



**WALES&WEST**  
UTILITIES



# **Springhill Nurseries – a view from the transporter**

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May 21<sup>st</sup> 2013

# The WWU Network

- Owns, operates, maintains and develops the gas network throughout Wales and the South West of England
- Provides the gas emergency service for 120,000 calls every year – 80% of which are domestic faults
- Replaces around 420km of old metal gas pipes every year with plastic pipes
- Carries out around 20,000 new gas connections annually

- Covers 41,000km<sup>2</sup> – 1/6<sup>th</sup> of UK
- Population of 7.5 million people
- 2.5 million supply points
- 35,000km of gas pipes
- £5bn assets



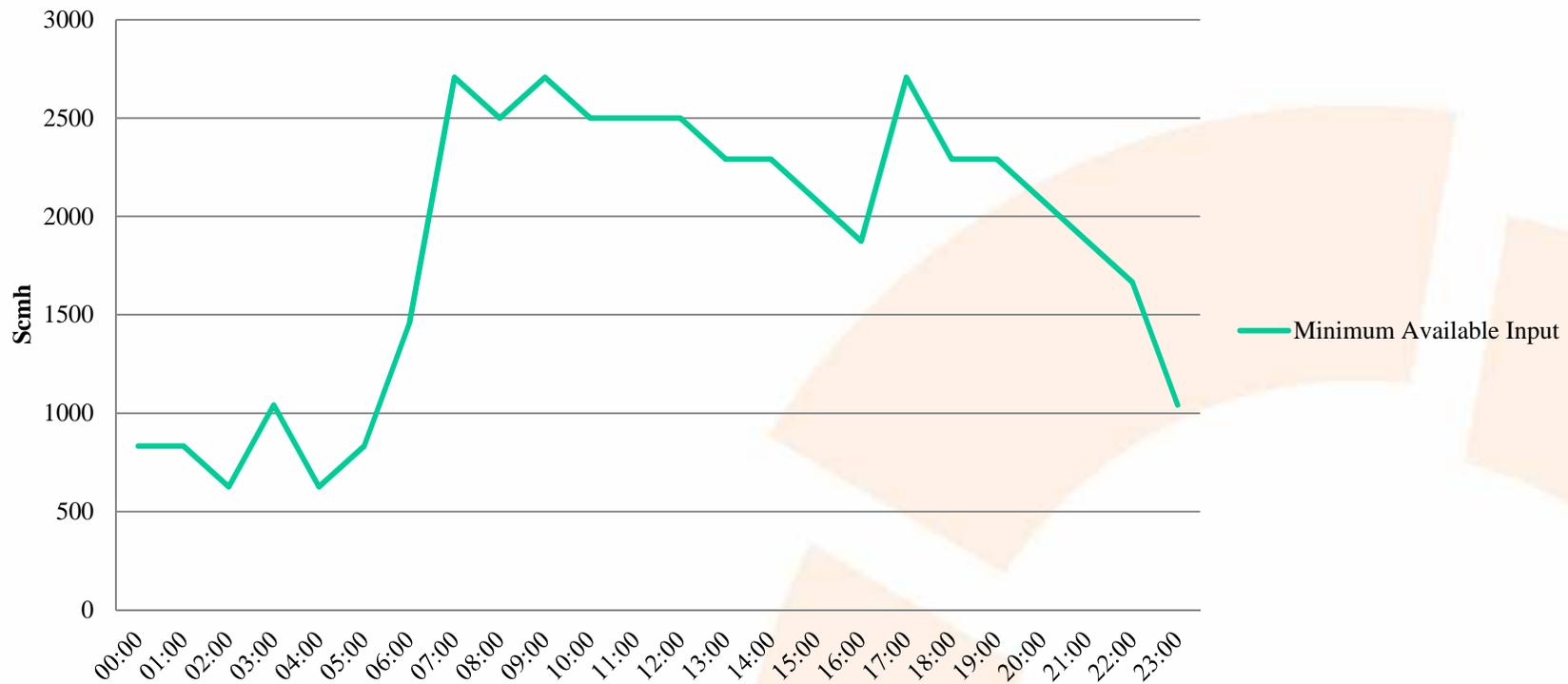
- Following work on our first “biomethane gas entry network connection” at Spring Hill Nurseries this presentation will:
  - give a WWU view on the development of a competitive market for gas entry connections
  - cover an overview of the challenges in providing entry capacity
  - provide an update on the studies to support increasing the oxygen limit in Gas Safety Management Regulations

- The Energy Market Issues for Biomethane (EMIB) meetings showed that customers wanted a competitive market
- WWU has taken the decision to support the minimum connection model and WWU provides
  - A chargeable capacity study
  - A quote for a minimum connection and
  - We have amended our Final Connections Agreements to allow entry connections
- The customer procures the entry facility, connecting pipework etc.
- Our first network entry connection has been a valuable learning process
- We anticipate that the next gas entry connection will be easier and quicker

## Issues raised by Minimum Connection Model

- Third party ownership of CV measurement equipment
  - We are working through Ofgem's concerns and seeking to address them by means of clauses in the Network Entry Agreement
- Exemption from requirement to hold GT licence
  - Will be addressed for new sites by DECC exemption

## Typical Summer Day Demand Profile on Intermediate Pressure Main serving Springhill Nurseries



- Providing entry capacity is not a problem for this connection but we could not connect another plant of similar output onto this network as currently configured
- Networks need to develop entry connection policies to address how we share capacity between entrants
- Ofgem have issued a useful letter relating to where reinforcement is required for existing entry connections following an unforeseen decrease in exit demand that occurs after the entry connection was made

- Two studies have been completed
  1. The theoretical study of the likely effects of elevated levels of oxygen.
    - The conclusion is that the overall internal corrosion risk associated with iron and steel pipe due to the injection of biogas is low.
    - No credible damage mechanism was identified that can cause a threat to the integrity of the steel pipes used in the distribution system.
  2. A practical investigation of pipe samples that were exposed to wet towns gas.
    - The results were in line with the theoretical study results
- Following the two studies, the revised reports are now with HSE

- The Minimum Connection concept appears to work and the process will get easier as we connect more sites
- Networks collectively need to look at entry capacity issues
- There are other issues to address, such as “propanation”, which the Energy Networks Association bio-methane roundtable is taking forward
- We look forward to working with all interested parties to further develop this welcome area of work