



DRIVING TRANSFORMATION

Behavior, Energy & Climate Change (BECC) / November 12-15, 2023 / Sacramento, CA

Co-Convened by

Stanford

Environmental and Energy
Policy Analysis Center

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behavior, energy & climate change



Would you swap your gas boiler for a neighborhood heat pump?

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Dr Kate Morland | Research Fellow, LSI, Leeds Beckett University, UK

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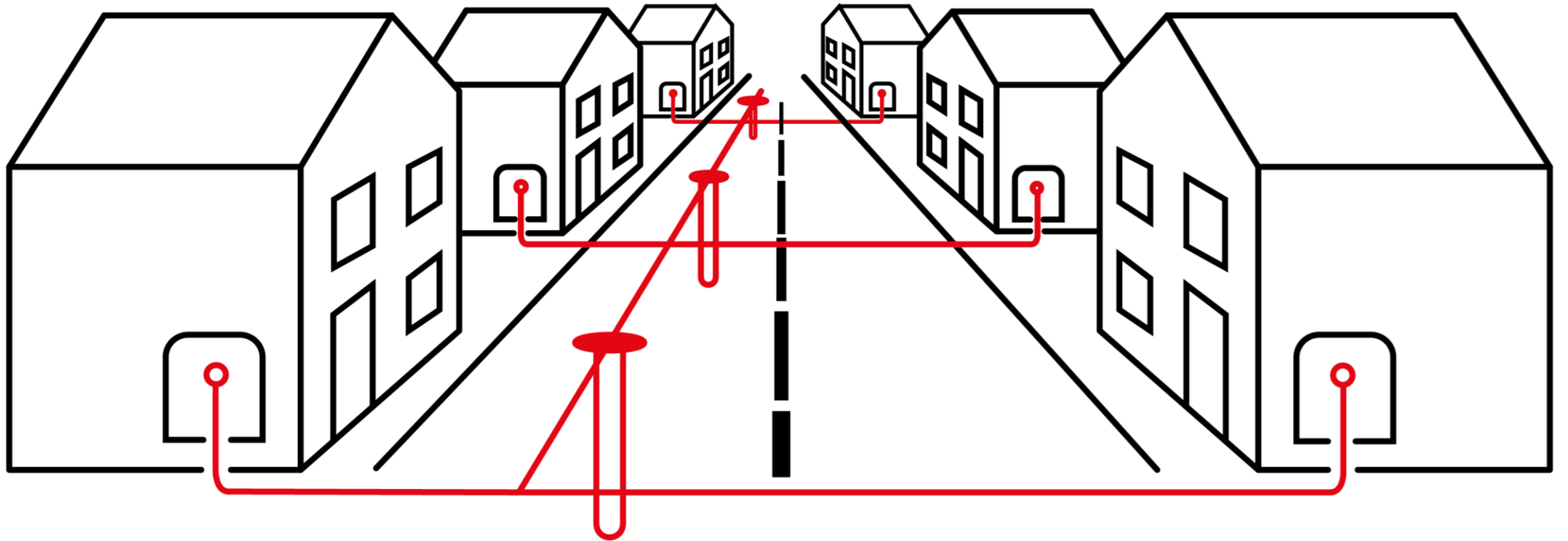
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Intro

- UK Net Zero by 2050 target
- Need to decarbonize domestic heating and hot water
- Target to switch 600,000 homes to heat pumps by 2028
- Government funded feasibility project
- In Leeds



What is it?



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What we did – talk to homeowners

- Interviews | **focus groups** | survey
- 4 x focus groups (n=20)
- Topics
 - Attitudes towards heat pumps
 - Willingness to accept change
 - Acceptability of installation disruption
 - Feasibility of energy efficiency improvements
- Tabled 3 finance options



We asked,
**“What
would stop
you from
swapping?”**

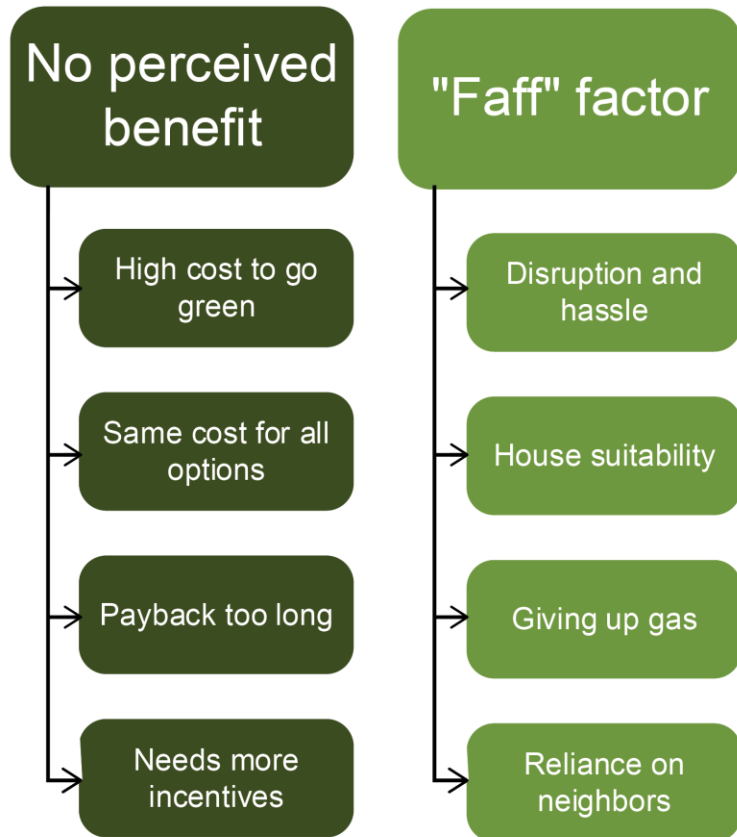


What we found

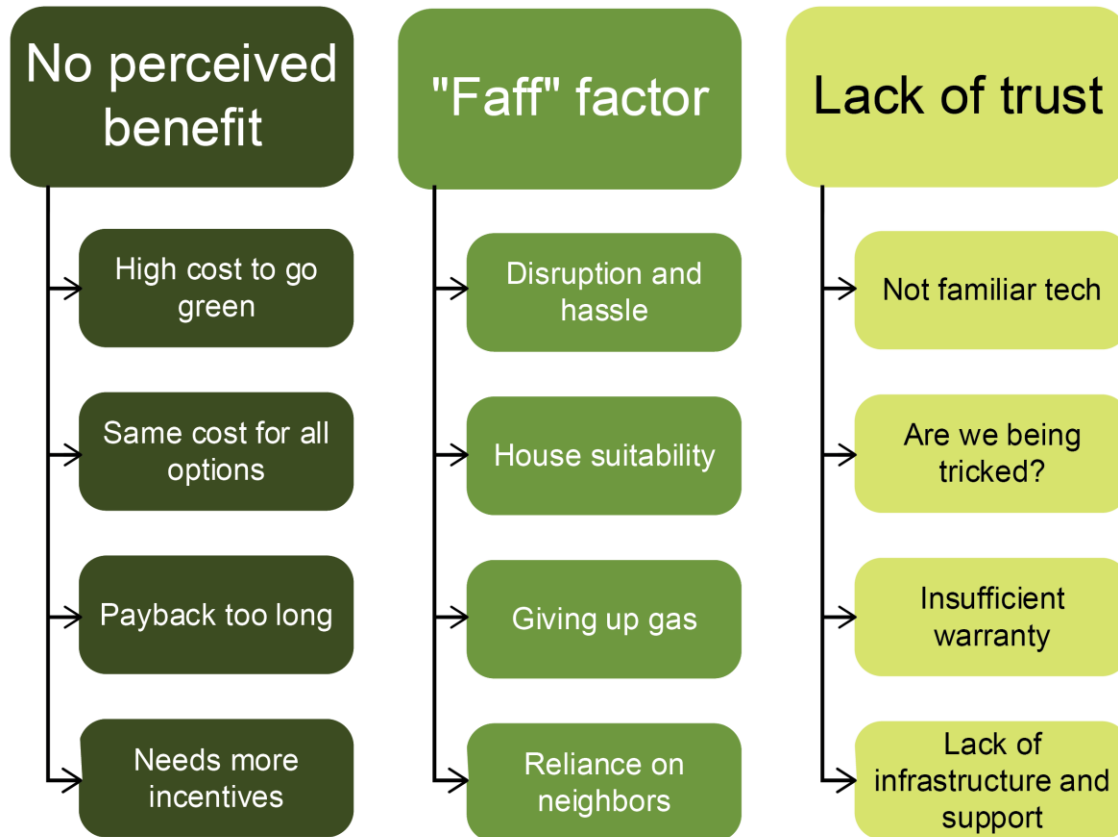
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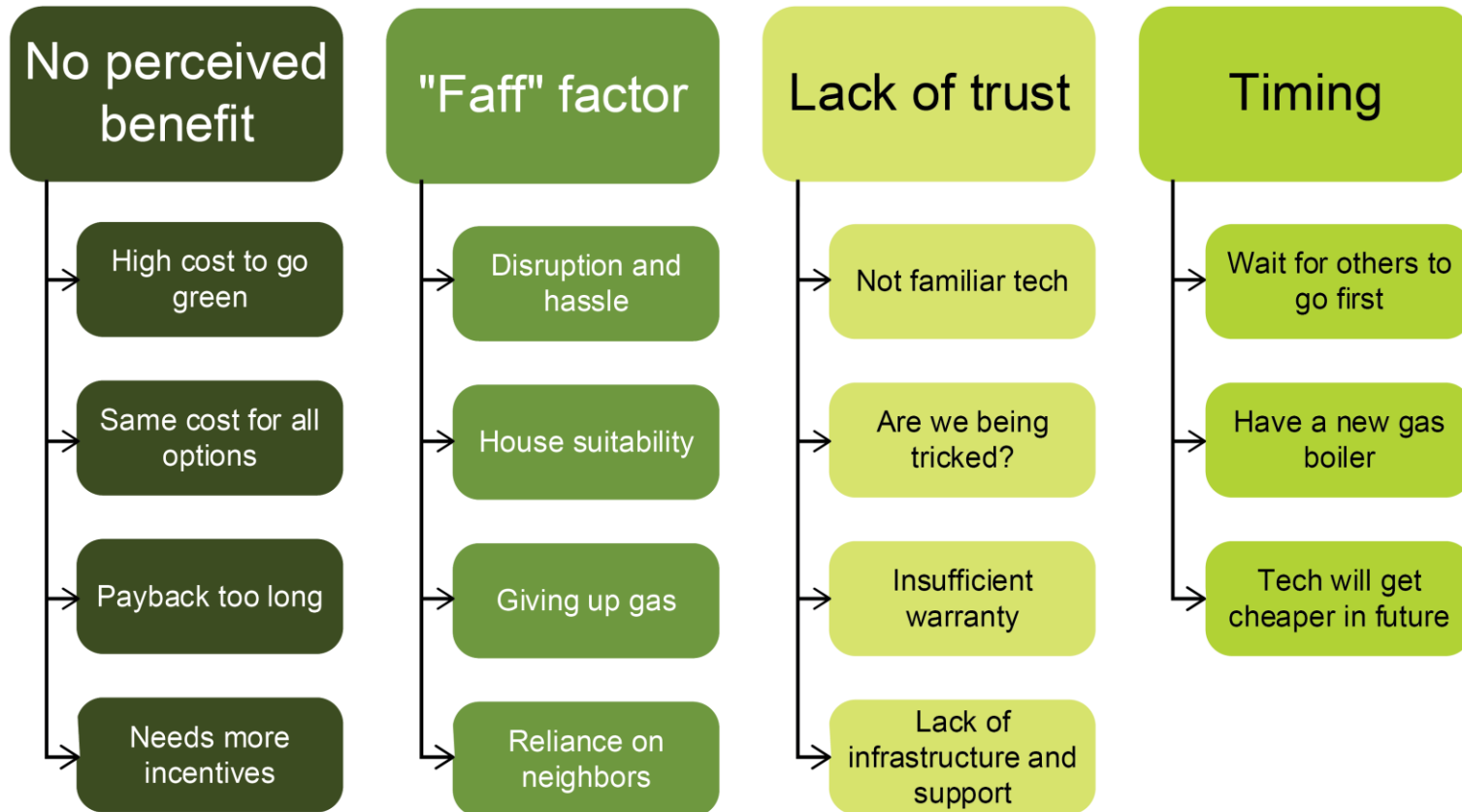
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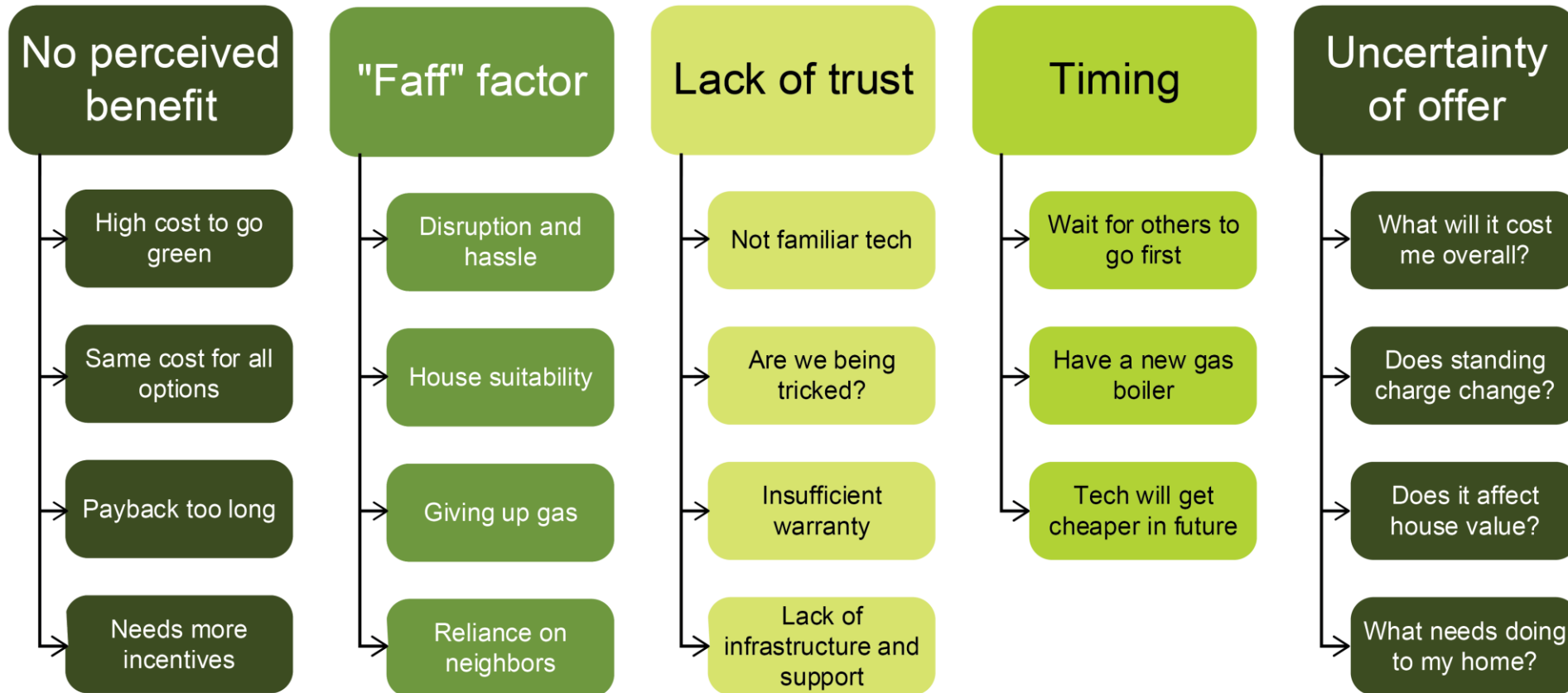
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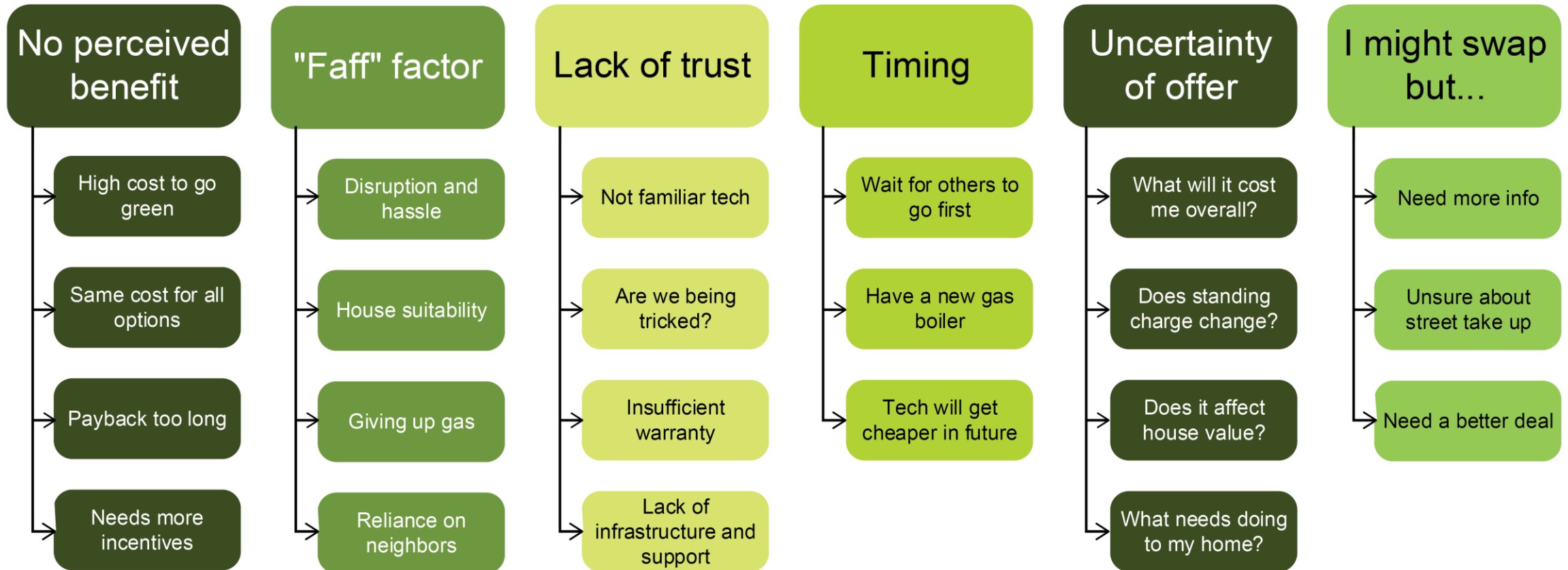
What we found



What we found




What we found



Takeaways

- There's interest but not for deal offered
- Cost and hassle are biggest barriers
- Uncertainty
 - Don't know enough
 - Don't know anyone with one
 - Don't know who to trust
- Also, collective aspect plays a role
 - Added pressure
- In short, may possibly swap but not yet!



"I'm not seeing a huge benefit in this. Comfort seems to be at the top of the list and saving CO₂... I do want to help the planet but it's not enough."



Thank you

k.morland@leedsbeckett.ac.uk

Convened by:

Golden rules

Communicate the work involved to switch clearly **using infographics**

Provide personalized financial modelling service to **outline overall cost**

Clearly communicate level of **customer service** provided

Design finance packages that **give customers a good deal**

Give **cost guarantee** to early adopters

Get package **independently reviewed by trusted source**

Frame each option differently –
Pay to save
vs
No extra cost comfort

Promote beliefs that scheme is trustworthy, keeps people warm and doesn't damage environment



Finance options and process

	Option 1: Pay up front for HP	Option 2: Part upfront payment	Option 3: Pay through surcharge
Upfront payment (Amount based on house size)	£6,000-£10,000 (\$7,300-\$12,150) (savings or loan)	£3,000 (\$3,650)	£0
Bill surcharge (Pays for the HP in home)	£0	£40 pcm* (\$48)	£50 pcm* (\$60)
Bill standing charge (Pays for the NHP infrastructure)	£50 pcm (\$60)	£50 pcm (\$60)	£50 pcm (\$60)
Total per month	£50** + electricity bill (\$60 + electricity bill)	£90 + electricity bill (\$110 + electricity bill)	£100 + electricity bill (\$120 + electricity bill)
£ to \$ conversion is approximate	* Payment in perpetuity ** If a loan is taken out, the repayments would be separate at 3.29% APR		



If you sign up...

- 25% of your neighborhood also needs to sign up
- Pipes installed in the street
- Gas boiler removed
- Energy efficiency improvements made to your home
- Comes with a 5-year warranty
- Heat pump is serviced every 3 years
- 20–25 year lifespan on heat pump on your home
- Costs £2,000 (\$2,450) to replace

