

Greater Address Accuracy, Better Results

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- Interim Software Development Manager
- Joined Ofgem 2 years ago
- Worked in Software Development for about 25 years
 - Vehicle Navigation, Naval Command and Control Systems, NHS Patient Data Management, Master Data Management, Telephony
- Self confessed “Mapping Geek”
- Wrote a personal navigation app for distance athletes

Today's Talk

- Outline of Ofgem's Delivery and Schemes Division
- Why we need address data
- Importance of address accuracy
- What Ofgem does with the address data

What does Ofgem Delivery and Schemes do?

- Responsible for designing, developing, and delivering sustainable energy and environmental schemes to consumers behalf of BEIS/DESNZ
- Develop bespoke software to help manage the schemes
- 10 schemes, worth £9 billion per year
- Fundamental toward NetZero by 2050

Renewable Heat Schemes	Renewable Electricity Schemes	Fuel Poverty Schemes
Domestic Renewable Heat Incentive (DRHI)	Feed In Tariff (FIT)	Energy Company Obligation (ECO)
Non-Domestic Renewable Heat Incentive (DRHI)	Renewables Obligation (RO)	Great British Insulation Scheme (GBIS)
Domestic Renewable Heat Incentive for Northern Ireland (NIRHI)	Renewable Energy Guarantees of Origin (REGO)	
Boiler Upgrade Schemes (BUS)		
Green Gas Support Scheme (GGSS)		
Green Gas Levy (GGL)		

Why do we need accurate address data?

- Accurately record activity at all premises
- Consistent address format
- Fraud Detection and Prevention
- Accurate reporting of scheme activity and costs
 - Internally
 - Externally - BEIS/DESNZ

Address Lookup on older Schemes

- Manually entered Addresses
 - Inconsistency in address entry
 - Spelling mistakes
 - Local “assumptions”
- Used a local copy of PAF
 - Only Postal addresses
 - Requires manual intervention to cleanse addresses
 - 5 different address lookup services
 - Requires internal administration

Addresses in Computer Systems

- The Problems with existing address formats
 - Not designed specifically for computer systems
 - Each have a specific purposes
 - Human readable as opposed to computer readable
 - Humans often enter addresses into computer systems
 - Can be ambiguous without local knowledge
 - Computers don't have local knowledge
 - Matching addresses is difficult and not always an exact science
- The Solution
 - Map Human Readable Addresses to UPRN
 - Computers can speak to each other in in UPRN

Same Address, three ways to describe it, based on purpose

Address Descriptor		Use
BUILDING_NAME	: <i>Premises Name</i>	Postal Address: Hierarchical description of how to route post to an address
DEPENDENT_LOCALITY	: BALFRON STATION	
POST_TOWN	: GLASGOW	
POSTCODE	: G63 <i>nXX</i>	
PAO_TEXT	: <i>Premises Name</i> BALFRON STATION	Administrative Address: Physical Location Local Authority Electoral Ward NHS Trust
STREET_DESCRIPTION	: Cxx FROM Ayyy TO Czz	
TOWN_NAME	: DRYMEN	
ADMINISTRATIVE_AREA	: STIRLING	
POSTCODE_LOCATOR	: G63 <i>nXX</i>	
UPRN	: 001234567890 (randomly selected)	Computer Address: absolute number

The Future of Address Management in Ofgem

- UPRN will be our key address attribute for storing and communicating address information
- Accurate and consistent address lookup
 - OS Places API
 - More Up-to-date and consistent dataset than PAF
 - Reduced need for internal data management
 - Available under the PSGA
- GDS Standards for User Experience

Advantages of UPRN and OS Places API

- Integration with 3rd party APIs
 - Energy Performance Certificate(EPC) Register
 - Identity Checks
- Fraud Prevention – easier to match addresses
 - Claim multiple times on one scheme
 - Claim over more than one scheme
 - Buildings that don't exist
- Consistent address format across schemes
- Duplicate checking
- Electronic communication of addresses

- More efficient development
 - Build a shared address service and reuse across multiple schemes
- Consistency for GDS Assessments
- Increased accuracy in address lookup
 - ECO used to need a manual check of addresses that could not be found in PAF this is now negated
- Reporting
 - Internal – cross scheme
 - External to DESNZ, who match with other data sources

Summary:

- UPRN is not a massive technical change
- There has been a learning curve
- Everyone is onboard, not just in Delivery and Schemes but Ofgem wide
- The benefits to Ofgem are significant, and I don't think we're fully appreciating them all yet.

Questions...

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Ofgem is the Office of Gas and Electricity Markets. We are a non-ministerial government department and an independent National Regulatory Authority, recognised by EU Directives. Our role is to protect consumers now and in the future by working to deliver a greener, fairer energy system.

We do this by:

- **working with Government, industry and consumer groups to deliver a net zero economy at the lowest cost to consumers.**
- **stamping out sharp and bad practice, ensuring fair treatment for all consumers, especially the vulnerable.**
- **enabling competition and innovation, which drives down prices and results in new products and services for consumers.**

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