Heating Buildings
Reducing energy demand and GHG emissions

ERP report presentation
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Heat demand reduction is not fully exploited

- Performance gap
  - Quality & Enforcement
- Prediction gap
  - Tests & trials
- Uptake gap
  - Regs & barriers
Uptake – new-build and retrofit

1. To guide buildings’ energy policies and regulations to be commensurate with the UK’s Carbon Budgets

   • a cross-departmental group should be established with membership from DCLG, BEIS, and relevant organisations (e.g. National Infrastructure Commission)

   • aided by the establishment of an expert advisory panel.
Uptake – new-build

2. To provide ambition and certainty for the building industry:

- DCLG should
  - produce a regulatory trajectory for building energy regulations that reaches leading performance in fabric thermal efficiency
  - maintain this trajectory
3. To leverage customer action on energy efficiency:

- DCLG should improve use of light-touch regulations:
- Display Energy Certificates (DECs) should be applied to all public sector buildings and promoted for private sector buildings
- Energy Performance Certificates (EPCs) should be promoted more effectively as an important part of purchase and rental decisions

Source: Ofgem
Uptake - retrofit

4. To increase uptake of retrofit solutions:
   • product manufacturers / installers should better promote options and develop more appealing products, methods and “retrofit packages”
   • support from heritage groups for older buildings
   • government engagement for policy development and implementation
Prediction

5. To increase understanding of heat use in buildings:

- Energy Systems Catapult (ESC) should:
  - expand its network for access to test facilities and expertise to include tests of thermal performance
  - maintain its buildings trials as a longitudinal study and control group for other studies

Source: SSH Phase 2, Energy System Catapult
6. To improve thermal performance in practice:

- Product manufacturers should take a greater role in training and quality control in installation
- Building inspection regime should improve its use of tests & enforcement
- Better (not necessarily more) regulation
- Truly random spot checks
Summary

Uptake must be continue and be increased:
• Continue with measures known to bring benefits
• Develop / promote new products, methods & services

Prediction can be improved by:
• Research to close knowledge gaps, from fundamentals to in-use
• Treating early deployment as “safe learning environment”

Performance can be improved by:
• Training and quality control supported by supply chain
• Better regulation
• Increased customer awareness, supported by easier tests