Cross sector infrastructure interactions

Annual Report 2019

WALES&WEST
UTILITIES

Contents

1.0 Introduction

1.1. Wales & West Utilities

Every day our skilled and dedicated colleagues do their very best to keep our 7.5 million customers safe and warm, with a gas network they can rely on and a level of service they can trust.

We don't sell gas; instead we use our extensive network of pipes to transport gas to homes and businesses throughout Wales and the South West of England. We respond to gas emergencies, and we invest £2 million every day across our network, connecting new properties and upgrading old metal pipes to new long-lasting plastic pipes, to make sure the communities we serve receive a safe and reliable gas supply for generations to come.

It's a vital service, and one we are extremely proud to deliver.

We supply 2.5 million customer meter points on behalf of gas shippers. Our network consists of 2,500 km of high-pressure pipes known as the Local Transmission System (LTS) operating at pressures between 7-70barg, and 31,000 km of distribution pipes that transport gas to homes and businesses operating at pressures up to 7barg.

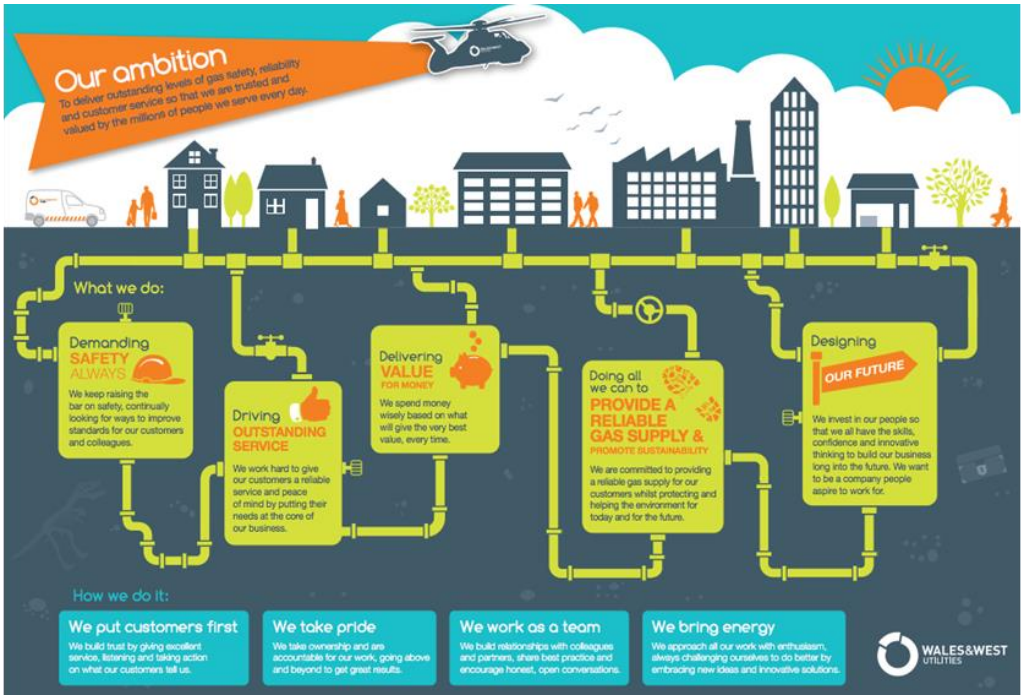
In addition, there are around 4,000 above ground installations which control pressures or allow inspection and maintenance of our pipelines.

Our company priorities and values play a central role in guiding our key business decisions and are reflected in our day to day work.

This report details how we have supported economic growth in our region and the safety of third parties through efficient engagement, sharing of data between relevant approved parties and delivery of works

1.2. The way we do things

Our company ambition, priorities and values play a central role in guiding our key business decisions and are reflected in our day to day work.



1.3. Our obligations

We produce a Safety Case to demonstrate compliance with the Gas Safety (Management) Regulations 1996 (GS(M)R). This is supported by a set of Plant Protection Management procedures and work instructions which are designed to ensure compliance with the New Roads and Streetworks Act 1991, Construction Design and Management Regulations 2015, and the Health & Safety Executive (HSE) publication HS(G)47 'Avoiding Danger from Underground Services'.

We have obligations under the Gas Act and our Gas Transporters Licence to provide quotations where it is reasonable to do so, and the New Roads

and Streets Works Act sets out the circumstances in which diversionary works may be required to apparatus we own.

1.4. Putting Customers first

During 2019 we continued to promote the DIG plant protection safety message, as well as continuing to issue our safety business cards:

We work with customers to complete site surveys where their enquiry relates to higher risk assets: all work near any asset operating at 2barg and above should have a site visit prior to work commencing on site. The plans and information provided to third parties requires customers to call at least 10 days ahead of any works to arrange a site visit. However, a more reactive service is provided for unplanned works.

2019 was the first full year where customers were able to access our mapping information through the Linesearch LSBUD system, and as a result, we saw a large increase in the number of plans being issued compared to previous years (see comparison table in section 2.2). The automated response issued by LSBUD also provides customers with the necessary safety advice and appropriate specifications that they need to adhere to, based on the pipeline they are working in the vicinity of. Customers will also get all other utility plans and guidance where hosted by Linesearch. This will typically cover the electricity network, oil pipelines and major optical fibre cables.

Where our assets are likely to be impacted by third party works, physical protection may need to be installed on site, such as a concrete slab to protect our network. In 2019, 6 such measures were required, and discussions have been held regarding an additional 15 sites.

Where a pipe or asset cannot be protected, and the customer wishes to proceed with the works, the pipe will require an alteration or diversion. In 2019 there were 649 diversion requests. When fully investigated, 308 diversions quotes were issued with 121 projects accepted and 74 projects completed in the year.

We are proud that we take a proactive approach with customers and other stakeholders. We use data from planning portals and track developments proactively, for example by approaching developers who have not contacted us. We provide Geographic Information System (GIS) shapefiles to local authorities as part of their planning processes and work with other utilities and developers presenting at their safety days on the risks and controls required when working near our assets.

1.5. Planning Consultation

We continually engage with the 42 local authorities in our geographical area on local development plan consultations. These take the form of consultation responses and workshops.

In addition, our planners attend local authority coordination meetings to minimise the impact of our works on the communities that we serve.

1.6. Accreditations and Awards

Below is a sample of the accreditations and awards attained by us:

2.0 Our Performance

2.1. Working with third parties

This section details our performance in working with third parties during 2019. Our mapping performance standards are:

Team	Enquiry type / service	Standard of Service	Regulatory/ voluntary	Cost of service
Plant Protection	Initial enquiry for plans	10 working days	Voluntary	Free – except for *£36+VAT for c*ompanies who charge their customers for the service

The increase in enquires and site visits is reflective of our mapping data transition to LinesearchbeforeUdig (LSBUD) and an increased number of new developments including new highways, housing, commercial and other developments, as well as an increase in energy generation projects.

2.2. Plant protection enquiries

	2019	2018	2017	Variance 2019 - 2018
Number of written enquiries	24,100	23,000	20,000	+4.7%
Average days to respond	2	5	3	-40%
% responded within 10 days	97.5%	94.1%	98.42	+4%
Self-serve via website/LSBUD*	519,291	300,000	300,000	
Number of approved users to self-serve*	9,163	750	750	

** The self-serve information now includes LSBUD data applicable from December 2018. The ability for customers to self-serve via the website was removed in 2019, following the transition to LSBUD*

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We appraise 42 local authority planning portals and use the data to actively look for higher risk developments where we have not been contacted and proactively send our plans to the developer.

This process has been supported via the use of a third-party company that supports us in reviewing all large planning applications that have been logged with a planning authority within the our distribution network. If affected, we can then log an enquiry and send out our plans to the local authority. This improvement to our planning application search capabilities has allowed us to interrogate an additional 20,000 planning applications.

2.3. Site visits

Published SLA: 10 days

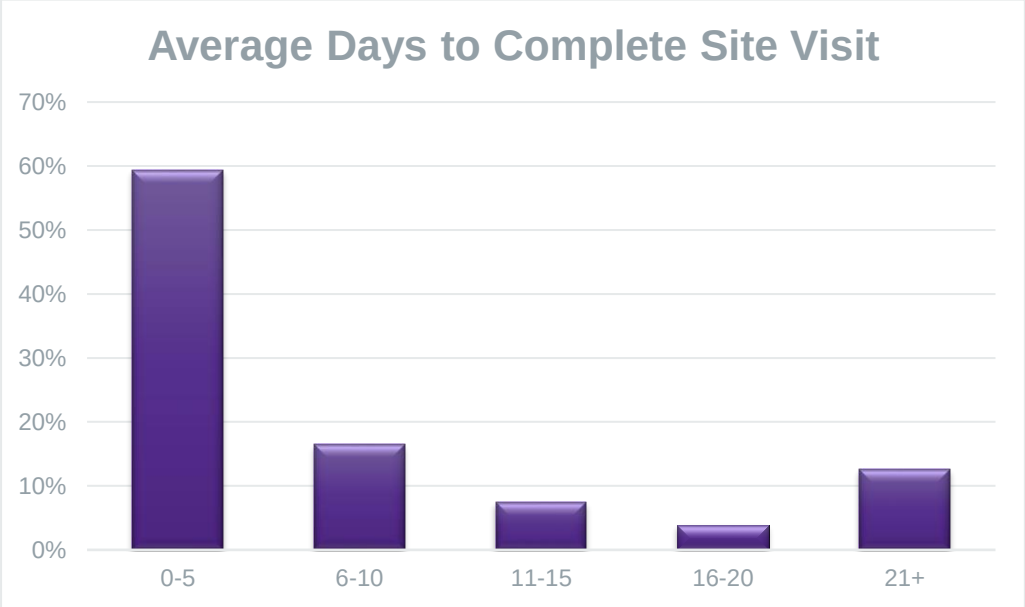
	2019	2018	2017	Variance 2019 - 2018
Number of site visits	3,686	2,978	2,407	+23%
LTS network	784	783	752	+0.1%
Intermediate pressure	828	642	637	+29%
Medium pressure	2063	1539	1,008	+34%
Low pressure	11	14	10	-22%
% responded to within 10 days	76%	78%	75%	-2%
Average time to complete surveys on site	10	9	10	-+11%

As a result of more plans being issued through LSBUD searches, and over 53,000 work proposals being reviewed by the Plant Protection Team, there was a 23% increase in the number of site visits raised during 2019 compared

to 2018. This increase was anticipated at the start of the year, based on proposed estimated search volumes. Attending more sites prior to work commencement demonstrates our proactive approach to damage prevention, by reducing the risk to our network, through greater interaction with customers.

The average number of days is higher than 10 days as customers may not be ready on site or require multiple visits during their project. We record the number of days from the date of contact to the completion of the site survey records

The graph below shows the profile of timescale for site visits:



294 jobs were visited on the same day as the contact in response to unplanned works. The longest duration of 156 days was for a site with a six-month duration and works in proximity to medium pressure mains.

In 2,386 cases, it was agreed with the customer that works could proceed without a site survey as the works location and safety controls were adequate on site as to reduce the risk to a minimal level

2.4. Aerial Surveillance

Area	Pressure	Length (Km)	Desk assessment	Site visit	Total	Immediate
Wales & West Utilities	HP	2,362	336	1,531	1,867	60
Wales & West Utilities	IP	723	95	403	498	8
Total		3,085	431	1,947	2,342	68

During 2019, we continued to complete aerial surveillance of all >7bar pipelines and critical 2-7 bar pipelines, every two weeks in line with T/PM/MAINT/5 – Maintenace of Steel Pipelines and Associated Installations Operating Above 2 Barg. The surveys were undertaken to report any ground activities that might affect the integrity of the pipeline. Ground activity, including mechanical excavation, within the area of interest (35m either side of a pipeline) or the Right of Way (10m either side of the pipeline), was reported and investigated, with follow up site visits raised to assess the impact of the work, if required.

2.5. Diversions

SLA 30 working days

	2019	2018	2017	Variance 2019 - 2018
Number of diversions enquiries	649	616	575	+5.4%
Quotes issued	308	264	249	+17%
Diversions accepted	121	111	100	+9%
Diversions completed	74	79	88	-6%
Average days to issue a quotation	10	18	13	-44%
% quotes issued within 30 working days	94%	57%	94.38%	+37%
Average time from acceptance to completion	64 days	99 days	125 days	--35.5%
Shortest timescale	9 days	3 days	2 days	
Longest timescale	191 days	229 days	453 days	

We usually quote a 180 days lead time for diversions to allow for efficient planning of resources and ordering of materials. We are generally able to meet the customer's timescales for their developments and the average time reflects the customers accepting works in line with the 180 days lead time. Again, some projects will require multiple visits with on-site durations of up to 6 months.

During 2019 we completed many major diversions projects across our network. These have included IP diversions along the A487 to accommodate a new by pass between Caernarfon and Bontnewydd. We have also completed the diversion of a 250mm PE MP main in Avlon Industrial Estate, Avonmouth.

The High-Pressure team have completed the following pipeline projects:

- Pentrebane-St Athan at Five Mile Lane, Barry
- Nailsea – Yatton at Weeping Ash Farm, Yatton
- Kenn – Wixenford at Forches Cross, Newton Abbot
- A487 Caernarfon and Bontnewydd Bypass

Several road schemes and developments are in the detailed planning stage in the South West of England and Wales and are currently initial enquiry stages.

3.0 Connections

3.1. Future of Energy

We are facilitating the entry of green gases into our network. These green gases are carbon neutral and therefore contribute towards the UK carbon reduction targets.

	Enquiry Type	Total No. of enquiries	Standard of Service	Regulatory / Voluntary	Performance
Biomethane	Initial Enquiry	16	15 working days	Vol	100%
Biomethane	Capacity Study	5	30 working days	Vol	100%

We did not connect any additional biomethane plants during 2019, with total number of biomethane connection to our network remaining at 19. We facilitated the connection of five new gas fired power stations to our network, with four connections being completed by Utility Infrastructure Providers and one by our Connections team. This increased the total number of power station connections across our network to 41.

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3.2. Connections Performance

Our connections business deals with new connections, alterations to existing services, and isolations of supplies.

During 2019 we dealt with over 19,000 requests for quotations and an additional 4,500 initial enquiries. Customer used our website self-service tools to generate 3,300 quotations, pay for the works and to book provisional dates.

Quotations were issued within the timescales required under the Gas (Standards of Performance) Regulations in 99.7% of cases. The accepted jobs were planned within the prescribed timescales in 99.8% of cases and work completed on site by the agreed 'gas on' date in 95.5% of cases. Despite this high performance, we paid over £43,500 to customers in accordance to our standards of service obligations.

We have supported several large connections projects during 2019, from carrying out new installation works to existing housing to improve energy efficiency and reduce fuel poverty, through to new non-domestic supplies supporting the UK's energy target of becoming carbon neutral by 2050. We have connected five instant start gas fired power stations and received acceptances for 18 further schemes, which are designed to meet the electrical network's demands when renewable energy sources are unavailable. We have also connected one bus filling depot in Bristol (with a second planned for early 2020), reducing vehicle emissions as part of Bristol City's carbon reduction targets. We have been working closely with customers on schemes in Exeter and Bristol to install supplies for district heat networks, where many users will be supplied via private heat networks and a single meter point.

In 2019 we connected 10,797 new gas supplies, laid 45 km of new mains and altered over 3,800 services.

Our dedicated Connections Call Centre received over 29,000 calls, which enabled over 2,100 of the total number quotations issued in 2019, to be completed over the phone with the customer. In 2,500 cases, the quotations were not able to be complete over the phone, as additional information was required to produce an accurate quote.

3.3. Complaints

All complaints are dealt with via our published complaints procedure. Alongside customer satisfaction surveys, these provide valuable information on how we are performing and where our processes and staff need to be developed.

In 2019 we dealt with 84% of complaints on the day we received them with 98% being closed within 31 days. There were no findings by the Ombudsman against us in 2019.

4.0 Incidents and Major Projects

4.1. Incidents

We have a dedicated Plant Protection team at our head office in Newport that is primarily focused on the plant protection service where they not only forecast workload but also develop robust procedures to respond to business as usual enquiries, major projects and incidents.

During 2019, there were short periods of time when the service had to take account of other business requirements. This included the national load shedding exercise 'Arctic' which took two resources for one day in September. Due to training and system testing that was required for the exercise, the team lost resources during these periods for around 2 weeks. The impact on customers of the plant protection service during these periods was minimal. For the second year running, we were able to achieve a 100% success rate for sites contacted during the exercise, with all sites confirming that gas could be turned off. A post exercise report issued by the Network Emergency Coordinator concluded that appropriate assurances were given that the industry can effectively respond to protect the public and the gas network.

Although we experienced some supply loss incidents during the year which required significant customer service and operational resources to resolve, there was a minimal impact on our plant protection service. A member of the team now supports the major incident customer advisory team to ensure that those who are more vulnerable are provided the support and care they need if they experience a loss of supply. The process also gained a clean bill of health from the Health and Safety Executive who attended our offices during a national emergency exercise.

Where major projects are concerned, be they infrastructure developments of local, regional or national significance, we want to make sure interactions with us are as simple and as straightforward as they can be. Our team work hard to bring an efficient and cost-effective approach to infrastructure interactions.

4.2. Examples of Major Projects

Examples of major projects that we have had discussions regarding our network are:

- A487 Caernarfon and Bontnewydd Bypass
- St Ederyns Development, Cardiff Gate
- Hele Manor Power Station, Taunton
- Cog Moors Treatment Plant, Dinas Powys, Vale of Glamorgan
- Power generation sites at Brunel Way Minehead, Porthmadog Business Park, Over Lane Almondsbury and Ermington Road Ivybridge.
- Vehicle Fuelling sites - Quedgeley Bus Park and Lawrenece Hill Depot
- Biomethane sites;
- Housing and commercial developments – protection of high-pressure main through the Pentrebane development
- Regeneration schemes.

While our interactions with the developers of major projects can, at times, be onerous, none of these had a significant impact on the service to the wider customer base.

4.3. Always more we can do

Despite the service we provide, we had over 1450 instances of damage or related incidents caused to our assets in 2019, which was a reduction of 101 compared to data obtained for our 2018 report. All but 1 of these were to low and medium pressure pipelines, with 56% caused by mechanical excavators.

In 2019 we reported 6 incidents to the HSE under the Reporting of Injuries, Diseases and Dangerous Occurrences Regulations (RIDDOR) process, which was the same figure reported in 2018.

As outlined in our 2018 report, during 2019, in conjunction with our Corporate Affairs Team, a proactive approach to damage prevention was adopted, with

the overall aim to drive down the number of unnecessary damage occurrences.

We contacted over 7,500 registered companies that operate within our geographical network area to remind them of our Plant Protection process, and the consequence of damage and their responsibilities when undertaking work near our pipelines. The letter issued to these companies also provided an opportunity for us to meet with their representatives, to provide a presentation on how they can work safely and minimise the risk of damage. In addition to the letter being issued, we also increased our social media activity, by providing regular updates promoting our DIG campaign to reach a wider audience.

Our ongoing aim is to reduce damage to our assets year on year.

5.0 Listening to customers and other stakeholders

A key focus is to continue to progress stakeholder engagement to continually improve plant protection and cross sector interactions. We currently have good contact information for land owners with local transmission pipelines running through their land but want to extend this to land owners with lower pressure tier information. We plan to remind them of the presence and location of plant on their land, safe working measures and remind them how to report issues with marker posts or damaged valve chambers.

Following on from our attendance at the LinesearchbeforeUdig Damage Prevention Conference in June 2018, we were invited as a guest speaker for the second conference held at The Ricoh Arena in June 2019. The presentation delivered demonstrated how we are aiming to reduce damage to our Network, using additional data that is now available to us, following our transition to the LSBUD system. It was also an opportunity to obtain feedback of delegates present from over 70 companies, in relation to our process. There was also a key note speech from the Health and Safety Executive, regarding the root causes and the unseen costs of workplace incidents.

In addition, we held collaboration meetings with representatives from other GDN's regarding the use of LSBUD data, how this information obtained and be used to help proactively reduce damages across the industry. These meetings have also aimed to identify a consistent approach to damage prevention across the industry, along with an opportunity to share best practice solutions and knowledge.

We participate in the gas transporter's panel which reviews trends in damage to pipes and we try to identify groups to target and educate in plant protection best practice as appropriate. As part of our 2020 approach, we will be looking to actively contact with these groups to offer support, with the aim of reducing the frequency of their damages, through engagement with us.

Following our stakeholder engagement event with the Power Generation market, we have been working closely with the other GDNs to provide a standardised process and response to enquiries received, and to ensure there is consistency across the industry. The work has been positively received after being fed back to all GDNs and the majority of stakeholders actively involved in flexible generation, at a follow up event hosted by Cadent.

6.0 Good practice

We meet the good practice principles in all our infrastructure interactions, and example case studies of recent cross sector interactions are attached to demonstrate our clear process in dealing with cross sector interactions.

We continue to push our year-round plant protection campaign, DIG: giving developers three simple steps to stay safe (Dial, Investigate, Go ahead). As part of the continued promotion of our DIG campaign, 2019 saw the introduction of two new animated Plant Protection videos. The new videos aim to distinguish between our domestic and non-domestic customers, providing a simpler approach to our Plant Protection guidance, for those undertaking less complex work near our pipelines.

The plant protection team (part of the Business Services Directorate) holds bi-monthly meetings with Asset Management and Health, Safety & Environment Directorate where issues relating to infrastructure interaction, projects and incidents are discussed and an action log is maintained to ensure relevant owners are identified and actions closed.

As part of our annual corporate audit programme, a cross asset audit on Plant Protection was undertaken during 2019. The audit focused on the Plant Protection Process managed in Celtic Springs and various Operational locations across the Network. The audit provided four findings with recommendations where improvements to the process can be made. Target completion dates for these recommendations has been set as 2020.

In reference to the aerial surveillance information provided in section 2.4, our Innovation Team undertook a project to review the potential use of drone technology to identify encroachment on HP pipelines. The trial was complete in segregated airspace over a 20km section between Fochriw Pressure Reduction Station and Nantgarw Pressure Reduction Station. The use of drones beyond visual line of sight will allow routine and non-routine inspections to be carried out quicker, easier and cheaper than ever before. Working in collaboration with Callen-Lenz Associates, the Civil Aviation Authority and the Department for Transport, this innovation project aimed to deliver the required safety cases, operational definitions and guidance to enable universal drone operations across gas and electricity networks.

7.0 Process change impact

Our 2018 report outlined a key change to the Plant Protection process, following a transition to LinesearchbeforeUdig (LSBUD). LSBUD offers registered members a 24-hour, 365-day a year service for obtaining our mapping data, with information being received within 2 minutes of completing a search.

This change of process had a significant impact on workload during 2019, due to our approach to Plant Protection enquiries becoming more proactive in nature, through the use of LSBUD data now available. There were over 519,000 searches completed within our geographically area, with network plans and safety advice issued with each of these searches. When this figure is compared to the 23,000 plans issued manually by administrative staff in 2018, the impact is evident.

Using the information received from an LSBUD search, our Plant Protection Team can identify work that poses a greater risk to our infrastructure, with an emphasis on reducing the associated risk through stakeholder interaction. The key factor behind this approach, is to proactively drive down the number of incidents involving our network, by providing an essential communication channel between ourselves and those working near our infrastructure.

As a result, there was a 32% increase in completed Plant Protection site visits, compared to 2018 figures. Despite this increase, we were still able to complete 76% within our agreed 10-day SLA (see table 2.3), which was comparative to site visit completion times during 2018.

While we are pleased that the LSBUD system is working well for the large numbers of users that access our plans daily, we understand that the system does not provide the same functionality offered by our previous GIS mapping system. This has been identified for some Independent Gas Transporters and Utility Infrastructure Providers, who require the ability to navigate around our maps to locate possible connection points to our network. We are currently working hard on the creation of an alternative mapping system, to ensure we can offer these customers the same level of service previously provided.

Further information: https://www.linesearchbeforeudig.co.uk/

8.0 Further information

Website: www.wwutilities.co.uk/services/dial-before-you-dig/

Published number: 02920 278912

9.0 Recent Interaction Case Studies

9.1. Case Study 1: South Wales Metro Line - Depot and Control Centre

- A collaborative meeting was held with Keolis Amey in January 2019 regarding Transport for Wales' South Wales Metro line proposals. The scheme is a multi-million-pound transport system project, that aims to transform travel around the Cardiff Capital Region. The project involves significant amounts of construction, engineering and infrastructure work to upgrade the existing rail network in readiness for the South Wales Metro system.

- Through their initial utility searches, Keolis Amey identified a significant number of interactions with our pipelines, in relation to their design proposals. Most notable, was the presence of low pressure and medium pressure pipelines near their new £100million depot and Metro Control Centre in Taffs Well, Rhondda Cynon Taff.

- We met with Keolis Amey, to review their proposals and determine the extent of isolation and diversionary work required, to accommodate the development. The meeting was an opportunity to understand timescales for completion from both parties, due to the high-profile nature of the project and Welsh Government involvement.

- We subsequently agreed the disconnections of all live gas pipelines supplying the disused industrial estate upon which the site is being developed, to allow for the initial demolition works to commence. We are currently liaising with Transport for Wales' contractors regarding the finalised design proposals, to allow for a medium pressure diversion to be complete to facilitate the project.

- For more information visit https://tfw.wales/south-wales-met

9.2. Case Study 2: Hinkley Point Nuclear Power Station Cable Connection

- Following the approval of a Development Consent Order for a new nuclear power station at Hinkley Point, National Grid propose additional capacity to their network by replacing an existing 132,000-volt overhead electricity with a new 400,000volt connection between Bridgwater and Seabank. The proposals are also to relocate over 10 miles of the new connection underground, resulting in 90 fewer pylons across the Mendip Hills, and between Nailsea and Portishead.

- We are working proactively with Murphy Group who were awarded the contract for the underground cable installation between Nailsea and Portishead. Through their initial utility searches, Murphy Group identified 23 interactions between our existing HP pipelines and the proposed route for the new high voltage cable.

- We have held several meetings with Murphy's Project Team regarding the finalised cable route and all site meetings have been held at nil cost, to ensure that a mutually agreed design can be achieved.

- We have stated our safety guidance information which is documented within WW/SP/SSW/22 – Safe working in the vicinity of pipelines and associated installations operating above 2barg – requirements for third parties and are continuing to working closely with Murphy Group throughout each stage of the works.

- For more information visit https://hinkleyconnection.co.uk/