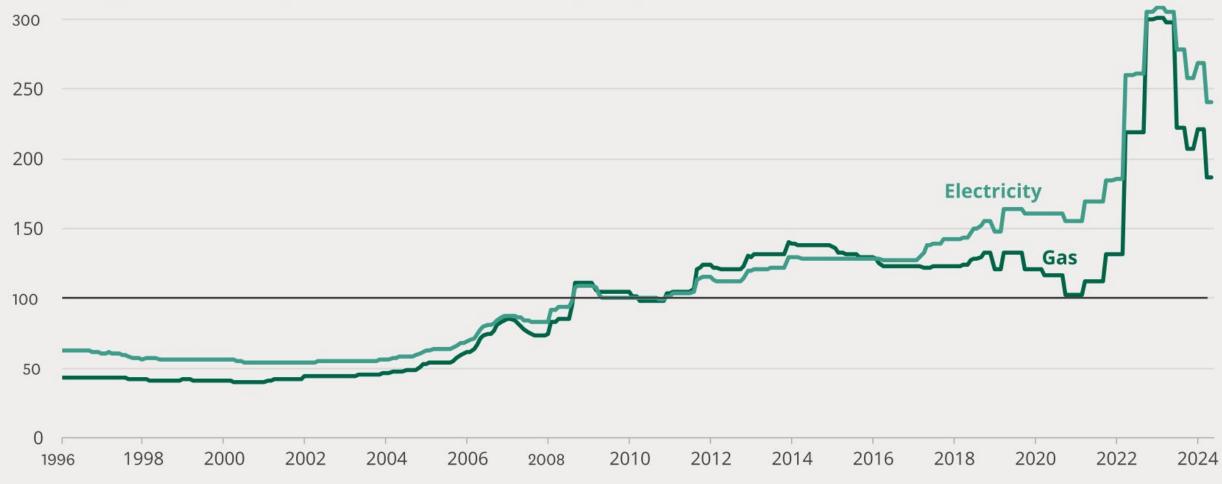
Personal electromobility based on private vehicle ownership. Majority of public transport also in

private hands

Mobility access is a private good, so costs and distribution of mobility should not be socialized.

The unprecedented increases in gas and electricity prices in 2022 have only been partly reversed

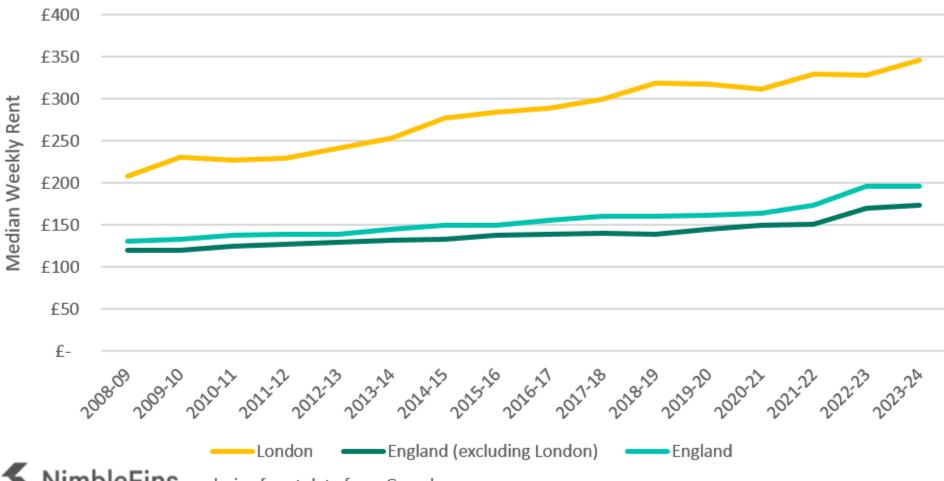
Price changes as measured by the CPI. Index values in current prices, 2010 =100



Source: Domestic energy prices - House of Commons Library

Historical Private Rent Costs

In the past 15 years, private rents have risen 67% in London and 44% in the rest of England

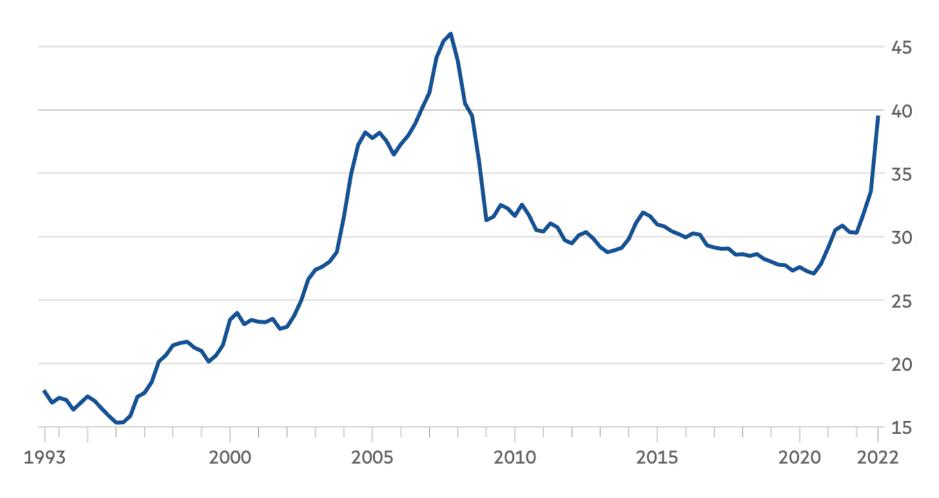


■ NimbleFins analysis of rent data from Gov.uk

Source: Average Rent in the UK 2025 | NimbleFins

UK mortgage payments have increased

First time buyers, % of take-home pay

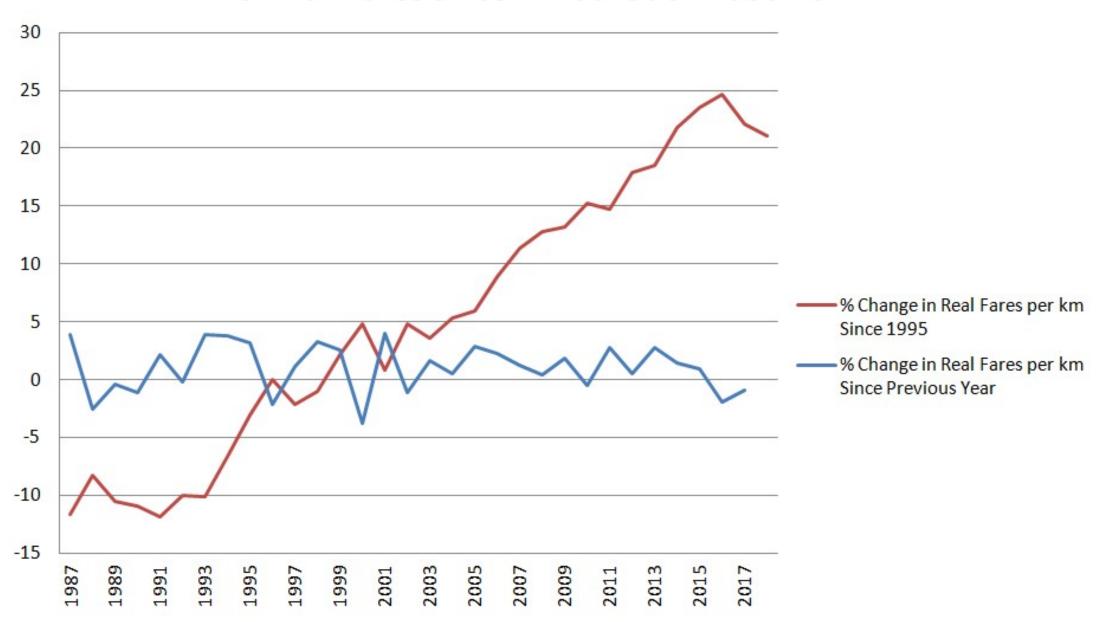


Source: Nationwide

© FT

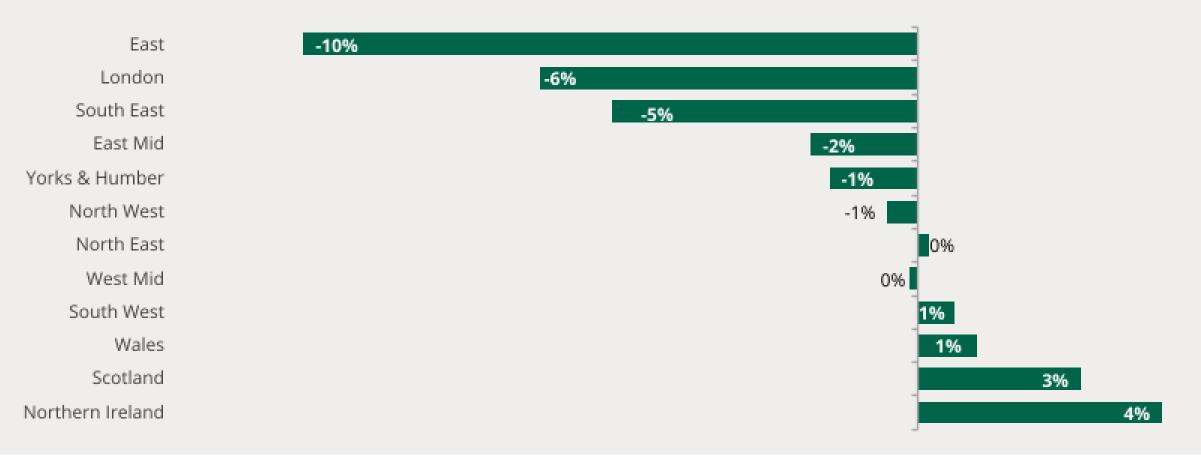
Source: FT - UK mortgage costs rise to highest proportion of income since financial crisis

UK Rail Fares Since Privatization 1986-2017



Percentage change in real median pay between 2010 and 2024

Adjusted for inflation, full-time employees, by region of residence

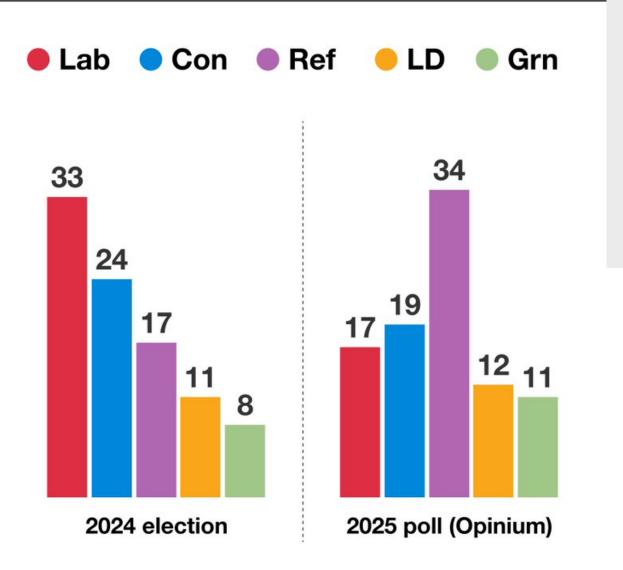


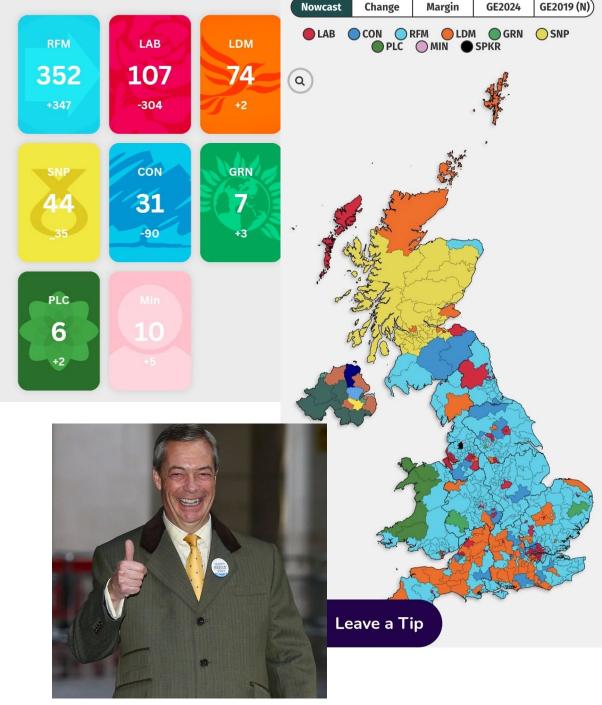
Source: ONS, Annual Survey of Hours and Earnings, 2024



Voting intention amongst Brits on less than £20k

YouGov exit poll, July 2024 / Subsamples from Opinium poll, 26-28 March 2025



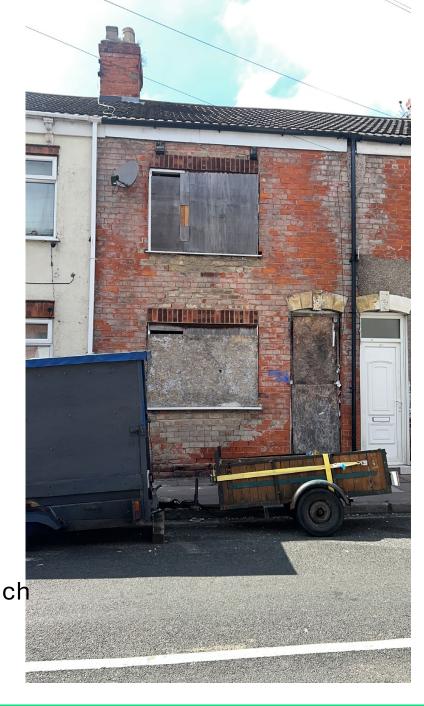


East Marsh: Grimsby



- Former fishing community, with high unemployment and deprivation
- East Marsh has large number of properties which are derelict and in a poor state of repair
- Dominated by PRS and small, terraced properties absent landlords





An unjust transition?

Figure 4: A heat map visualising the spatial distribution of readiness scores across England. Annex C provides a brief technical note of how these scores were calculated.

Young Foundation Research finds the poorest 40% of households at risk of falling into 'transition poverty'

Factors which affect transition readiness:

Structural Factors

Economic decline, public perception and knowledge

Agency Factors

Spending power, Inflexible costs, Political disengagement, Housing tenure

Place Factors

Physical connectivity, Access to green space, Social and community infrastructure, housing stock

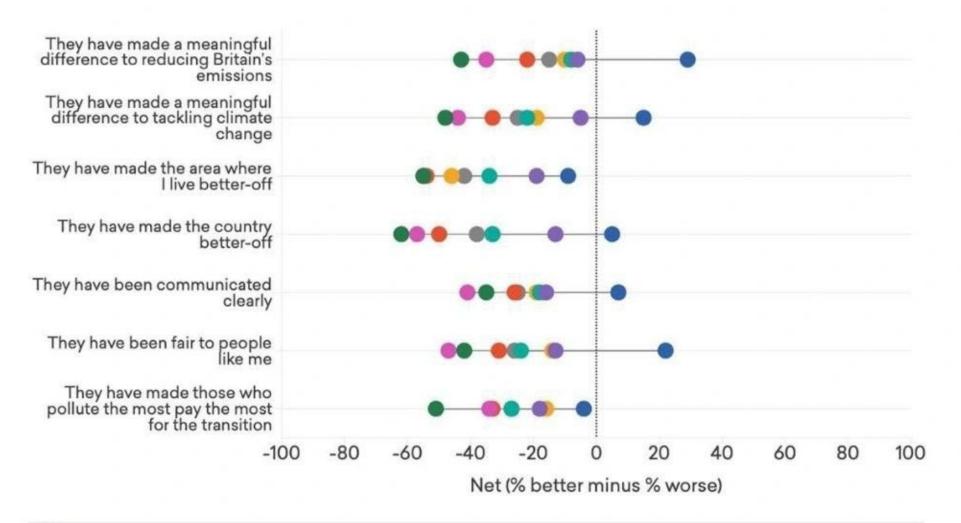
10 (Most ready) 1 (Least ready)

Source: Young Foundation -Our-journey-to-net-zero-full-report-February-2024.pdf

Figure 106 | Attitudes to climate policies so far

Thinking about Britain's policies to tackle climate change so far, to what extent would you say...

All Progressive Activists Incrementalist Left Established Liberals Sceptical Scrollers
 Rooted Patriots Traditional Conservatives Dissenting Disruptors





Labour's Clean
Power 2030
Target is locking
in Energy Bill
Increases

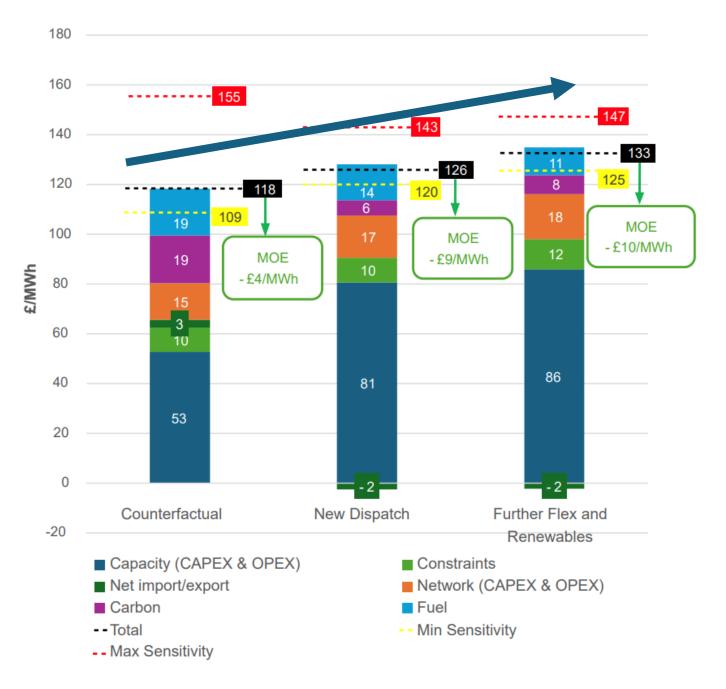


Figure 20: 2030 Annuitised system costs per useful unit of electricity with sensitivities

Provocations

Housing

- The current 'market led' retrofit policy paradigm is failing to deliver uptake at scale
- Heat decarbonisation must be affordable for households without savings/ unable to take on debt
- This must be part of a wider programme for improved housing conditions and reduced housing costs
- This suggests a new, more radical approach to housing improvement is needed

Electricity

- Increasing electricity prices are a clear thereat to the public acceptance of net zero, which will be capitalized on by its opponents. This appears locked in under the current policy paradigm in the near term.
- Local and decentralized solar and battery solutions must benefit low- and middleincome communities
- Therefore 2030 grid decarbonisation goal must lead to genuinely lower electricity bills



A Low Carbon Social Contract

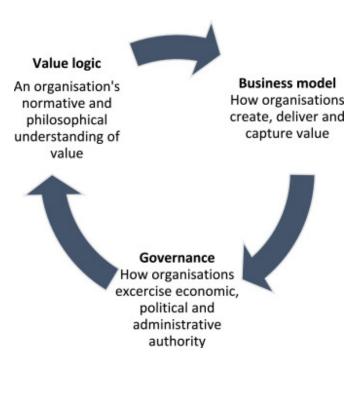
The postwar settlement built a new welfare state based on the principles of universal access to public services, health, education, housing. This era also saw the rapid growth of the electricity system, the widespread diffusion of central heating and the rapid growth in car ownership and international travel. All enabled by the growing use of fossil fuels.

This era is therefore often understood in terms of a **new social contract - or the postwar consensus** - between the state and its citizens.

Social Contract: The implicit agreement among the members of a society and its leaders about the rights and duties of each.

I argue, without a new **low carbon new social contract** which builds upon the principles of universalism and an <u>expanded</u> and <u>improved</u> access to life's essentials, the 21st century decarbonization project will fail.

A Low Carbon Social Contract



Universal high-quality low-cost housing via decommodification, retrofit & renewal towards reframing as social infrastructure rather than private

asset.

Value logic

Greater social and community ownership and provision. Increased intervention *in* and regulation *of* housing system. Reduced role for private finance, and emphasis on stewardship rather than private ownership.

Governance

 Municipal areabased retrofit and renewal

Business model

- Social and community rental is expanded
- Large scale, long term public investment

Electricity

Sector

Housing

Electricity viewed as essential service rather than commodity. Basic levels of domestic energy services are socialised.

Public and community ownership, reducing rent seeking in wholesale markets, transmission, distribution and retail.

- Free rooftop solar
- Social or rising block tariffs
- Long term energy as a service offerings for electrified heat
- Public ownership of power generation and natural monopolies

Energise Grimsby: Solar Streets Project

Project aims

- Find a business model(s) to bring rooftop solar at no up-front costs to low-income terraces
- Allow 'gifting' of surplus solar from development of Grimsby docks
- Saving households ~£250-£500/year on bills
- Emphasis on community co-design, skills development and scalability

















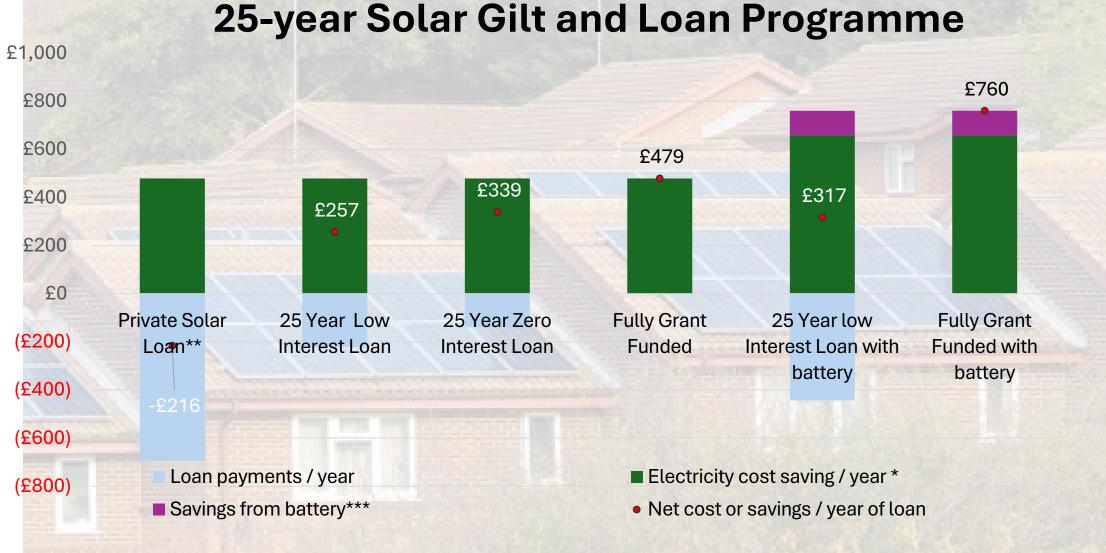


Figure Year 1 impact on household cashflow of 3.5kW solar system, under different finance options[1]

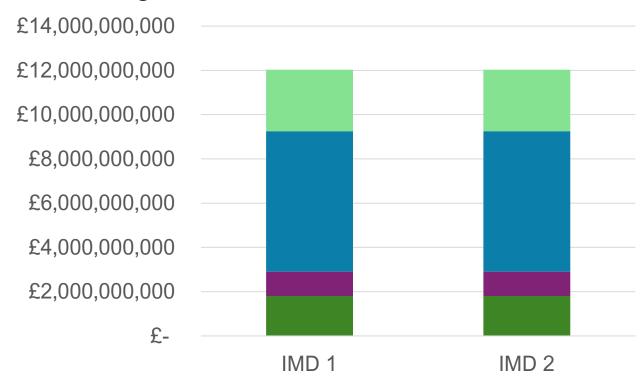
^{*}This assumes a conservative 3000kWh/year from the 3.5kW system and is based on 35% self-consumption for a system without a battery and 70% for a system with a battery, with a £0.10/kWh export price. Savings are based on the current average cost of electricity per kilowatt-hour (kWh) in the UK is 27.03 pence, valid until June 30, 2025: Energy price cap | Ofgem

^{**} Assumes Octopus Energy offering which is a 9.9% APR solar loan over 7 years

The average UK household electricity consumption is roughly 2,700 kWh per year, according to Ofgem. This works out to about 225 kWh per month. Ofgem classifies the average electricity usage for households in the UK as 2,700 kWh per year.

***Assumes the household is able to use the battery to store cheap electricity for the remainder of their demand at £0.10kWh

Area Based Retrofit and Regeneration Phase 1: IMD 1&2



- Enabling works 30% contribution
- Remaining share to be grant funded
- MEES PRS Landlord Contribution in IMD 1&2
- MEES Social Landlord Contribution in IMD 1&2



£3.14m low-income households save ~£350 on heating costs

Place Based Net Zero Model

Stage 0: Green the neighbourood

Build trust with placemaking and improved public realm



Urban greening, tree planting/ shading, flood mitigation, micro parks, play areas, benches.

Stage 1: Solar Streets

Low inertia
intervention to
reduce bills,
building business
case for deeper
retrofit



Collective solar PV and battery microgrid, provided at no up front cost, installed alongside smart home monitoring & billing option.

Stage 2: Retrofit & Renovation

Reduce energy demand, create local jobs and solve maintenance issues



Develop retrofit plan. Train local workforce. Collective purchase insulation and nonenergy fabric improvements over an approparite timescale.

Stage 3: Heat decarbonisation

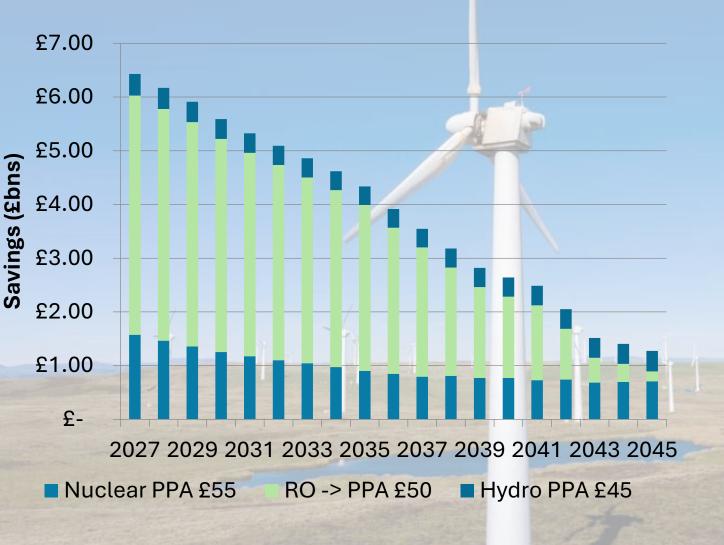
Fully decarbonise homes, improving comfort, further lowering bills



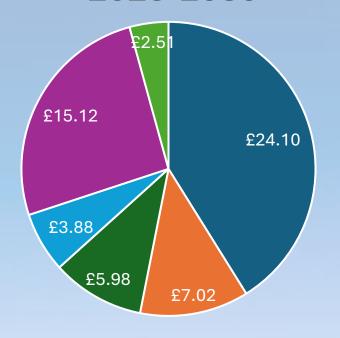
Install ground loop and boreholes, with shoebox heat pump in each dwelling, or Zero Emission Boilers.



Single Buyer / PPA for Legacy Low Carbon Generation







- Legacy Low Carbon to £50 PPA_ FFR
- Gas Strategic Reserve (RAB/PPA)_FFR
- Central Dispatch (Ramped 2027)
- Central DSF (Under Delivery_Modest)
- Single Buyer PPA (Batteries and LDES)
- GBE 10GW PPA £56/MWh

"£59bn cumulative savings (central case) to £139bn (high case) by 2030, £194–£384 per household annually"

Conclusions

A new 'low carbon social contract'?

- There are stark distributional and regional inequalities between communities 'readiness' for net zero
- Decades of rising costs of energy, housing and transport present a risk but also an opportunity for the net zero transition
- Currently, the populist right is exploiting this 'cost of living crisis' and will increasingly blame net zero for these problems
- The current approach to delivering net zero (and the wider policy strategy of the Labour party) is not likely to deliver reductions in the costs of these essential sectors
- Without a more radical strategy which addresses these costs and focusses on communities' livelihoods and lived experience such as Energise Grimsby net zero is in existential peril in the 2029 election
- This strategy must overcome shibboleths surrounding public and community ownership, and introduce "progressive universalist principles" in the provision of energy, housing and transport a new 'low carbon social contract'
- Implementing this strategy will require a radical departure from the macro-economic and fiscal consensus which has prevailed in the UK since the late 1970s



References

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