

What role can Project Gigabit

play in shifting safe digging priorities and building on current momentum?

By Murray Peat, Manager, Linewatch

Murray Peat from Linewatch, the leading safety awareness group for oil, gas, and chemical pipelines, discusses how Project Gigabit is an opportunity to accelerate safety awareness when digging.

The Government's flagship programme to connect hard-to-reach communities to the fastest internet speeds, Project Gigabit, is well underway. Targeting homes and businesses that are not included in broadband suppliers' plans means connecting some of the most rural areas of the UK. Reaching these areas isn't easy; if it were, broadband suppliers would be doing it without government intervention. It is taking a significant amount of time and resources to complete the project. It also requires a huge amount of digging.

The more digging that takes place, the more potential danger contracted teams are exposed to. Lurking under the ground is a network of high-pressure oil, gas, and chemical pipelines which, if struck, can cause serious injury or even death. Beyond the safety of works teams, gas, oil, and chemical leakages can have long-lasting effects on the environment. Not only this, but if a pipeline sustains damage - large or small - it must be temporarily shut down whilst repairs are made, which can have a substantial impact on the customers who rely on the pipeline network.

Planning teams should perform their due diligence to protect their teams on the ground responsible for laying ultra-fast broadband cables.

The correct processes

Pipeline operators who own the various pipelines in the UK need to know about any works taking place within 50m of one of their assets, no matter the size of the job. By liaising with the relevant operator, planning teams will quickly find out if a pipeline is going to affect a project. All digging to lay ultra-fast broadband cables requires pre-notification. Therefore, it is important to inform the correct authorities.

Strict controls are applied to all third-party works that could affect the pipeline. Linewatch Members require at least three working days' notice before any work within 3m of one of their pipelines (the easement) begins, although National Gas requires at least seven days. This needs to be considered during the planning stages and factored into the build time. Without doing so, projects will be delayed and have a higher chance of exceeding budgets.

Additionally, the pipeline operator should attend works taking place within 3m of the easement and should not begin without written authority. Positioning someone on-site doesn't usually incur a cost for the first three days but works that take longer than this will incur a charge for the operator's time.

The simplest way to understand what pipelines might impact your project is by using LSBUD. This free-to-use service can check your works against over 120 asset owners' underground networks, including many gas services such as BPA, E.ON, and INEOS. After providing a few details, you will receive a report within three minutes that will share detailed information on the assets near your sites, ensuring that you are as prepared as possible before any work begins.

Ignoring the correct protocols can result in serious problems. Damaging a high-pressure pipeline can cause serious injury, or even fatalities, as well as irreversible damage to the environment. There are also cost implications to consider. The cost of hitting a pipeline can be as high as £15 million. Is that included in your budgets?

How does this work in practice?

Planning and following protocols is the only way to avoid issues. Whilst large scale incidents are becoming less frequent, an increase in digging for Project Gigabit, as well as more generally in the UK, puts this progress at risk.

There was a recent incident in Scotland that risked the integrity of two pipelines and all those working on-site. A crew began excavating a blocked telecoms duct, despite lacking the correct plans for the project. The pipeline operator was first alerted to the works following damage to a remote sensor.

A local aerial patrol confirmed works were taking place near the pipeline and the pipeline operators team were sent to halt the work and assess the ongoing risk of the project.

The area was clearly signposted with marker posts which indicates the actions to take before any digging begins. Some contractors had followed the protocol, but others had not, which made the process incomplete.

All work was halted and the excavation was backfilled and sealed with temporary surfacing while an investigation took place. This incident was located close to two pipelines on the edge of Loch Lomond. Without intervention, the affected pipelines could have been damaged, causing irreversible environmental damage.

This incident was easily avoidable. Whilst it can be tempting to continue working despite obvious risks, any damage to pipelines can be hugely detrimental. The contractors had plenty of warnings but chose to carry on working which ultimately caused delays. Had they followed the correct procedures, the project would have run on time.

Preventing a pipeline incident

Organisations, including Linewatch, exist to raise awareness of the dangers of pipelines and to promote safe working practices. Linewatch Members account for almost 14,000 kilometres of buried oil and gas pipelines across the UK. That's the same as the distance between the UK and Australia. This reaffirms just how important it is to be aware of what's beneath you, to ensure the pipelines, your team, and the environment remain safe.



Linewatch works on behalf of its 22 Members, including Esso, INEOS, and National Gas, to provide education on how to dig safely. This includes literature, e-learning modules, attending exhibitions and shows, as well as providing in-person safety briefings. In total Linewatch delivered 113 safety presentations last year, speaking to 1,700 people.

A large part of this awareness is done through presentations which are provided for free to utility contractors involved in planning and undertaking works close to a Members' pipelines. They highlight the networks in an area to be aware of and the working practices to follow to ensure that injury to people and risk to the environment or pipelines is prevented. All pipeline operators provide free information and advice on their assets including what procedures to take to stay safe on-site. With LSBUD, it couldn't be simpler to locate pipelines. Operators also provide free on-site advice and will supervise when third parties are working close to their pipelines, making the process of avoiding incidents very simple.

Using LSBUD's free service helps planning teams prevent incidents during digging projects. Checking for marker posts is a simple way to avoid any issues, and they are easy to identify and understand by clearly providing all the contact information needed.

Should a pipeline be damaged or breached by your works, it's vital to report it immediately. Some signs of a possible gas pipeline leak include dirt or dust blowing in the air, hissing sounds, gas odours, or bubbles in standing water. Noticing any of these issues in the vicinity of a pipeline, or a marker post, should be treated as an emergency. Personnel and vehicles should be immediately removed from the vicinity. Teams should then ensure the emergency services are contacted and, if known, the pipeline operator should be notified that their pipeline has been struck (look for a pipeline marker).

No one should attempt to seal any leaks or extinguish any ignited flames as this could put contractors at greater risk. Instead, specially trained professionals should be left to repair the pipeline properly. If you try to do this yourself or hide the damage, it can lead to greater problems especially if repairs are not adequate. For example, dents and gouges in a pipe may not appear to be a problem but can lead to a future failure, long after the project is complete. It is vital to report all damage to the operator, even if you think it is minor, as they

will ensure the pipeline is thoroughly assessed and assured as safe before any work continues.

The current situation

Project Gigabit and the Government's target to connect 85% of the UK to full fibre broadband by 2025 and nationwide by 2030 is adding to the amount of digging across the UK.

Recent LSBUD data revealed that 85% of these projects were searched on its portal prior to work commencing. This is a 13% increase compared to 2020 data, which demonstrates the positive impact pipeline awareness training is having. However, this doesn't mean our work is done.

Our most recent Infringement Report left us with further concern after nine high-risk incidents were recorded within the space of a year. An increase of four from the year before. These events could have resulted in serious damage to densely populated areas, including schools and hazardous areas, had the pipelines in question been breached.

Looking ahead

The range of activities taking place involving groundwork, including Project Gigabit, means that groups like Linewatch must ensure that projects remain safe, and our work adapts to continue delivering effective safety messages. The rollout of full fibre to some of the UK's most rural areas means that many sites are being excavated where no information about the underground pipeline network has ever been requested before. Contractors and health and safety professionals must be vigilant.

Final thoughts

With some pipelines existing at a depth of just three feet below ground, almost all digging has the potential to jeopardise the integrity of pipelines, especially when there has been no prior search. Altnets and the major broadband players have a responsibility to ensure their projects are sufficiently planned and the relevant searches are carried out to ensure the health and safety of their contractors. It could be the difference between life and death.



For more information on Linewatch and pipeline safety, please visit www.linewatch.org.uk.