



Department for  
Business, Energy  
& Industrial Strategy

# THE UK NATIONAL ENERGY EFFICIENCY DATA-FRAMEWORK

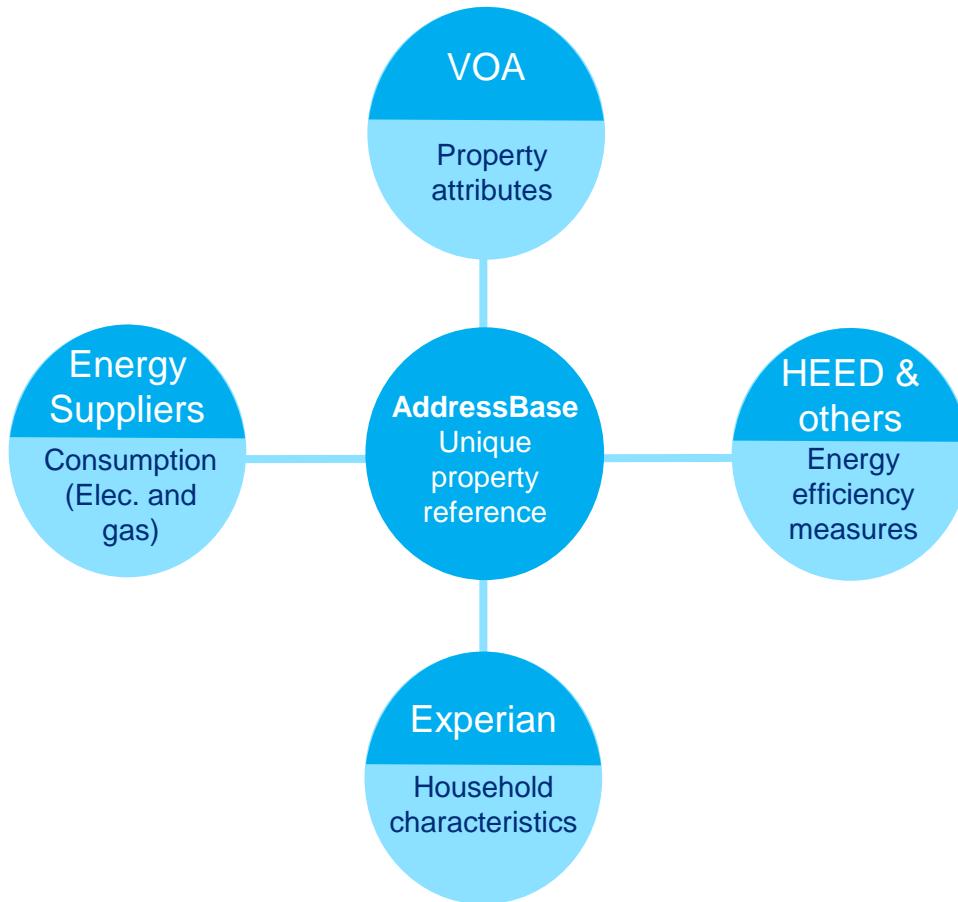
What it is....and how it has informed UK energy policy

Julian Prime

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

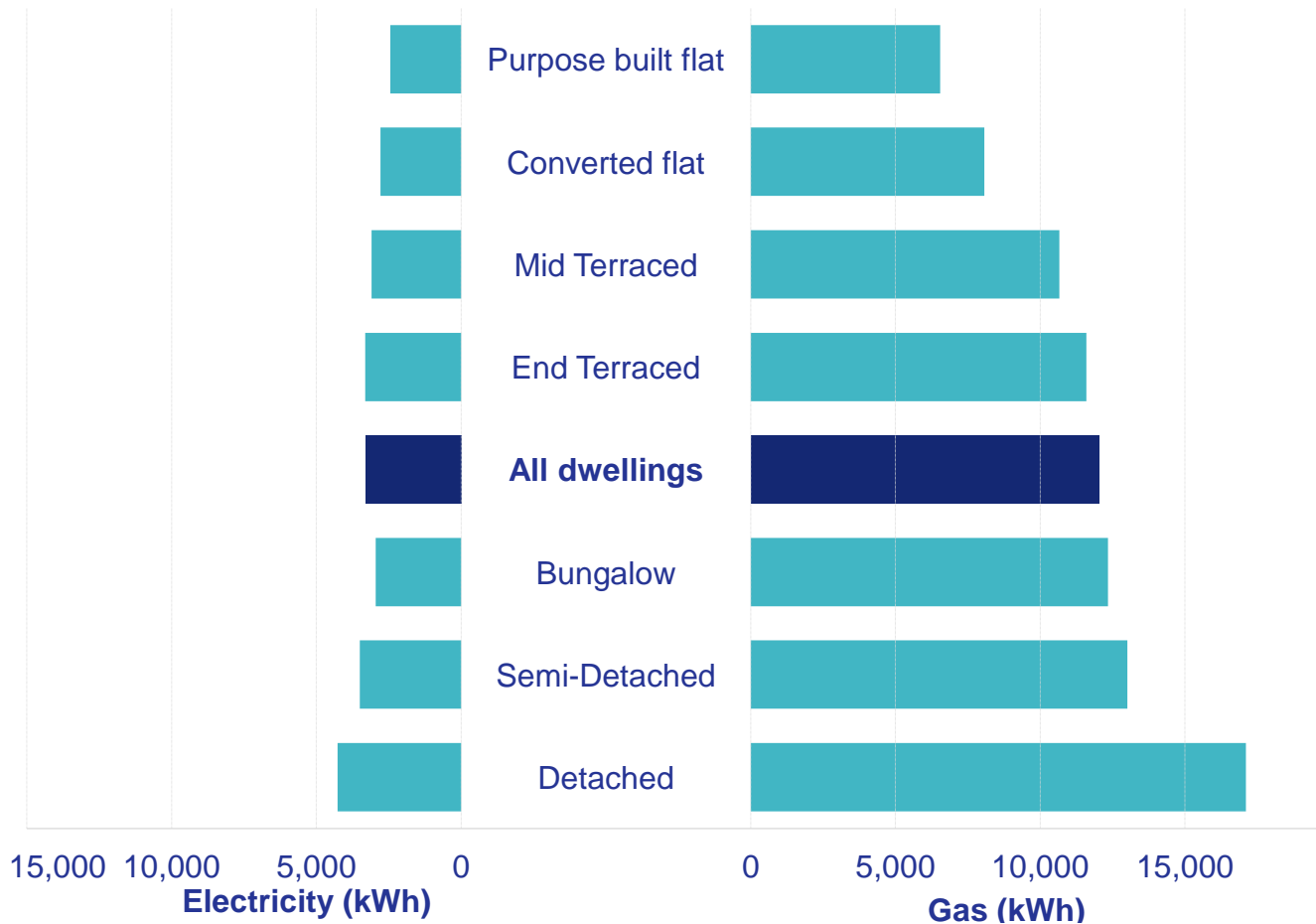
**os** Ordnance  
Survey®

Household  
characteristics

**Experian**  
A world of insight

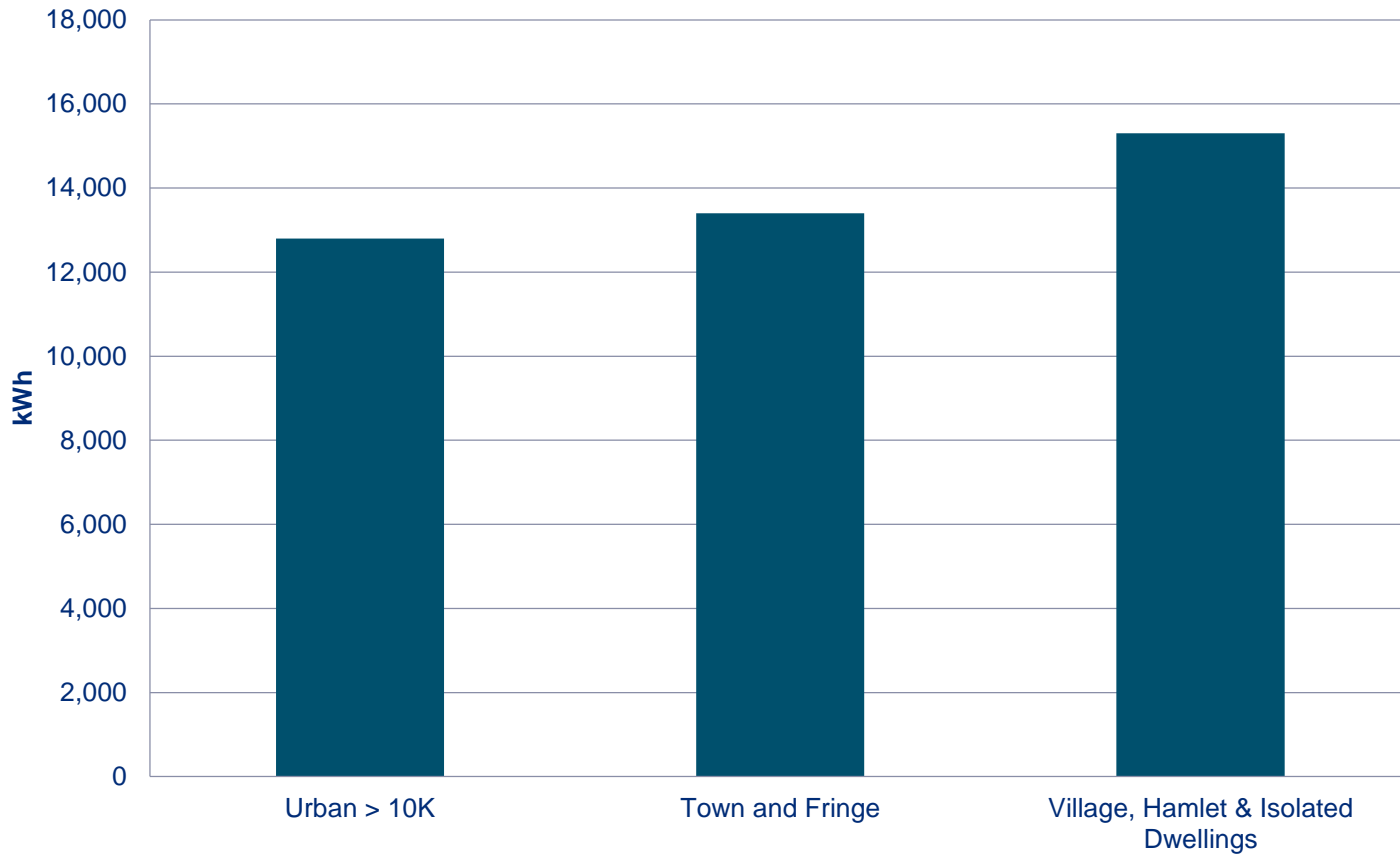


# Consumption by property type



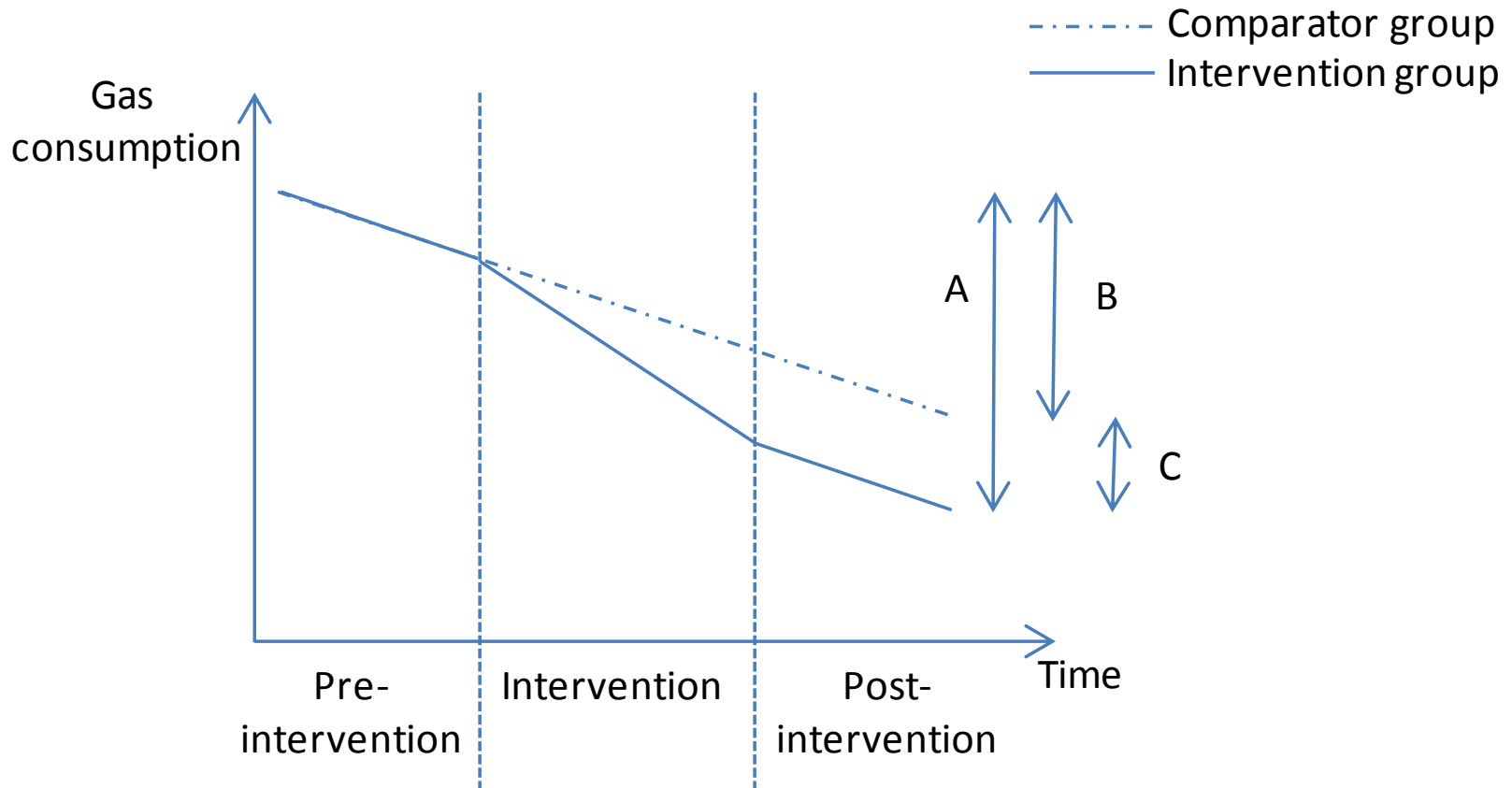


# Gas consumption by urban/rural area



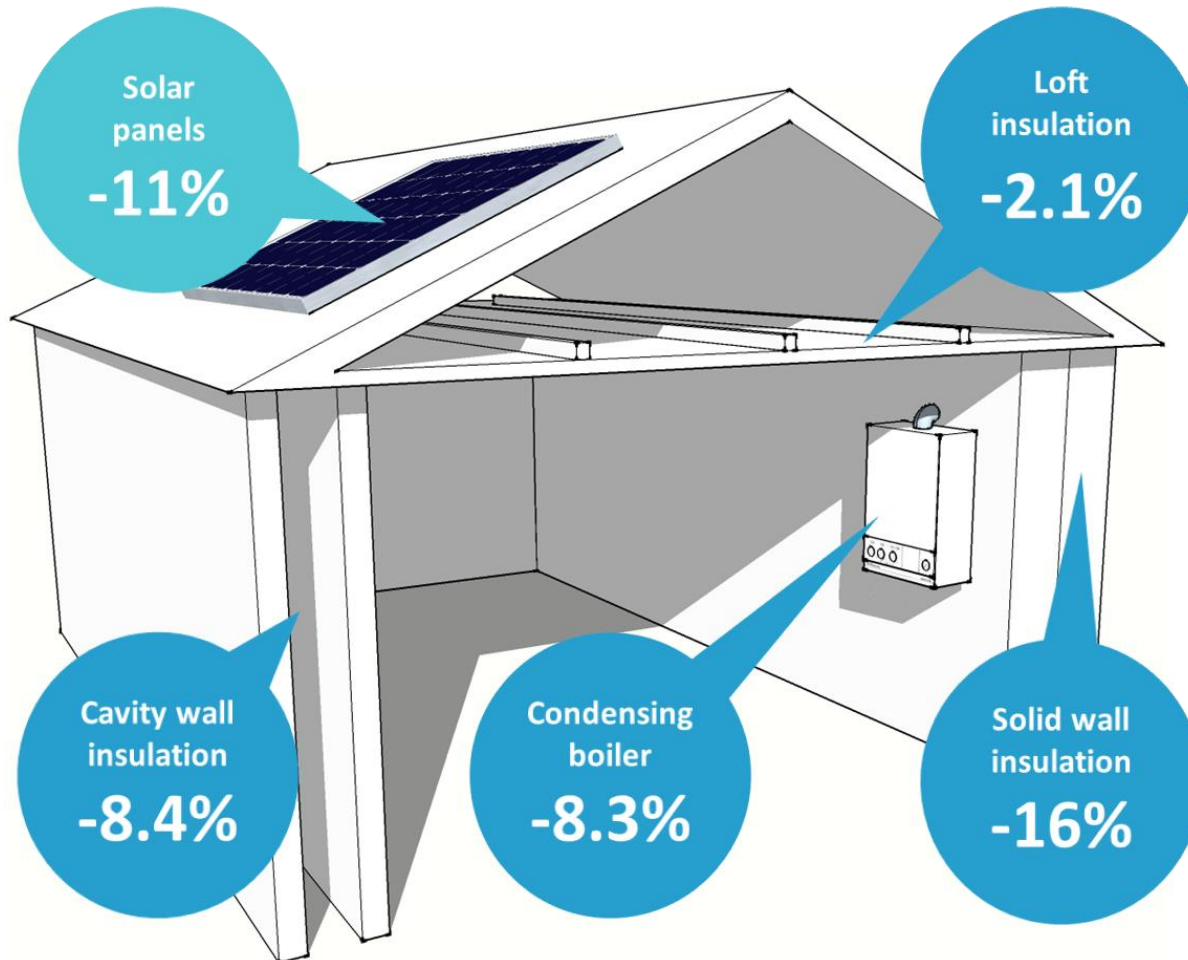


# Impact of measures methodology





# Impact of measures results





## Challenges along the way

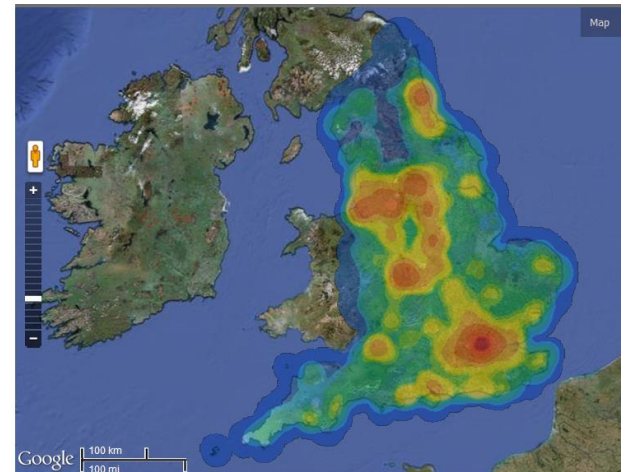
- Getting data providers on board!
- Energy use based on meter readings, many of which are estimated.
- Measure installation is binary: there is no record of the percentage of a house covered with insulation.
- We have no record of DIY installations of measures.
- Experian data for domestic sector (providing 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>