

## **firmus energy briefing document**

### **DETI Committee**

**22<sup>nd</sup> May 2008**

#### **1. Background**

- 1.1. firmus energy was awarded two licences for the conveyance (network distribution) and supply of gas outside Belfast in March 2005.
- 1.2. These two licences cover 12 towns outside of Greater Belfast, feeding off the recently constructed North West pipeline (completed in 2005) and the South North pipeline (completed in early 2007).
- 1.3. The 12 towns are: Londonderry, Limavady, Coleraine, Ballymena, Ballymoney (fed from the NW pipeline) and Antrim, Lurgan, Craigavon, Portadown, Banbridge, Newry and Armagh (fed from the SN pipeline).
- 1.4. Both the North West pipeline (which runs for 112km from Carrickfergus to Coolkeeragh Power Station in London/Derry) and the South North pipeline (which runs for 156km from Ballyclare to Gormanstown, Co. Meath) were constructed and subsequently operated by firmus energy's sister company, BGE(NI) Ltd. Both firmus energy and BGE(NI) are subsidiaries of BGE.
- 1.5. By way of its licence award, firmus energy operates a franchise in each of the 12 towns for a period of between 5-8 years (five years for industrial and commercial users and eight years for domestic users) from the date of first connection in each of the towns. During exclusivity, firmus energy operates under a '*no profit, no loss*' regulatory arrangement, that is to say any profits generated are netted off against the cost of network development and subsequently future customer tariffs.
- 1.6. The arrangement also allows firmus to price the cost of gas to new customers at a discount against the displaced fuels (oil, LPG or coal). This allows newly connected customers to both recover the costs of changeover and deliver real savings on their fuel bills. The regulatory arrangements during exclusivity allow for the gradual recovery of network capital spend in the early years, with full conveyance charges ramping up as exclusivity ends. The total duration of the firmus energy conveyance licence is 30 years (2005-2035).

#### **2. Progress to date**

- 2.1. As at the end of March 2008, firmus energy has laid over 310km of new gas mains in 11 of the 12 towns (Armagh is scheduled for first connections in Q2 2009).

2.2. The agreed firmus energy regulatory model is the development of the network to facilitate the connection of 'known loads' only, i.e. no speculative mains will be laid. In delivering against this commercial orientation, firmus energy focuses on four specific customer groups: large industrial and commercial users, small commercial users, new build housing developments and the Housing Executive estate. firmus also markets natural gas connections to owner-occupied homes immediately adjacent to existing gas mains.

2.3. To date over 3,200 customers have connected to the new gas network. In terms of the key industrial and commercial loads, over 80% of targeted customer sites have now contracted for natural gas and have/are in the process of being converted.

2.4. By the end of 2008, over 4,700 customers will have been connected across the 12 towns and 90% of all large industrial users will have been contracted for natural gas. The firmus energy regulatory model anticipates over 60,000 customer connections across the licenced area by 2035.

### **3. Customer benefits realised**

#### **3.1. Cost**

Even with recent wholesale gas cost increases, natural gas continues to offer customers the lowest cost fuel alternative, both in terms of installation costs and on-going running costs, for heating and process loads. Natural gas has historically been the lower cost fuel alternative for homes and business in GB, ROI and Europe, and is continuing to offer savings of at least 20% compared to gas oil or heating oil.

Over the last 12 months, industrial and commercial users who have switched to natural gas have saved around £3m on fuel costs, profits which can go straight to their bottom line and/or be used to invest in plant, machinery, training and development or increased job security.

From January 2006 to January 2009, firmus energy has offered its domestic and small commercial customers a 'price cap'. This has ensured that customers have been insulated from wholesale gas market fluctuations over this three year period. Based on firmus energy's domestic tariff price, domestic users are currently enjoying a discount of over 32% against home heating oil, resulting in savings of over £290 per year for an average three bedroom semi-detached home.

#### **3.2. Payment**

Unlike oil, natural gas is paid for following consumption, ensuring improved cash flow for business users. Domestic consumers too can take advantage of either direct debit payment methods or pre-payment meters to ensure they pay for their gas on a regular basis, avoiding large bills and fuel debt.

#### **3.3. Energy efficiency**

Natural gas is the cleanest, most environmentally friendly of all the fossil fuels, emitting over 30% less carbon dioxide compared to oil and over 50% compared to coal. Because of the clean-burning nature of the fuel and the elimination of soot and other particulates, it also delivers greater efficiencies in terms of combustion, ensuring that gas boilers generally operate at +15% efficiency

compared to oil-fired boilers. Natural gas can also facilitate the reconfiguration of customer facilities from centralised boiler systems to decentralised schemes, further reducing energy consumption by between 25-50%.

#### **4. Key issues effecting volume and connection growth**

##### **4.1. Connections within the Public Sector estate**

Of particular concern has been the response to the new availability of natural gas by the Public Sector. This has been evident in a number of ways:

##### **4.1.1. Delays in decision making within Councils (many of whom have lobbied for natural gas for 5-10 years) for Council offices, Leisure Centres and Civic buildings.**

These connections, given the size of their loads and their contribution to the recovery of the network development in the towns, are critical for the long term economic viability of the network. Many of these Council loads are the largest loads in the towns.

##### **4.1.2. Delays in decision-making within hospitals.**

Again, these connections are critical for the on-going economic viability of the network. Not only that, but given current escalation in oil and coal prices, these delays are costing the Health Service significantly in terms of heating costs. For example, the delay in the conversion of Craigavon Area Hospital from heavy fuel oil to natural gas has resulted in the negation of around £140,000 of cost savings in the last seven months.

Additionally, there are two large Hospitals immediately connectable to the new gas network, which continue to burn coal (Antrim Area Hospital and Altnagelvin). These two sites could save over 7,620 tonnes of CO<sub>2</sub> emissions every year by switching to natural gas – the equivalent of taking more than 2,500 cars off the roads in Northern Ireland.

**Question:** given the UK and ROI government investment in the new gas network, the requirement to keep customer costs low in the longer term and the 2025 target for 25% CO<sub>2</sub> reduction should there not be a policy for local Councils and other public sector entities to connect for natural gas where it is available? (It should be noted that natural gas will not be universally available to all areas in Northern Ireland.)

##### **4.2. Housing Executive homes**

The NIHE Heating Replacement Scheme not only has the effect of directly replacing inefficient, costly heating systems within the NIHE estate but acts as a gateway for firmus energy to facilitate the connection of owner-occupied properties, allows for the marketing of the Warm Homes Plus scheme within these estates and enables firmus energy economically to connect small and medium-sized businesses around these estates (schools, churches, small enterprise units, shops etc.)

Whilst the Housing Executive has indicated that monies are available for heating replacement schemes in 2008/9, monies are only being released on a quarterly basis. This is wholly unmanageable for planning purposes and the timely construction of new gas mains. To that effect firmus energy are having

to take the risk of building gas mains in NIHE housing estates ahead of confirmed budgets to ensure gas mains are available should schemes be released.

Additionally, early indications are that, out of a total plan of around 2,000 Heating Replacement projects in 2008/9, only 650-800 are scheduled as 'gas conversions' in the NW or SN towns. Figures also indicate that monies have been earmarked for around 800+ oil conversions which not only are 30% more expensive to install than gas conversions but also are less energy efficient, more expensive to run and more difficult to budget for than gas central heating systems.

**Questions:**

- a. Given that over 75% of all NIHE homes in Greater Belfast have already been converted to natural gas, compared to less than 8% of NIHE homes in the NW or SN towns (as at the end of 2007) should monies be more appropriately allocated to new gas towns to ensure regional balance?
- b. Given that budgets are limited, should the NIHE prioritise gas schemes in 2008/9 which can ensure that more tenants can avail of efficient heating schemes for the same budget?

**4.3. Owner occupied homes**

The current conversion grant allowed under firmus energy's regulatory arrangements is £600 per domestic property. Based on average conversion costs, this means that a new natural gas central heating system will cost a household around net £2,400. Clearly this is a large investment for most households, meaning that conversions tend to be skewed towards 'those who can pay'.

It should also be noted that 21 out of the 23 worst performing Council areas in the UK in terms of household CO<sub>2</sub> emissions are in Northern Ireland.

**Question:** Given the *improved energy efficiency* of natural gas heating systems (94% efficient compared to 60% average for older oil-fired boilers), the *cost benefits to users* (around 20%+) and the *elimination of around 30% carbon emissions* through a switch from oil, what additional funding could be made available to domestic households to avail of the new availability of gas?

[N.B. 2000 homes switching to natural gas will save around 1,700 tonnes (for average 3 bed homes) of CO<sub>2</sub> per annum – a budget of £3m p.a. will pay for '50% conversion grants' in 2000 homes].

**5. Energy mix within Northern Ireland**

- 5.1. firmus energy continues to engage with Departments and Ministers on the issue of developing a joined up approach to energy across the Assembly and a cohesive view on the desired energy mix for Northern Ireland in the medium and longer term.
- 5.2. Northern Ireland is largely a heavy carbon based economy (oil based), which contributes to our position as the "worst CO<sub>2</sub> polluting region (per capita) in the UK" [Sustainable Development Commission].

- 5.3. Whilst gas may not be the complete or final solution to Northern Ireland's energy mix, it does offer the Assembly a 'quick win', low investment cost opportunity to eliminate a significant proportion of our oil and coal consumption.
- 5.4. This switch from heavy carbon fuels to natural gas could contribute to the 25% CO<sub>2</sub> reduction target in the Programme for Government.
- 5.5. firmus energy would welcome a rounded debate on the future energy mix within Northern Ireland and a view on how natural gas can contribute towards the environmental goals of the Assembly.

## **6. Future network expansion**

- 6.1. firmus energy is currently working with the Regulator on evaluating possible extensions to the network within its licence area. Possible towns include Portstewart and Ballyclare as well as Cullybackey, Warringstown and Kells.
- 6.2. firmus energy's sister company BGE(NI) is in the process of building a second spur on the SN transmission pipeline from Kernan AGI in Banbridge to a new AGI off the Armagh Road in Portadown. In addition to acting as reinforcement for Portadown, Craigavon and Armagh, this spur has been sized to accommodate a potential extension of the network to the West.
- 6.3. Total transmission and postalisised distribution costs to get to the 5km points outside Cookstown and Dungannon are estimated by BGE (NI) at circa £13m.
- 6.4. firmus energy has committed with the Regulator to identify the potential gas load and economic viability of future extension of the network to Dungannon and Cookstown at the end of 2008 / Q1 2009. Any network extension would be outside of firmus energy's current licence and would need to added to our conveyance licence area or opened up for tender.

## **7. Market competition**

- 7.1. firmus energy has already secured a large industrial customer in Greater Belfast. This contract was important in learning about the issues associated with contracting with commercial users in the competitive market and firmus energy's learnings have been shared with the Regulator, DETI officials and the Consumer Council.
- 7.2. Issues remain in relation to how new suppliers compete economically with the incumbent but firmus energy remains committed to entering the Greater Belfast market for both commercial and domestic users in the medium term.
- 7.3. firmus energy is also interested in developing a dual-fuel offer in Northern Ireland, using its parent company's expertise and experience in gas and electricity to develop an offer which could meet the needs of Northern Irish consumers. firmus energy will be working with both Departmental staff and the Regulator in the coming months to identify the market and regulatory

issues which need to be addressed prior to realising this dual-fuel strategy.

7.4. In terms of market opening in the 12 towns, firmus is currently working with the Regulator as part of our 2<sup>nd</sup> Price Control to understand the optimal timings for market opening. Given the nature of the roll-out programme across the NW and SN towns in the early years, firmus energy anticipates that market opening will be planned for 2014/5. To facilitate market opening, firmus energy already operates under two licences – one for supply and one for distribution – operates as two companies (firmus energy (Supply) and firmus energy (Distribution)).

## 8. Summary

Given the recent investment in the new transmission and distribution networks, natural gas now offers Northern Ireland PLC, and in particular the NW and SN towns, a number of key benefits:

- 8.1. a proven technology solution, over the long term, for process and heating loads, with a regulated supply chain
- 8.2. a lower cost fuel option for homes and businesses
- 8.3. improved competitiveness for business through lower fuel costs
- 8.4. assistance in the alleviation of fuel poverty through high efficiency, lower cost heating systems with pre-payment options
- 8.5. improved regional balance and comparability with Greater Belfast and other existing gas areas (RoI, GB, Europe)
- 8.6. a springboard towards a lower carbon economy and significant contribution towards the 25% CO<sub>2</sub> reduction target within the Programme for Government.