



Wales & West Utilities
2018 Long Term
Development
Statement
Summary



REPORTS



WALES&WEST
UTILITIES

Foreword

The 2018 Long Term Development Statement is published in accordance with Standard Special Condition D3 of our Gas Transporters Licence and Section O4.1 of the Uniform Network Code (UNC) Transportation Principal Document (TPD). These require that a Long Term Development Statement is published annually.

The Statement provides an indication of the usage for our pipeline system and likely developments. Companies that are contemplating connecting to our system or entering into transportation arrangements can use the statement to help identify and evaluate opportunities. It has been published at the end of the 2018 planning process following a reappraisal of our analysis of the market and demands on our Network within the South West (SW), Wales North (WN) and Wales South (WS) Local Distribution Zones (LDZs).



Andrew Hopkins - WWU
Director of Asset Management,
Health, Safety & Environment

The Statement contains information on actual volumes, the process for planning the development of the system, including demand and supply forecasts, the impact of increased integration of electricity and gas networks, system reinforcement projects and associated investment.

As the use of our network expands to new user groups in a changing energy system we're continuing to build on our successes to deliver for all our customers – including the most vulnerable across our region.

Some of our 2017/18 performance headlines include:

- Project Freedom – We have delivered one of the most ambitious and innovative projects to support the decarbonisation of heat in the UK. 75 hybrid heating systems with smart functionality are now live in a town in South Wales delivering lower cost, lower carbon and more secure energy for those most in need.
- We now have 19 biomethane sites delivering low carbon gas into our network, which provides enough heat, light and power for around 130,000 homes, more than three times the amount the Swansea barrage would have produced at a fraction of the cost.

- We now have 36 power generation sites which generate just under 2 GW electricity, providing the flexibility required as renewable electricity sources increase their proportion within the energy mix.
- Physical Site Security Upgrades – We have largely delivered a comprehensive and efficient upgrade to all sites as identified by the Centre for the Protection of National Infrastructure (CPNI).

Our focus on putting customers first has brought significant success, as well as helping us meet our Outputs under our regulatory framework RIIO which we have delivered year to date and are on track to deliver for the full eight years.

Once again our efforts have been recognised across the board with:

a “ROSPA Gold” award for the fifth year in a row.
the company of the year award at the IGEM / EUA national awards;
reaccreditation by the Institute of Customer Service at Distinction level
Investors in People Silver Status at the first attempt.; and
IGEM/EUA Environment award for project Freedom

You will also recall that we became the first gas network to meet the requirements of British Standard 18477 for the support we provide to vulnerable customers and we have also become the first GDN to achieve ISO 45001

We are very proud of all of these achievements as we continually seek to further improve the service we provide to customers.

Andrew Hopkins
Director of Asset Management, Health, Safety & Environment
Wales & West Utilities Limited

Wales & West Utilities Limited

Wales & West House
Spooner Close
Celtic Springs
Newport, NP10 8FZ

Executive Summary

1.1 Context

This document contains the Wales & West Utilities annual and peak demand and supply forecasts which have been developed in conjunction with National Grid UK Transmission (UKT) and WWU modelling and analysis.

Our forecasting methods are developing and although the final results of our collaborative GDN Gas Demand Forecasting project are not yet available, significant changes have already been implemented in the way we are forecasting our peak demands.

1.2 Demand and Supply Outlook

Improved forecasting techniques include new approaches for forecasting flexible gas generation using electricity market information. In addition, the severe weather in early March gave us robust evidence on which to validate previous forecasts and determine new values.

As a result of this modelling our peak demand is now forecast to increase by 5.5% in the next 10 years.

We have continued to connect Biomethane sites to our network and now provide sufficient capacity for the energy needs of 130,000 homes via our 19 connected biomethane sites. Recent work by Cadent suggests continued growth, with the UK having sufficient feedstock for over 120 TWh green gas to be injected annually by 2035.

There are challenges associated with this level of injection include moving gas through the network to centres of demand, often at higher pressure tiers as well as storing gas during periods of low demand for use when required by our customers.

We have launched our OptiNet project in collaboration with Cadent to investigate how smart pressure control, compression and storage might be used in parallel to alleviate such constraints in one area of our network.

1.3 Industry Developments

The UK is committed to legally binding environmental targets to deliver a sustainable future. We have environmental targets to achieve by 2020 and 2050. We must achieve these targets

but we must also recognise the requirements to ensure security of supply within an uncertain economic climate and rising fuel poverty.

It is recognised that whole system solutions which optimise energy flows across gas and electricity transmission and distribution networks will play a major part in facilitating the delivery of a sustainable energy solution for the UK. Increased integration of gas and electricity networks will result in changes on one network having the potential to impact another. Indeed, as part of our Gas Demand Forecasting project we are already developing models that forecast the impact of electric vehicle charging on gas generation requirements.

In 2018 we have completed our Freedom project, a collaborative project with Western Power Distribution. This project has shown how use of hybrid gas and electric heating systems in homes can significantly reduce costs and carbon whilst avoiding significant and unnecessary investment on the electricity distribution networks to meet heat demand. The full report is now available on our website: [Project Freedom Final Report](#)

In order to assess more broadly the interactions between gas and electricity networks and to determine feasible solutions for decarbonisation in a real location, we have launched our Green City Vision project. This project in collaboration with UKPN and SSEN and our partners Progressive Energy, will engage with local stakeholders to develop decarbonisation scenarios which will then be further developed through use of our [Pathfinder 2050 model](#).

1.4 Investment Implications

Our stakeholders have told us that maintaining a safe, reliable gas supply is considered to be their number one priority. We are adopting new techniques to ensure efficient investment in network health through use of monetised risk models and are feeding this into our Business Plans.

Going forward we anticipate new requirements for compression, storage and smart control to accommodate increasing demands for flexible gas usage and injection from our customers.

In 2018 we have also participated in Project H21 and have undertaken analysis on the likely methods of converting Bristol and Cardiff to 100% Hydrogen in the longer term. We will assess the outcomes of this analysis to determine whether we would recommend any revisions to our repx programme in these areas in the shorter term which may deliver significant cost benefits in the longer term.

1.5 Innovation

Innovation is core to our business strategy. We rely on innovation to drive efficiency, while delivering against all our business priorities and output targets and we will continue to do this in the future. Our strategy will stay the same: innovating for customers today and tomorrow, with an innovation portfolio split between projects that develop solutions to solve today's problems and those that plan for the UK energy system of the future.

There are a growing number of successful projects that have been developed across and beyond the industry that we want to adopt and we will be embracing these projects, working closely with other networks to implement their successful projects in our network where appropriate. We will build on our drive to fully embed our projects to business as usual, making use of our new innovation champions to promote, roll out, communicate and support people as they respond to the changes.

Guided by the publication of the first Gas Network Innovation Strategy, we will use innovation funding to build on and keep pace with the critical changes brought about by a changing energy system.