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# Smarter Household Energy Data: infrastructure for policy and planning

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Meeting: Making smarter use of household  
energy data: scaling up research

9 December 2015

London

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UK Data Service

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 **DataFirst**



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# Welcome!

#SmartEnergyData  
@ukdataservice

UK Data Service



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# Aim of meeting

## *Engaging users of data*

- Involvement of active energy researchers
- Gather data challenges around household energy data (our role as national data access brokers)
- Contribute real needs to the development of a big data platform and tools
- Show you some early ideas



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# Overview

- Brief talks by invited guests to set the scene
- Drinks and big data experiments demo
- Discussion groups
- Report back
- Call for collaborative projects



# What is the UK Data Service?

- a comprehensive resource funded by the Economic and Social Research Council (ESRC)
- a single point of access to a wide range of secondary social science data
- support, training and guidance throughout the data life cycle
- listen to our recorded webinars at

<http://ukdataservice.ac.uk/news-and-events/videos.aspx>



# Links with other data archives worldwide

Qualitative data

— Data archives

Open data

Secure datalabs

Question banks

Data access policy

European data archives

North American data archives

Other worldwide data archives

SHARE 



UK Data Service



# What does the UK Data Service do?

- put together a **collection of the most valuable data** and enhance these over time
- **preserve data in the long term** for future research purposes
- make the **data and documentation** available for reuse
- **provide data management advice** for data creators
- **provide support** for users of the service
- information about **how data are used**
- easy access through **website**



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# ESRC/NRF International Centre Partnerships Call 2015

ESRC and the NRF collaborative call for bringing together UK and South African researchers.

Joint ESRC /NRF International Centre Partnerships addressing the broad thematic areas:

- Higher Education
- **Research Infrastructure**
- Social Science of the Nexus
- Urban Transformations



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# Proposal and partners

- Funded November 2015 for 18 months
- Partner Centres:
  - ESRC – UK Data Service
  - NRF – DataFirst, University of Cape Town
- Grant for limited staffing activities and KE activity - travel and workshops
- Leveraged through full integrating with Service's own big data investigations, supported under the ESRC Big Data Network Support
- Household energy data used as a use case for setting up and demonstrating **transferrable** big data infrastructure
- Engaging key players in the UK – CEE, DECC and UKERC



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# Aims and Outcomes

- Investigate and test platform/ tools for ingesting, quality assessing and exploiting large-scale data for social science research
- Household energy research used as test case
- Include secure data mashing/linking to create new non-disclosive data products
- Application for research with policy relevance
  - Exemplar use cases
  - Assessment of data needs for the research communities
- A joint UK-ZA training course to be delivered to contribute to upskilling in 'big data' issue for social scientists



# Aligned projects

- **UK Data Service** experiments with mashing/linking smart energy data
- Two applied projects from **CEE, UCL**
- South Africa projects via **UCT Energy Research Centre**
  - Municipal data from Cape Town including billing data and consumption.
  - Research questions posed around **environmental economics** on costing, best energy tariff structures from the perspective of new development outcomes and encourage energy saving
  - Medical researchers working in a rural centre, an MRC/WITS Agincourt Health and Socio-demographic Surveillance System site near Kruger Park. **Monitoring health and development outcomes** since 1992, providing a long time series of data. Do they match energy provision, e.g. introduction of electrification?



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# We want your views

- Opportunity to **bring together researchers** already engaged in household energy research using data
- Your **data challenges**
- What are your ideas for **scaling up** to exploit big data opportunities?

