

**From:** [REDACTED]  
**To:** [Hynet CO2 Pipeline](#)  
**Cc:** [REDACTED]  
**Subject:** THE HYNET CARBON DIOXIDE PIPELINE DEVELOPMENT CONSENT ORDER Planning Inspectorate Reference Number: EN070007  
**Date:** 24 April 2023 10:46:11  
**Attachments:** [image003.jpg](#)  
[Response to Hynet Consultation.pdf](#)  
[22-03-23 Hynet-CentralRoutes-Map.jpg](#)

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Dear Sirs,

**Re: THE HYNET CARBON DIOXIDE PIPELINE DEVELOPMENT CONSENT ORDER**  
**Planning Inspectorate**  
**Reference Number: EN070007.**

I am writing to you in connection with the proposals by Hynet for a Carbon Dioxide Pipeline Development Consent Order.

We have consulted with Hynet on many occasions and have made several representations on their proposed routes and in particular their proposal for a pipeline along a Northern Corridor route. This route was discounted in the earlier consultation process and Hynet preferred two optional routes shown in orange and blue on the plan below.

I attach for your information our response "Response to Hynet Consultation.pdf..

We proposed a much shorter route to the north of Deeside Industrial Park to run parallel with the A548 as shown by the yellow line on the plan below.

Our Response gives details why we consider our alternative route is a better proposition to the route Hynet are proposing.

To briefly summarise our response:-

- the route does not pass close to residential areas and therefore less likely to have an impact.
- the route is through open countryside and easily accessible for construction from the A548.
- the alternative route is 7.2kms shorter which would lead to significant cost savings.
- a shorter route minimises interference with the rights of private land owners.

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The attachment, 22-03-23 Hynet- CentralRoutes- Map, is our submission map giving more details of the alternative route for your information.

We have been in discussion with Hynet from the outset of their consultation from 2021 making several representations on their proposals and why they should not drop the Northern Corridor route. Our exchange of emails is embedded in our response dated 22<sup>nd</sup> March 2022.

I hope this information is of benefit to be included in your local impact report representing the views of a local land owner.

Kind regards  
Stephen Gibbins  
Compton Group  
45-51 Wychtree Street  
Morrison  
Swansea SA6 8EX

[REDACTED]  
[REDACTED]  
[REDACTED]  
Fax: 01792 315513

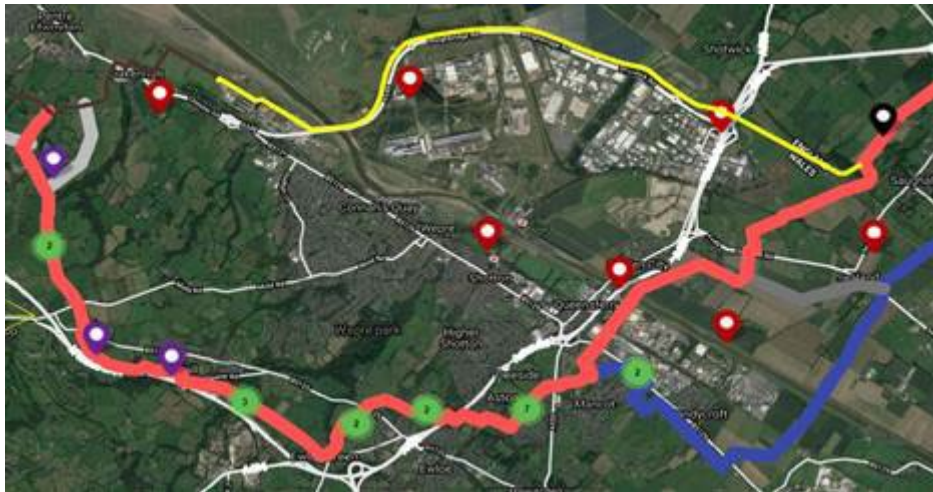
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## Response to Hynet consultation

1. I am writing as a director of Shotwick Land Limited to suggest an alternative route for the Hynet CO<sub>2</sub> pipeline from a point just before where the preferred route crosses in a westerly direction into Wales up to where it connects with the existing pipeline. Our alternative route is shown coloured blue on the plan in Attachment 1.
2. Over the last year or so, we have put forward this (or a substantially similar) proposal of an alternative route a few times to Hynet's advisers, WSP. To date our proposal has been rejected. The main advantage of our route is that it is much shorter. The distance for our suggested route from the point of divergence from the Hynet preferred route to the existing pipeline is 11.5 kms, whereas the distance for the Hynet preferred route is 18.7 kms; that is over 62% longer. Adopting our route would lead to significant cost savings, quite apart from minimising interference with the rights of private landowners.
3. Rather than rehearsing all the various points raised in my correspondence with WSP, I attach a copy of the relevant emails, as follows: mine of 8<sup>th</sup> July 2021 (Attachment 2); and WSP's emails of 8<sup>th</sup> July 2021 (Attachment 3), of 11<sup>th</sup> October 2021 (Attachment 4) and of 5<sup>th</sup> November (Attachment 5). You will see that WSP in their emails have listed a series of objections to our suggested route and I shall now turn to responding one by one to the objections WSP raised in their emails.

### Geological

4. WSP maintain that the adverse geological conditions on both banks of the River Dee where our suggested route crosses the river militate against choosing our route. In particular, they say that "the crossing itself is understood to be built on shifting sands". By "crossing" we assume that WSP mean the Flintshire Bridge. Clearly, the bridge cannot have been built on shifting sands; if it had been, it would have collapsed by now. Instead, the bridge's foundations are resting on solid ground.
5. At the risk of stating the obvious, it must be possible to use horizontal directional drilling ("HDD") to take the pipe through ground which is strong enough to carry the pipe under the river, even though that may well be at some depth. As far as I can ascertain from the websites of HDD operators, even if that depth were to exceed 100 metres, using HDD would still not be a problem. For information, I attach as Attachment 6 page 1 of the drilling record of a borehole drilled in the middle of the River Dee in May 1990, from which you will see that sandstone is present at a depth of 7.65 metres. In other words, of course it will be possible to drill under the River Dee to take the pipeline to the other side of the river.

### Landfill site

6. WSP go on to say that there is a landfill site of unknown provenance on the land "adjacent" to the eastern bank. I am not quite sure what "adjacent" means in this context, or, indeed where this landfill site is, but there is an area which appears, according to images from Google Earth (Attachment 7), to have been capped with a grey membrane. You can see from Attachment 7 that our suggested route coloured blue is situated well away from the tip.



## **Ecological**

7. WSP point out that our suggested route would have to cross several internationally and nationally designated sites of ecological importance, including the Dee Estuary Ramsar, Special Protection Area, Special Area of Conservation and a Site of Special Scientific Interest. These are not four separate areas; in fact, in this locality the boundaries of the four designations are coterminous. Despite WSP's misgivings, we have found a route which entirely avoids the four designated areas (as per the blue coloured line on Attachment 8), except for one crossing under the flood defence barrier to the west of the Rifle Range and another crossing under the River Dee. In the case of the former, it should be possible to use HDD to cover the short distance under the flood defence barrier without any adverse ecological effect and, in the case of the latter, again HDD would be required; in any event Hynet's preferred route also has to cross the River Dee, which at the point of Hynet's preferred crossing still enjoys its designated status as a Special Area of Conservation and a Site of Special Scientific Interest.

## **Existing gas pipeline and HVDC cables**

8. WSP state that the presence of an existing natural gas pipeline and high voltage cables makes it difficult to find a route through for the CO<sub>2</sub> pipeline. We disagree. Both can be crossed by (again) HDD.

## **Connah's Quay power station**

9. WSP put forward another objection by saying that on the western bank of the River Dee the land on the section leading to Connah's Quay power station is significantly congested with subterranean high voltage cables. On our suggested route the pipeline will cross under the River Dee and emerge within the site of the Connah's Quay power station. Accordingly, if (which is hard to believe) it really is too difficult to link up underground with the existing pipeline, it should be possible for the pipe instead to be taken overground. Obviously this would save considerably on the dig costs compared with taking the pipe underground.

## **Existing pipeline**

10. One of the features of our suggested route is that the CO<sub>2</sub> pipeline joins up with existing pipeline at its source, whereas on Hynet's preferred route the CO<sub>2</sub> pipeline joins up with the existing pipeline some 2 kms further west. However, even this advantage is disparaged by WSP. The section of the existing pipeline that our suggested route is intended to link up with is called P852; apparently, according to WSP, it is too small to accommodate the overall project design capacity of 10 million tonnes of CO<sub>2</sub> per annum. We have a solution – replace the existing pipe with a larger pipe.

## **Route past the Connah's Quay power station**

11. WSP maintain that "constructing the route past the power station itself would result in significant disruption to personnel and local traffic, as it would require closure of the road for several weeks". Of all WSP's objections, this one is among the hardest to understand. That part of the construction would take place entirely within the power station site. There would be no road closures; there would be very little disruption.

## **Complexity of crossings**

12. Also hard to understand is WSP's statement that, although there are more crossings on Hynet's preferred route, "these have been assessed to be of lower complexity to the northern routes that may have fewer crossings". The major road crossing on our suggested route is under the A494 just north of Drome Corner; again, this would be achieved by HDD without too much difficulty. In any event, the Hynet preferred route has to cross the A494 as well, in its case just north of Ewloe; I cannot see how crossing the A494 at Drome Corner will be any more complex than crossing it at



Ewloe. Once the A494 has been crossed, our suggested route runs all the way on the north of the A548, so that there would be no other highway crossings for the remainder of our suggested route. There is no increased complexity beyond the A548 because there are no more highway crossings.

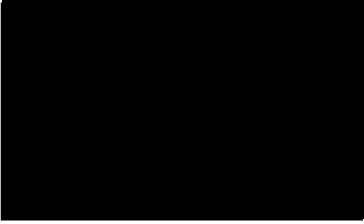
### **Fixing the CO<sub>2</sub> pipe to the Flintshire Bridge**

13. Although we think that our suggested route will work as per Attachment 1 (i.e. by crossing under the River Dee), we also put forward the alternative possibility of fixing the CO<sub>2</sub> pipe to the side or underside of the Flintshire Bridge. Needless to say, this did not find favour with WSP. On the contrary, WSP say that this would not work because there is no standard that would apply to CO<sub>2</sub> pipelines being suspended in open air under a bridge; furthermore, a 10 metre length of this CO<sub>2</sub> pipe weighs some 3 tonnes.
14. WSP's first point is nonsense; if we could not do anything because it is not covered by an existing standard, there would be no innovation at all. On WSP's second point, the bridge is designed to carry lorries weighing up to 44 tonnes travelling at 60 or 70 miles per hour. Clearly, the engineering calculations need to be done, but I would be very surprised if an additional static load of 300kg per metre would have any significant effect at all on the structural integrity of the bridge.
15. Moreover, what would be the effect of a leak anyway? CO<sub>2</sub> is not flammable and, while wholly undesirable, if the CO<sub>2</sub> did escape, it would just add to all the other CO<sub>2</sub> emissions in the atmosphere accumulated since the Industrial Revolution.

### **Conclusion**

16. Assuming that the option of fixing the CO<sub>2</sub> pipe to Flintshire Bridge is discounted, no matter which route is chosen, two major obstacles have to be overcome – crossing under the A494 and under the River Dee. On the former obstacle, I would argue that there is not a lot of difference between the Hynet preferred route and our suggested route. However, on the latter obstacle, I accept that it will be more challenging to cross under the River Dee on our suggested route. Having said that, there are still ecological challenges on the Hynet preferred route in crossing the river. In addition, I would imagine that the size and type of the HDD rig required for the river crossing would be the same for the Hynet preferred route and our suggested route, but admittedly it will take longer to drill under the river on our suggested route. However, any extra time and expense spent on crossing under the river on our suggested route will be nowhere near the time and expense spent on constructing the extra 7 kms of pipeline on the Hynet preferred route.
17. Overall, we feel that our proposals have not had any proper consideration from Hynet. They have been dismissed out of hand. The consultation to date, in our opinion, has been a sham. The eventual route looks to have already been decided on, possibly to enable CO<sub>2</sub> emissions to be picked up from the cement works of one of Hynet's backers. The consultation process is no more than a hindrance; any alternative must be rubbish.
18. For our part, we cannot see how any person acting reasonably can choose one of the southern routes such as the Hynet preferred route over a northern route, similar to our suggested route. A northern route will be shorter; it's going to cost a lot less; and it's going to disrupt the lives of far fewer people and businesses.
19. To finish, we have carried out an exercise to identify the number of titles as registered at the Land Registry affected on the Hynet preferred route as compared with those on our suggested route. The details are given in Attachments 9 and 10 (i.e. 111 titles on the Hynet preferred route and 21 titles on our suggested route respectively). It is questionable whether the use of statutory powers

under public law to further this infrastructure project on the Hynet preferred route (which will lead to the needless interference with the private property rights of many people and businesses) can be considered lawful when there is a much shorter route available, which has not been properly considered.

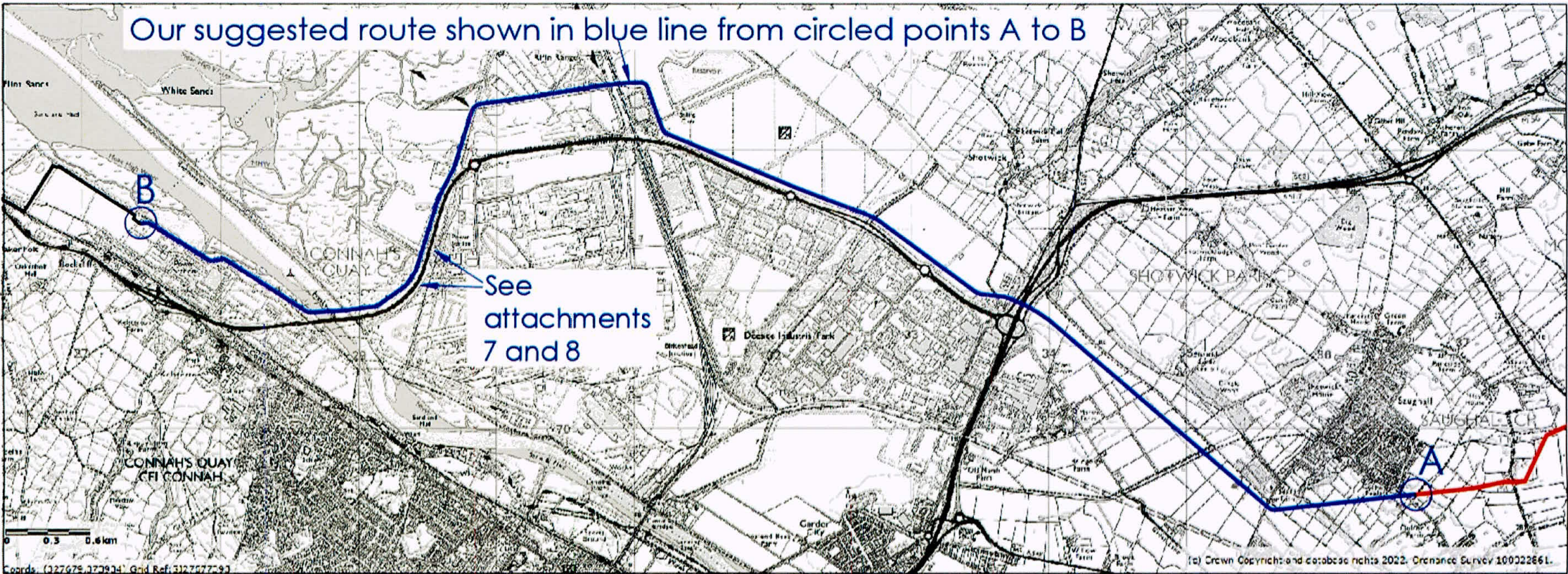


S.J.Gibbins  
Director  
Shotwick Land Limited

22 March 2022



Our suggested route shown in blue line from circled points A to B





**Stephen J. Gibbins**

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**From:** Stephen J. Gibbins  
**Sent:** 08 July 2021 10:16  
**To:** David Parkin  
**Cc:** Fava-Verde, Olivia; Amy Bodey  
**Subject:** RE: HyNet North West Project Webinar 1st July 2021  
**Attachments:** HyNet consultation V1 (002).docx

Dear David,

I have made comments on the consultation document and attach a copy. Unfortunately the image referred to in my comments would not copy into the web pages . Are you or a member of your team able to insert the image on my behalf please?

Kind regards  
Stephen Gibbins  
Compton Group  
45-51 Wychtree Street  
Morrison  
Swansea  
SA6 8EX

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**From:** David Parkin [REDACTED]  
**Sent:** 05 July 2021 23:36  
**To:** Stephen J. Gibbins <[REDACTED]>  
**Cc:** Fava-Verde, Olivia <[REDACTED]> Amy Bodey <[REDACTED]>  
**Subject:** Re: HyNet North West Project Webinar 1st July 2021

Hi Stephen,

Many thanks for your email – we are working on responses to all of these and will look to get back to you as soon as we can. My apologies for the delay.

Best wishes, Dave

**David Parkin CEng FIGEM**  
Director  
Progressive Energy Limited



## HyNet Consultation comments

We think that an alternative route running through the Northern Corridor should be preferred to Options G and I.

This alternative route (shown as a yellow line on the indicative plan below) diverges from Option I at a point approximately 17 kms west from the start at Ince. The route then proceeds west to just north of the roundabout at Drome Corner and crosses under the A494 to the start of Shotwick Road on the A548 which leads into Weighbridge Road. The route runs parallel with the A548 (Shotwick Road and Weighbridge Road) alongside the Flintshire Bridge and joins up with the existing pipeline to the west of Deeside Power Station. Most of this alternative route is via open or agricultural land except for a small section around Deeside Power Station.

We should point out that a 3 kms section from Drome Corner to the start of the elevated section of the A548, adjacent to the solar park, is on land which is in our ownership.

During one of the online public consultations, we enquired why the Northern Corridor had been discounted. We were informed that there were two reasons; firstly, Options G and I will run past a cement plant (and it is presumably intended that the new pipeline under both Options G and I will pick up CO2 emissions from the plant); and, secondly, crossing the river Dee will be easier under Options G and I.

On the first reason, we think that there is more opportunity to pick up CO2 emissions on our alternative route as compared with Options G and I. For example, major emitters along or near the alternative route include TATA, UPM, Toyota, Wheelabrator (energy from waste) and two power stations. And, obviously, Deeside Industrial Park will become a much more attractive location for business if there is the opportunity to achieve net zero CO2 emissions.

As for the second reason, we think that it should be possible to use horizontal directional drilling to take the new pipeline under the river Dee. We estimate that the length to be drilled near the Flintshire Bridge will not exceed 250 metres; this is well within the capacity of even a light rig. An alternative solution, worth exploring which would not involve any digging at all, could be to affix the pipe to the underside or side of the Flintshire Bridge.

We believe that our suggested route will have the following advantages over Options G and I.

1. Our route is much shorter. The distance for our suggested route from the point of divergence from Option I to the existing pipeline is 9.5 kms, whereas the distance between the same two points for the Option I route is 16.4 kms; that is over 72% longer.
2. The reduction in length has many knock-on consequences, including: savings in construction costs, professional fees and land compensation fees; fewer landowners affected; and a shorter construction timetable.
3. Our route is almost entirely on agricultural/open land; it avoids residential areas, whereas Option I will affect settlements such as Deeside, Aston and Ewloe Green. The avoidance of residential areas will make it easier to carry out the construction works on our route, thus minimising the disruption to the public (e.g. noise, dust/mud, traffic delays, road/path closures). Furthermore, a proposal for our route is likely to meet less opposition from the public, which in turn may help to facilitate the planning approval process.
4. Other than the A540 and Lodge Lane (which are also on the Option I route), our route has just one highway road crossing, i.e. the A494 just north of Drome Corner. This crossing would probably need to be done by horizontal directional drilling. In contrast, Option I has

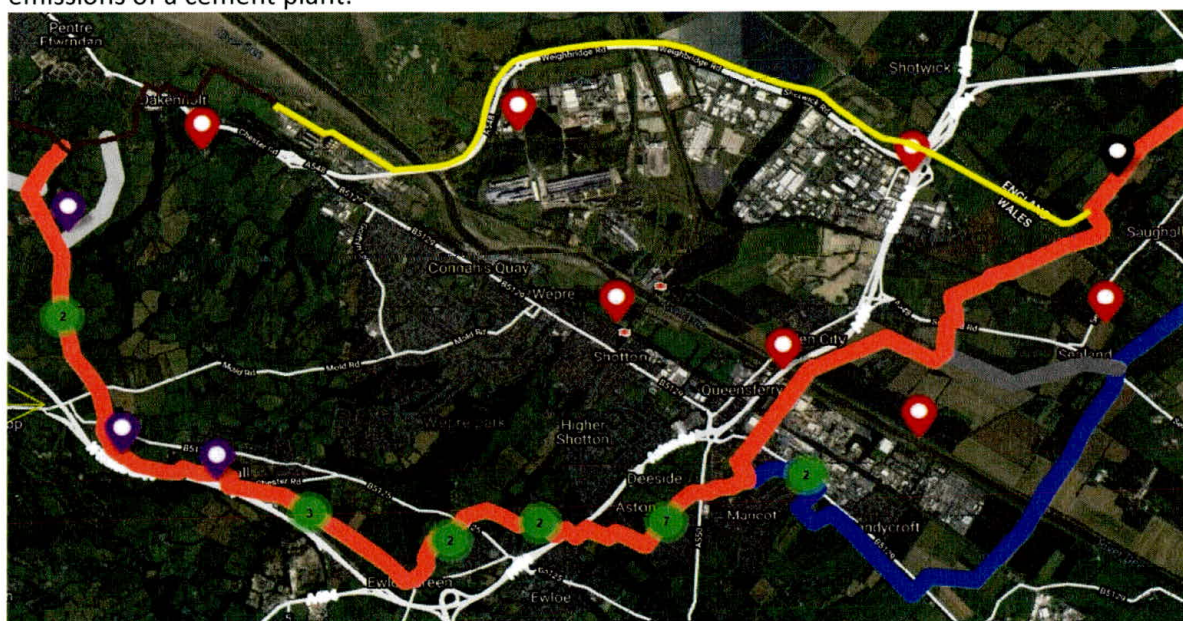


many highway road crossings, which will inevitably adversely affect the journeys of road users in the area. For example, the roads serving Sandycroft Industrial Area tend to be very busy, so the traffic will need to be carefully controlled while the works are being carried out.

5. The terrain on our route is mostly flat, whereas Option I has to contend with different levels, including ravines. Furthermore, it will be easier to lay the new pipeline (and reinstate) on agricultural land as compared with having to pick a way through built up residential or commercial areas.
6. Option I does not make full use of the existing pipeline. It joins up at a point further west from the start of the existing pipeline, whereas our proposed route does join right at the start of the existing pipeline.
7. On the last part of our proposed route from the Flintshire Bridge, the new pipeline could be run overground along the north-eastern boundary of the Connah's Quay power station up to the point where it joins with the existing pipeline. The construction cost savings in elevating the pipeline would include the costs of the dig and of arisings removal, quite apart from obviating the requirement for underground pipework encasement or cover.

For our part, we would welcome the opportunity for the new CO2 pipeline to be run through our land, which is adjacent to the A548. We co-developed the Shotwick solar park, which is the biggest solar park in the UK covering some 220 acres. We are now keen to develop the remaining part of our land. One of our ideas is the possible development of a gas fired power station; we already have both electricity cables and a high-pressure gas pipeline on our site. Clearly, CO2 capture from a new power station feeding into the pipeline for storing the CO2 underground off the north Wales coast would enhance the region's reputation for a greener business environment. By way of example, a new 900MW gas fired CCS power station, planned by SSE and Equinor at Peterhead, is expected to capture 1.5 million tonnes of CO2 each year, equivalent to 15% of the UK Government's target of 10 million tonnes of CO2 capture by 2030.

Accordingly, we would be grateful if you can review the options for the route of the new pipeline and weigh up the advantages and disadvantages of the different routes. It may be that we have underestimated the problems associated with the Northern Corridor, but, if we have not, it would appear to us that your proposals could be an abuse of the NSIP process if you decide on a much longer route (which will take away the private property rights of many landowners and inflict inconvenience on members of the general public) where the overriding aim is to capture the CO2 emissions of a cement plant.





**Stephen J. Gibbins**

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**From:** Scott, Kirsty [REDACTED]  
**Sent:** 08 July 2021 16:58  
**To:** Stephen J. Gibbins  
**Cc:** info@hynet.co.uk  
**Subject:** Your Query to Hynet

Good Afternoon Stephen,

Thank you for your query, we have been able to get the below response to your queries.

About your query raised during the Q&A session about the Red Route and the Northern Corridor. We are aware of the Welsh Government proposals to upgrade the A494/A55 highway improvement works and the selection of the red route as the preferred option. This is a separate project to HyNet North West however, so we cannot comment on their route selection process. We are reviewing the implications of this proposal on the HyNet NW scheme. We will be undertaking discussions with the relevant stakeholders to review any impacts on the design of the pipeline. We are also aware that the Welsh Government have recently announced the intention to suspend all future road building plans which we will monitor going forward.

In terms of the reasons we have discounted the Northern Corridor for HyNet North West (which as you mention is the mostly closely located to the red route), this corridor contains a number of engineering related constraints including the presence of an existing natural gas pipeline and high voltage cables the locations of which offered little-no flexibility to reroute compared with the southern corridor. The land adjacent to the eastern bank of the River Dee which contained a landfill site of unknown provenance. The crossing itself is understood to be shifting sands, implying a very deep tunnel to ensure stable geology. The land of the western bank is similarly unsuitable, and the downstream section to Connah's Quay Power Station is significantly congested with subterranean high voltage cables. It was also considered that constructing the final part of the route past the Power Station itself would result in significant disruption to personnel and local traffic, as it would require closure of the road for several weeks. The land either side of the River Dee within the corridor is internationally designated for its biodiversity importance and the works associated with construction were considered likely to have a greater potential impact than the southern corridor.

In response to your queries about the Hansom cement site and the emissions. The pipeline that we are consulting on will transport CO<sub>2</sub> from hydrogen production plants planned at the Stanlow Manufacturing Complex, plus industrial emissions capture from CF Fertilisers and Essar's refinery. We expect a subsequent branch to the CO<sub>2</sub> pipeline will be built to connect Hanson's Padeswood plant. As part of the project consortium, Hanson will be undertaking a feasibility study at their Padeswood cement works near Mold, Flintshire. This will provide a clear design basis and cost estimate for a carbon capture plant and connection to the planned HyNet North West CO<sub>2</sub> transport and storage system. We are also exploring other potential CO<sub>2</sub> capture sources in the Ellesmere Port/Stanlow/Ince area and beyond, as exemplified by the recent announcement by Viridor. Some of these are expected to qualify as negative emissions sources.

The pipeline will be designed to transport up to 10 million tonnes per year of CO<sub>2</sub> for permanent storage in depleted gas reservoirs below Liverpool Bay. More than half of that captured CO<sub>2</sub> is expected to come from the planned hydrogen production plants, and the remainder will come from capture from industrial, energy from waste plants and BECCS facilities.

We hope the above answers your questions. If there is anything further please don't hesitate to get in touch.

Many thanks

| **Kirsty Scott**



**Stephen J. Gibbins**

**From:** Scott, Kirsty [REDACTED]  
**Sent:** 11 October 2021 10:31  
**To:** Stephen J. Gibbins  
**Cc:** info@hynet.co.uk  
**Subject:** RE: Your Query to Hynet

Good Morning,

Thank you for your response.

Apologies for the delay in responding to your message. We will shortly be publishing our summary report for the non-statutory consultation. In advance of this, we have provided a more detailed response to your points below. We have previously carried out an exercise assessing the suitability of the northern corridor. The route we considered is not exactly the same as your suggested route (see the image below) but it is very similar, hence we can use it to explain some of the points from your route. From the data, we gathered when we analysed that route there were some key reasons as to why it was discounted.



In response to your point about the number of crossings and that your suggested route has fewer crossings than the proposed routes, we also need to consider the complexity as well as the number of crossings. Although there are more crossings on our proposed options, these have been assessed to be of lower complexity compared to the northern routes that may have fewer crossings.

Regarding a potential crossing near the Flintshire Bridge, there are engineering complexities associated with the land on either side of the option. On the upstream side, the presence of an existing natural gas pipeline, high voltage cables and a nature reserve make it difficult to find a route through for a 36" pipeline. Also, the land adjacent to the eastern bank is a landfill site of unknown provenance. The crossing itself is understood to be built on shifting sands, implying a very deep tunnel to ensure stable geology. The land of the western bank is similarly unsuitable, and the downstream section of Connah's Quay Power Station is significantly congested with subterranean high voltage cables. Constructing the final part of the route past the Power Station itself would result in significant disruption to the neighbourhood, as it would require the closure of the road for several weeks. There are also some concerns over construction worker safety for the northern option River Dee crossing and also how the proximity of the numerous high voltage cables would affect the impressed current corrosion protection system.

On your point about your suggested route going through more rural land. Our current proposed routes have over 95% of the pipeline going through open fields. We will avoid and reduce potential impacts on local communities as far as possible. The main mechanism through which we will do this is through our Environmental Impact Assessment which will include a 'Population and Human Health' assessment. This will include consideration of potential impacts

upon land use and accessibility (including disruptions to access and use of private property and community land), impacts to walkers, cyclists and horse riders with regards to changes in routes and journey times and impacts to human health (including air quality, noise, accessibility to community, healthcare, social and employment facilities and opportunities for physical activity). The results of this assessment will be presented in a dedicated chapter of the Environmental Statement, with initial findings provided for consultation in the Preliminary Environmental Information Report.

Although a northern route avoids dense residential and industrial areas and provides a shorter route, it would have to cross several internationally and nationally designated sites of ecological importance including the Dee Estuary Ramsar, SPA, SAC and SSSI. There could be potential permanent loss and/or impacts upon these European designated sites or temporary loss of habitat within, or impacts on, the sites or a site qualifying interest outside of the site. The Habitats Directive (transposed into UK law as the Conservation of Habitats and Species Regulations 2017) requires a sequence of steps to be taken to establish whether or not a proposed development can go ahead if European protected sites are affected. If significant effects were identified which could not be mitigated this could potentially result in refusal of consent.

The section of the existing pipeline which you point out is not used is referred to as P852. Although it will be unused, this section of the pipeline will be cleaned and left in place with an inert gas such that it can provide a readymade future connection for CO2 emitters in the area at a later stage. Pipeline P852 is too small to accommodate the overall project design capacity of 10 MTPA (million tonnes per annum); additional pipeline capacity therefore needs to be installed.

The possibility of picking up emitters of CO2 was considered however there are currently no emitters of sufficient magnitude on the Deeside Industrial Park to justify the associated infrastructure. The nature of the development is not heavily energy-intensive industry and incumbents would be better served by fuel switching to hydrogen as a means of reducing their CO2 emissions.

We hope that this helps to clarify why a northern route has been discounted. If you do have any further queries though, please do let us know.

Many Thanks



**Kirsty Scott**

Undergraduate Project Manger

Engagement – Planning and Information Management

*She/Her*

T 0121 352 4906

---

**From:** Stephen J. Gibbins <[REDACTED]>  
**Sent:** 16 September 2021 16:19  
**To:** Scott, Kirsty <Kirsty.Scott@wsp.com>  
**Subject:** FW: Your Query to Hynet

Dear Kirsty,

I refer to my email of 13<sup>th</sup> July 2021 and the submissions that we made for your consultation process.

I haven't heard any further from you with your comments on our submission and I would welcome receiving your feedback.

I look forward to hearing further from you.

Kind regards



Stephen Gibbins  
Compton Group  
45-51 Wychtree Street  
Morrison  
Swansea  
SA6 8EX

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**From:** Stephen J. Gibbins  
**Sent:** 13 July 2021 13:02  
**To:** Scott, Kirsty <[REDACTED]>  
**Subject:** RE: Your Query to Hynet

Dear Kirsty,  
Thank you for your email.  
There are many issues we disagree with and will reply in full shortly.  
We have made submissions on your two proposals detailed on your web site. Will you be providing any feed back on the submissions? If so, we look forward to hearing from yourselves before we make any further comment. If there is no feed back we will reply to your email .

I look forward to hearing from you.

Kind regards  
Stephen Gibbins  
Compton Group  
45-51 Wychtree Street  
Morrison  
Swansea  
SA6 8EX

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**From:** Scott, Kirsty <[REDACTED]>  
**Sent:** 08 July 2021 16:58  
**To:** Stephen J. Gibbins <[REDACTED]>  
**Cc:** [info@hynet.co.uk](mailto:info@hynet.co.uk)  
**Subject:** Your Query to Hynet

Good Afternoon Stephen,

Thank you for your query, we have been able to get the below response to your queries.

About your query raised during the Q&A session about the Red Route and the Northern Corridor. We are aware of the Welsh Government proposals to upgrade the A494/A55 highway improvement works and the selection of the red route as the preferred option. This is a separate project to HyNet North West however, so we cannot comment on their route selection process. We are reviewing the implications of this proposal on the HyNet NW scheme. We will be undertaking discussions with the relevant stakeholders to review any impacts on the design of the pipeline. We are also aware that the Welsh Government have recently announced the intention to suspend all future road building plans which we will monitor going forward.

In terms of the reasons we have discounted the Northern Corridor for HyNet North West (which as you mention is the mostly closely located to the red route), this corridor contains a number of engineering related constraints including the presence of an existing natural gas pipeline and high voltage cables the locations of which offered little-no flexibility to reroute compared with the southern corridor. The land adjacent to the eastern bank of the River Dee which contained a landfill site of unknown provenance. The crossing itself is understood to be shifting sands, implying a very deep tunnel to ensure stable geology. The land of the western bank is similarly unsuitable, and the downstream section to Connah's Quay Power Station is significantly congested with subterranean high voltage cables. It was also considered that constructing the final part of the route past the Power Station itself would result in significant disruption to personnel and local traffic, as it would require closure of the road for several weeks. The land either side of the River Dee within the corridor is internationally designated for its biodiversity importance and the works associated with construction were considered likely to have a greater potential impact than the southern corridor.

In response to your queries about the Hansom cement site and the emissions. The pipeline that we are consulting on will transport CO<sub>2</sub> from hydrogen production plants planned at the Stanlow Manufacturing Complex, plus industrial emissions capture from CF Fertilisers and Essar's refinery. We expect a subsequent branch to the CO<sub>2</sub> pipeline will be built to connect Hanson's Padeswood plant. As part of the project consortium, Hanson will be undertaking a feasibility study at their Padeswood cement works near Mold, Flintshire. This will provide a clear design basis and cost estimate for a carbon capture plant and connection to the planned HyNet North West CO<sub>2</sub> transport and storage system. We are also exploring other potential CO<sub>2</sub> capture sources in the Ellesmere Port/Stanlow/Ince area and beyond, as exemplified by the recent announcement by Viridor. Some of these are expected to qualify as negative emissions sources.

The pipeline will be designed to transport up to 10 million tonnes per year of CO<sub>2</sub> for permanent storage in depleted gas reservoirs below Liverpool Bay. More than half of that captured CO<sub>2</sub> is expected to come from the planned hydrogen production plants, and the remainder will come from capture from industrial, energy from waste plants and BECCS facilities.

We hope the above answers your questions. If there is anything further please don't hesitate to get in touch.

Many thanks



**Kirsty Scott**

Undergraduate Project Manager

Engagement – Planning and Information Management

*She/Her*

**T 0121 352 4906**



**WSP - The Mailbox,**

**Level 2, 100 Wharfside Street**

**Birmingham**



**Stephen J. Gibbins**

---

**From:** Scott, Kirsty [REDACTED]  
**Sent:** 05 November 2021 16:30  
**To:** Stephen J. Gibbins  
**Cc:** info@hynet.co.uk  
**Subject:** RE: Your Query to Hynet

Good Afternoon Stephen,

Apologies for the delay in our response.

Thank you for your suggestion: we welcome constructive comments and are always open to new ideas.

The route you are discussing relates to the northern route so we wanted to highlight some of the findings from our evaluations so far to provide some insight as to why the northern route does not work in this context. Although a northern route avoids dense residential and industrial areas and provides a shorter route, it would have to cross several internationally and nationally designated sites of ecological importance, including the Dee Estuary Ramsar, Special Protection Area (SPA), Special Area of Conservation (SAC) and Site of Special Scientific Interest (SSSI). There could be potential permanent loss and/or impacts upon these European designated sites or temporary loss of habitat within, or impacts on, the sites or a site qualifying interest outside of the site.

The Habitats Directive (transposed into UK law as the Conservation of Habitats and Species Regulations (EU Exit) (Amendment) 2019) requires that any potential for adverse impacts or effects from a development upon an internationally designated site or its qualifying features (which can also be located outwith the boundary of a designated site) must be assessed through the Habitats Regulations Assessment (HRA) process. A key initial consideration as part of the HRA process is 'avoidance', insomuch that reducing the potential for any adverse effects or impacts to such sites or features should be sought at the outset. The undergrounding of the pipeline beneath the River Dee, upstream of the Dee Estuary mouth, provides a lower impact option compared to the option bounding the north and west of Deeside Industrial Park, given the proximity of the estuary mouth and the associated internationally designated sites and their boundaries.

With reference to your point about the pipeline being mounted on the underside of the bridge, pipelines in the UK are required to be designed to a specific standard. This requires them to be buried to particular depths dependent on the terrain, as stated in the PD8010-1. There is no standard that would apply to carbon dioxide pipelines being in open air, suspended under a bridge, as suggested. At the same time, the standard for the design of bridges (BS5400), does not include for the additional loads associated with large pipelines being mounted on the underside. For information, every 10m of this pipeline would weigh about 3 tonnes, which is a lot of additional load for the bridge to carry.

As well as the issues stated above there is a series of other risks which are relevant to your suggestion of mounting the pipe on the underside of the bridge. This includes the fact it is more likely to be damaged by 3rd party activities, which is often why burial of pipeline is standard. It is also a concern that the pipeline could be damaged by the maintenance works on the bridge. Running pipelines above the ground carries a higher risk therefore it needs a thicker pipe or additional fittings and valves. This additional cost and fixtures would not be needed if the pipeline was buried. The environment in which the pipeline would be constructed also affects the materials used.

Many Thanks

Kirsty Scott

**From:** Stephen J. Gibbins [REDACTED]  
**Sent:** 11 October 2021 12:43



Version 2.0.6.5

BGS ID: 151040 : BGS Reference: SJ27SE299  
 British National Grid (27700) : 328580,371060

Report an issue with this borehole

SJ27SE/  
299.

Boring method		Cable Percussion Rotary Coring		Boring diameter (mm)		200 to 7.80m, 150 to 8.30m, 146 to 38.90m, 120 to 69.80m, 100 to 90.0m		Record of	
Boring equipment		Dando 150 Hands England HE50 to 90.00m		Casing diameter (mm)		200 to 7.80m; 150 to 8.30m 140 to 39.00m, 114 to 70.00m		BOREHOLE 70	
Location		8371E 5747N		Orientation		Vertical		Ground level (m O D) 6.50 Date commenced 11.5.90	
Samples and in situ tests		Casing depth (m)		Water depth (m)		TCR SCR		RQD	
Depth (m)		Type				Date and Depth (m)		Description of Strata	
								O D Level (m O D)	
0.15	Db					11/5 [0.15]			6.35
0.40	U(80)	0.00				[0.30]			6.20
0.90	Dj								
1.20	Dj								
1.50	U(70)	1.50							
2.00	Dj								
2.40	Dj								
[2.50]	S(7)	2.50							
[2.50]	Dj								
[2.50]	Db								
3.00	GWs		GWe 3.00						
3.40	Dj								
[3.50]	S(8)	3.50							
[3.50]	Dj								
[3.50]	Db								
		4.00				4.00			
			3.00			12/5			
4.40	Dj	4.50							
[4.50]	S(6)								
[4.50]	Db								
						5.40			1.10
5.40	Dj	5.50							
[5.50]	S(26)								
[5.50]	Dj								
[5.50]	Db								
6.40	Dj	6.50							
[6.50]	S(24)								
[6.50]	Dj								
[6.50]	Db								
7.40	Dj	7.50				7.65			-1.15
[7.50]	S(>50)								
[7.50]	Dj								
[7.65]	Db								
8.30	S(>50)	8.30	3.00			8.30			-1.80
[20.35	KFH		3.70			16/5			
to									
8.30]									
[8.30]	Dj								
[8.40]									
[8.44]									

Remarks: \* Drillers description  
 Water was added to assist boring from 1.50m to 8.30m  
 Groundwater was encountered at 3.00m on morning of 14/5  
 The borehole was advanced by chiselling from 7.80m and 8.30m (1.5hrs)  
 Rotary coring with SWF double tube 110mm diameter core barrel, foam injection flush was commenced at 8.30m.  
 Core reduced to PWF 92mm diameter at 38.90m Core reduced to HWF 76mm ID at 69.80m.  
 Flush changed to water at 69.80m. Crude oil noted in flush between 29.90m and 47.20m.

On completion the borehole was backfilled as follows:  
 90.00m to 9.00m, bentonite/cement grout; 9.00m to ground level, materials arising.

NOTE: || indicates depth not plotted to scale

32: Ref No S/28389

**BOREHOLE RECORD**

Scale 1 : 50

For explanation of symbols and abbreviations see Key Sheet



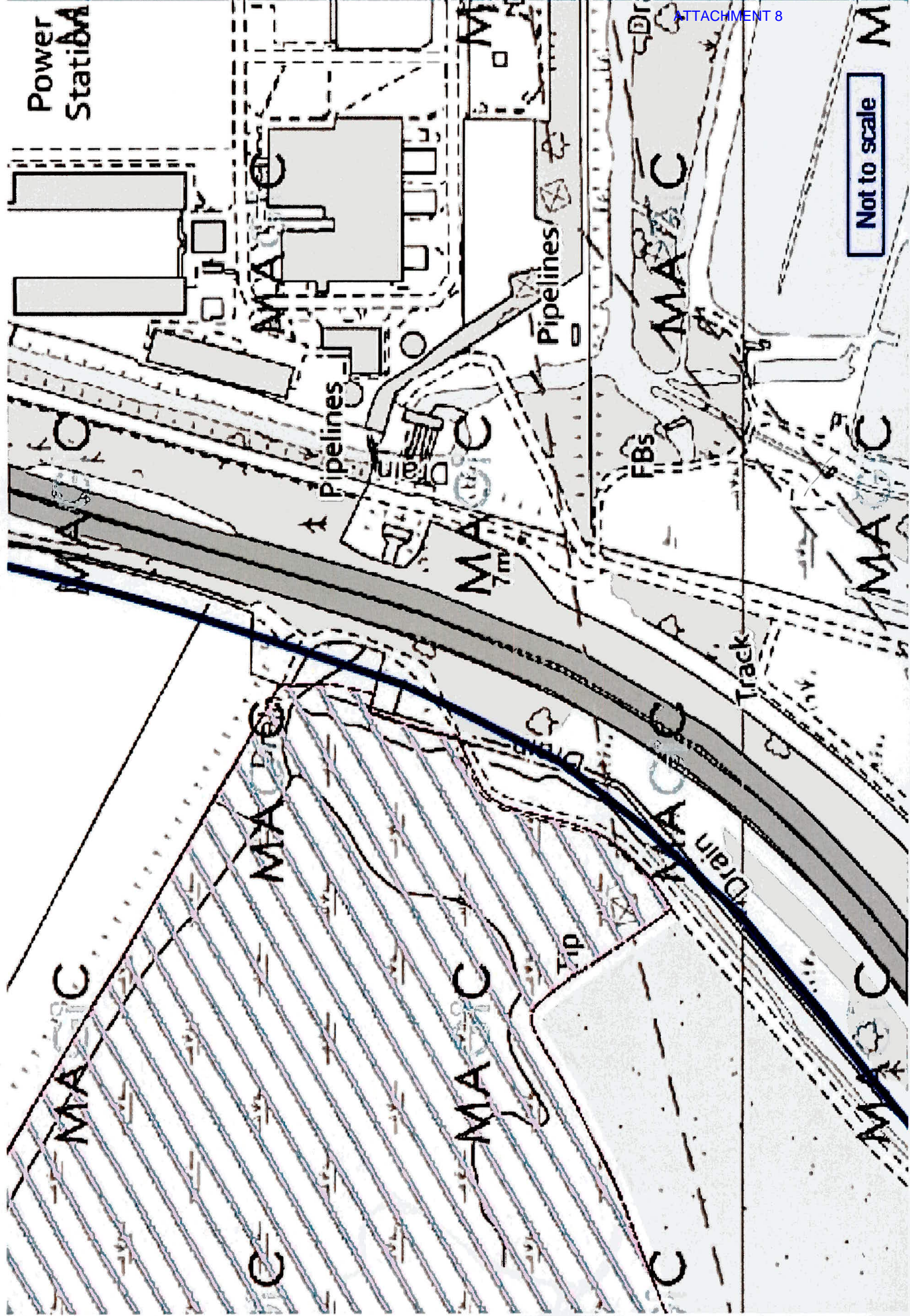
DEESIDE ROAD LINK - RIVER CROSSING

fig. 2/61









Not to scale

Power Station

Pipelines

Track

Drain

TIP

FBS

Pipelines

Drain



## List of Hynet preferred route Title Numbers

Starting from Hermitage Road					
Title Number	Interest Type	Title Number	Interest Type	Titel Number	Interest Type
CH649887	Freehold	CYM469633	Freehold	CYM640627	Freehold
CH167809	Freehold	CYM339350	Freehold	CYM638501	Freehold
CH561632	Freehold	CYM371948	Freehold	CYM686389	Freehold
CYM388764	Freehold	CYM383521	Freehold	CYM671746	Freehold
CYM266007	Freehold	CYM682558	Freehold	CYM341308	Freehold
WA550964	Freehold	WA656210	Freehold	WA922289	Freehold
WA553915	Freehold	WA809365	Freehold	CYM653408	Freehold
CYM388920	Freehold	WA501796	Freehold	CYM614776	Freehold
WA349243	Freehold	CYM477457	Freehold	CYM605038	Caution
WA687948	Freehold	WA378503	Freehold	CYM794774	Freehold
WA350288	Freehold	CYM624796	Freehold	CYM402774	Freehold
CYM295215	Freehold	WA664717	Freehold	CYM705780	Freehold
CYM483317	Freehold	WA774599	Freehold	WA939617	Freehold
CYM483293	Freehold	CYM373784	Freehold	WA701951	Freehold
CYM480538	Freehold	WA971715	Freehold	WA551029	Freehold
CYM619064	Freehold	WA816732	Freehold	CYM387838	Freehold
CYM348026	Freehold	CYM200156	Freehold	CYM544317	Freehold
CYM295220	Freehold	CYM493294	Freehold	CYM652953	Freehold
CYM614403	Freehold	CYM808107	Freehold	CYM654602	Freehold
CYM339993	Freehold	WA934128	Freehold	CYM477732	Freehold
CYM341084	Freehold	CYM344996	Freehold	CYM477735	Freehold
CYM341972	Freehold	WA413526	Freehold	CYM487142	Freehold
CYM341129	Freehold	CYM629728	Freehold	CYM512354	Freehold
CYM341307	Freehold	CYM22230	Freehold	WA434442	Freehold
CYM341084	Freehold	CYM60417	Freehold	CYM830224	Pending first re
WA404676	Freehold	CYM344996	Freehold	CYM481587	Freehold
WA874652	Freehold	CYM779860	Freehold	CYM465161	Freehold
WA652265	Freehold	CYM215226	Freehold	WA747746	Freehold
WA442760	Freehold	WA520909	Freehold	CYM733987	Freehold
WA662786	Freehold	WA731823	Freehold	CYM686069	Freehold
CYM772516	Freehold	WA430986	Freehold	CYM531349	Freehold
WA988462	Freehold	WA953983	Freehold	CYM479066	Freehold
CYM418788	Freehold	CYM453468	Freehold	WA851018	Freehold
CYM295218	Freehold	WA871882	Freehold	CYM789933	Freehold
CYM347647	Freehold	WA602173	Freehold	CYM786702	Freehold
CYM614548	Freehold	WA816899	Freehold	CYM476844	Freehold
CYM339160	Freehold	CYM652952	Freehold	CYM409520	Freehold

<b>List of our preferred route Title Numbers</b>		
<b>Title Number</b>	<b>Interest Type</b>	
CH649887	Freehold	
CH167809	Freehold	
CYM388764	Freehold	
CH398255	Freehold	
CH421503	Freehold	
CYM388764	Freehold	
CH629308	Freehold	
CYM107729	Freehold	
WA873487	Freehold	
WA47479	Freehold	
CYM463126	Freehold	
CYM5202	Freehold	
CYM22342	Freehold	
CYM 221073	Freehold	
CYM316110	Freehold	
CYM316625	Freehold	
CYM7070	Freehold	
CYM372794	Freehold	
CYM484674	Freehold	
CYM223248	Freehold	
CYM317995	Freehold	

