When developers benefit from building in the village, they make a contribution to the locality through the community infrastructure levy. How will AQUIND provide a benefit to the community?

When a Development Consent Order (DCO) is granted, the relevant Development is subject to CIL.

We are committed to mitigating the impacts of the Proposed Development in so far it is possible to do so. Where opportunities arise for such mitigation measures to be captured in any Development Consent obligation (i.e. the DCO version of a Section 106 Agreement) AQUIND will consider these and offer to secure such measures where appropriate.

In addition, the Proposed Development also has the potential to deliver significant local benefits by virtue of its construction. For example, it is estimated that around 250 people will be working on site at the peak of the construction, which should mean more clients for local services, restaurants and stores.

Could better maps be provided?

The full suite of consultation documents, including maps of the project, can be viewed and downloaded via the project website at: https://aquindconsultation.co.uk/consultation-materials/

How much disruption will be caused in Denmead village centre and to the shops and pubs in the area?

Section 3 of the Proposed Development's 'Onshore Cable Corridor' illustrates the key works associated with the Proposed Development that would impact on the village of Demead.

The Onshore Cable Corridor is so-called because a larger area is shown that through which the cable will ultimately be routed, and Development Consent applied for. Within Section 3 of the Onshore Cable Corridor, AQUIND has identified four possible underground cable route options between land to the north of properties on the northern side of Anmore Road at Kings Pond and Hambledon Road (at its junction with Soake Road). These options are described in more detail on p. 56-60 of the Consultation Document and AQUIND is considering these options, among other things, as part of the consultation.

If Options 3A and 3B are not feasible or practical, a "highways option", which avoids Kings Pond Meadow, has been identified (Option 3C). Of all the Options, Option 3C will give rise to the most traffic disruption and full road closures would be required during the construction period.

Option 3C could see the underground cable run along Anmore Road heading westwards from Kings Pond. The two HVDC Cable circuits would then run separately: One circuit would run southwards down Mill Road and the other would continue further west along Anmore Road before running southwards along Martin Avenue before they converge and both continue south-eastwards along Hambledon Road.

Martin Avenue and Mill Road are both residential single carriageway roads and Hambledon Road is a single carriageway road. Between Martin Avenue and Forest Road, continuous footways are provided on both sides of the carriageway alongside some discontinuous advisory cycle lanes. Between Forest Road and Soake Road a shared-use path is provided on the northern side of the carriageway.

It is currently estimated that the worst-case traffic disruption for Option 3C would approximately be as follows:

- Anmore Road – 30 days full closure per circuit along the road as the cable ducts are installed in approximately 100 m sections
- Martin Avenue – 10 days full closure (one circuit only down this road)
- Mill Road – 19 days full closure (one circuit only down this road)
- Hambledon Road – 48 days with single lane closure and shuttle working

During the construction phase, it is important to note there is no intention to route construction traffic through Denmead village centre. A Construction Traffic Management Plan will be developed with Hampshire County Council to ensure the impacts of these additional vehicle movements on the surrounding highway network are adequately mitigated. The Plan will identify construction routes, with which construction traffic will need to obey, is enforceable by the Local Highways Authority. A proposed construction traffic route is contained at Figure 21.3 of the PEIR, a copy of which is provided with this response document.

Will AQUIND be paying compensation for any lost trade?

As mentioned previously, AQUIND is keen to minimise and mitigate any adverse impacts arising as a consequence of the construction works and will be mindful of the need to ensure any accesses to local businesses are maintained when devising the construction programme and methods for the Proposed Development.

What is the impact on traffic and residents getting in and out of the village, plus delivery of services?

As mentioned above, Section 3 of the Onshore Cable Corridor includes four cable route options which are being considered as part of the consultation. The estimated impact of these Options is as follows:

Option 3A(I) - Sub-Option HDD[1] Under Anmore Road

The proposed route would run from land north of Anmore Road, crossing Anmore Road near Kings Pond, to Hambledon Road through the fields known as Kings Pond Meadow, via ducts installed by HDD. The field immediately to the south of Anmore Road is designated as a SINC. The field below the south-east corner of the SINC is not designated, and it is this field where it is anticipated that the HDD will resurface if two HDDs are to be used.

It is currently estimated that the worst-case traffic disruption for this option would be approximately:

- Hambledon Road – 6 days shuttle working

OPTION 3A(II) - Sub-Option Trenching from North of Anmore Road to Kings Pond Meadow, Then HDD to Field North of Hambledon Road

The proposed route would run from land north of Anmore Road, crossing Anmore Road near Kings Pond, to Hambledon Road through the fields known as Kings Pond Meadow, via ducts installed by trenching. The field immediately to the south of Anmore Road is designated as a SINC. The field below the south-east corner of the SINC is not designated, and it is this field where it is anticipated that the HDD will commence to run south to the field north of Hambledon Road.

It is currently estimated that the worst-case traffic disruption for this option would be approximately:

- Hambledon Road – 6 days shuttle working
- Anmore Road – 1 day full closure

OPTION 3B - Anmore Road

The option would run east, to the north of the properties located to the immediate north of Anmore Road, then south in the field opposite Clifton Crescent, west along Anmore Road and south into the field south of the SINC at Kings Pond Meadow with all ducts installed in trenches. From this point southwards, to the field north of Hambledon Road it is anticipated that the cables would be installed via HDD. This increases the route length of the Cables and introduces more installation complexity but provides an alternative route for the cables to Anmore Road. This Option would require trenching along approximately 100m of Anmore Road to reach Kings Pond Meadow. It would also trench through part of the SINC.

[1] HDD (Horizontal Directional Drilling) is a trenchless installation method used to cross beneath areas where conventional construction methods cannot be used due to constraints (water ways, railways and environmentally sensitive areas), where other methods may cause damage, or where access is restricted.

It is currently estimated that the worst-case traffic disruption for this option would be approximately:

- Hambledon Road – 6 days shuttle working
- Anmore Road – 4 days full closure

OPTION 3C - Highways Route

If HDD and/or trenching is not practicable for option 3A(I) and (II) and 3B a highways option which avoids Kings Pond Meadow has been identified. Out of all the options this one will give rise to the most traffic disruption and full road closures would be required. This option is included whilst the feasibility and practicability of either of options 3A and 3B are confirmed.

The Cable Corridor would run along Anmore Road heading westwards from Kings Pond. The two HVDC Cable circuits would then run separately: One circuit would run southwards down Mill Road and the other would continue further west along Anmore Road before running southwards along Martin Avenue before they converge and both continue south-eastwards along Hambledon Road.

Martin Avenue and Mill Road are both residential single carriageway roads and Hambledon Road is a single carriageway road. Between Martin Avenue and Forest Road, continuous footways are provided on both sides of the carriageway alongside some discontinuous advisory cycle lanes. Between Forest Road and Soake Road a shared-use path is provided on the northern side of the carriageway.

It is currently estimated that the worst case traffic disruption for this option would be approximately:

- Anmore Road – 30 days full closure per circuit along the road as the cable ducts are installed in approximately 100 m sections
- Martin Avenue – 10 days full closure (one circuit only down this road)
- Mill Road – 19 days full closure (one circuit only down this road)
- Hambledon Road – 48 days with single lane closure and shuttle working

Approach to Traffic Management

It is inevitable that the installation of infrastructure in the highway will result in disruption to the surrounding highway network, which may be experienced by residents of Denmead. AQUIND is committed to devising and implementing traffic management measures to minimise disruption to the transport network whilst construction is ongoing in the highway in so far as possible. These measures will be devised with input from the surrounding Local Planning Authorities and Hampshire County Council as the Highway Authority before the submission of an application for a DCO.

The approach to traffic management outlined is outlined in p.94-95 of the Consultation Document and is intended to give an indication of the type of measures that may be employed during construction.

In addition, a Construction Traffic Management Plan will also be developed with Hampshire County Council to address and mitigate the impacts associated with additional construction vehicle movements on the surrounding highway network and this will be required to be adhered to.

Will AQUIND make property owners aware that if subsidence is caused from ground movement of installation, there will be an impact on their insurance?

It is not anticipated that any works to be carried out in the course of constructing the Development will have the effect of causing subsidence.

Can AQUIND provide assurances to land and property owners that equipment will not be installed on their private land?

AQUIND's intention is to locate the cables within existing highways or road verges wherever practicable. In certain locations, where there are constraints to using the highway or associated verge, it may be necessary to utilise land outside the highway. However, it is not intended that

the cables will be laid within the boundary of any homes or gardens along the proposed cable route.

At the Converter Station during construction there will be a need for a temporary construction compound with a footprint of approximately 4-5 ha within the Converter Station Area. All vegetation will be removed in these areas and some earthworks may be required to create a level platform, these areas will be required for the duration of the construction and commissioning stages and will then be reinstated.

During the installation of the cables along the whole of the onshore route, there will be a variety of construction zones depending on the phase of work. In addition to work areas required for the activities described above, it is anticipated that two temporary construction compounds at locations along the cable route of approximately 100 m x 50 m will be required for the cable drum, accessory deliveries and temporary storage of cable laying plant. It is anticipated that these temporary construction compounds will be located within the site boundary.

What is going to happen to the water calverts and the impact on streams and trees and the general environment when they dig deep to put in cables?

The DCO application will be supported by an Environmental Impact Assessment (EIA), to assess the likely significant effects of the Development on the surrounding environment and include measures designed to mitigate any such impacts. This will include measures to address impacts on the natural environment such as streams and trees.

In addition to this, AQUIND will assess the potential impacts on any existing infrastructure, including water culverts, and will seek to agree with the person for their maintenance what measures will be put in place to ensure they are not unduly affected by the works.

In view of the fact that the meadows along Soake Road are a protected site, what assurances can AQUIND give that these will be protected and that Natural England's "strong recommendation" that direct drill methods will be employed?

We are currently in discussions with Natural England and the Environmental Statement (ES) submitted as part of our application for a DCO will set out the findings of the environmental impact and the mitigation needed.

In the vicinity of Soake Road, we are proposing a trenchless installation method known as Horizontal Directional Drilling (HDD) as one of the options. We are currently assessing the feasibility and practicability of this installation method and we hope to be in a position to confirm this soon. Please see p. 56 of the Consultation Document for more information.

Can AQUIND explain why bringing the cable ashore at Fawley, with its direct access into the National Grid, was not chosen as a much less disruptive and seeming much more sensible route?

In 2015, National Grid carried out an independent optioneering process using its knowledge of the electricity network. This identified the existing Lovedean substation as the preferred connection point based on a range of factors.

Fawley, one of the substations that was assessed by National Grid, was ultimately discounted due to:

- Lack of sufficient capacity to accommodate the new interconnector connection; and
- Requirement for additional grid reinforcement works.

Will AQUIND pay compensation to residents if the damage any property e.g paths, hedges and gateways?

It is not considered likely that any residential property will be damaged by the construction of the Development.

The main sewer is located along Hambledon Road, so what is AQUIND's intention with regards to laying cables? Also, will other utilities be affected from the installation?

AQUIND will seek to work with the relevant utility provider to ensure that no existing utilities will be adversely affected during the construction of the Development and is confident this can be achieved.

Have the French authorities granted permission?

AQUIND is in the process of applying for the planning permits in France in the course of 2019. It is expected that planning consent in France will be granted in the similar timescale to the DCO in the UK.

In view of Brexit, the concern is related to the moving of electricity capacity from France to UK and vice versa and that the project may not be financially feasible if France were to over charge the UK for their electricity supply.

UK, France and the EU indicated that following Brexit, energy integration will be one of the key areas where all parties share common interest in promoting cost efficient, clean and secure supplies of electricity based on competitive markets and non-discriminatory access to networks.

Fundamentally, electricity flows across the interconnector is based on the market signals between the interconnected countries (GB and France) and this will not change with Brexit.

After Brexit the benefits AQUIND Interconnector brings to GB remain, if not become even stronger, as the country phases out coal and replaces it with the intermittent renewable energy sources.

How would noise be minimised?

AQUIND recognises the importance of minimising noise impacts arising from the operation of the Converter Station. A preliminary optioneering assessment of the potential for noise impacts identified that the potential for impacts from operational noise associated with the western option was less than the other options considered, taking into account the surrounding environments.

The Converter Station will generate some noise (predominantly from the transformers). An assessment of noise levels and how these can be mitigated has been carried out and is presented in the PEIR. The appropriateness of mitigation measures (such as acoustic enclosures; sound shields; acoustic lining; acoustic barriers) is being considered, and where appropriate will be included to mitigate operational noise impacts.

The proposed mitigation measures are to be subject to further assessment to ensure that the noise limits agreed with the relevant Local Planning Authorities are achieved.

What temperature change will the Interconnector cause in the surrounding area?

Any energy losses from the Converter Station occur in the form of waste heat. However, energy losses are anticipated to be very low and thus the impact on the surrounding environment is therefore expected to be minimal.

What is the proposed total height of the chimney? What will come out of the chimney and what will its effects be?

The Proposed Development does not include a chimney. The main Converter Station buildings may be up to 26m in height, and will likely be between 22m – 26m. The tallest element of the Converter Station is the lightning masts, which could be up to 4 m taller than the tallest building. The lightning masts are tall, narrow structures, with catenary wiring potentially strung between them to shield the outdoor equipment from direct lightning strikes.

Is there a cooling tower?

The Proposed Development does not include a cooling tower. Within the Converter Station, the Proposed Development will include transformer fans and cooling fan banks.

What electrical field will be round the cable?

The electromagnetic field strengths of the DC and AC cables and the conversion process are significantly below the relevant guidelines and fully compliant with international and UK health and safety standards. As such, the Proposed Development does not pose any threat to human health with respect to electromagnetic fields.

How many access covers or manholes will be along the route?

A number of joint bays will be required along the route, where sections of cable will be joined. These are dictated by the length of cable that can fit on a drum, and the limits to pulling tension required to pull the cable through the ducts. Whilst still to be confirmed, joint bays are likely to be required every 600 to 2,000 metres along the route. The only evidence of the presence of the cable route will be the access cover and link boxes, pillars or cabinets close to the joint bays.

What route will build traffic take to and from the site?

There is no intention to route construction traffic through Denmead village centre. A Construction Traffic Management Plan will be developed with Hampshire County Council to ensure the impacts of these additional vehicle movements on the surrounding highway network are adequately mitigated. The Plan will identify construction routes, with which construction traffic will need to obey, is enforceable by the Local Highways Authority. A proposed construction traffic route is contained at Figure 21.3 of the PEIR, a copy of which is provided with this response document.

Would AQUIND consider putting solar panels on the building roof, as it is a vast area and could produce a considerable amount of green energy?

There are currently no proposals to install Solar PV panels on the roof of the converter station buildings. AQUIND Interconnector will help to integrate a greater proportion of non-fossil fuel energy sources and intermittent renewables generation into the Great British energy mix. It is also expected that electricity imported from France will have much lower CO2 intensity.[2] This will reduce reliance on fossil fuel power generation plants and in turn reduce Great Britain's CO2 emissions from the burning of such fuels.

Can the building be sunk into the ground?

AQUIND is consulting on a number of design principles for the proposed Converter Station. These principles, which have been agreed with the Local Planning Authorities and South Downs National Park Authority (SDNPA), will be used to inform the micro-siting of the proposed Converter Station within the Converter Station Area and influence the scheme landscape design. With regard to the topology of the site, the design principles include:

- Integrating the development and associated infrastructure into the surrounding topography;
- Seeking to cut the proposed Converter Station construction platform into the gentle hill slope where possible, to reduce the ridge level of the building.

Some levelling of the Converter Station site may be required and where this is the case the Converter Station may be sunk into the landscape. It is unlikely it will be feasible to substantially sink the converter station due to engineering and environmental constraints. For example, it is important not to exacerbate flood risks on the site, which would be difficult if the site level was lower than the surrounding landscape.

Furthermore, the excavation of soil to reduce the visible height of the building could require that surplus material that would need to be removed from the site. The disposal of material in this way is not desirable, and would generate additional vehicle movements during the construction. At present there is no intention to remove any soil from the site, to avoid excessive movements of

[2] RTE France: https://www.rte-france.com/fr/eco2mix/eco2mix-co2, BEIS, Updated Energy and Emissions Projections 2017 (2018), p.36: https://assets.publishing.service.gov.uk/government/ uploads/system/uploads/attachment_data/file/671187/Updated_energy_and_emissions_ projections_2017.pdf

heavy trucks, and the intention is to recycle material excavated during earthworks to assist with construction and screening where possible.

Would there be one planning application for all four council's involved or individual applications for each council?

The Development has been recognised by the Secretary of State for Business Energy and Industrial Strategy as a Nationally Significant Infrastructure Project (NSIP) under the Planning Act 2008. AQUIND must therefore submit an application for a Development Consent Order (DCO) to the Planning Inspectorate (PINS) Secretary of State to obtain the necessary authorisation for the construction and operation of the Proposed Development. As such, there will be a single application for the Development.

Would the existing cable be disconnected?

Please clarify what is meant by this.

What is the total area of the site?

The permanent installation at the Converter Station site will be approximately 4ha (200mx200m). The temporary construction compound will be approximately 4-5 ha.

Would there be any more pylons?

AQUIND Interconnector has purposefully been designed without any overhead lines. Burying the cable along the whole route avoids the need for the construction of overhead lines and their associated lasting visual impact.

Where will the service road be?

It is proposed that a new access road would be created from Broadway Lane to the Converter Station site. An indicative access road route is illustrated in Figure 5 (p. 27) of the Consultation Document.

Why was everything be pushed towards Lovedean? Were other options considered?

As mentioned above, in 2015 National Grid carried out an optioneering process to establish the most suitable connection point on the electricity network. This process identified the existing Lovedean substation as the preferred connection point for AQUIND Interconnector based on a range of factors. The site selection for the Converter Station was progressed from there.

The Converter Station needs to be located as close as possible to the existing substation in order to minimise the length of AC cable used and associated impacts. This is because AC cables take up a wider corridor of land when compared to DC cables. AC cables also have higher transmission losses and pose other technical challenges, meaning that a longer AC cable would partly offset and reduce the benefits of the Proposed Development.

Having identified a 2km site selection radius around the existing substation at Lovedean, based on localised environmental and technical constraints, four potential sites were initially identified where the required Converter Station could be located.

This was reduced to two sites following a first stage review. Further detailed work was undertaken on the remaining two Converter Station site options, focusing on engineering and environmental considerations.

The two remaining sites (known as 'Option A' and 'Option B') were consulted on in January 2018 and the feedback indicated that the local community favoured the western option ('Option B').

Option B was identified as the preferred location for the Converter Station following further assessment against a range of environmental, planning and technical considerations.

The area within which the proposed Converter Station will be located is now fixed, although the precise location within that area remains to be determined.

A full description of the site selection process is set out in Chapter 2 of the PEIR “Alternatives”.