



Department for
Business, Energy
& Industrial Strategy

THE UK NATIONAL ENERGY EFFICIENCY DATA-FRAMEWORK

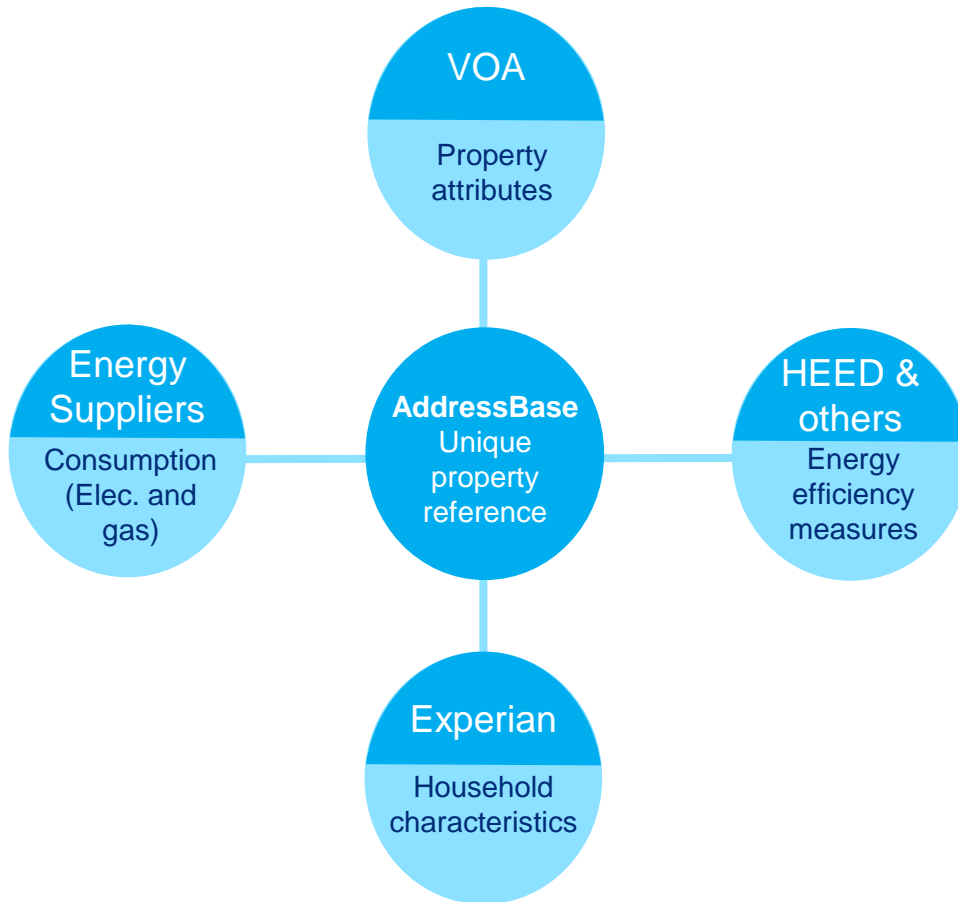
What it is....and how it has informed UK energy policy

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12 December 2016



What is **NEED**?



- Framework for combining data from existing admin data sources
- Provides insights into how energy is used
- Impact of installing an energy efficiency measures on gas consumption



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Energy Consumption

British Gas
Looking after your world

nPOWER

SCOTTISHPOWER
The Energy People

first:utility

SSE

e.on

xxserve



respect > commitment > teamwork

edf
ENERGY

Gemserv

Property attributes



Valuation Office Agency

Landmark
Information Group

Output Area data e.g.
OAC



Office for
National Statistics

Energy efficiency
measures installed

ofgem

**energy
saving
trust**



Department for
Communities and
Local Government

Landmark
Information Group



Address Base

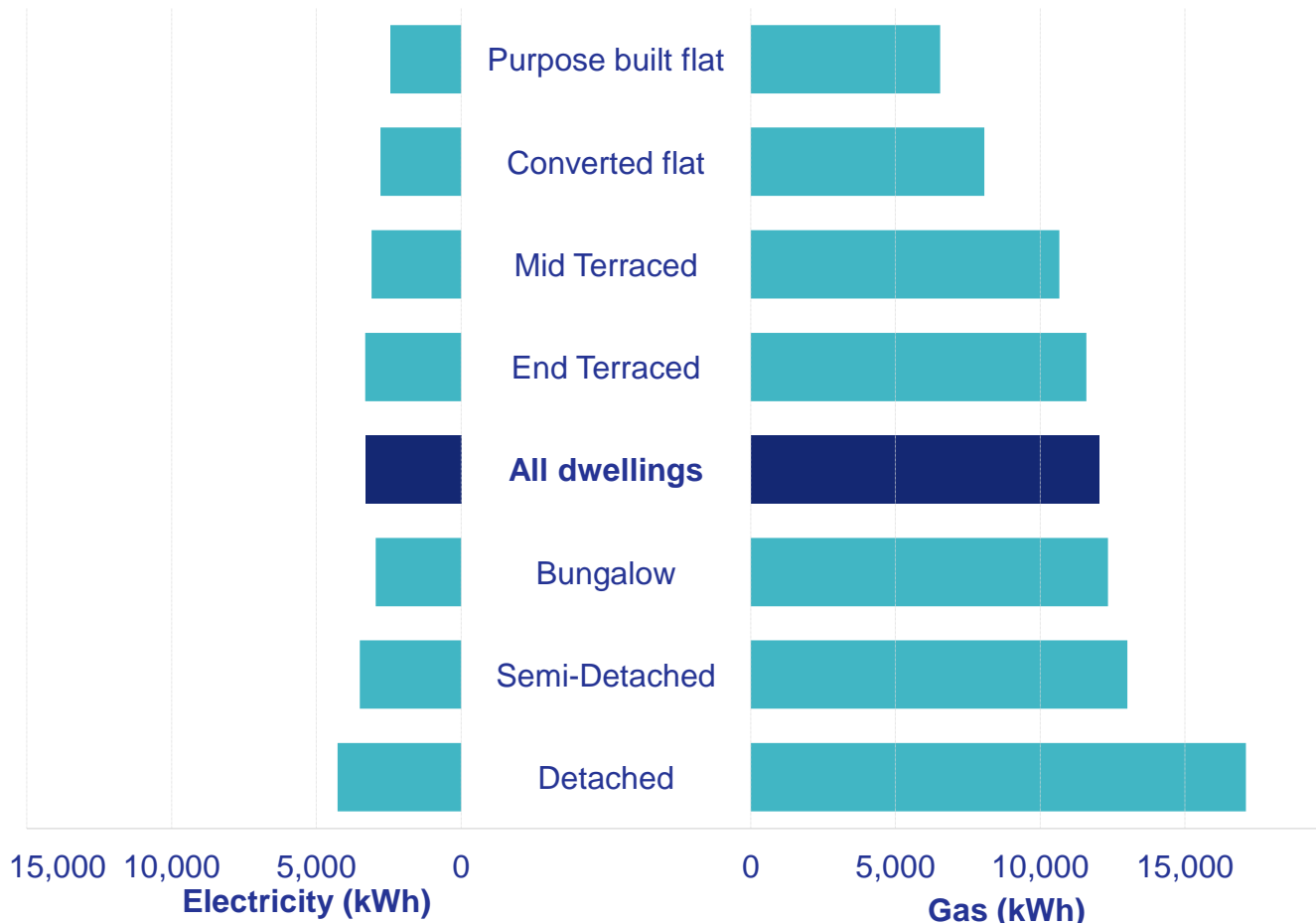
os Ordnance
Survey®

Household
characteristics

Experian
A world of insight



Consumption by property type



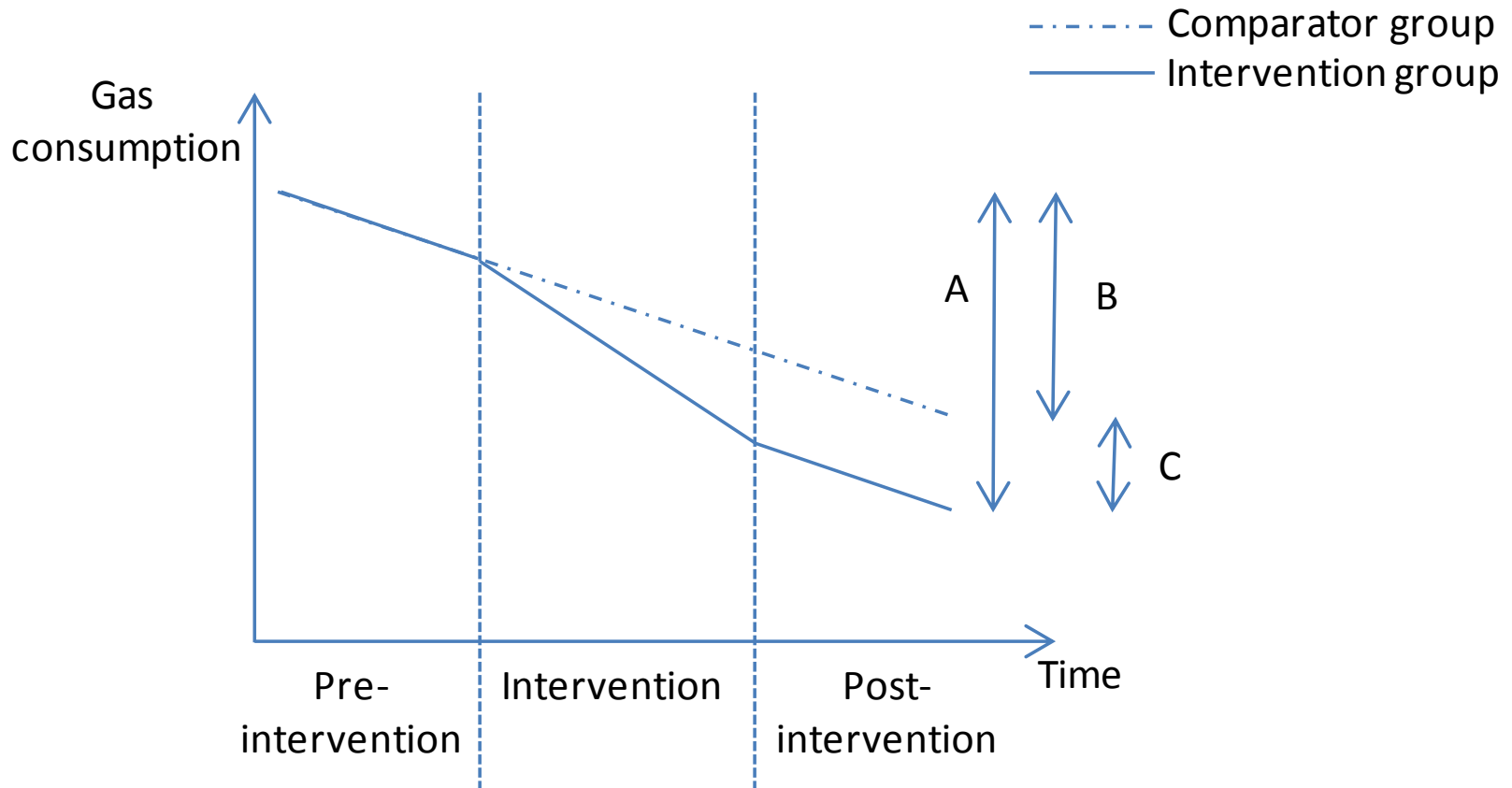


Gas consumption by urban/rural area



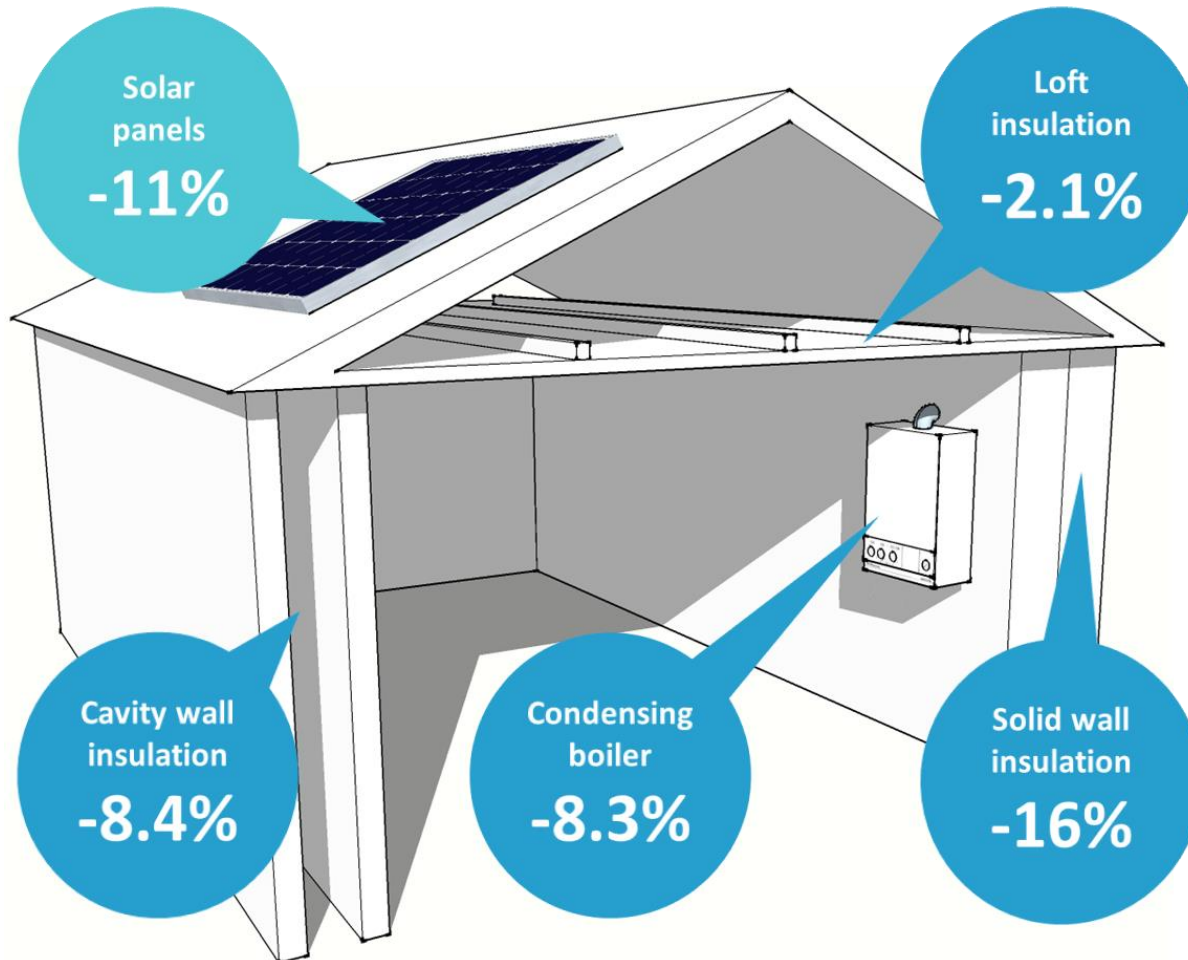


Impact of measures methodology





Impact of measures results





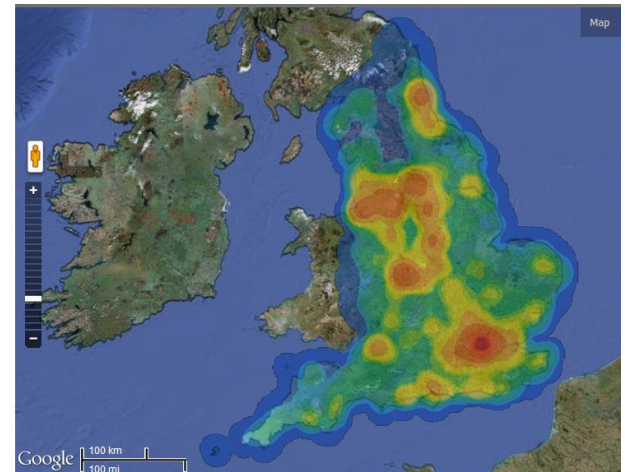
Challenges along the way

- Getting data providers on board!
- Energy use based on meter readings, many of which are estimated.
- Measure installation is binary: there is no record of the percentage of a house covered with insulation.
- We have no record of DIY installations of measures.
- Experian data for domestic sector (providing household characteristics) is modelled, so not wholly accurate.
- Address matching low for non-domestic NEED (c. 50% - accuracy rating gives a probability that the property has been matched to the meter correctly.)
- Non-domestic NEED does not have an installation record equivalent of domestic NEED's.
- Large database issues: data imports sometimes fail; run time can be slow.



NEED's influence on policy

- Supplier Obligations: estimates of savings from insulation measures inform estimates of energy and carbon savings delivered through policies
- Fuel poverty: consumption by income and tenure to inform policy and understand the extent of under-heating
- Inform development of other policies: heat; RHI, FITs, future policies etc.
- Consumption by property attributes to inform development of heat policy.
- Understanding behavioural aspects of the housing market
- More accurate understanding of the impact of policies on Carbon Budgets, including likely rebound effects





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Thank you for your attention!

- A full suite of reports, tables and methodological reports is available at:

<https://www.gov.uk/government/collections/national-energy-efficiency-data-need-framework>