



CENTRE FOR RESEARCH INTO
ENERGY DEMAND SOLUTIONS

'Retrofit salary sacrifice scheme': a funding approach to improve privately-owned housing stock

ECEEE 2021 SUMMER STUDY

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POLICY & GOVERNANCE



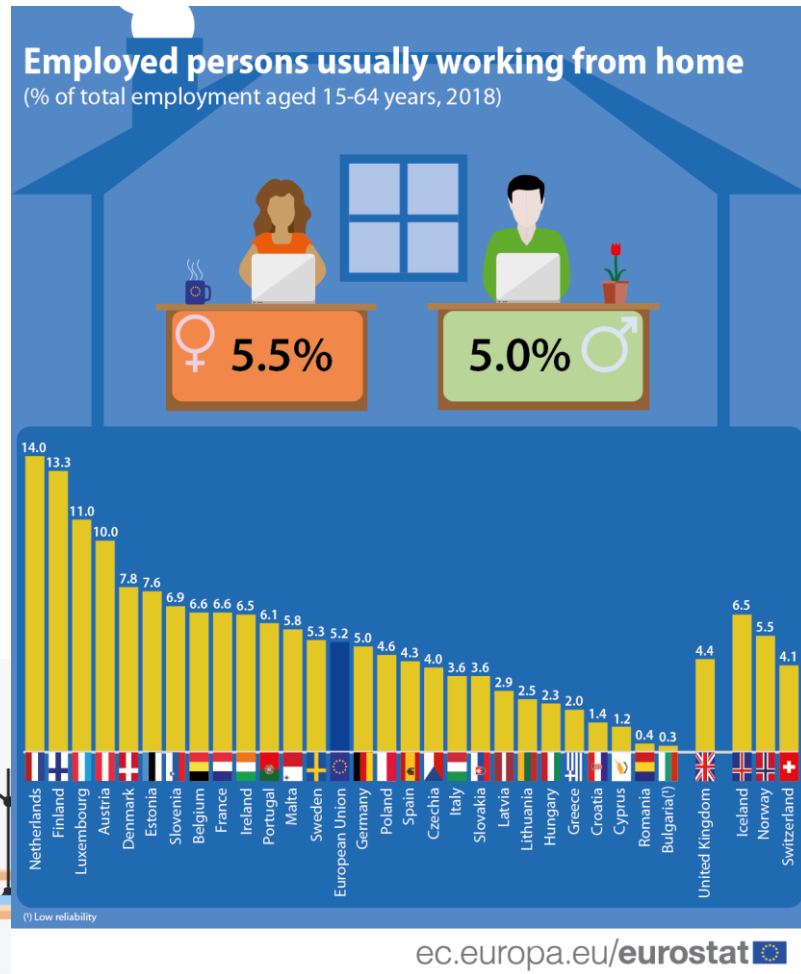
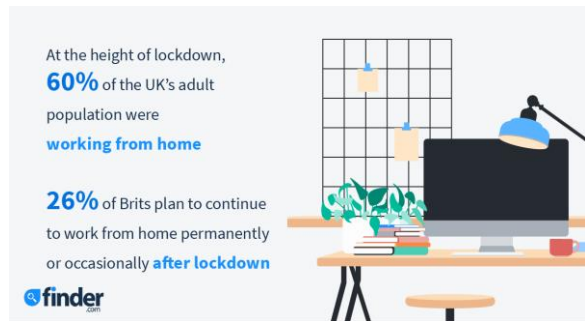
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Working From Home (WFH)

- Evidence: Globally since 2005 increased by 159%
- Projections: increase 24 to 31 % for Italy, France, Germany, Spain, Sweden and the UK

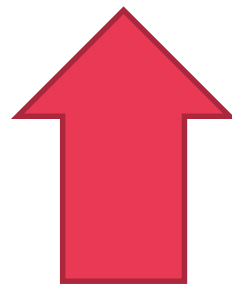
(Boeri et al., 2020)





WFH: Employers' outsourced operations

Employers, are **outsourcing their operations**
& **part of their office stock** to their employees



7% - 23%

Daily household energy
consumption vs. a day
working at the office

(IEA, 2020)

How adequate and energy resilient are employees'
homes to accommodate the extra working activity?

Home-office quality & affordability



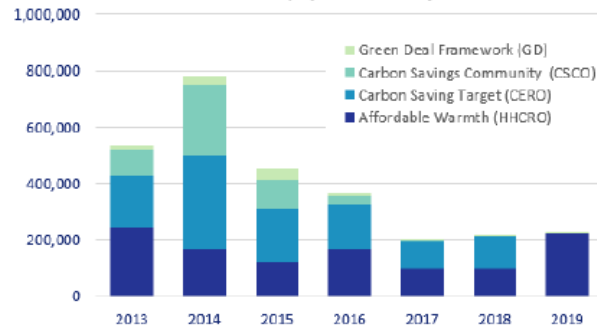
Owner occupied sector & the retrofit barriers

- Owner occupied sector accounts for **56% of EU housing stock** and **64.6%** as of 2020 in the **UK**
- **15% of the overall national emissions in the UK** are from the privately owned residential sector

5 barriers to retrofit

1. Access to information, awareness, motivation
2. Skills Shortage & supply chain capacity to bespoke solutions
3. Finance and Value
4. Disruption
5. Quality and Trust

Chart: Measures installed, by scheme and year



Tax-benefit approaches

Tax free childcare

Childcare vouchers

Eligibility

- Anyone can apply** (Employed & Self-employed)
- Only available if employer offers them**
- £130/wk min earnings** (if a couple, both parents must work)
- No min earnings** (One parent needs to work)
- Child's max age** 11 (16 if disabled)
- Child's max age** 15 (16 if disabled)
- Max income limit** Less than £100,000 per parent
- No income limit**

Which wins if you're eligible for both?

- Max gain of** £2,000 gain per child (£4,000 if disabled)
- Max gain of** £300/yr per parent (basic-rate taxpayer) £624/yr per parent (higher-rate taxpayer) £590/yr per parent (top-rate taxpayer)
- 20% off** childcare costs
- No tax & NI to pay** on childcare costs, equivalent to 32% for basic-rate tax payer (42% higher-rate, 41% top-rate)

Best option for lower kids & lower childcare costs

Best option for fewer kids and lower childcare costs

Source: MoneySavingExpert.com, HMRC, HM Treasury

CYCLE TO WORK ALLIANCE

PROMOTING THE BENEFITS OF CYCLING

Over 1 million employees have participated in the scheme to date



Salary sacrifice scheme:
employees getting a loan through their employer for **home energy improvements**, which is repaid via gross salary contributions

UK GREEN BUILDING COUNCIL

JULY 2013
Task Group Report

Retrofit Incentives

Boosting take-up of energy efficiency measures in domestic properties

CAMPAIN FOR A SUSTAINABLE BUILT ENVIRONMENT

2013

Green Finance Institute

Financing energy efficient buildings: the path to retrofit at scale

A report on phase one of the transition to the Energy Efficiency of Buildings

2020



What was the problem ...

Salary Sacrifice - Weighting factors and ranking criteria (UKGB 2013)	
	Political acceptability
	Has past or international precedents
	Compatible with other policies
	Incentivises retrofit outside the GD
	Drives uptake in owner occupied sector
	Low administrative burden
	Encourages whole house retrofit
	Drives uptake in PRS & social housing sector
	Potential to reduce fuel poverty
	Potential to impact house prices
	Can be cost neutral (to treasury)
	Minimises adverse distributional effects
	Provides confidence to industry

UKGB 2013

one policy solution to tick all boxes and solve the problem of the whole housing sector



Green Finance Institute (2020)

lending product for owner-occupied with a number of potential delivery partners

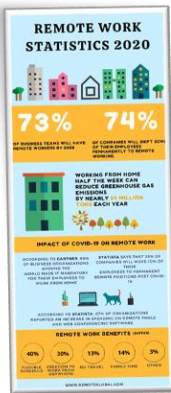


Retrofit Salary Sacrifice scheme in post COVID era



DEMAND

Working From Home



TRIGGER

Retrofit & RMI

(owner occupied housing sector)



Builds on

- salaried homeowners for flexible 'future work'
- home-office improvement trigger

Changes

- policy mix
- employment relationships

Introduces

- customer/employee 'service' for retrofit and MRI

Pays

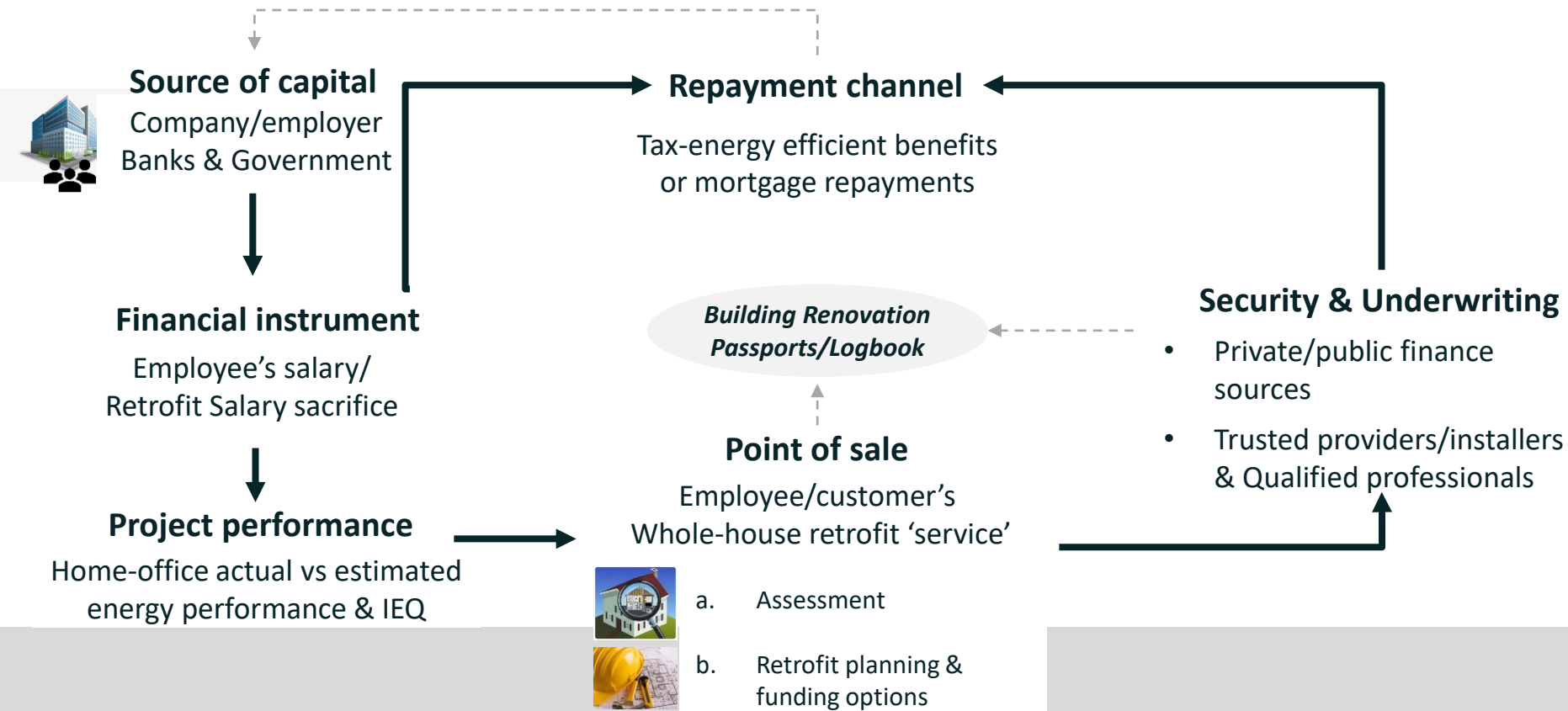
- detail assessment of a building's existing condition & planning of bespoke solutions

Creates

- demand for roles & professionals as part of the retrofit 'service'

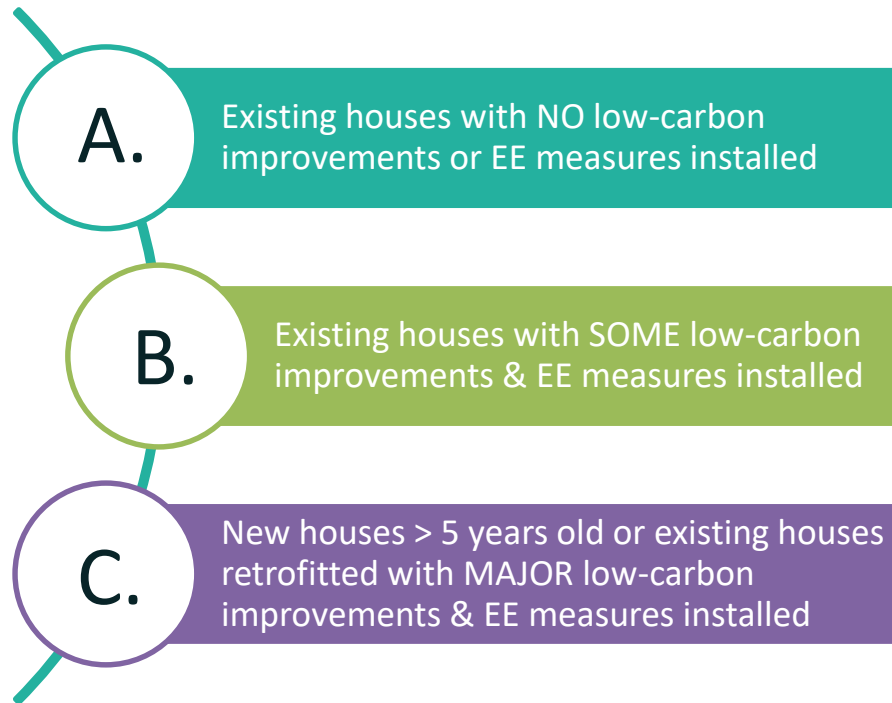


Key financing principles





Target groups for RSS scheme



In all groups: assessment of actual vs. estimated energy performance & IEQ

- Short term improvements/ repair and maintenance
- Long-term planning to mitigate lock-in/rebound effects from single measure

- RMI, energy management
- Long-term planning to mitigate lock-in/rebound effects from future repairs, maintenance & replacements





Objectives for trialling the RSS scheme

1 - Prime the market where DEMAND is likely to be highest:

- an **able-to-pay** demo
- able to exploit the **WFH shift and flexible 'future work'**
- have the most **disposable space for EE** measures
- most able to exploit the **co-benefits** e.g. organisational support and peer pressure for comfort and amenity
- have **lowest lending risk** due to best Loan-to-Value (LTV) ratio and capital reserve





2 - Make CAPACITY-BUILDING a key feature to explore & support the demand/supply relationship:

- **Scenario development** (i.e. policy costs of x households commissioning y projects at z cost)
- **Modelling, manufacturing and supply capacity** for industry
- **Skills and training** for installers
- **Regulatory and 'Health & Safety'** issues (e.g. the 25K heavy-lifting limit)





3- Understand RSS's CATALYTIC ROLE in the retrofit policy mix:

- How it can be used to **connect key roles and functions**

e.g. employers, employees and investors, EPC/retrofit assessors, utilities and data companies, lenders, building control, professionals, installers, manufacturers etc.





4th - Explore the role of DE-RISKING:

By offering lower:

- **Insurance premiums** for employers, employees and installers,
- **Compliance costs** for installers,
- Exposure to **energy price rises** for employees/owner occupiers
- Company's **Environmental, Social and Governance (ESG)**
- **Rebound & lock-in risks** ensuring Whole-house assessment & planning
- **Lending risk** for banks and mortgage providers





Summary & Implications for policy

Employer

Engagement with staff- positive rapport and influence

Organisations meet their own social and environmental goals

Boost local market and demand for retrofit 'service' by creating demand for different roles

Build market capacity from a services perspective rather than from packages of measures only

Supply-side companies

Employee

Effective level of discount & retrofit 'service' to make retrofit works more affordable & appealing

Allow to make repayments over an extended period of time

Control costs by only focusing on one market segment

Allow the market to adjust and build capacity before tackling the other income brackets

Government





Thank you for listening!

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