

# Cross-sector infrastructure interactions

Annual Report 2017





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## 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 week 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.

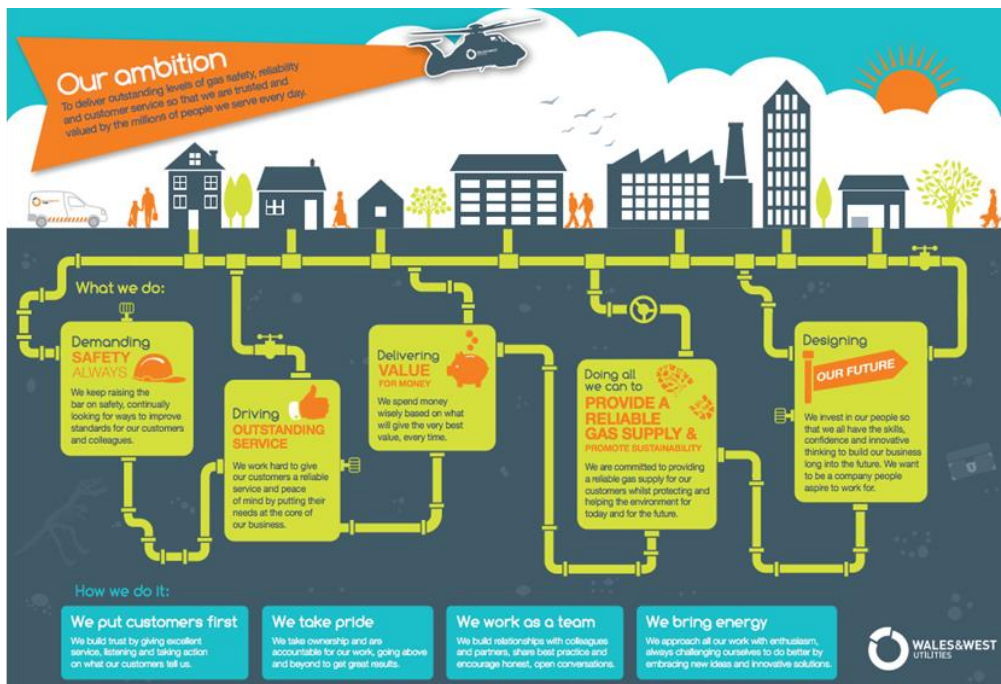
This report details how Wales & West Utilities has supported economic growth in our region and the safety of third parties through efficient engagement, sharing of data between relevant approved parties and delivery of works. We have expanded upon our report of 2016 to detail our Connections business.





## 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 2017 we continued to promote the DIG plant protection safety message, as well as introducing a new safety business cards

**We're here to help**

Every day underground gas pipes get damaged by people digging without knowing what's below. This can be catastrophic. It might cause serious injury to you and others around you. The costs of repair, fines and fees can be huge. Your project will be delayed and your reputation damaged.

We have designed this leaflet to help you dig safely. And the first thing to do – long before you start work – is call us.

**What's the number?**  
029 2027 8912

**Need help or advice?**  
Call our Plant Protection team on 029 2027 8912 or email [dig@walesutilities.co.uk](mailto:dig@walesutilities.co.uk)

**Smell gas?**  
Call the Gas Emergency Service on 0800 111 999.

**We need 10 days' notice**

**Dial Investigate Go ahead**

**YOUR GAS EMERGENCY AND PIPELINE SERVICE**

Wales & West Utilities

[diy@walesutilities.co.uk](mailto:diy@walesutilities.co.uk)  
029 2027 8912  
[www.walesutilities.co.uk](http://www.walesutilities.co.uk)  
[Facebook.com/walesutilities](https://www.facebook.com/walesutilities)  
[@walesutilities](https://twitter.com/walesutilities)

Crystal Palace  
London SE19 2UL

CARD POSITION (DO NOT PRINT)

**Can you DIG it?**

We bring the gas to homes and businesses across Wales and the south west of England. We invest money, time and effort every year to make sure our pipelines are protected – but the biggest danger to our network is you.

**Dis for Dial**  
Digging can be dangerous. Hit a gas pipe and you might cause a gas leak, a fire or explosion. So phone us first on 029 2027 8912 or email [dig@walesutilities.co.uk](mailto:dig@walesutilities.co.uk)

- You can find out where our pipes are.
- You need to give us 10 working days' notice before you start working.

**We need 10 days' notice**

**G is for Investigate**  
It's the only way to stay safe

- Before you start work, you must get a copy of our up-to-date gas plans and General Conditions and keep them with you on site.
- Use our online mapping service to find the main pipes under your land.
- Working near a medium-, or intermediate- or high-pressure gas pipe? You might need a site visit – call us to see how we manage it.
- Plan ahead – we need at least 10 days' notice for a site visit.
- You'll also need our publication 'SOM22: Safe working in the vicinity of high-pressure pipelines and associated installations'.
- Remember, you can't work on a Wales & West Utilities network or easement (and which we have rights over to maintain our gas network) without written permission.
- And you can't work near or move heavy equipment over any gas pipeline until all our conditions have been met and we agree your method of working.
- Watch the video on our website to find out more.

**G is for Go ahead**

- Make sure you have our up-to-date gas plans on site.
- Need extra advice? Call our Plant Protection team on 029 2027 8912 or email [dig@walesutilities.co.uk](mailto:dig@walesutilities.co.uk)
- Use cable- and pipe-locating devices.
- Use safe digging practices, taking every precaution to avoid damaging gas pipes, damaging yourself and damaging your bank balance. You will be billed for any costs if something goes wrong.
- If in doubt, phone us again. We're happy to help.

**Smell gas?**

Our Gas Emergency Service is on call 24 hours a day, seven days a week, 365 days a year.

If you cause a gas leak, or think the network might be leaking, call the Gas Emergency Service immediately on 0800 111 999.

- Get everyone away from the leak.
- Ask everyone in nearby buildings to leave until we're sure it's safe.
- Put out all naked flames and other sources of ignition and make sure no one smokes within 15 metres of the leak.
- Don't try to fix the leak by filling the hole, as gas may enter buildings.
- Don't try to operate any valves.
- Don't let anyone go near the leak.
- Help our engineers, the police or fire services if they ask.

**Wales & West Utilities**





**Dial before you dig**

We need **10 days'** notice

- Dial**  
Call **029 2027 8912** before you start work.
- Investigate**  
Before you dig, make sure you know what's below.
- Go ahead**  
Done your research? Now you can dig safely.

**Need help or advice?**  
Call our Plant Protection team on **029 2027 8912** or email **dig@wwutilities.co.uk**

**Smell gas?**  
Call the Gas Emergency Service on **0800 111 999**.

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

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 2017, 18 such measures were required.

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 2017 there were 575 diversion requests. When fully investigated, 249 diversions quotes were issued with 100 projects accepted and 88 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 Consultations

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 & Awards

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



## 2.0 Our Performance



### 2.1. Working with third parties

This section details our performance in working with third parties during 2017. WWU's mapping performance standards are:

WWU team	Enquiry type / service	Standard of Service	Regulatory / voluntary	Cost of service
<b>Plant Protection</b>	Initial enquiry for plans	10 working days	Voluntary	Free – except for £36+VAT for companies who charge their customers for the service

The increase in enquires and site visits is reflective of the increased number of new developments including new highways, housing, commercial and other development, as well as an increase in energy generation projects.

This volume of workload is expected to continue to rise through 2018 before levelling out in following years.

### 2.2. Plant protection enquiries

*Note: 95% of enquiries responded to via email*

	2017	2016	2015	Variance 2017 - 2016
<b>Number of written enquiries</b>	20,000	19,000	16,500	+5%
<b>Average days to respond</b>	3	3	2	0 days
<b>% responded within 10 days</b>	98.42	97.83%	99.76%	+0.59%
<b>Self-serve via website</b>	300,000	300,000	250,000	
<b>Number of approved organisations to self-serve</b>	750	750	700	







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 WWU 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 14,000 planning applications we would have not had visibility of in previous years.

## 2.3. Site visits

*Published SLA: 10 days*

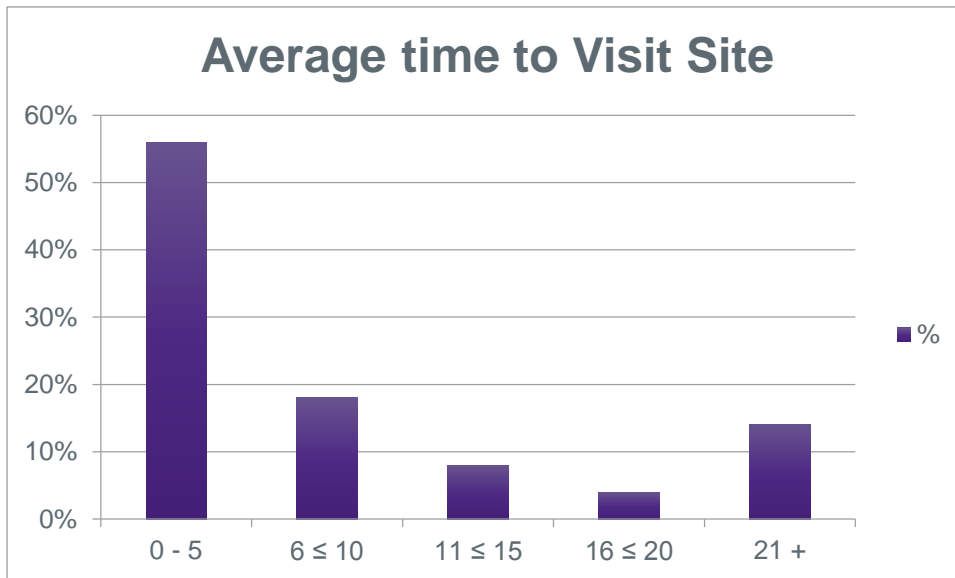
	2017	2016	2015	Variance 2017 - 2016
<b>Number of site surveys</b>	2,407	2,443	2,175	-1%
<b>LTS network</b>	752	747	703	+1%
<b>Intermediate pressure</b>	637	680	533	-6%
<b>Medium pressure</b>	1,008	1,016	919	-1%
<b>Low pressure</b>	10	8	20	+25%
<b>% responded to within 10 days</b>	75%	70%	68%	
<b>Average time to complete surveys on site</b>	10	13	16	+23%

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:



167 jobs were visited on the same day as the contact in response to unplanned works.

The longest duration of 158 days was for a site with a six month duration and works in proximity to high pressure and medium pressure mains.

In 1076 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
WWU	HP	2362	200	2354	2554	15
WWU	IP	723	95	1296	1391	5
<b>Total</b>		<b>3085</b>	<b>295</b>	<b>3650</b>	<b>3945</b>	<b>20</b>





## 2.5. Special crossings

13 projects required a formal crossing agreement to be put in place to protect our assets. Of these, 5 were concluded with the work taking place in the year and 8 projects are ongoing into 2018.

During the year we rolled out our standardised agreements and published charges for the necessary agreements and associated site supervision.

## 2.6. Diversions

*SLA 30 working days*

	2017	2016	2015	Variance 2017 - 2016
Number of diversions enquiries	575	584	642	-2%
Quotes issued	249	297	295	-16%
Diversions accepted	100	102	123	-2%
Diversions completed	88	74	71	+19%
Average days to issue a quotation	13	13	21	-38%
% quotes issued within 30 working days	94.38%	94.65%	66.49%	
Average time from acceptance to completion	125 days	113 days	97 days	+11%
Shortest timescale	2 days	2 days	2 days	
Longest timescale	453 days	486 days	461 days	
Protective slabs agreed	18	20	15	





## 3.0 Connections

### 3.1. The 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	Enquiries	Standard of Service	Regulatory / Voluntary	Performance
<b>Biomethane</b>	Initial Enquiry	58	15 working days	Vol	91%
<b>Biomethane</b>	Capacity Study	13	30 working days	Vol	100%

Both of these Standard's of Service are voluntary. We have connected 1 biomethane plant in 2017, bringing the total number of biomethane connections to the WWU network to 17.

### 3.2. Connections Performance

WWU's connections business deals with new connections, alteration to existing services, and isolations of supplies.

In 2017 we dealt with over 17,000 requests and an additional 4,500 initial enquiries.

Quotations were issued within the timescales required under the Gas (Standards of Performance) Regulations in 99.5% of cases. The accepted jobs were planned within the prescribed timescales in 99.95% of cases and work completed on site by the agreed 'gas on' date in 97% of cases. Despite this high performance, we still paid out over £50,000 in payments to customers under our obligations.

During the year we saw high numbers of enquiries about new housing developments, many of which will need reinforcement (upsizing) of our existing network in future years. We have also connected 10 small gas





fired power station which are designed to produce electricity at peak times to compensate for demand issues as coal power stations are phased out.

In 2017 we connected 11,500 new gas supplies, laid 46 km of new mains and altered almost 4,000 services.

We pride ourselves on giving customers a tailored service and choice of whether to self-serve or be led through the process by our teams. We have introduced a dedicated connections call centre with extended operating hours.

### 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 2017 we dealt with 85% of complaints on the day we received them with 99.9% closed within 31 days. There were no findings by the Ombudsman against WWU in 2017.





## 4.0 Incidents and Major Projects

### 4.1. Introduction

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 both business as usual enquiries and major projects and incidents.

During 2017, there were a few short periods of time when the service had to take account of other business requirements. This included the national load shedding exercise which took two resources for one day in October. Due to training and system testing the team lost a resource during these periods for around 2 weeks. The impact on customers of the plant protection service during these periods was minimal.

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.

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:

- M4 relief road Magor to Cardiff East;
- Transport for Wales Metro Scheme;
- Electrification of the London Paddington to Swansea main line
- Frome Valley sewer pipeline, Somerset;
- Greener Grangetown project, Cardiff;
- Power generation sites:- 300 enquiries and 8 sites connected
- Biomethane sites: 58 enquiries, 1 connected at Five Fords Wrexham;





- Regeneration schemes – North Prospect Plymouth, Pill Newport and Broadmead Shopping Centre.

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 still had around 450 instances of damage or related incidents caused to our assets in 2017. The majority of these were to low pressure pipes caused by mechanical excavators.

In 2017 we reported 14 incidents to the HSE under the Reporting of Injuries, Diseases and Dangerous Occurrences Regulations (RIDDOR) process, up from 10 in 2016.

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





## 5.0 Listening to customers and other stakeholders

We attended both the Royal Welsh Show and Bath & West Shows in 2017, where WWU hosted a stand which allowed us to promote gas safety alongside CO awareness and fuel poverty services. We issued our plant protection literature at these events and had contact with a small number of land owners. We also issue our DVD presentation as a follow up where requested by land owners 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.

In August 2017 we attended a Gas Distribution Network (GDN) – Best Practice forum in Edinburgh which looked at and focused around what GDN's are doing to prevent damage caused by third parties, sharing our in-house plant location processes and any best practices. During this forum WWU are now processing land owner details with the support of Department for Environment Food & Rural Affairs data.

During 2017 we had interaction with a number of other utilities and companies. The main feedback we had was a desire for the approval of generic risk and method statements for work activities in the vicinity of medium pressure gas pipes to reduce the volume of site surveys. This is to be implemented in 2018 with a number of utilities.

We are again seeing an increasing number of organisations requesting GIS shapefiles for our network. In 2017 we proactively contacted all local authorities within the WWU geographical area and have issued mapping information to a further 8 authorities during the year and will continue to target other local authorities in 2018. Other organisations, including the Welsh Government, have also been provided with the data for research works and energy futures type studies. We currently appraise each request on its merits, each organisation sign a data sharing agreement with us before the data is provided. We recognise this as an ongoing requirement







and we will ensure a data exchange mechanism is built into our new GIS platform which will be delivered during 2018.

We participate in the gas transporter's panel which reviews trends in damage to pipes and we try to identify common offender groups to target and educate in plant protection best practice as appropriate.





## 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 in Section 9, demonstrating our clear processes.

During 2017 we have implemented update to our management policies and procedures to prevent damage to our below 7 barg assets.

We continued to push our year round plant protection campaign, DIG: giving developers three simple steps to stay safe (Dial, Investigate, Go ahead).

In 2017 we issued around 5,000 of the new leaflets and business cards to construction workers and plant operators with a reminder to DIG.

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.

Our Internal Audit team recently completed an audit of the below 7 barg plant protection process and found no non-conformities but identified some areas for improvement, primarily around the GIS plant protection system which will be actioned in 2018.

We have noted over the last few years the increase in green energy projects in our network. This has included wind turbines, solar parks and localised electricity generation (gas, LPG and biomass). We have therefore worked internally and externally with developers and landowners to raise the profile of the risks to our assets and our requirements as detailed in our policies.

We have also trialed the use of the 'Pipetech2' device which allows us to quickly identify on site if a located pipe contains a gas or a liquid. This saves time and cost for us and the developer.





## 7.0 Key changes to process

In 2018, we have two significant projects that will impact this process.

Our GIS upgrade will see us move our platform to the most up to date version available on the market. This will allow us more control and make our mapping data more readily available. We will be able to pull in Land Registry data to our GIS platform by the end of 2017 and facilitate electronic exchange of data with other utility companies and local authorities.

The Land Registry data is key for us, enabling us to undertake spatial analysis and to identify land owners that have pipes running through their land so we can actively contact them on a regular basis. We do recognise that the Land Registry data does not include unregistered land and therefore we will also need to build in our local knowledge of land owners from our Estates team to compliment this dataset.

The GIS upgrade will also see us partner with Linesearch Dial Before you Dig from 2018. This will provide benefits to third parties who with one search will be able to obtain Gas, Electric and major pipeline data.

WWU are also keen to explore opportunities offered by the OS Resilience Direct project where emergency responders can be ready to deal with crises and disruptive events. This will be achieved by sharing real time information across all organisational and geographical boundaries. It will achieve this by bringing location context to data and the ability to integrate with other datasets making emergency responders better informed and able to make increasingly more accurate decisions.





## 8.0 Further information



**Website:** [www.wutilities.co.uk/services/pipe-locations/](http://www.wutilities.co.uk/services/pipe-locations/)

**Published number:** 02920 278912





## 9.0 Recent Interaction Case Studies

### 9.1. Case Study One: Greener Cardiff

- WWU were contacted by the local council regarding a project that involved Dŵr Cymru Welsh Water and Natural Resources Wales, supported by the Landfill Communities Fund. The scheme involved investing £2 million in to a local community for an innovative scheme to better manage rainwater in the community – one of the biggest of its kind in Europe.
- Using the latest techniques, the scheme will catch, clean and divert rainwater directly into the River Taff instead of pumping it over 8 miles through the Vale of Glamorgan to the sea. It will help to make Grangetown a greener, cleaner place to live.
- WWU met with the council and its contractor pre-construction phase to discuss the scheme in detail and offer any assistance. Detailed safety advice and guidance was provided as well as the transfer of information that helped improve proactive measures for working safely around the WWU network to reduce the risk to the public and the contractors undertaking the works.
- WWU subsequently agreed the form of protective provisions.
- For more information visit –
- <https://greenergrangetown.wordpress.com/about/>

### 9.2. Case Study Two: Weston Super Mare, Solar Farm

- This project consisted of a large (over 100,000 panels) solar farm being built near Weston Super Mare. WWU had a medium pressure and high pressure gas main within the boundary of the site. As a result of the project, WWU's high pressure gas main was planned to be crossed 3 with high voltage cables and WWU agreed plans for access over its main.





- WWU has worked proactively with the solar farm developer concerned, who are undertaking the works, to help devise its site plan, discuss crossing agreements and requirements to ensure that the works are undertaken efficiently and expeditiously. WWU have also been to the site on three occasions to trace its main at nil cost to the developer and we have had several meetings with the developer, again at nil cost.
- WWU has clearly stated its requirements for the crossing agreement and has worked with the developer to reach a mutually acceptable point to allow construction.
- The only costs to developer as a result of WWU's involvement in the project are WWU solicitor's fees (£350 + VAT), plus any plant protection site visits.

### 9.3. Case Study Three: Transport for Wales Metro Scheme

- WWU were approached by Transport for Wales who are planning to introduce a Metro Scheme for South Wales. The scope of works will include:
  - Track Dualling on single line sections;
  - Platform alterations for level boarding;
  - Signalling and control systems changes;
  - Gauge clearance works (track lowering / bridge raising); and
  - Overhead Line Electrification.
- The aims of the scheme are to provide faster, more frequent and more reliable bus and rail services to the region by expanding the network with new routes and stations, better connecting population centres. The will enhances the potential for economic development and regeneration.
- WWU met with the board to understand the key timeline of events and the potential impact to the distribution network by ensure close collaboration between all major stakeholders. Also from WWU's experience with working closely with Network Rail on the Great Western





main line electrification scheme we were able to share lessons learnt over the years working with Network Rail and its contractors.

- The scheme will offer WWU the opportunity to work more closely with other utility providers. It enables the early identification of major services affected by the proposed works.
- Increase efficiency / Health & Safety benefits for WWU and offers opportunities to incorporate your utility enhancements with our works. Avoiding conflicting services and/or optimising diversions.
- The first phase of the discussions was to look at digital data to considerably assist TFW, ODP and IDP with future Metro enhancements.
- For more information visit – <https://tfw.gov.wales/>

