



Big Data and Data Privacy

Gavin Jones

Business Development Director

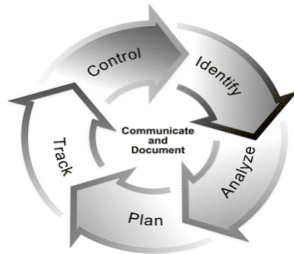
6th Smart Grids & Cleanpower Conference
3-4 June 2014, Cambridge, UK
www.hvm-uk.com (link enabled)



The Need

- Total UK energy production in the second quarter of 2013 was 9.5% lower than over the same period last year. Oil experienced a steep fall in production, at 14% and coal production fell by 24%. (out-law.com)
- **Two years ago the UK had a buffer between energy supply and demand of 16%, but this winter that will fall to 5% and it could hit 2% by 2015, according to the National Grid.(BBC)**
- SSE boss Ian Marchant warns of risk of 'lights going out' (BBC)
- **Mr Buchanan feared we will be dangerously close to not having enough power in the grid to keep Britain's lights on. (Telegraph)**

Use of Industry Data – Where is the Balance?

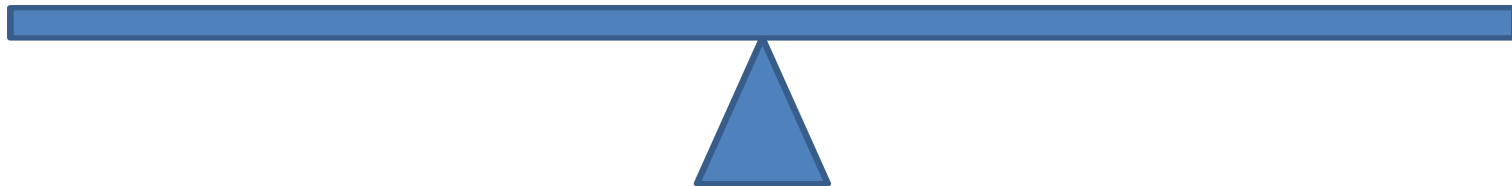


Advantages

- Improve industry processes
- Reduce cost to consumer
- Identify and remove bottlenecks

Constraints

- Data Protection
- Privacy
- Commercial Concerns



Who applies the rules?
What is the oversight

Balance For the Company

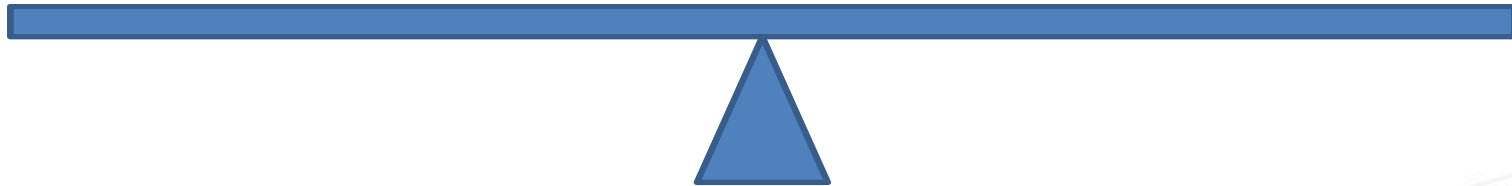


Advantages

- I can reduce costs
- I can reduce risks
- I can better serve my customers

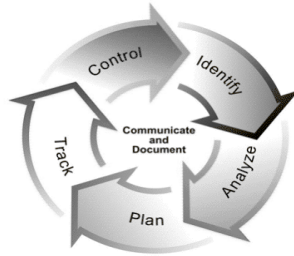
Risks

- My competitors might use the information better than me
- Someone might use the information against me
- Change is risky
- Would my customers like me using this data



Who owns what data?

Balance For the Consumer



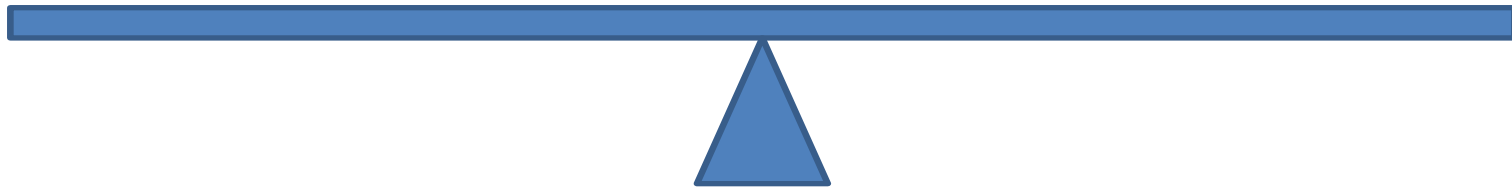
Advantages

- My costs will be lower
- I will have a better service



Risks

- Someone might use the information against me
- I don't trust who is getting the information
- I don't understand how the information is going to be used



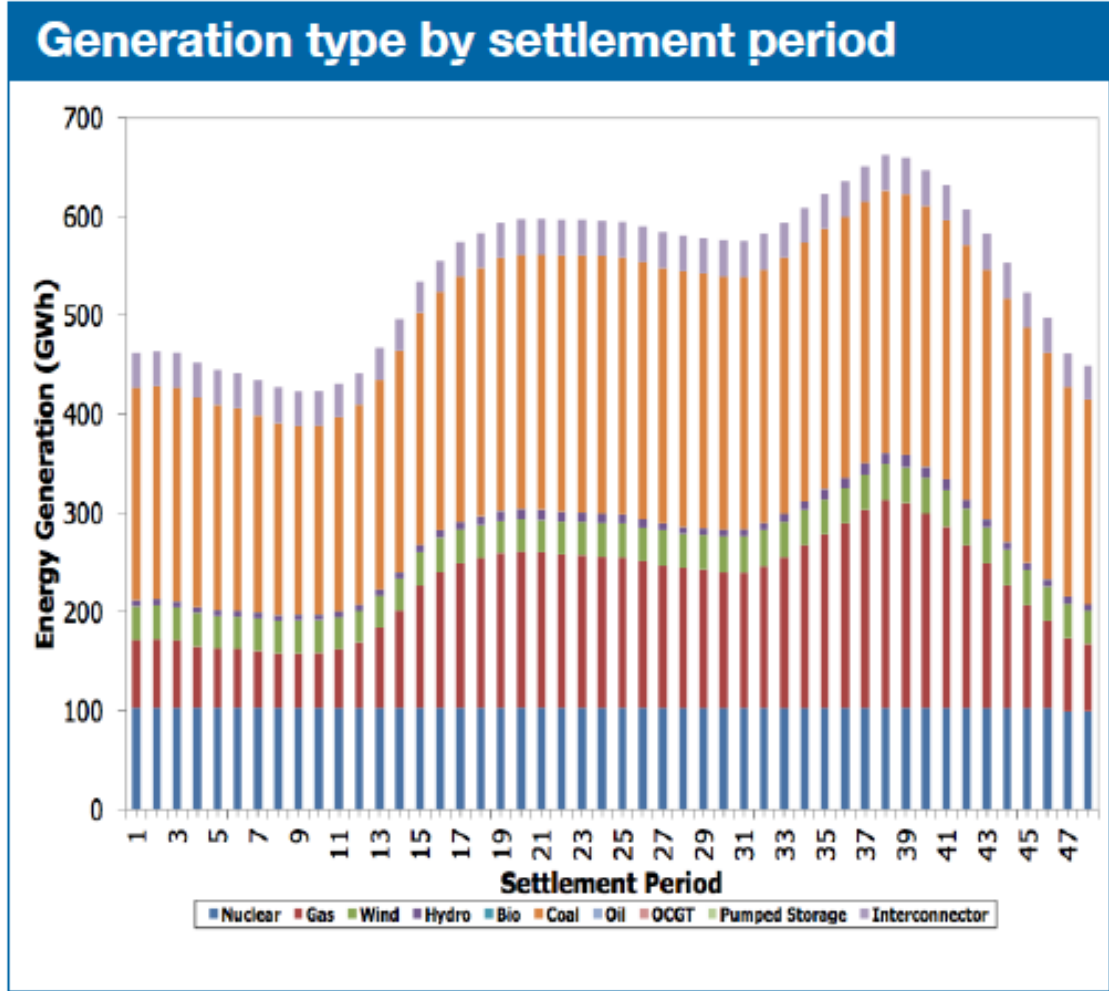
Other Data Sources

Government
Ordnance Survey
Email
Twitter
Facebook

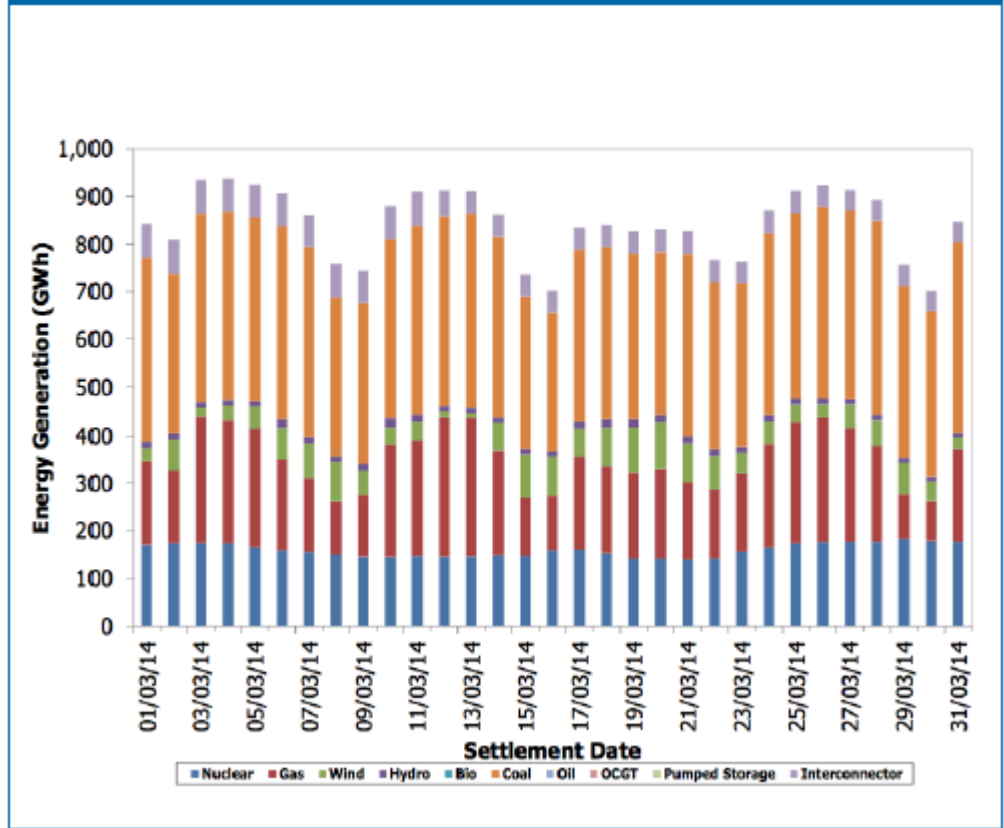
Registration Systems
Process Messages
Demographic Data
Network Information
Political Forecasts

Google Streetview
Smart Meters
Settlement
Weather Forecasts
Football
Economic Forecasts
Forecasts

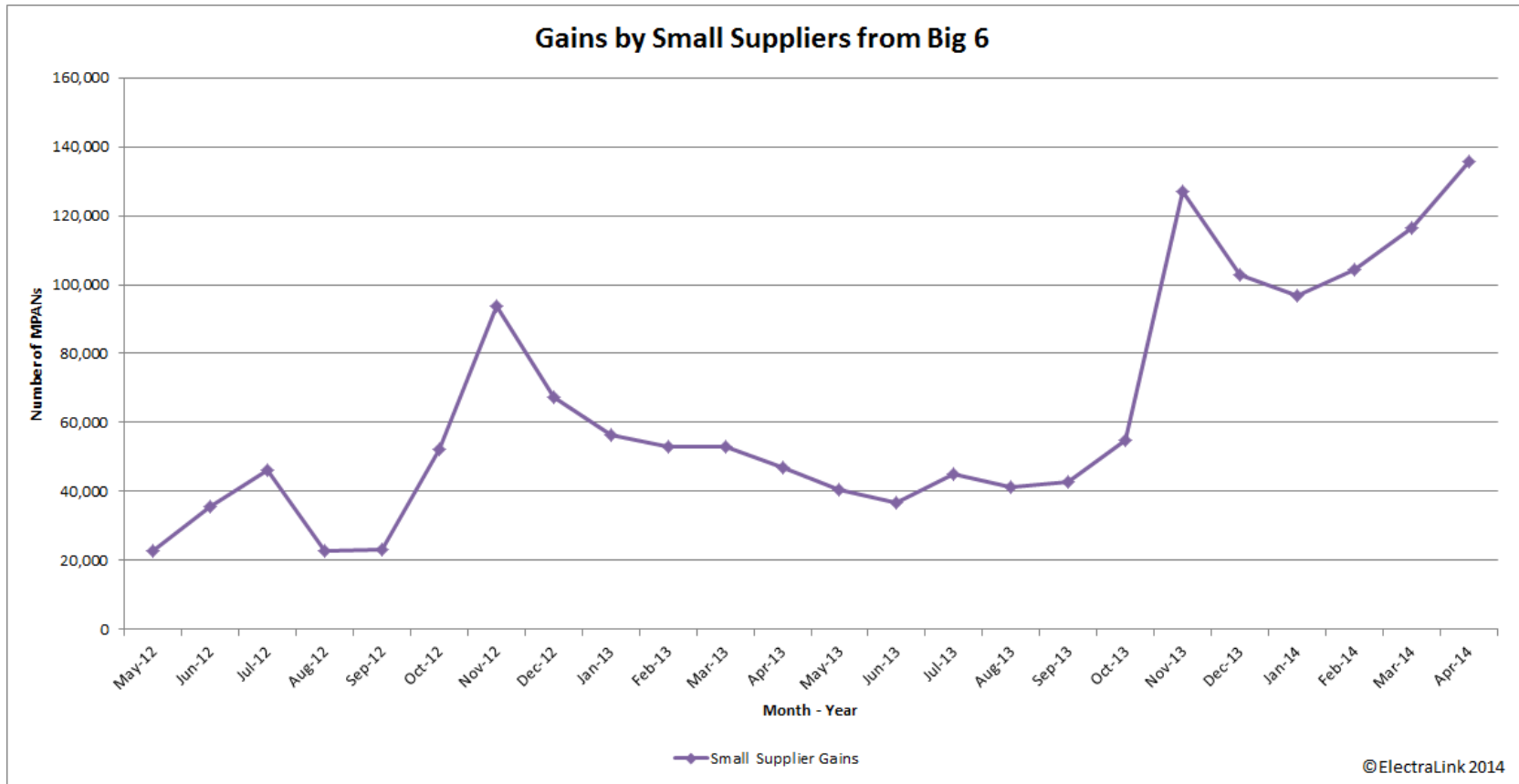
Some Examples



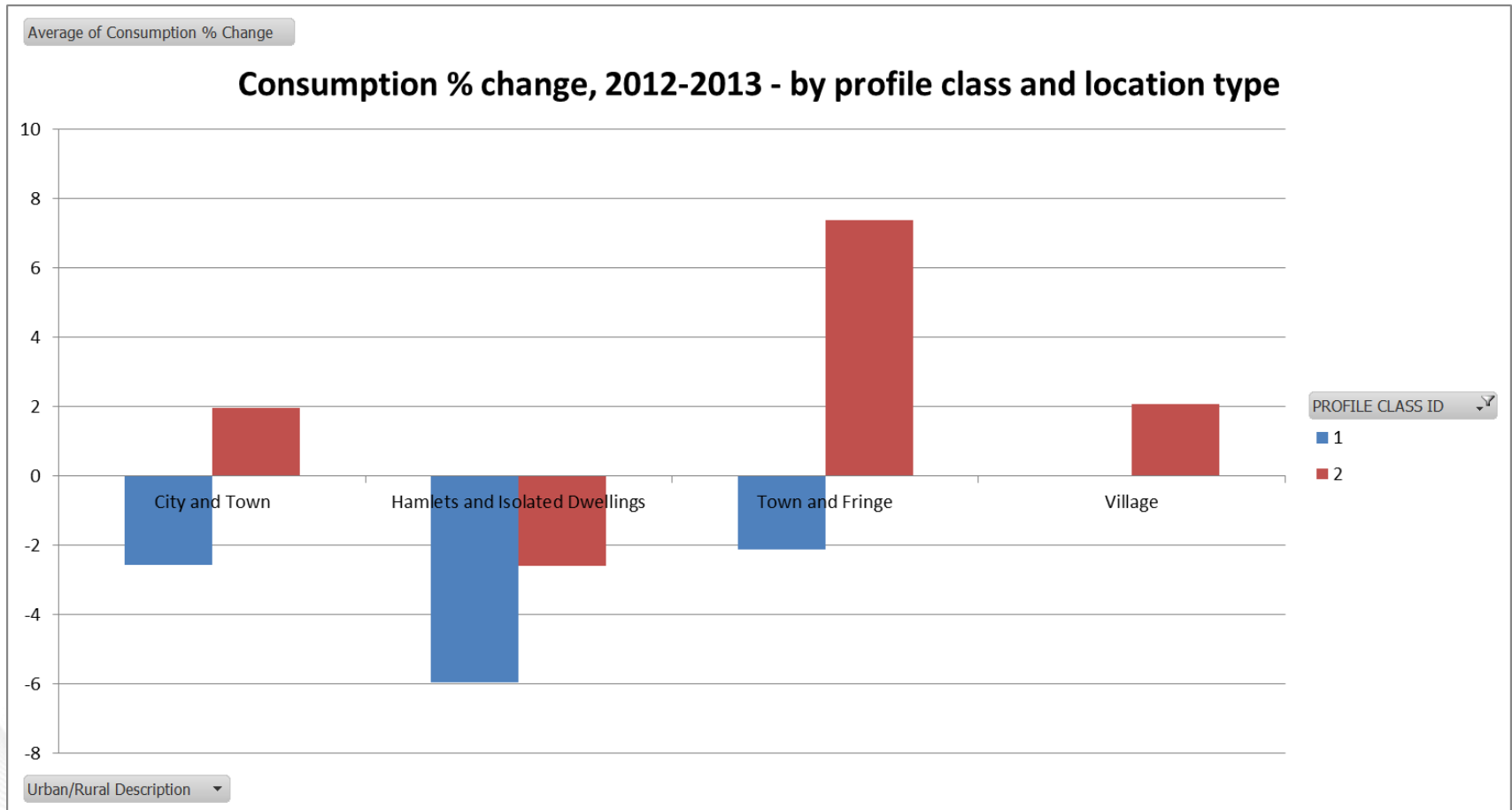
Daily generation by fuel type



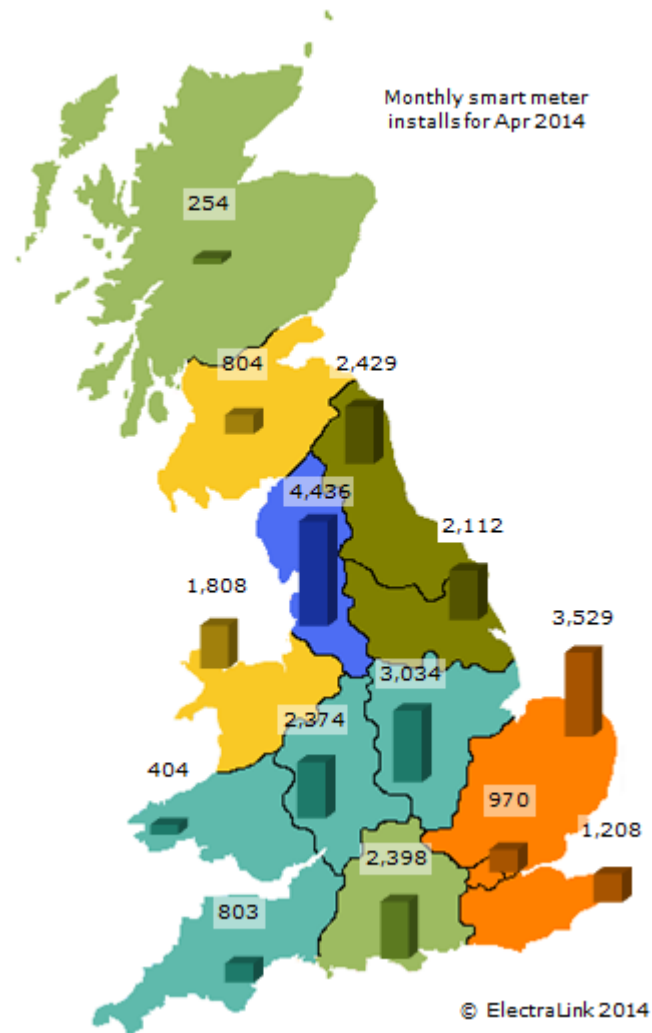
Some ElectraLink Examples



Some ElectraLink Examples



Some ElectraLink Examples

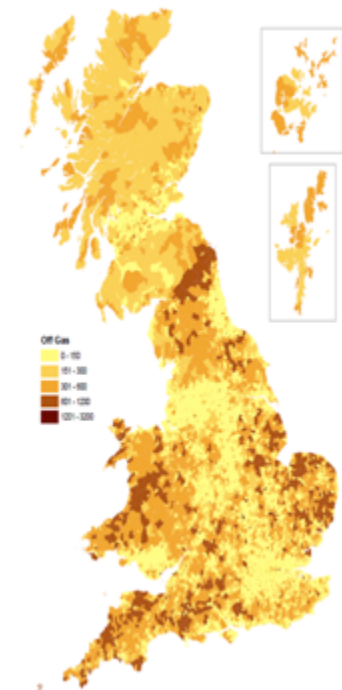


Latest:

- ElectraLink and Energy Savings Trust are launching a service to support the smart meter rollout
- Merging data to provide property and regional predictions on the difficulty of installing smart meters
- Allow better planning and more efficient installations

Energy Savings Trust

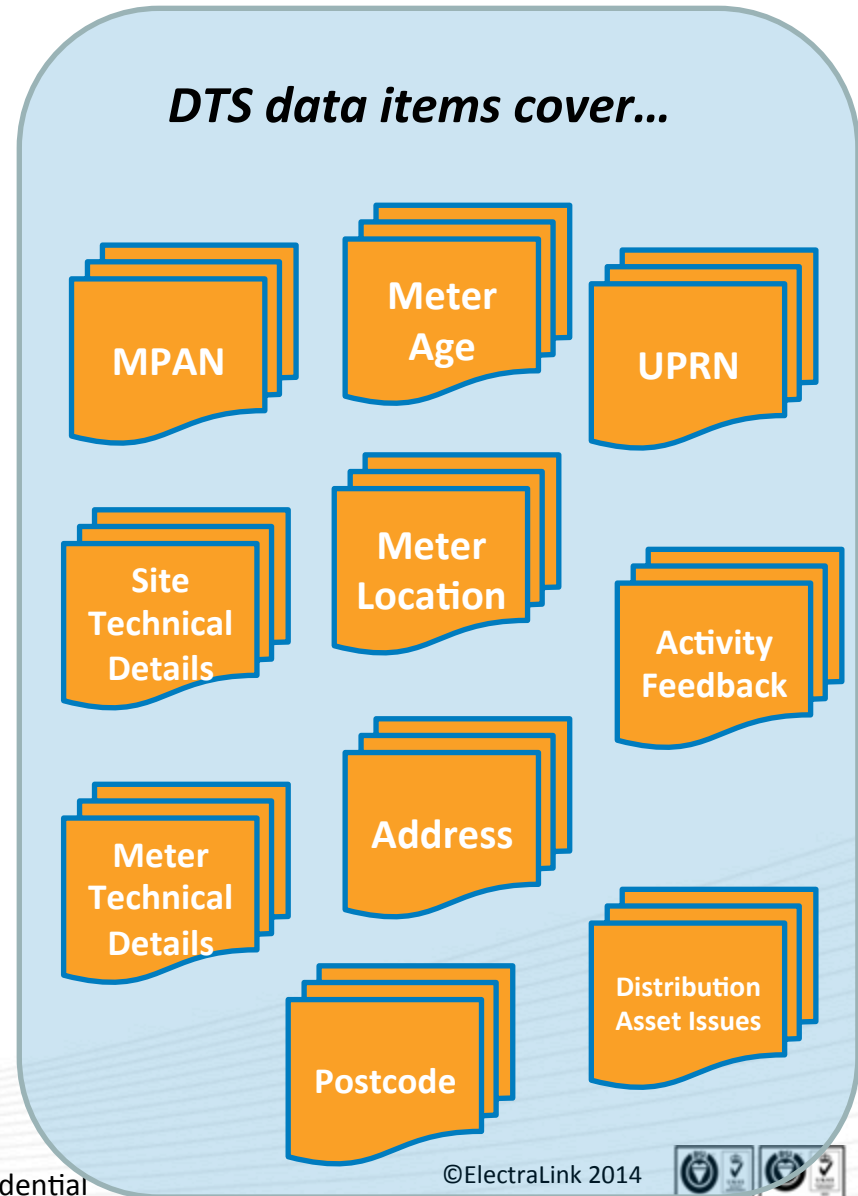
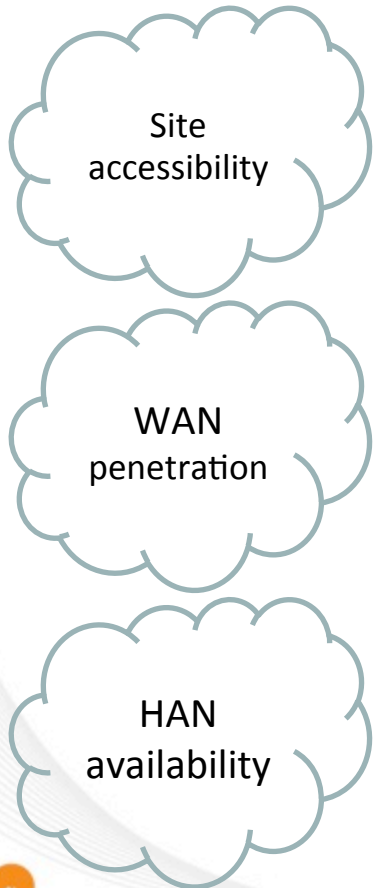
- Wall type and insulation
- Fuel type
- Glazing type
- Tenure
- Number of bedrooms
- Solar PV
- Distance to gas grid
- Micro - wind potential
- Willingness to act
- Loft insulation
- Boiler type
- Property type
- Property age
- m² footprint of dwellings
- Solar thermal
- Distance to biomass supplier
- CERT PG, SPG and ECO
- Trigger points



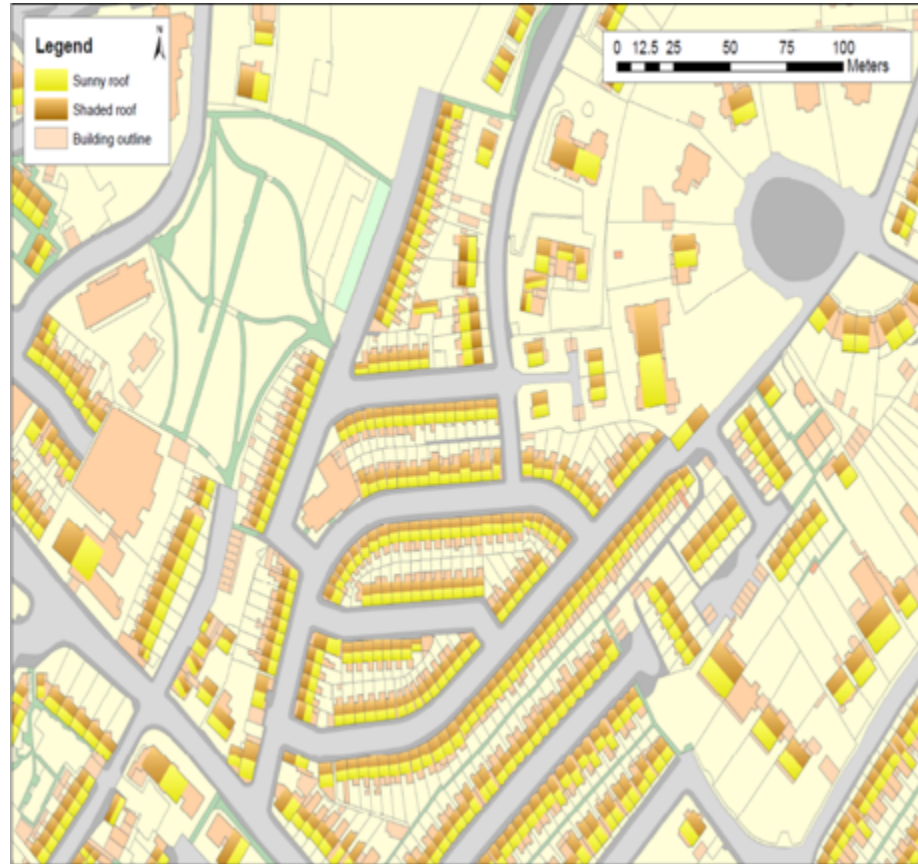
ElectraLink data

Rollout issues might include...

Which might require insight into...



Modelling process



A 'Typical' Street

Property Type	Semi-detached
Customer Score	1
Installation Diff	2
WAN Penetration	2
HAN Connectivity	2
Meter Location	Inside
Multi-dwelling	No

Property Type	Terraced House
Customer Score	2
Installation Diff	1
WAN Penetration	1
HAN Connectivity	1
Meter Location	Outside
Multi-dwelling	No

Property Type	Terraced Flat
Customer Score	2
Installation Diff	3
WAN Penetration	1
HAN Connectivity	2
Meter Location	Inside, Difficult
Multi-dwelling	Yes



The image cannot be displayed. Your computer may not have enough memory to open the image, or the image may have

Property Type	Bungalow
Customer Score	3
Installation Diff	1
WAN Penetration	2
HAN Connectivity	1
Meter Location	Outside
Multi-dwelling	No

Property Type	High-rise Flat
Customer Score	3
Installation Diff	1
WAN Penetration	3
HAN Connectivity	3
Meter Location	Inside, Difficult
Multi-dwelling	Yes

Property Type	Detached House
Customer Score	1
Installation Diff	1
WAN Penetration	2
HAN Connectivity	3
Meter Location	Outside
Multi-dwelling	No

Summary

- We have to make better use of data
- We have to share information and learn as an industry
- We have to share information at the same time protecting individual and commercial interests
- Finding the right approach is vital
- Getting affordable reliable energy is vital to the country



Thank You

Gavin Jones

Gavin.jones@electralink.co.uk