EnergyREV

LoT-NET Advisory Board Meeting

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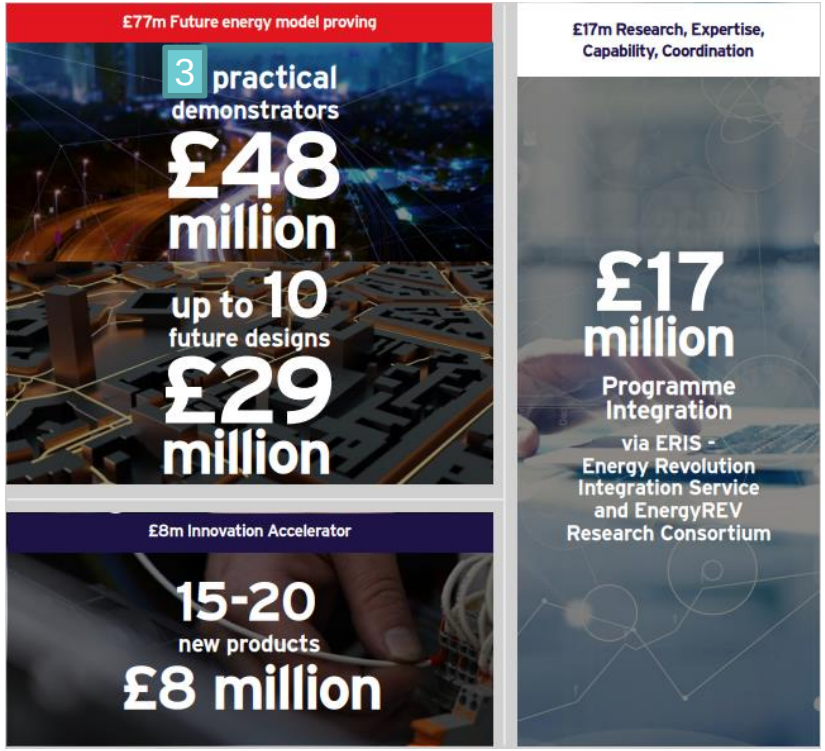
INDUSTRIAL STRATEGY

UK Research and Innovation

EnergyREV within Prospering from the Energy Revolution (PFER)



Informing projects' future plans for delivery and scaling

Systematic research and analyses of longer-term requirements and innovations

Integrating knowledge from global activities

EnergyREV

The policy & regulatory landscape review

"Do we have the appropriate policy, institutional and regulatory framework to realise the technical, economic and societal potential of Smart, Local Energy Systems?"

1. Search methods

- Crowdsourcing
- Systematic online search
- Background documents
- Citation search

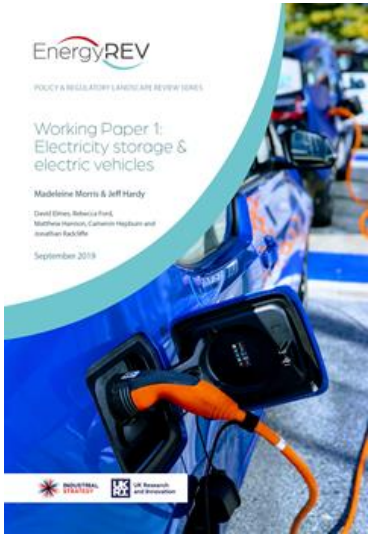
2. Screen + Sift

- Inclusion/exclusion criteria applied to all
- **Include relevant**
- Exclude irrelevant

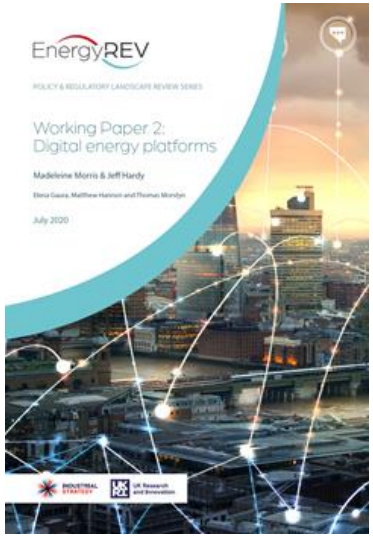
3. Analysis

- Inductive coding
- Thematic analysis
- Cross-cutting themes
- Value chain
- Tech/ activity

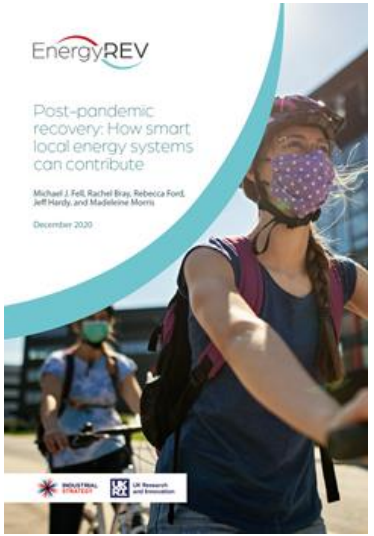
Outputs to date – rigorous systematic reviews



- Definitions matter
- Ownership and visibility
- Market access and stacking value
- User-centric smart design
- Create smart local energy systems today



- PFER opportunity to learn, demonstrate & inform on market/platform design
- DER unleashed by platforms – but trust essential
- ESO and DSO roles



- SLES approach could result in net-zero transition that is faster, has more benefits, and is fairer.

Working paper 3:
Energy efficiency, heating and cooling
&
Paper on Co-benefits of smart local energy systems
&
Energy Justice

- Expected summer 2021
- Co-benefits, barriers and SLES aspects of heating and cooling
- Co-benefits of SLES
- Energy justice aspects of SLES

Working paper 3: decarbonisation of heat in smart local energy systems

— **Why decarbonising heat is inherently local**

- Substituting fossil-fuel heat will cost two to three times more than a systems approach at local levels (ESC)
- Heat demand varies locally due to building standards & consumption patterns (hence LEAPs, LHEESs, SLESs…)

— **Why decarbonising heat must be smart, flexible and viewed as a system**

- Being smart and flexible increases benefits versus just substituting heat supply technologies
- Smarter, system benefits will be needed as technology cost curves will not be fast enough

— **Why decarbonising heat needs new regulations and business models**

- Regulation of heat networks still evolving (2014, 2015, 2020) and HaaS (ESC, UKERC, CREDS) is at an even earlier stage
- Is regulation based on choice and competition the right approach for heat?
- Investable business models need a level of regulatory confidence

— **Why decarbonising heat needs to consider behaviours and societal benefits**

- Understanding behaviours with clear price signals (switching) has needed large scale trials and has taken time
- Considering societal benefits can make heat decarbonisation fairer, faster and ultimately cheaper overall