RIIO-GD1 Business Plan 2013-2021

Part B3

Innovation

This paper forms part of Wales & West Utilities Limited Regulatory Business Plan 2013 - 2021. Your attention is specifically drawn to the legal notice relating to the whole of the Business Plan, set out on the inside cover of The Executive Overview (Part A) of the Business Plan. This is applicable in full to this paper, as though set out in full here.

Except where stated to the contrary, all financial values within this paper are stated in 2009/10 prices, inclusive of 1% efficiency and prior to real price effects. This is in order that they match the figures used within the detail of the Business Plan Data Template.

This is a redacted copy. We do not indicate where material has been redacted.

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1. Introduction

Wales & West Utilities has been particularly successful in deploying innovation to improve the outputs valued by our stakeholders. Moving forward, we recognise that innovation will be required at a number of levels to continuously improve our business, and to adapt to the changing environment in which we exist. This is particularly the case when we consider the long term future of gas in the UK, and the innovation required to ensure that the provision of gas is maintained to consumers, either as a primary energy source, or as a transitionary fuel.

Our stakeholder focused business purpose requires that we deliver first class services whilst placing safety at the forefront of everything that we do. That imperative inherently requires the use of innovation to maintain a first class position. Innovation is the mechanism that achieves changes in outputs. This has certainly been the case within WWU since inception in 2005. The results have been measurable and noticeable improvements in safety, reliability, environmental impact, customer service and cost outputs.

Innovation is a key feature of the RIIO approach[1]. In order to achieve the outputs that are valued by stakeholders in the areas of safety, reliability, environment, social obligations, customer satisfaction and new connections, innovation will be essential, driven by appropriate incentive mechanisms. Innovation is generated through a number of mechanisms that all contribute to change:-

- Organic innovation that contributes to continuous improvement. This is generally through a significant number of best practice improvements within the organisation.
- More significant innovative initiatives that can be driven, for example, by benchmarking.
- Fundamental innovation driven by changes in the external environment.

All three have their value, and have contributed to the change of state in WWU from the fledgling organisation of 2005 to its current status. Our strategy is to promote innovation at all three levels, whilst recognising that the external environment and long term sustainability of the gas distribution networks will require a significant focus.

This document sets out how innovation has enabled WWU to improve outputs, and how we will focus on critical future issues.

[1] RIIO (Revenue=Incentives+Innovation+Outputs) Performance based model to set price controls to ensure consumers pay a fair price for this vital investment. For further information on the links to innovation within RIIO please see Press Release Friday 18 March 2011 Sustainable Energy Networks: RIIO Demands Innovation and Efficiency available at;
http://www.ofgem.gov.uk/Media/PressRel/Documents1/RIIO%20Strategy%20release%2018%20March.pdf

2. Executive Summary

Our use of innovation since 2005 has been very significant in moving WWU to a leading position in our sector.

Looking forward, innovation will continue to be a key enabler of change and organisational improvement – whether at the basic level of operational performance or on a wider sustainability basis.

WWU has been successful in using innovation to move the business forward since inception to a position where real stakeholder benefits have been delivered. This is particularly so in the output areas of:-

- **Safety** – through the use of risk based approaches, e.g. leakage, and in taking the initiative to review and address the quality of our base data.
- **Reliability** – through risk based approaches on maintenance and asset condition.
- **Environment** – through recycling, waste minimisation, treatment of contaminated land and adaptation to climate change.
- **Social Obligations** – through raising awareness of carbon monoxide, working with Highways Authorities and through implementing processes to facilitate the connection of the Fuel Poor scheme.
- **Customer Satisfaction** – through use of customer surveys and root cause analysis of complaints.
- **New Connections** – introduction of systems to support cost reflective charging and by reducing the cycle time of quoting, acceptance and providing the connection.
- **Value for Money** – through the Alliance approach[2], by significantly improving the utilisation of the direct labour organisation through, for example, our focus on performance management and by the introduction of Condition Based Reliability Management.

Moving forward, the information gleaned from engaging with a broad range of stakeholders has provided us with our priorities[3]. Our activity will be broadly in the areas of:-

- **Safety** – to train and utilise more of the WWU staff base during peak periods for the emergency service.
- **Sustainability** - through enabling the connection of distributed gas, alternatives and efficiencies in the use of road fuels and in better understanding and preparation for micro Combined Heat and Power.
- **Reliability/Availability** – Improving our asset risk management through enhanced use of condition based risk management modelling, better use of telemetry data and in the use of smart meter data.

[2] An innovative contractual approach to shared risk utilising shared premises and resource to deliver the mains replacement programme.

[3] See Part B5 – Stakeholder Engagement for more information

- **Social Obligations** – implementing equipment and processes to recognise and respond to high levels of carbon monoxide, and to put in place more effective processes to minimise street works impact.
- **Customer Service** – further improve new connections processes and also the consumer experience by benchmarking and by incentivising good customer service, and to reduce the impact of planned interruptions during replacement work.
- **Value for Money** – to look for alternative methods of pipe replacement such as the use of cured in place polymers as a pipe lining methodology.

In order to make the most of opportunities, and to be well prepared for the 2013 to 2021 RIIO-GD1 period, we need to carry out a proportion of our innovation plan prior to 2013. However, that does not mean that innovation ceases by 2013. Some of the longer term activities will be carried out in the early part of that period, and we will receive more clarity on the future mix of energy in the UK which may refocus our activities. We strongly believe in the value of working with others to achieve the maximum opportunity. This is both to take advantage of the intellectual property of others, and to make the most of joint resources. In working with others, we seek to make the most of collaboration with:-

- Industry groups, including the Gas Networks Collaboration Forum, the Energy Networks Association, the Renewable Energy Association and, potentially, electricity Distribution Network Operators.
- Specialist groups who focus on, for example, risk management.
- Key stakeholders, for example, highways authorities, carbon monoxide pressure groups and vulnerable groups.
- And local universities, where we intend to strengthen our relationship.

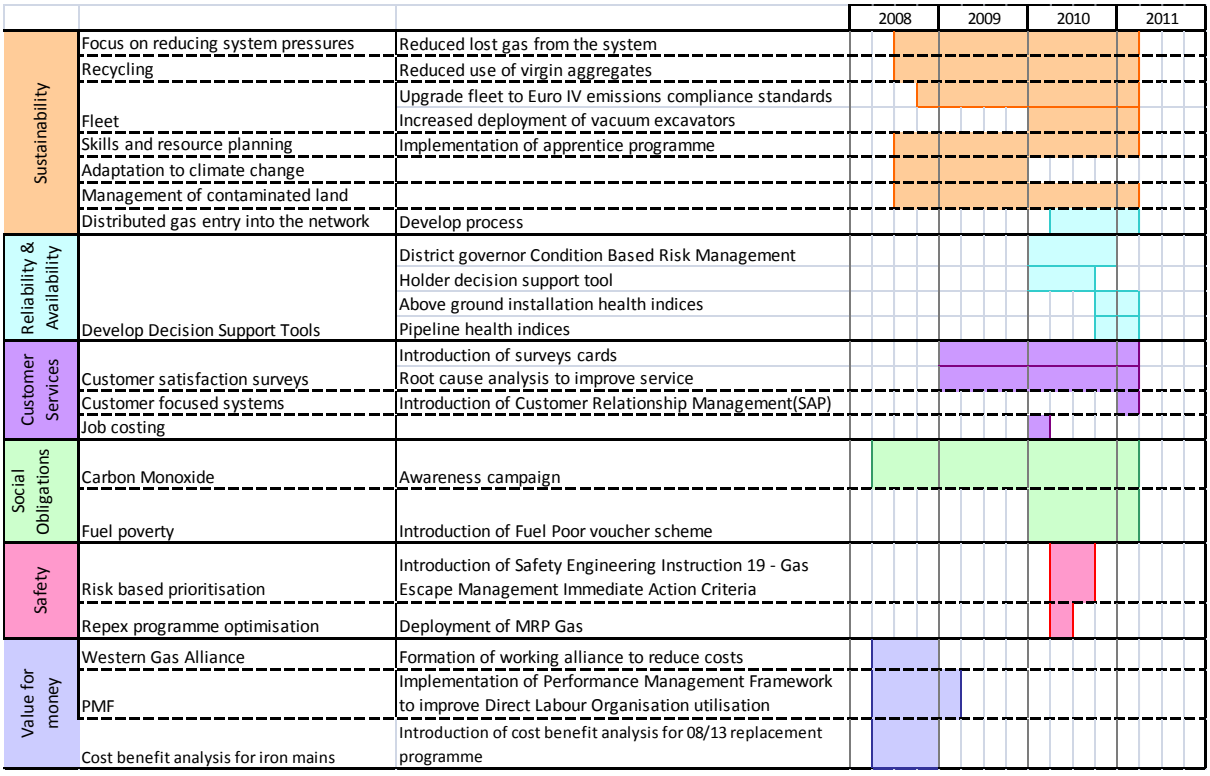
Our innovation funding requirements for the RIIO-GD1 period from 2013 to 2021 are not yet clear. For activities that we plan to carry out during the new PCR period, we intend to develop our proposals in the period up to April 2013, which will give us a clear view of funding requirements. Our approach to funding will be to maximise the opportunity of the Innovation Funding Incentive currently in place, and move towards using the Network Innovation Competition or Innovation Allowance mechanisms for those projects in the coming period.

3. Innovation already deployed

The results of using innovation during the current price control period have been to establish WWU in a leading position in delivering:-

- **Industry leading customer service and new connections performance**
- **High levels of safety and reliability**
- **Significant environmental improvements**
- **Value for money by reducing its cost profile**

Innovation has resulted in WWU improving on a number of key stakeholder valued outputs. These have been instrumental in preparing the business plan for the 2013 to 2021 RIIO-GD1 period:-



3.1. Sustainability

- Implementation of innovative approaches to reduce gas leakage, including investment to reduce maximum operating pressure.
- By the start of the next regulatory period in 2013, gas leakage (which is the major part of our carbon footprint) will have been reduced by 12% over that in 2008.
- We will also have reduced our hazardous waste generation, and improved our recycling of excavated materials to reduce the use of virgin aggregates and amount of waste taken to landfill.
- Over the current price control period, we have completely replaced circa 750 of our commercial vehicles for those utilising the more environmentally friendly Euro IV standard engines.

- We have investigated the impact of climate change on our assets, to produce proposals to make some assets less susceptible to flooding, and to prepare plans for replacement of some more susceptible assets.
- In respect of contaminated land, our innovation has been both in the prioritisation of our programme, and in the way that we deal with contamination.
- We have led the industry approach on making the workforce more flexible by skills enhancement, resource planning and the introduction of apprentice programmes.

3.2. Reliability and availability

In order to preserve our excellent record on unplanned interruptions, the following innovative approaches have been initiated:-

- We have extended our range of decision support tools to include Condition Based Reliability Management modelling on a number of asset groups. This has been instrumental in assessing the risk of deteriorating performance of assets, leading to consequences of failure, primarily failure of supply, but also the associated safety consequences.
- Improved risk based maintenance philosophies have been introduced through further deployment of Reliability Centred Maintenance. As well as the reduction of risk, indicated by primary leading indicators, such as mean time between failure of assets, this has also reduced the cost profile of maintenance.
- We have implemented decision support tools that have enabled us to remove the risk generated from gas holders.

3.3. Customer service

- Our innovative approach to improved customer satisfaction has been primarily through the utilisation of surveys of customers who have received services from us. This and the use of root cause analysis have resulted in significant improvements to customer satisfaction scores, and a significant reduction in complaints.
- We have introduced job costing processes to better understand the cost of providing new connections, which improves the transparency of connections prices.
- Our more recent utilisation of customer relationship management software has enabled us to significantly reduce the time taken to provide quotations and, generally, to improve the customer experience.

3.4. Social obligations

- We introduced an innovative approach to improving awareness of carbon monoxide by involving Age Cymru to target an especially vulnerable group of gas consumers.
- We have worked with groups focused on reducing fuel poverty by extending the opportunity to connect to the gas network.

- Our street works co-ordination process has been regarded as exemplary through stakeholder engagement. We applied innovation to our approach by the use of fairly simple mapping technology to make highways authorities aware of our replacement programmes, which have the biggest potential impact on traffic delays.

3.5. Safety

- We have implemented a risk based approach to the repair of mains and services following escapes. This has resulted in the escapes with the greatest risk of explosion being addressed as a priority. This approach has also been welcomed by the HSE.
- We have also deployed a decision support tool Mains Replacement Prioritisation Gas (MRP Gas) that incorporates the risk of gas leakage as well as pipe failures – i.e. consequence as well as likelihood of failure.
- We have continued to invest in IT systems to ensure optimal resource utilisation of the field force, including the implementation of a Business Activity Monitoring (BAM) management information system within Despatch. This enables real time tracking of emergency jobs through every step of the end to end emergency process (call raised to completion). This system won the 2010 SoftwareAG Customer Innovation Award.
- Leading edge process safety indicators, judged as best in class within the oil/gas pipeline industry by HSE.

3.6. Value for Money

- The introduction of an innovative Alliance approach[4] for the delivery of the mains replacement programme, together with elements of network reinforcement asset replacement has enabled us to reduce the overhead cost and deliver work programmes within cost allowances.
- To improve the utilisation of the direct labour organisation, we introduced a performance management framework, which has enabled us to remove elements of supervisory management, and manage with fewer contract resources.
- Cost benefit analysis has been introduced for iron mains replacement, enabling detailed financial analysis by both diameter and material – a first in the gas industry.

3.7. Collaboration within the gas industry

WWU has engaged in a number of innovation processes through the Gas Networks Collaboration Forum.

The Gas Network Collaboration Forum is facilitated by the Energy Networks Association; the scope of the committee is to ensure that there is sharing of good practice and innovation between GDNs. There are a number of sub committees including:-

- Incident review panel.

[4] The collaborative arrangement put in place between WWU and its service delivery contractors

- Gas Industry Standards.
- Environmental.
- Communication.
- Gas Futures.
- Innovation Funding.

Each subcommittee has separate terms of reference but generally around the principle of sharing best practice and considering the appropriateness of joint innovation. Joint Innovation Funding expenditure is approved on a cost/benefits analysis basis by the main Gas National Collaboration Forum committee members and some examples of joint Network projects are:-

- Use of Cured-in-Place and Polyurethane Spray Linings for Permanent Repair of Large Diameter Gas Mains.
- Alternative Inspection Techniques for Buried Pipelines.
- New Intervals Methodology for In-Line Inspection.

The Energy Networks Association Gas Futures Group has collaborated to produce a joint view on the long term future of gas transmission and distribution, produced in the Redpoint report[5], and on the facilitation of distributed gas.

3.8. Results of innovation

Amongst the results of innovation have been:-

- Maintaining the safety profile of the assets.
- Maintaining the reliability (Health) of the assets and hence of gas supply to consumers.
- Significantly reduced use of landfill for excavated materials to less than 20%
- Moving WWU to a consistent upper quartile position in customer service results.
- Reducing operating costs that will deliver £29m in future benefit to gas consumers.
- Reduction in the cost of investment that will have delivered £50m in the current period from 2008 to 2013 versus the Ofgem Allowance.

[5] Available at;
http://www.redpointenergy.co.uk/images/uploads/ENA_gas_future_scenarios_report_v1.1_FINAL.PDF

4. Proposed Innovation leading up to and into the 2013/21 period

We plan to build upon our excellent record of the use of innovation, both to provide the lower level organic improvements in our business, and to deal with key issues that have been identified during stakeholder engagement. Some of the innovation would be part of our business as usual approach, and some would be the subject of further collaboration, both within the Industry and as part of working with others.

WWU does not believe that 'not innovating' is a viable option. Innovation is part of the day to day activity that produces improvement actions. It is required to improve the business. The issue is more of where to focus our attention, and how to accomplish the innovation. However, failure to innovate on some of the more significant and strategic areas are likely to result in:-

- Opportunities for the use of distributed gas being missed or constrained. As this area is significant in ensuring that sustainability of gas distribution is assured, and low carbon networks being realised, a failure to innovate in this area would be critical. In addition, the full value of the Renewable Heat Incentive would not be realised.
- Asset risk not being fully understood leading to safety and reliability issues.
- Maximised output opportunities not being achieved.
- Opportunities from future data sources not being taken leading to poor capacity planning and lack of understanding of real gas losses.
- Customer satisfaction not improving.

4.1. Stakeholder feedback[6] and future challenges

Following stakeholder engagement, and with reference to our legal obligations, we believe that there are key areas where innovation would help to address challenges. These are:-

- The sustainability challenge of ensuring that there is a longer term viability of gas networks, with lower environmental impact.
- Continuing to reduce the key output risks of reliability and safety, without excessive recourse to investment.
- Improving our customer facing profile.
- Reducing the societal impact of our works programmes on street works and reinstatement issues.

[6] See Part B5 – Stakeholder Engagement.

4.2. Priorities, benefits and deliverable outputs

Our priorities are:-

4.2.1. Safety

Stakeholders strongly support the current response standards and would not expect them to slip.

- Emergency response – whilst our performance in attending Public Reported Escapes has been exemplary, we are also aware that during significantly cold winter periods, attendance within standards has proved challenging. We propose to cross skill from other elements within the WWU organisation to provide additional resource that can be deployed during peak times.

  Deliverable – further increase in trained personnel via cross flex for utilisation during winter 2011/12.

- We also propose to carry out root cause analysis which may lead to processes that would effectively implement some demand side management on Public Reported Escapes.

  Deliverable – proposals for influencing Public Reported Escapes and plan for implementation.

4.2.2. Sustainability

Stakeholders expect us to reduce our environmental footprint, both in the main area of gas leakage, and in other areas.

Distributed gas - We see this as a priority in lowering the carbon footprint of the use of gas, and in ensuring the long term viability of gas networks. This is one of our key interest areas, and where innovation would help. The innovation that we would apply would be to:-

- Deal with the current issues of distributed gas quality that could provide the most significant barrier to entry for all forms of distributed gas. This would include quality issues on land fill gas.
- Make the process for assessing proposals and for connecting distributed gas as smooth as possible, again to remove a potential barrier to entry. Whilst we have little current experience of dealing with distributed gas proposals, we would wish to move this process to a transparent, repeatable process with key process deliverables and timescales.
- Look to reduce the cost of equipment required for gas quality and calorific value measurement.
- Identify how distributed gas would impact the processes of gas capacity management, both in planning capacity requirements, and on a real time basis, in operating the gas network.

  Deliverable – HSE approval for higher levels of various contaminants, and documented process - we would expect to have a fully developed process for the acceptance of gas into the network at a cost that does not provide a barrier to entry, and that supports the Renewable Heat Incentive. This will be a collaborative process with other Gas Distribution Networks.

- Reducing the environmental impact of road fuel - test the potential for alternative technologies to reduce the environmental impact of road fuel, within WWU and first tier contractor fleet. To do this, we would undertake two specific activities:-
  - Evaluate the potential of compressed natural gas as a road fuel. We are aware that the UK lags a number of other countries in the use of natural gas as a road fuel, so clearly the potential exists, and a number of manufacturers already support Compressed Natural Gas vehicles. A number of the long term future scenarios for the energy mix in the UK contemplate the use of biogas as a road fuel. This would potentially reduce the environmental impact of the WWU and contractor fleet, and would act as a proof of concept for other large fleet operators and as a useful case study.
  - Test the opportunities from hybrid vehicles, kinetic energy recovery systems, and other forms of efficiency measures.

  Deliverable – we would expect the output to be a trial of a number of Compressed Natural Gas powered vehicles, that acts as a proof of concept for WWU and, generally, a case study to inform the road transport industry, and potentially purchase of more efficient vehicles, or retrofitting efficiency enhancing equipment.
- **Impact of local Combined Heat and Power** - assessing the impact of domestic and small industrial/commercial Combined Heat and Power on the gas networks. The potential ground swell of micro Combined Heat and Power as a contributor to zero carbon homes would have an impact on gas capacity requirements. The benefits of researching the impact would result in WWU being better prepared in modelling and assessing total and peak capacity, and in understanding how changing pressure regimes would be managed to minimise leakage.

  Deliverable - We would expect to have worked jointly with manufacturers and suppliers to build the case for Micro Combined Heat and Power and to have understood the impact on the gas network.
- **Adaptation to climate change** – the use of new and improved data to predict the consequences of climate change, e.g. rain fall, river flows, erosion rates, on our assets.

  Deliverable – revised plans to make assets less susceptible or replace/divert assets.
- **Contaminated land** – actions to mitigate the impact of landfill tax from disposal of contaminated materials.

  Deliverable – evaluate options for on-site and off-site treatment to identify the lowest cost avoidance to dig and dump and achieve the same outcomes.

4.2.3. Reliability and availability

Stakeholders were happy with current levels of reliability, but wished to see opportunities for cost reduction, providing they did not compromise security.

- Improving our asset risk management – we have already invested to bring innovation to bear by the use of decision support tools, such as Condition Based Reliability Management. We strongly believe that the use of such tools improves

our understanding of risk, which improves our ability to target intervention, such as maintenance, investment and renovation. We propose to:-

- Improve the models that we currently have with the benefit of the learning that we have received in the initial implementation.
- Extend the use of such models to further asset groups.
- Develop tools to optimise investment across asset groups.

Deliverable – improved models in respect of risk assessment, and further asset groups covered by models.

- **Telemetry** - improving the use of telemetered data as a risk management approach. WWU's assets have moderate coverage by telemetry. This is principally used to receive alarms on asset failure, i.e. where a parameter has been exceeded. We intend to extend the range of telemetry as an alternative method of risk reduction identified during Condition Based Reliability Management modelling. We also propose to investigate the use of data received from telemetry on a near real time basis to forewarn us of issues that could be used as a trigger for early planned maintenance intervention.

  Deliverable – proposal for use of telemetry data.

- **Utilisation of more accurate data sources** – the introduction of smart metering may give the potential of half hourly bottom up data. WWU could use this data for better gas capacity management, and identification of real measured gas losses to aid in identification of leakage and other losses.

  Deliverable - we would expect to move to an early position, before significant smart metering roll out, where we understand the data and system opportunities for real gas loss management, and the use of the data for short and long term gas capacity planning.

4.2.4. Value for money

Whilst the main areas of focus for stakeholders have been key outputs, value for money is also a key deliverable.

- **Looking for alternative approaches during mains and service replacement** – WWU's replacement mechanism is largely by insertion techniques – over 80% is by this methodology. We are aware that some water companies, during their significant programmes of water mains refurbishment, have utilised cured in place spray lining technologies as a lower cost methodology. It is important to note that the driver for water mains refurbishment was to rectify poor water quality through discolouration, not leakage as with the gas programme. WWU's driver is the integrity of the pipe network to avoid fracture and leakage. However, we believe that there is a possible solution to be investigated. We have been involved in the Gas Network Collaboration Forum and Innovation Funding sub groups to work on this opportunity. We are keen to close down this investigation, and to move the study onto the use of cured in place technologies on larger diameter pipes.

  Deliverable - On the use of new methodologies for mains and services replacement, we would expect to move to a position where we can pilot new techniques in the field.

- **Investigating opportunities for reconditioning rather than replacing assets** – WWU's risk management approach is to recondition as well as replace above ground assets, based on Condition Based Reliability Management and whole life cost producing the most cost effective solution for current and future consumers. The unit costs presented as part of the RIIO–GD1 submission are based on this.

  Deliverables – reconditioning plans for the assets identified as higher risk.

- **Further use of cost benefit analysis to prioritise repex programme** – the use of Mains Replacement Prioritisation Gas tool and cost benefit analysis by materials type and diameter will give us a new model of prioritisation and risk threshold at individual pipe level.

  Deliverable – potential impact on pipe selection for the replacement programme.

4.2.5. Customer service

Whilst stakeholders were generally happy with WWU's customer service performance, they accept that there is a need to continuously improve to satisfy increasing consumer demand.

- **New connections** – we propose to improve new connections performance by reducing the time between receiving an enquiry and installing the new connection, carrying out further training to improve the quality of quotation and to better support consumers through the process, and to improve the interaction with fuel poverty groups.

  Deliverable – improved process and skill level.

- **Customer experience** – We propose to improve the customer satisfaction scoring and reduce complaints by benchmarking with external organisations and through incentivising staff.

  Deliverable – improved processes.

- **Planned interruptions** – consumer interruptions and consumer minutes lost are more influenced by our planned activities rather than by asset reliability /availability issues. By far the most significant impact is through the mains and services replacement and condition programmes. We are proposing to work with our Alliance partners to investigate alternative methods to reduce both interruptions and minutes lost.

  Deliverable – results of investigation and potential field implementation.

4.2.6. Social obligations

There was strong support from our stakeholders to increase the awareness of carbon monoxide poisoning plus the need to work closely with the highways authorities to minimise the nuisance caused by street works.

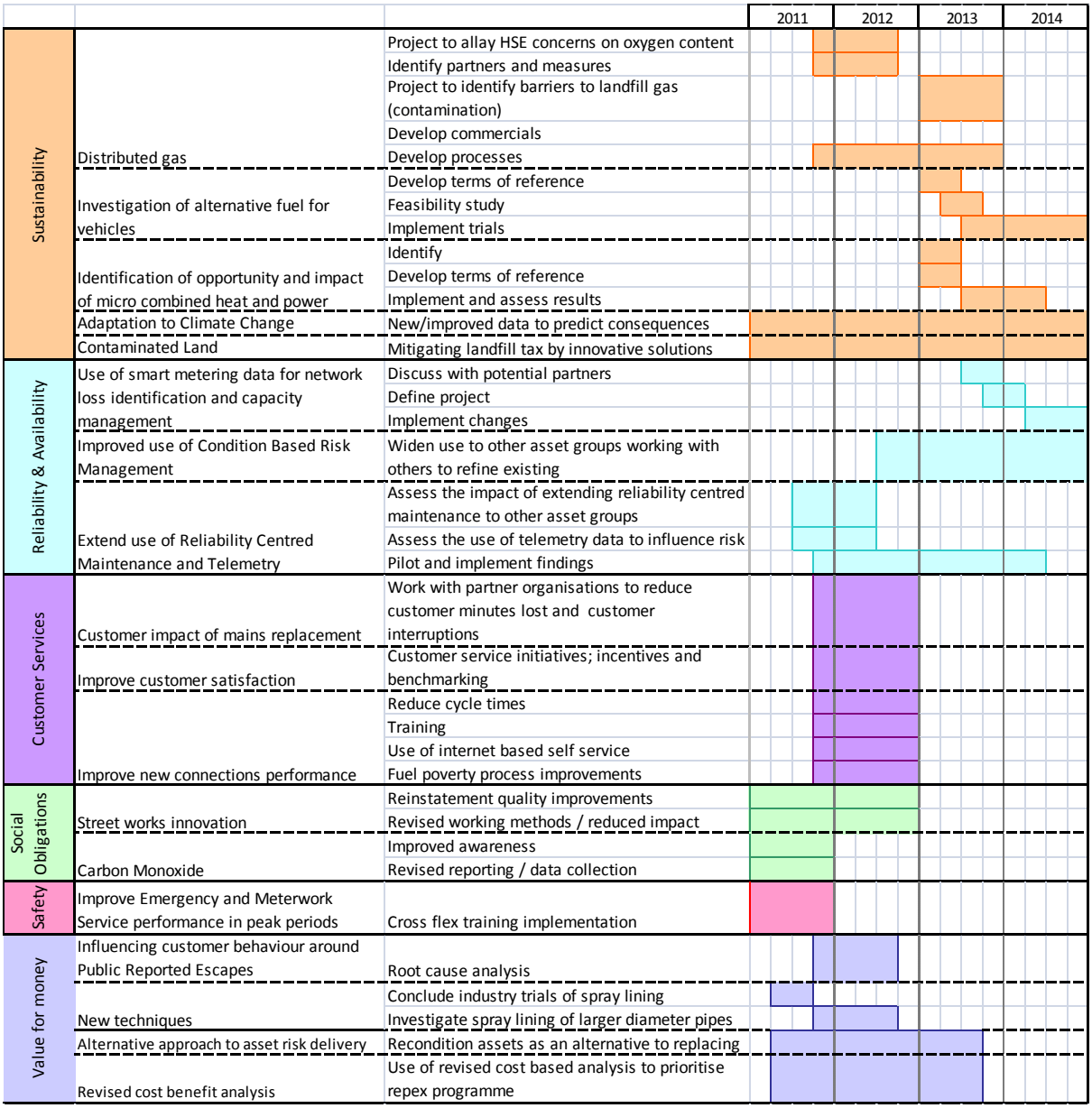
- **Carbon monoxide** – we propose to equip all our emergency engineers with personal carbon monoxide monitors to identify when they, or the consumer being visited, are at risk. We will back this up with post visit support where carbon monoxide is indicated at worrying levels, to make sure that the consumer is aware of the risk and the mitigating action. We will also carry on with our awareness programme with vulnerable groups.

Deliverable – equipped and trained First Call Operative population with new back office processes defined.

- **Street works** – our actions will be to work with highways authorities to improve the quality of reinstatement works, following strong stakeholder representation, and to investigate whether implementing new ways of working will reduce the impact of our activities.

  Deliverable – revised processes and improvement plans.

5. High level plan and timescales



6. Future focus within the 2013/21 period

The future of the energy mix in the UK is currently unclear, but may be clarified through the 2013 to 2021 regulatory period. As we receive more clarity, it is likely that our focus on innovation will change over the 8 year price control period. The focus may also be changed by the results of our activities, the demands of stakeholders and the impact on outputs.

Whilst we have included the innovation currently identified, through the eight year period 2013/21, there are likely to be changes in our key focus areas. Our view of innovation will be coloured by a number of internal and external influencers:-

- **Internal** – the results of the business plan actions on outputs, i.e. whether the inputs have the required impacts on the outputs. This will be across all of the output areas of safety, reliability, environment, social obligations, connections and customer satisfaction.
- **External** – there are a number of triggers that would drive further innovation. They include:-
  - Government energy policy, which will clarify the long term energy mix.
  - New legislation covering environmental impacts, street works, health and safety.
  - Feedback taken from a broad spectrum of stakeholders on a regular basis.
  - Gas Industry activity informed by our involvement in industry groups.
  - Progress and issues on the renewable agenda, identified through our membership of the Renewable Energy Association and working with other partners.
  - Innovation opportunities taken from our involvement with universities.
- **Technology**
  - Better collection of live time data, e.g. asset health.
  - Graphical Information System based asset management representing assets in a form that enables their most effective use.

We anticipate that we would check and reset our focus on innovation as part of our annual business planning process.

7. Working with others

The success of innovation will be significantly influenced by combining the intellectual property and resource capacity of others with that of WWU. We already have a good record of working with others, which we intend to extend to make the best use of innovation to create stakeholder value.

We strongly believe that the success of innovation will be reinforced by working with others. Our plan for further innovation includes working with the following organisations:-

- The Gas Networks Collaboration Forum, where we collaborate with other GDN's.
- The Energy Networks Association on a number of opportunities.
- Energy & Utility Skills - where we collaborate on skills and training matters with other GDNs and other companies in the sector as appropriate.
- Local training and education providers to develop and/or deliver appropriate training solutions.
- The Renewable Energy Association on a number of topics.
- Vehicle manufacturers and specialist organisations on potential use of Compressed Natural Gas as a road fuel.
- EA Technology to further develop Condition Based Reliability Management methodologies, and to pick up any cross over from the electricity sector.
- An international maintenance consultancy to further develop our Reliability Centred Maintenance approach and use of telemetry.
- Local universities on a number of topic areas.
- Gas suppliers on the impact of new technology.
- Consulting engineers on the impact of distributed gas on our assets.
- Manufacturers of gas quality measurement equipment.
- Systems specialists to identify opportunities from smart metering.
- Water industry on experience of spray lining.
- Carbon monoxide groups.
- Welsh Government and Central Government.
- Highways authorities, National Joint Utilities Group and Highway Authority Utility Committee to develop different ways of working to minimise the impact of our activities on the travelling public and the road infrastructure.
- IT partners and research agencies such as Gartner.

8. Funding requirements

The funding requirements for innovation are not yet clear enough to include fully worked up proposals within the Business Plan. The processes that we intend to adopt will move us to a position where we can identify funding through the existing Innovation Funding Incentive within the current regulatory period from 2008 to 2013; and through the Network Innovation Competition or Innovation Allowance during the next period from 2013 to 2021.