

National Grid: Network Extensions - Leading the Way

Executive summary

This submission outlines an extraordinary twelve months for our network extensions strategy during which time we achieved our 2013 target three years early. In fact, 2010/2011 saw us nearly doubling the rate of connections achieving a staggering **4,710** in just one year giving a total of **8,454** homes connected, despite already having the most actual completed connections per network area in 2009/2010. We are already planning for future years and have almost **21,000** potential Community connections in our planning process.

2010/2011 was also a milestone in terms of innovation: we finally found and successfully implemented a low carbon 'heat' solution for delivering network extensions to multi-occupancy dwellings (a major challenge given the number of multi occupancy homes within our network areas). We also further improved our network extensions application process – the fastest and the only paperless application process in the sector.

For community schemes alone our highly acclaimed partnership has secured over **£4.8million** in investment for new gas heating systems. Customers are also recognising the improvement with an increase in customer satisfaction, and **97%** of customers saying their houses are now warmer following the installation of a new gas heating system.



The context and strategic objectives

There are an estimated 1.4 million fuel poor or vulnerable households in our four gas distribution areas that currently have no access to gas and qualify for assistance under the current Ofgem criteria for a gas network extension.

In 2009 we agreed a target with Ofgem of providing gas network extensions to 5,000 homes by 2013 as part of Ofgem's publicly stated objective of connecting 20,000 fuel poor households to the gas network by 2013. We have already exceeded this target.

We are not resting on our laurels though and within our business we have revised our target from 5,000 to 17,150 completed connections.

Our network extension strategy

It is surprising how much Gas Distribution Networks (GDNs) differ in their strategies. Our network extension strategy is as follows:

- Target the 20% most deprived areas using demographic data.
- Establish a Community Interest Company (CIC) called Affordable Warmth Solutions CIC (AWS) - a separate non-profit distributing organisation founded and funded by National Grid.
- Target and bring together other key strategic and funding partners such as Local Authorities, Housing Associations and energy suppliers, and also the government Warm Front scheme.
- Back up the new gas network connections with other essential energy efficiency measures to achieve maximum warmth for minimum spend.

Solving our demographic challenge

National Grid's network area includes 5 of the top 10 UK cities in the country. This means that a large proportion of our fuel poor households (80-85%) live in high rise flat developments that may not be suitable for individual gas connection. Therefore innovation was needed.



Our solution is a centralised boiler unit and the construction of a heat network, successfully piloted in Stourbridge in 2010 – a sector first: see Doveton House in supporting material.

Other AWS developments

Last year we explained how we introduced AWS in 2009. The company brings together funding partners, local authorities and communities to provide efficient gas connections and new gas heating systems for the fuel poor. Developments in 2010/2011 have been as follows:

- Further enhancements to our e-commerce systems to speed up fuel poor quotations and automatically apply a Fuel Poor Voucher to qualifying households living in deprived areas. Ours is still the only paperless network extension application process in the sector, and therefore takes just minutes to complete as many fuel poor customers struggle to fill in paper forms.
- Consumer Focus partnership: In an effort to better target "Hard-to-Reach" households, AWS has worked with Consumer Focus, sharing research and information that will help the whole energy industry better target potentially vulnerable households.

N.B. Qualifying households don't just benefit from a new connection, they can also benefit from a discounted high efficiency gas-fired heating system, cavity wall insulation, loft insulation and energy efficiency advice including help choosing the most appropriate energy tariff.

Stakeholder engagement

National stakeholder engagement:

- Jenny Saunders, the Chief Executive of National Energy Action (NEA) represents consumer interests on the AWS board.
- National Grid is the only GDN represented on the Government's Fuel Poverty Advisory Group.
- National Grid actively engages key stakeholder groups through their participation in the All Parliamentary Fuel Poverty and Energy Efficiency Group.
- National Grid is an active member of the NEA Business Supporters Group.
- Our new Consumer Focus relationship (outlined earlier).

Funding for community projects

- £4.8m has already been committed by our partners for central heating improvements that are expected to be realised within 12 months following the installation of the new gas connections.
- National Grid has identified circa £13million for investment with around £5 million likely to be invested by it during 2011/12.
- During the year Affordable Warmth Solutions ring-fenced £250,000 to support the installation of new gas heating systems for 'non public' sector housing in two projects. In addition it has secured around £900,000 in CERT funding for one of the projects.
- During the year our activities have also enabled local authority partners to secure over £660,000 in CERT funding.

Performance indicators

- **Project indicators:** Post contract evaluations are undertaken between National Grid, AWS, its contractors and, most importantly, customers. The reviews include Health & Safety compliance, customer satisfaction and include the identification and resolution of any on-site findings.
- **Impact measures:** We also measured the impact on perceived warmth, energy bills and emissions (see later).
- **Customer satisfaction indicators:** AWS carries out post-project completion customer surveys. **71% of respondents rated the overall service they have received from AWS as 10/10** (up from 67% last year).

Actual network connections

We committed to Ofgem 5,000 connections by 2013 – we have already achieved 8,454 actual network connections (4,710 in 2010/2011). According to data reported to and published by Ofgem, National Grid achieved the most actual (not just planned) connections per network area in 2009/2010 (see graph in supporting material) and we nearly doubled this figure in 2010/2011 (refer to graph right). We also have a strong delivery plan:

- We have almost 21,000 potential connections already in the planning process.
- A 52% increase in the number of planned connections for the period 2011-2013, compared to those made to date.

Other delivery achievements include:

- Almost 8km of new gas mains constructed.
- 58 community projects completed in 2010/2011 (total completed to date 69).
- Through the provision of a FREE gas connection, we have enabled the fitting of a new gas heating system to 8,454 homes.

Leading the wider industry

- National Grid provides a mechanism that Independent Gas Transporters and Infrastructure Connection Providers can access in order to benefit from the funding partnerships that AWS has brought together. During 2010/11 we helped facilitate the connection of 167 homes in other GDN areas.

Local stakeholder engagement:

- We have held several community events. The largest of which was in Langwith on the back of the turnout for the local election. This was attended by over 400 people.
- 12 Consumer Open days in 2010 for the team to meet with customers to help resolve issues of a more individual nature.
- Prior to the commencement of each project a stakeholder engagement plan is agreed with the local authority or housing association.
- In ethnic minority areas we engage the support of local community support officers.
- In local 'hot spot areas' we engage the support of community support groups and ensure the Community Police are aware of our activities.

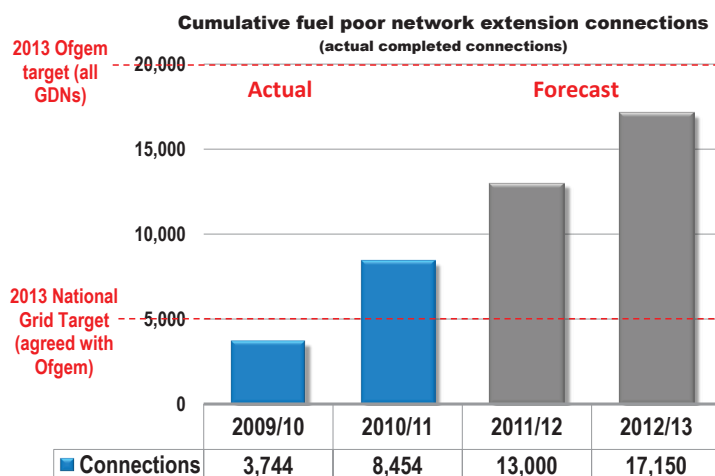
Impact on people's lives

- According to our survey 97% of customers who benefited from our network extensions say their houses are warmer.
- Warmer homes lead to better health: reducing for example cardio-pulmonary illness amongst the elderly.
- Research by the Government's Chief Medical Officer (2009) suggests that for every £1.00 spend on Energy Efficiency measures £0.41 is saved by the NHS. Therefore we estimate that our new gas connection and heating work will save the NHS £10.1million.

Impact on the environment

Offering gas instead of coal or electricity, alongside our energy efficiency measures has delivered:

- Approximately 638,871 tonnes of lifetime CO₂ savings, equivalent of permanently taking 5,200 cars off the road.
- Local authorities/registered social landlords will meet air quality and energy efficiency targets.



We have already exceeded our final target and aim to triple this by 2013 (see supporting pages for per year performance and comparison with other GDNs)

- We are leading the debate with DECC to extend the Green Deal to include new gas connections.
- In November 2010, National Grid became the first GDN to hold a dedicated RIIO stakeholder event targeting the fuel poor which included voluntary groups such as Age UK and Citizen's Advice Bureau. The three other GDN's have now followed our lead.

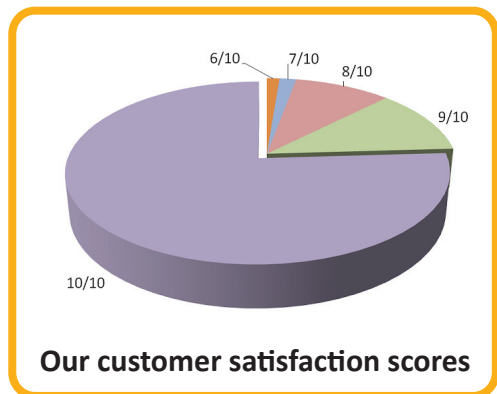
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Supporting Document

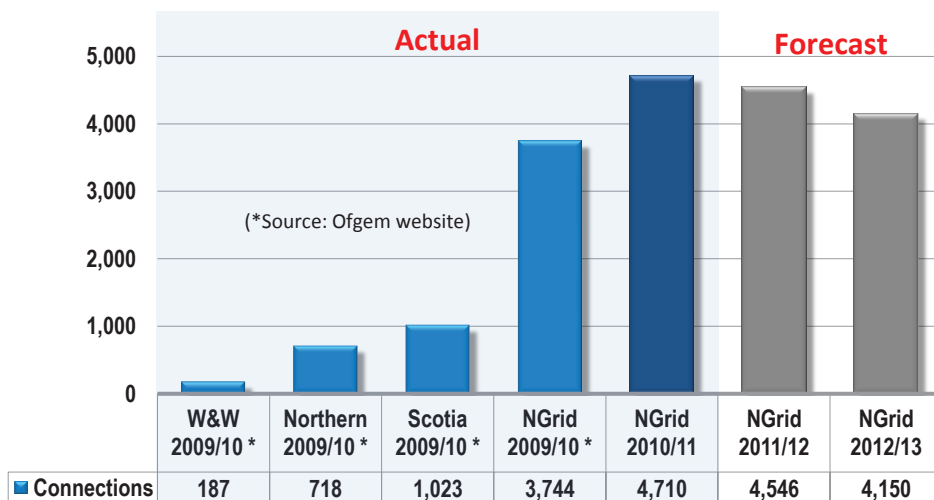
Leading the sector in fuel poor network extensions

Using data published on the Ofgem website we can demonstrate just how much we led the sector in terms of completed fuel poor network extensions in 2009/2010, and we have further improved our performance by 26% in 2010/2011.

Please note that the data used is the total for all areas, but even if we divide our actual network extensions by four, we still have the highest average network extensions per area of any gas distribution network (GDN). (See graph right)



Annual fuel poor network extension connections (completed extensions, as reported to Ofgem)



Source: Ofgem connection industry review 2009/2010

An important new type of network extension - Doveton House

Doveton House in Stourbridge consists of 30 one bedroom flats and one two bedroom flat. Previously each flat was heated with two or three individually controlled electric storage heaters which were inefficient and expensive to run. By securing an investment of £220k we have ensured Doveton House is the first multi-occupancy development to benefit from an entirely new type of network extension that falls outside the scope of the FPV scheme: a centralised boiler unit where there is one gas extension that benefits numerous flats.

One benefit of this innovation is continuity of supply to vulnerable people. If a single gas boiler/pump breaks down a home gets cold which increases the risk of ill health whereas this provides back up heat should 1 or even 2 components fail maintaining a reasonable level of warmth within the property.

This innovation has enormous significance given the number of multi-occupancy inner city neighbourhoods that we serve where network extensions are particularly challenging.

National Grid believes this approach to heating multi occupancy buildings is 'ground breaking' and has engaged Ofgem with a view to supporting changes in our Charging Methodology that would allow us to provide greater investment to Heat Networks. One lady

at Doveton House told one of our team that she used to go to bed at 5pm in winter because of the cold. She can now stay up and enjoy spending time with other residents.



Supporting Document

Customer letters

9, Red Lane,
Kenilworth,
Warwickshire
CV81N2
29th November 2010

Dear Jane,

Please find enclosed the final Party Consent Form, as requested.

If there are any queries or problems to resolve please do not hesitate to contact me on either my home number of (01926) 512823 or at my mother's address on (01782) 372538.

Can I take this opportunity to again thank all at Affordable Warmth Solutions who have been involved in getting dual gas central heating into my mother's home. Your kindness and efficiency have, at a very stressful time, made things so much better. It has been a real pleasure and your level of service and attention has been impeccable. On behalf of myself, my sister and my mother we would like to say a heartfelt "Thank You" for all that you have done.

With kind regards,
Yours sincerely,
Warwick Webster

Our Ref: Doveston House
Date: 21st January 2011

BLACK COUNTRY HOUSING GROUP
Housing and community solutions

Mr P. Rider
National Grid Affordable Warmth Solutions
31, Homer Road
Solihull
B91 3LT

RE: Doveston Flats, Stourbridge – Community Gas Scheme

Dear Phil,

I am writing to you to thank National Grid Affordable Warmth Solutions (AWS) for the help and support with regard to the installation of a new gas supply and associated communal heating system at Doveston House in Stourbridge.

As you are aware this was a scheme for elderly residents, many of whom are the most vulnerable in our society. I am delighted to inform you that the tenants have expressed how happy they are with the work conducted by AWS and their associated contractors. A special mention must also go out to your heating contractor GASS Ltd, who had to install detailed heating systems, but at the same time provide a safe environment for our residents. This was accomplished with credit.

All the staff and operatives on this scheme have been considerate to the needs of our residents and the management team on site. As a consequence, Black Country Housing Group can confirm that we are delighted with the quality of the completed scheme as well as the way the partnership worked and developed, providing a coordinated and planned approach to scheme management.

We hope to undertake more partnership working in the future and thank you again for your assistance and support.

Yours sincerely
S. O'Callaghan
Head of Property Services
Black Country Housing Group

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How easy is it to apply for a network extension? Just one instant step with National Grid, the quickest and only paperless approach in the industry.



Our 1000th community Customer



Operations director Phil Rider with our 1000th Wigan customer

Homes going green and saving cash

ONE of the World's largest energy companies is working alongside householders in the borough in a green pilot scheme.

They say it is helping to reduce fuel bills along with saving tonnes of harmful CO2 produced by their homes.

Working in partnership with Wigan and Leigh

Housing, National Grid's Affordable Warmth Solutions programme hopes to tackle the issues of increasing energy prices and the growth of "fuel poverty" by connecting some of the most deprived areas of the borough to hot gas distribution networks.

This means that high-efficiency condensing gas boilers

can now be installed in homes which previously depended on more expensive and considerably less efficient electric storage heaters.

The scheme celebrated by turning on the taps to officially fire-up its 1000th Wigan customer's central heating equipment.

Wigan and Leigh Housing

has an ongoing programme to replace electric storage heaters with energy efficient gas central heating.

This not only benefits the tenants concerned by reducing their fuel bills, but also has positive implications for society as a whole.

Operations Director for National Grid Affordable

Warmth Solutions Phil Rider said that the overall benefits from extending the gas mains network and installing new energy efficient gas heating systems for individuals, communities and the environment were significant.

He said: "This initiative will change the lives of thousands of people."

Customer comment

"We can't begin to tell you how delighted we are with the new heating system. Before we had gas installed the flat was damp and cold and certainly was not a nice place to spend cold winter evenings. Since we have had gas installed, we can now enjoy our home and sit in comfort, nice and warm. It has changed our lives. Thank you so, so much" (Mr P, Wulvern Homes Tenant)