

# Between Policy and Practice: Emerging Lessons on Personal Carbon Trading at the Household Level

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## Personal carbon trading Policy concept

### Free carbon credit

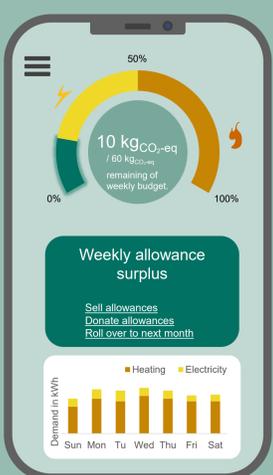
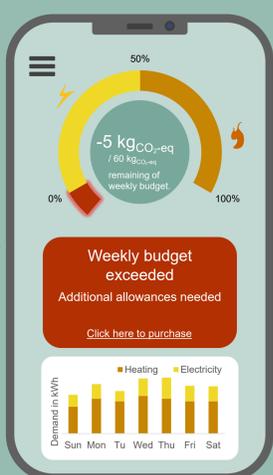
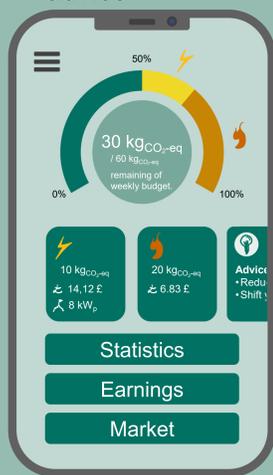
- Per household or individual
- Weekly overview
- Real-time feedback
- Energy saving advice

### Buy additional

- If free credit is exceeded

### Sell surplus

- Or donate
- Or let it roll over to the next week, month, year



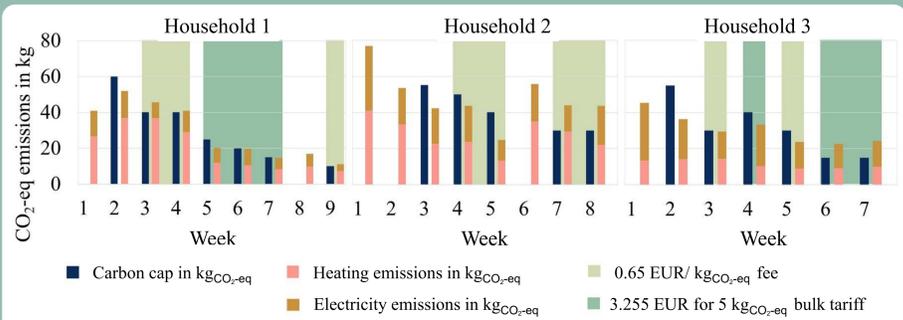
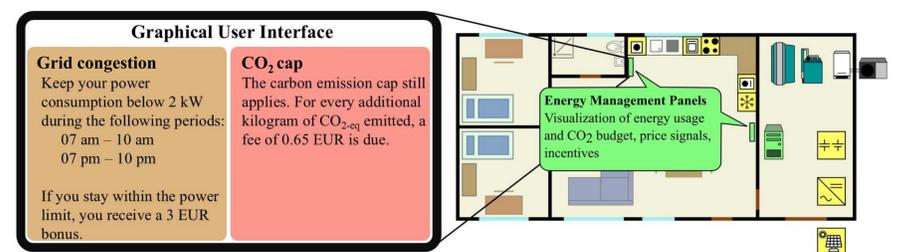
### Ways to save credits:

- Turning off appliances
- Heating less
- More efficient use
- Install photovoltaic



## Household carbon caps and tariffs Pilot study (DE)

- Living lab: Energy Smart Home Lab
- 3 households trialled carbon caps and tariffs:
  - Weekly carbon cap indicating the carbon allowances for free use
  - Exceeding the carbon cap triggers either a per-kg fee or a 5 kg bulk purchase option (bulk tariff)



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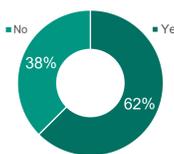


## Digitalized personal carbon trading Interview study (UK)

### Overview

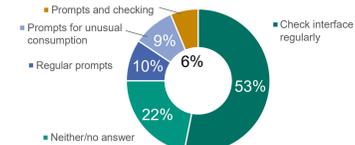
- Living lab:
  - 22 households
  - 32 participants
- Semi-structured interviews
- Technology acceptance model

### Perceived usefulness

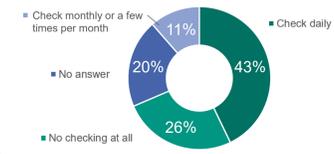


### Interaction preferences

#### Interface interaction



#### Interface interaction frequency



### Acceptability

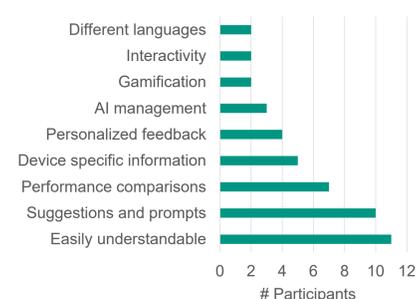
#### Consider voluntary participation



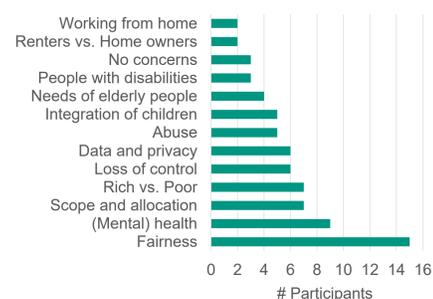
#### Overall acceptability



### Recommendations for improving ease of use



### Concerns about



PCT: Personal Carbon Trading



## Acceptability of personal carbon trading Survey (GER, UK)

### Outlook



What should be included?

### Hypotheses:

1. People with a higher carbon footprint than the national average are less likely to accept PCT.
2. People with stronger environmental values are more likely to accept PCT.
3. Higher perceived effectiveness is linked to higher acceptability of PCT.
4. Higher perceived fairness leads to higher acceptability of PCT.

Choice experiment?  
Intervention survey?

Let's discuss!

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