BNP PARIBAS REAL ESTATE | Real Estate for a changing world

Proposed Able Marine Energy Park (AMEP)

Planning Inspectorate Ref No: TR030001

Written Representations Summary

Killingholme Power Station and Associated Infrastructure, Chase Hill Road, North Killingholme and Centrica Storage Land, Station Road, North Killingholme

Prepared for

Centrica Plc (Unique Reference No: 10015551)

Prepared by

BNP Paribas Real Estate

1st Floor, Fountain Precinct, Balm Green, Sheffield, S1 2JA

June 2012

Contents

1 Written Representations Summary

1.1 This report provides a summary of Centrica Plc's (hereafter referred to as "Centrica") written representations on Able UK's proposed Marine Energy Park and should be read in conjunction with the main Written Representation Report submitted to the Planning Inspectorate on 29 June 2012. A summary of Centrica's written representations can be found below.

1.2 Centrica owns and operates a number of assets in the North Killingholme area. These include:

- Killingholme Power Station on Chase Hill Road, North Killingholme;
- The Power Station's associated infrastructure, including its Cooling Inlet and Outfall in the River Humber, pumping station and other associated cables and pipelines;
- The Centrica Storage Ltd site on Station Road, North Killingholme; and
- The Condensate Pipeline running north to south through the proposed development area and continuing to Easington.

1.3 All of these assets are essential to the continued efficient operation of either the Killingholme Power Station or Centrica's national gas storage business.

1.4 Centrica has a number of concerns over Able's proposed development. These are set out in detail in the main Written Representations report, but are summarised below.

Cooling Inlet / Outfall

Water Temperature

1.5 Centrica is concerned that the development of a large quay close to its cooling inlet and outfall will have an impact on the efficient operation of these pieces of infrastructure. In particular, Centrica is concerned that the proposed quay will result in increased water temperatures close to its inlet and outfall by reducing the speed by which warm water discharged from the outfall can disburse from the area. The implications of this are that the water extracted by the cooling inlet would be increased, thereby reducing the thermal efficiency of the power station, and the increased concentrations of warmer water in the immediate surrounding area would have implications for Centrica under its existing discharge licence from the Environment Agency, and potentially including shut downs of the power station.

Silt Deposition

1.6 Centrica is also concerned that the proposed quay would interfere with hydrodynamic and sedimentary regime of the Humber Estuary and would result in increased levels of silt being deposited close to the cooling inlet and outfall. Increases in sediment deposition could potentially result in a reduced ability to extract and discharge water, as well as the increased likelihood of sediment-laden water entering the cooling inlet. The inlets filtering systems and the existing silt removal plant are only designed to filter the level of suspended sediment experienced during the natural ebb and flow of the river, and would not be able to cope with increased levels of sedimentation. If sediment enters the power station's cooling water systems it would significantly reduce the efficiency of the power station.

Mitigation Dredging

1.7 Centrica also has concerns over the proposed daily dredging mitigation proposed by Able. Dredging the river bed close to the cooling inlet will increase the level of sediment in the water column and will result in increased levels of sediment-laden water entering the power station's cooling water systems. As stated above, the power stations existing filtration equipment is not capable of filtering levels of silt / sediment above what is experienced during the normal ebb and flow of the river.

Centrica's Rights of Way / Access and Easements

1.8 Centrica would like assurances from Able that it will not alter or extinguish Centrica's existing rights and easements over the application site. These include the access road to the Centrica Storage site on Station Road, the access road to the pumping station, access to existing pipelines and cables passing through the application site, including the condensate pipeline and cooling water pipelines, and its right of free passage of services across the site.

1.9 Centrica requires access to its pipelines and other services which cross the application site for maintenance and service purposes. Any access restrictions to these pipelines and services would detrimentally impact on Centrica's operations in the area.

1.10 Similarly, any restrictions on access to the CSL site on Station Road would reduce Centrica's ability to deliver cargo to its offshore platform.

Increases in Traffic

1.11 Centrica is concerned that the increases in traffic that would result from the proposed development would create delays and queuing traffic on local roads, particularly as some roads in the area all already at capacity. This would potential delay or restrict access to the power station or Centrica's other assets in the area, including delaying the delivery of cargo from the CSL site on Station Road. Centrica requires unrestricted access to these assets at all times in case of emergency or urgent maintenance.

Centrica's Private Access Road

1.12 Centrica is also concerned that Able will utilise the access road to power station to access the proposed development. This could potentially create delays and restrict Centrica's access to the power station. It could also damage services and pipelines running under the road, including the fibreglass pipeline to the Eon power station.

Flood Risk

1.13 Centrica is concerned that the proposed development, and the proposed flood defences would increase the risk of inundation by flood waters of the pumping station in the event of a breach or overtopping of defences, as well as reducing the ability for water to drain away in the event of a flood event.

Potential Restriction of Centrica's Ability to Expand its Operations in the Area in Future

1.14 Given the large area of land that Able UK proposes to require, there is the potential that this may restrict Centrica's ability to expand its operations in the area in the future. In particular, the application site and the land proposed to be acquired by compulsory purchase completely surrounds the CSL site on Station

Road, and includes land immediately adjacent to the power station's pumping station. The proposed development may therefore restrict Centrica's ability to expand these sites if necessary for operational purposes in future. The development therefore may limit the extent to which Centrica can increase cargo deliveries to its offshore platforms or the extent to which the power station can be extended or upgraded in the future.

1.15 In addition, the significant volume of traffic generated by the proposed development may prejudice future development in the area, including the expansion of Centrica's assets, as local roads may not have sufficient capacity to cope with any cumulative impacts of traffic from the proposed development and any future developments combined.

1.16 In light of the above, Centrica requests that the Examining Panel gives consideration to the potential impacts of the proposed development on the future development and growth of the area. In particular, Centrica requests that consideration is given to the extent to which the proposed development will reduce the Company's ability to expand its operations in the future if necessary.

Required Mitigation / Compensation

1.17 As a result of the above, Centrica requires that the Examining Panel considers the impact of the proposed development on Centrica's assets and requires that any DCO or CPO granted for the proposed development requires Able to undertake sufficient measures which would mitigate any impact on Centrica's assets in the area. These mitigation measures may include, but are not limited to, the following:

- The installation of a breakwater to the north of the cooling inlet / outfall which would reduce the level of silt deposition at the inlet / outfall;
- The potential relocation of Centrica's inlet / outfall if no other options are available to a location where there would be less impact;
- The construction of a new silt removal plant to serve both the Centrica and Eon power stations; and
- The continued frequent monitoring of sediment levels at the cooling inlet / outfall to ensure that sediment levels on the river bed and suspended in the water column are at a level that would not have a negative impact on the efficient operation of the power station. Where levels do rise to an unacceptable level, the DCO or a Development Consent Obligation should require Able to cease activities until levels drop to an acceptable level.

1.18 In addition to the above, Centrica will be seeking to enter into legal agreements with Able that ensure that its existing rights of access and easements are not amended or extinguished and are currently drafting Heads of Terms. Notwithstanding this, Centrica would also like any DCO or CPO granted to contain provisions which restrict Able from amending or extinguishing its rights or easements.

1.19 If sufficient mitigation measures cannot be agreed, it is likely that the proposed development would severely impact on Centrica's assets and operations in the area. If this is the case, Centrica would seek compensation from Able UK for any loss of business as a result of the proposed development. In respect of the power station not being able to operate as a result of the proposed development, Centrica would seek in the region of £100,000 to £200,000 per day that the power station remains un-operational.

1.20 Centrica requests that if sufficient mitigation measures cannot be agreed between Able and Centrica and secured through provisions in a DCO, CPO, or Development Consent Obligation, the Examining Panel considers refusing to grant a DCO for the proposed development due to the significant impacts on Centrica's assets in the area that would occur.

1.21 In addition to the above, Centrica also requests that the Examining Panel takes into consideration the potential highways and flood risk impacts of the proposed development, as well as potential restrictions that the development may pose on Centrica's ability to expand its operations in the area in the future. It is requested that the Examining Panel considers not granting a DCO unless these issues can satisfactorily be overcome.

1.22 Centrica will however, continue to work with Able to address its concerns and agree suitable mitigation measures, starting with a Risk Workshop with Able and potentially Eon and C.GEN. Any mitigation measures considered necessary or agreed with Able will be presented at the first DCO Hearing with a view that the draft DCO is amended to include provisions to mitigate any impacts on Centrica.

BNP PARIBAS REAL ESTATE | Real Estate for a changing world

Proposed Able Marine Energy Park (AMEP)

Planning Inspectorate Ref No: TR030001

Written Representations

Killingholme Power Station and Associated Infrastructure, Chase Hill Road, North Killingholme and Centrica Storage Land, Station Road, North Killingholme

Prepared for

Centrica Plc (Unique Ref No. 10015551)

Prepared by

BNP Paribas Real Estate

1st Floor, Fountain Precinct, Balm Green, Sheffield, S1 2JA

June 2012

Contents

Appendices

1 Introduction

1.1 We have been instructed by our client, Centrica Plc, (hereafter referred to as "Centrica") (Unique Reference Number: 10015551) to submit written representations to the Examining Authority regarding the potential impact of the proposed Able Marine Energy Park (AMEP) (Planning Inspectorate Reference Number: TR030001) on Centrica's assets at North Killingholme. These assets include the following:

- Killingholme Power Station on Chase Hill Road, North Killingholme;
- The Power Station's associated infrastructure, including its Cooling Inlet and Outfall in the River Humber, pumping station and other associated cables and pipelines;
- The Centrica Storage Ltd site on Station Road, North Killingholme; and
- The Condensate Pipeline running north to south through the proposed development area and continuing to Easington.

1.2 Further details of these assets are described in Section 2 of this report.

1.3 This report provides details of Centrica's concerns over the potential impact of the proposed development on the efficient operation of the Killingholme Power Station and the Company's other assets in the area. Further details are provided in Section 3 of this report.

1.4 The remainder of this report is structured as follows:

2 Background – A description of Centrica's assets in the area, previous representations on the proposed development and discussions with Able UK;

3 Written Representations – A detailed description of Centrica's concerns over the proposed development; and

4 Conclusion – A summary of this report.

1.5 The next section of this report provides a description of Centrica's assets in the area and previous representations and discussions with Able UK regarding the proposed AMEP.

2 Background

Description of Centrica's Assets in the Area

2.1 Centrica is one of the largest energy companies in the UK, employing 30,000 people worldwide. The company secures and supplies gas and electricity for millions of homes and businesses across the UK.

Killingholme Power Station

2.2 Centrica Killingholme Power Limited, part of Centrica Plc, owns and operates the 652 MW gas-fired Killingholme power station, which is accessed via a private access road off Chase Hill Road, North Killingholme.

2.3 It is located to the north east of a gas power station operated by Eon. To the north east and east of the site currently lie areas of land currently used by Able for open storage in connection with the Humber Sea Terminal. An area of this site to the north east is proposed to be redeveloped as a gas power station by C.GEN, which is in the process of preparing a Development Consent Order Application. The proposed site of the AMEP is located to the east of the Killingholme Power Station. A plan showing the location of the power station is enclosed at Appendix 1.

2.4 The power stations opened in 1994 as was originally operated by National Power. In 2000 the power station was purchased by NRG Energy, before being bought be Centrica in 2004.

2.5 The primary purpose of the operations at Killingholme Power Station is to provide electricity to the National Grid. The operational regime that the Power Station is required to follow is generally determined by market demand, with gas turbines power stations fulfilling an important role in meeting electricity demand at peak times.

2.6 The power station is a combined cycle gas turbine (CCGT) plant and produces electricity from natural gas. It produces approximately 3 million MWh of power every year. The power station operates up to 24 hours a day, 365 days a year and employs approximately 50 skilled employees.

2.7 It contains 3 gas turbines which produce electricity from natural gas, and one steam turbine which uses the excess heat from the gas turbines to generate further electricity, thus improving the efficiency of the power station.

Cooling Water Infrastructure

2.8 The power station uses a water-cooled condenser to dispose of waste heat from its steam turbine. Cooling water is extracted from the River Humber from a cooling inlet located approximately 800 m (0.4 miles) to the south of the existing Humber Sea Terminal Jetty. This will be located approximately 360 m to the north of Able's proposed quay. Centrica also has a cooling water outfall in this location, which discharges water used in the power station. A plan showing the area of the river bed which Centrica leases for this inlet / outfall is attached at Appendix 2.

2.9 The pipeline for this infrastructure runs across the proposed development site, and is indicated by a black line on the plan attached at Appendix 3.

2.10 Centrica also owns and operates a pumping station associated with the Cooling Water Pipeline. This is located close to the location of the cooling inlet / outfall on the south bank of the River Humber. A plan showing the location of the

pumping station is attached at Appendix 4. The pumping station is surrounded by land which forms part of the development area of the proposed AMEP.

2.11 The pumping station is accessed via the road shown hatched on the plan attached at Appendix 3. Centrica has a right of access over this road and requires regular access to the pumping station for maintenance purposes. Able proposes to use this road as the northern access to the AMEP.

2.12 The area immediately adjacent to the pumping station is currently a car park in relation to Able's current operations. Centrica's maintenance vehicles therefore are required to travel through this car park to access the pumping station.

Centrica Storage Ltd, Station Road

2.13 Centrica Storage Ltd (hereafter referred to as "CSL") is a wholly-owned subsidiary of Centrica Plc and stores natural gas for European energy producers, traders and suppliers. It operates the Rough gas storage facility in the North Sea and the Easington onshore gas processing terminal in the East Riding of Yorkshire.

2.14 CSL leases a site on Station Road at North Killingholme. The site provides a supply base for Centrica Storage and provides critical support of the company's offshore platform, with all cargo originating from this site. On average, there are approximately 200 vehicle movements to / from the site per month, with approximately 20 daily vehicle movements when a cargo run takes place.

2.15 The site is located close to the point where Station Road crosses the railway line, to the west of the railway line. A plan showing the location of the site is attached at Appendix 5.

2.16 The CSL site is surrounded by land proposed to be developed as part of the AMEP. Station Road is also proposed to be used as part of the proposed development.

2.17 The site extends to approximately 0.72 hectares and contains modern office and storage facilities, as well as a large yard providing external storage space.

Condensate Pipeline

2.18 CSL operates a Condensate Pipeline which serves the Easington onshore gas processing terminal in the East Riding of Yorkshire. The aerial photographs attached at Appendix 6 show the route of the pipeline. The pipeline runs through land which is under the ownership of Able UK and is proposed to be used as part of the AMEP.

2.19 CSL has a wayleave for this pipeline and requires regular access for maintenance purposes.

Centrica's Rights and Easements

2.20 As stated above, Centrica has a right to use and access to the cooling water pipeline and an easement granting right of way of the access road to the pumping station through land which is proposed to be developed as part of the AMEP.

2.21 It also has rights to the free passage of services through conduction media over the land shown coloured green on the plan attached at Appendix 7. Part of this land is also proposed to be developed as part of the AMEP.

2.22 Centrica requires regular access to its assets in the area and the pipelines and services serving these assets, and it is therefore vital that the above rights and easements are maintained.

Previous Representations on the AMEP

2.23 Centrica has previously submitted representations on the AMEP to both Able UK and the Planning Inspectorate. Representations were submitted at the following stages of consultation:

- The informal pre-application consultation stage undertaken by Able UK in August 2010;
- The formal pre-application consultation stage undertaken by Able UK in March 2011; and
- The Relevant Representation stage of the Examination into the proposed development held by the Planning Inspectorate in March 2012.

2.24 The above representations stated Centrica's concerns over the proposed development. In particular, they related to potential impacts on the power station's cooling inlet / outfall, the impact of increased traffic on local roads, potential increases in flood risk, security concerns if structures were developed on the boundary of the application site with the power station, and the requirement for Centrica's easements and rights of access to not be extinguished / altered.

2.25 In addition, details of Centrica's landownership (leasehold and freehold), easements and rights of access were also submitted to Able UK in January 2011 as part of the applicants "Request for Information" process.

2.26 Additional representations were also sent to Able in April 2011 in respect of the potential impact of the proposed development on the power station's cooling inlet / outfall and requesting that Able UK undertake an assessment of the potential impacts on the inlet / outfall.

2.27 Copies of all of the above representations are attached at Appendix 8 of this report.

Meetings with Able UK

2.28 Representatives of Centrica met with Able UK on 18 November 2010. Further details of Centrica's concerns over the proposed development were discussed at this meeting, and in particular, the potential for negative impacts on the power station's cooling inlet / outfall was discussed.

2.29 Representatives of Centrica also met with Richard Cram of Able UK at Killingholme Power Station on 21 June 2012. At this meeting the potential impact of the proposed development on Centrica's assets was discussed, including potential impacts on the Cooling Inlet / Outfall, impacts on Centrica's rights of access and easements and potential highways and flooding impacts. Potential mitigation measures and other agreements were also discussed at this meeting discussed, and in particular, discussions were had over potential monitoring and mitigation of impacts on the cooling inlet / outfall and agreements to secure Centrica's existing rights of access and easements.

2.30 Centrica would like to see that any Development Consent Order or Compulsory Purchase Order granted contain provisions which either secure mitigation measures or protect its existing rights and easements. This is discussed in more detail in Section 3 of this report.

2.31 The next section of this report sets out Centrica's Written Representations on the proposed AMEP.

3 Written Representations

3.1 As set out in our Relevant Representations, Centrica's concerns over the proposed AMEP development include the following:

- Concerns over the impact of the proposed quay on the Power Station's cooling inlet / outfall in River Humber;
- Concerns that Centrica's existing rights of way / access and easements over the land to which the application relates will be extinguished or altered;
- Concerns over increases in traffic on local roads, and therefore access to the Power Station, pumping station and CSL site will be restricted;
- Concerns over increases in flood risk; and
- Concerns that the proposed development may restrict Centrica's ability to expand its operations at any of its assets in the area in future, if required.

3.2 These points are expanded below.

Cooling Inlet / Outfall

3.3 As stated in Section 2 of this report, the Killingholme Power Station uses cooling water extracted from the River Humber, under licence from the Environment Agency, to dispose of waste heat from its steam turbine. This significantly increases the thermal efficiency of the power station.

3.4 Cooling Water is extracted from the Humber via an inlet located approximately 360 m to the north of the northern extent of the proposed quay. The location of the inlet in relation to the proposed quay is shown on the far left of the plan attached at Appendix 9 as a dashed line.

3.5 In order to maintain the efficiency of the Power Station, the cooling water extracted from the Humber at this inlet needs to be maintained below a certain temperature. Any slight increases in water temperature, even increases of less than 1 degree, would result in a significant reduction in the thermal efficiency of the Power Station.

3.6 In addition, Centrica needs to filter and treat the water before it enters into the Power Station's cooling water systems to remove silt and other deposits which may adversely impact operations. In order to do so, the cooling inlet contains filters which reduce the level of solid material entering the pipeline and Centrica operates a silt removal plant which removes sediment that has passed through the filters. This system is only designed to handle water which contains the natural level of silt resulting from the ebb and tide of the River. This system is not capable of handling water containing increased levels of silt or other solid materials.

3.7 The proposed quay will increase water temperatures in the area around Centrica's cooling inlet and will also result in increased silt deposition on the river bed close to the inlet. Both of these are likely to have significant detrimental impact on the operation of the cooling inlet, and ultimately reduce the thermal efficiency of the Power Station. These points are discussed in more detail below.

Increases in Water Temperature

3.8 Able UK has acknowledged that the proposed quay will result in increased water temperatures at the location of Centrica's cooling water inlet. The potential increases in temperature were assessed in Annex 9.2 of the Environmental Statement.

3.9 This document states that the ambient water temperature at the cooling inlet is approximately 18 degree in summer and 10 degrees in winter. It estimates that discharges from the Centrica and Eon outfalls (which are also located in this location) increase the water temperature by an average of approximately 10 degrees. However, this warmer water from the outfall of both power stations is rapidly disbursed away from this location by the flow of the river. Able therefore estimates that the water temperature at the Centrica inlet is approximately 0.1 degrees above ambient temperature.

3.10 The proposed quay will reduce the speed at which water discharged from Centrica's and Eon's outfalls will disburse from the location of Centrica's inlet as the quay will block the normal flow of water and create an eddy which will slow down the dispersal of warm water from the outfalls. This will increase the temperature of the water at the location of Centrica's inlet.

3.11 Able has assessed this increase in temperature to be between 0.2 degrees and 0.25 degrees above ambient temperatures. Whilst this is only a modest increase, as stated above, even small increases in the temperature of water entering the cooling inlet can significantly reduce the thermal efficiency of the power station.

3.12 The model used by Able UK in Annex 9.2 of the Environmental Statement to assess water temperature increases has taken into consideration the impact of changes in the dispersal of thermal plumes from both Centrica's and Eon's outfalls. However, it has not taken into consideration the potential cumulative impacts on water temperature in this location if a Development Consent Order (DCO) is granted for the Killingholme Power Project proposed by C.GEN. The latest environmental information available from C.GEN, contained in its Preliminary Environmental Information Report (PEIR) estimates that the outfall from its proposed power station (which would be located approximately 800m to the north of Centrica's inlet) could increase water temperature by 12 degrees.

3.13 It is currently unclear what the cumulative impact of these developments will be on water temperature and thermal plume dispersion close to Centrica's cooling inlet / outfall. In addition, it is not clear whether the modelling undertaken by Able UK has made allowances for the increases in water levels in this location as a result of water being displaced due to the construction of the new quay. Increased water levels are also likely to increase water temperatures.

3.14 It is therefore likely that water temperatures at Centrica's cooling inlet will be increased as a result of the development of the proposed quay to a level which would significantly reduce the thermal efficiency of the Power Station.

3.15 In addition, Centrica's licence from the Environment Agency for discharging water into the Humber Estuary is subject to temperature limits. If the temperature of the water discharged into the Estuary by Centrica exceeds a certain temperature, Centrica would be required to reduce the load of the power station, or in extreme circumstances temporarily shut down the power station. The obstruction of the free flow of water by the proposed quay may increase the concentration of higher temperature water in the area immediately adjacent to Centrica's outfall. This may therefore increase the likelihood of shut downs of the power station due to increased concentrations of higher temperature water in this location.

3.16 It was agreed during the 21 June 2012 meeting with Able that a Risk Workshop would be held between Able, Centrica and potentially Eon and C.GEN to discuss Able's thermal plume modelling and discuss sufficient mitigation measures. These measures could include relocating Centrica's outfall to a location along the proposed quay. Centrica would like assurances in this instance however, that due to the dredging required at the quay and the number of ships that would pass along side the quay, if the outfall is relocated to this location, there would be no impact on its efficient operation.

3.17 Notwithstanding the above, Centrica requires that any mitigation measures agreed with Able are secured by way of a provision in any DCO granted or through a Development Consent Obligation under Section 106A of the Town and Country Planning Act 1990 (as amended by Section 174 of the Planning Act 2008).

Silt Deposition

3.18 Chapter 8 of Able UK's Environment Statement examined the likely effects of the proposed quay of the hydrodynamic and sedimentary regime of the Humber Estuary, include potential changes in sediment transport and deposition.

3.19 The Environmental Statement states that the water within the Humber Estuary contains very high concentrations of suspended sediment. The Environmental Statement assessed that the proposed quay would disrupt the transportation of sediment in the Estuary by restricting the flow of water. As a result, as water flow is reduced, sediment will be deposited on the river bed. The Environmental Statement assessed that there would be little impact on Centrica's cooling inlet from increased sediment deposition, but there is a risk of 1-2 m of sediment build-up at Centrica's outfall.

3.20 Increased sediment deposition at Centrica's outfall and inlet is likely to reduce the ability to in-take and discharge water. In particular, increased sedimentation at the cooling inlet may increase the level of sediment entering the cooling inlet. As stated above, the filters on the cooling inlet and Centrica's water treatment plant are only designed to handle the levels of sediment experienced during the natural ebb and flow of the river, and will therefore not be able to cope with increased levels of sediment entering the cooling inlet as a result of increased levels of sediment deposition.

3.21 In addition, build-up of sediment at the outfall will reduce the rate at which warmer water being discharged from the Power Station will disburse. This could therefore further increase the temperature of water entering the cooling inlet, and as stated above, significantly reduce the thermal efficiency of the Power Station.

3.22 Centrica expressed these concerns to Able in a letter in April 2011. As a result Able has recently updated its assessment of the impact of the proposed quay on hydrodynamic and morphology regimes in the Estuary. The new findings set out in the "Update to Longer Term Morphology Predictions in the Region of the Centrica and Eon Intakes and Outfalls" (dated March 2012) estimate that changes to hydrodynamics will result in increased levels of erosion being experienced at Centrica's intake. It estimates that up to 0.6 m of the river bed could be eroded 30 weeks after construction of the proposed quay.

3.23 It also estimates that increased sediment deposition will occur at to the south of Centrica's outfall, with up to 2.3 m of sediment being deposited in this location 30 weeks after construction of the proposed quay. It states that, due to the location of Centrica's outfall close to the location of this deposition, wave action and the action of gravity could result in increased suspended sediments and the

movement of materials down slope. This could therefore result in sediments deposits extending past the outfall.

3.24 This is of significant concern to Centrica. Increased erosion at its inlet could impact on the integrity of its cooling inlet and could also increase the level of suspended sediment in the water column. This could increase the level of sediment-laden water entering the cooling inlet and as stated above the filters and water treatment facility are not designed to cope with increased levels of sediment in the water entering the cooling inlet. As a result to avoid sediment entering the power station equipment and causing significant damage to the Power Station, expensive and significant upgrades would be required to the water treatment plant and filters.

3.25 As stated above, increased sediment deposition at the outfall could restrict the dispersal of warmer water being discharged from the Power Station and increase the water temperature at the cooling inlet, reducing the efficiency of the Power Station.

3.26 To combat excessive sediment deposition at the outfall, Able has proposed daily dredging to remove deposited sediment. This is discussed below.

Mitigation Dredging

3.27 As stated above, in order to reduce the impact of sediment deposition at Able has created a Dredging Strategy (Annex 7.6 of the Environmental Statement) which proposes methods of reducing the level of sediment deposited at the Centrica and Eon outfalls.

3.28 This report states that there is likely to be a detrimental build-up of silts around the outfalls of the two power stations. To mitigate this and remove excess sediment deposits, Able proposes daily dredging / ploughing of the sea bed close to the outfall. It is proposed that self-propelled plough vessel will operate during daylight hours and will remove approximately between 600 – 1,200 cubic metres remove thin layers of sediment per day. The plough vessel will undertake several passes of the area close to the outfall, removing thin layers of sediment with each pass (approximately 100-200mm at a time).

3.29 Centrica objects to this proposed mitigation strategy. Whilst daily dredging / ploughing will reduce the build-up of sediments at the outfall, it will also disturb the river bed either side of the plough, throwing up sediment into the water column. This would increase the level of suspended sediment in the water column and could increase the level of sediment-laden water entering the cooling inlet. As stated above, as the cooling inlet's filters and water treatment plant are not designed to handle increased levels of sediment-laden water, these will need to be significantly upgraded, at great expense, if sediment is to be prevented from entering and damaging the power station.

3.30 Centrica therefore requires that sufficient alternative mitigation measures are agreed to remove any risk to the efficient operation of the cooling inlet / outfall. This was discussed during the 21 June 2012 meeting. It was suggested that sufficient mitigation measures could include the following:

- The construction of a breakwater to the north of the cooling inlet which would result in silt being deposited to the north of the breakwater rather than the quay;
- The construction of a new silt removal plant to serve both Centrica's and Eon's power stations which would have capacity to remove increased levels of silt from the water entering the inlets; and / or

- Continued regular monitoring of suspended sediment levels in the water immediately adjacent to the inlet. This would be combined with a commitment that if suspended sediment levels reach a specific concentration, dredging activity by Able ceases or other remedial measures are undertaken, until sediment levels have reduced to an acceptable level.

3.31 Further to the above, the Draft Development Consent Order (DCO) for the proposed development does not contain any provisions that will require Able to undertake mitigation measures to prevent the build-up of sediment or the increase in suspended sediment.

3.32 Centrica therefore requires that either a provision is drafted into the DCO or is secured by way of a Development Consent Obligation under Section 106A of the Town and Country Planning Act 1990 (as amended by Section 174 of the Planning Act 2008) to ensure that Able undertakes one or more of the above mitigation measures, or any other measure subsequently agreed with Centrica.

Centrica's Rights of Way / Access and Easements

3.33 As stated in Section 2 of this report, Centrica has existing rights of access over the access road to the cooling pipeline pumping station, and easements relating to access to the cooling pipeline route and the Condensate Pipeline route, as well as the right to the free passage of services through conducting media over the land shown shaded green on the plan attached at Appendix 7.

3.34 Land Plans 3 and 5, and the Book of Reference submitted with the DCO application show that the areas of land where these easements / rights are located will be subject to compulsory purchase, and existing rights and easements will be extinguished.

3.35 Centrica requires unrestricted access, 24 / 7 to the pumping station, the CSL site on Station Road and any underground cables and pipelines, including the cooling water pipeline and Condensate Pipeline for maintenance and other operational purposes. These rights are extremely important to ensure the continued operation of the Power Station, the continued ability for cargo to be transferred from the CSL site on Station Road, and for the continued operation of Centrica's other assets elsewhere, such as its gas storage operations at Easington.

3.36 Centrica received written confirmation from Able in a letter dated 30 January 2012 that Able will not seek to change Centrica's existing rights in the area. A copy of this letter is attached at Appendix 10.

3.37 The content of this letter does not correlate with Land Plans 3 and 5 or the Book of Reference which show that existing rights and easements over the applications site will be extinguished.

3.38 Able confirmed at the 21 June 2012 meeting that it will not seek to alter or extinguish Centrica's rights of access or easements. However, no reference if given in the DCO that these rights and easements will be left unaltered. Centrica will therefore be preparing Heads of Terms to be signed by both Centrica and Able to create a legally binding agreement that Able will not alter or restrict Centrica's existing access rights or easements. However, Centrica would also like any DCO of CPO granted to also contain provisions which would prevent Able from altering or extinguishing its rights of access or easements. Able would also like to see the Land Plans and Book of Reference amended to show that these rights and easements will not be affected by the proposed development.

Increases in Traffic

3.39 Centrica requires unrestricted access to the Power Station and its associated infrastructure at all times so that any urgent maintenance work can be undertaken without delay to avoid the need for lengthy shutdowns of the power station. Unrestricted access is also required to the CSL site on Station Road so that cargo deliveries can be made when necessary.

3.40 Centrica is concerned that the proposed development would generate significant volumes of traffic on local roads, both during the construction and operational phases of the development, which could potentially create delays and queuing on local roads and therefore restrict its access.

3.41 The Transport Assessment (TA) submitted with the DCO application estimates that during the construction period there will be 223 staff employed at the site, spread over 6 shifts.

3.42 It is expected that there will be, in total 1,446 daily vehicle movements during the construction phase. These movements will be staggered throughout the day due to the shift patterns of employees and no employees will travel to / from the site during the AM and PM peaks due to shift start / end times. Therefore the only vehicle movements during peak times will be 40 delivery vehicle (likely to be HGV) movements per hour.

3.43 The TA also states that the majority of HGV / delivery trips will originate in the west and will be routed along the A160 Humber Road and Rosper Road and will only take place during the hours of 0700 to 1900.

3.44 During the operational phase, the TA estimates that there will be 7,762 daily vehicle movements, including deliveries and staff movements. Staff vehicle movements will be spread out throughout the day through staggered shifts.

3.45 It is estimated that the number of HGV delivery vehicle movements will average 4 per hour, and may take place 24 hours a day, with the exception of peak times (0700 to 1000 and 1600 to 1900) when deliveries will not take place.

3.46 The above assumptions regarding the number of HGV delivery vehicles in the TA is based on 40% of all deliveries being made by road, with the remaining 60% being made either by rail or by sea. The TA states that even if all deliveries were made by road, this would only equate to between 6-9 delivery vehicle movements per hour, and considers that this would not have a significant impact on the highway network.

3.47 The TA states that the overall number of vehicle trips will be reduced through the implementation of a Travel Plan, which incorporates measures such as car sharing and the provision of shuttle buses for employees. It estimates that this will reduce the total number of daily staff movements to 6,670 vehicle movements per day.

3.48 A significant number of vehicle movements will therefore be generated by the proposed development during both the construction and operational phases. The impact of this level of traffic generation, when combined with existing levels of traffic has the potential to place significant strain on local roads, including the A180, A160 and Chase Hill Road / Rosper Road, which can be busy at peak times and are already considered to be insufficient to handle existing volumes of traffic and will therefore need to be upgraded to be able to cope with the significant volumes of traffic likely to be generated by the proposed development.

3.49 The TA has assessed the capacity of a number of road junctions in the area to identify whether the traffic generated by the proposed development would impact on the safe and efficient operation of these junctions. It assess that 8 junctions in the area will still operate within capacity and therefore will not require modification. However, it identifies a number of junctions where the traffic generated by the proposed development will result in the level of traffic at these junctions exceeding their capacity, and therefore resulting in significant queuing traffic. These junctions are as follows:

- Rosper Road / Humber Road;
- A160 / A1173 / Humber Road; and
- A1173 / North Moss Lane / Kiln Lane.

3.50 The TA therefore proposes to improve and upgrade these junctions to ensure that they continue to operate in capacity following increases in traffic in the area as a result of the proposed development. The TA also proposes highway improvements on some other roads, and in particular the A160, A180 and A113 to create additional merge / diverge lanes at junctions.

3.51 Centrica requests that the granting of a DCO for the proposed development is dependant on the above highway improvement works, and any other works deemed necessary by the Highways Agency and local highways authorities, being implemented prior to operations commencing on site. This will ensure that the necessary road and junction improvements necessary to accommodate the traffic generated by the proposed development are in place prior to development commencing and therefore ensuring sufficient capacity on local roads to accommodate the proposed development.

3.52 Centrica also requests that traffic travelling to / from the proposed development is restricted from using Chase Hill Road. This will ensure that any queuing traffic will not back up to the access road to the power station and restrict access.

3.53 In addition, it is also requested that the DCO restricts the amount of road based transport to the site to the levels stated in the TA and the Framework Travel Plan. Any abnormal loads (i.e. large turbine parts) should be delivered to the site by either rail or sea to reduce delays on local roads, many of which would not be suitable for this type of traffic.

Centrica's Private Access Road

3.54 Able has a right across Centrica's access road to the power station in connection with it existing car storage operations in the area.

3.55 Whilst not specifically stated in any of the application documents, Centrica is still concerned that Able will seek to utilise this access road to access the proposed development.

3.56 Any use of this access road by Able in connection with the proposed development would be totally unacceptable. As stated above, Centrica requires unrestricted access 24 / 7 to the power station. Use of this access road by Able in connection with the proposed development would potentially prevent this. The road is not suitable for use by large numbers of vehicles.

3.57 In addition, there are a number of pipelines and services which either run alongside the road or under the road. This includes the pipeline to the Eon power station. This pipeline is made of fibreglass and is therefore susceptible to damage. As a result the access road has a 7 tonne weight restriction. The

use of the road by HGV or large vehicles would therefore damage this pipeline and result in extremely costly repairs.

3.58 At the 21 June 2012 meeting it was discussed that Able might agree to extinguish its rights over this access road. Whilst this is not for consideration as part of the DCO application Centrica would welcome this. However, it is also requested that any DCO or CPO granted restricts Able's use of this access road.

Flood Risk

3.59 The proposed Marine Energy Park will result in a large area of land on the south bank of the River Humber being developed and land being reclaimed from the Humber. This land is located within Environment Agency Flood Zones 3a and 3b and forms part of the Humber Functional Floodplain and is therefore at high risk from flooding. It is also located directly behind continuous tidal flood defences. The site and the surrounding area are therefore at a high risk of inundation by flood waters in the event of a breach or overtopping of these tidal defences.

3.60 The Flood Risk Assessment (FRA) submitted with the DCO application states that the proposed quay has been designed to minimise flood risk to the site and to reduce the potential for overtopping of flood defences. However, it states that there is a risk that area to the north of the proposed quay could be subject to overtopping due to wave reflection as a result of the proposed quay on the ebb tide in this area. It is proposed that in order to limit overtopping in this area, rock armour will be places over the seaward face of the existing defences in this area.

3.61 Centrica's cooling water pipeline pumping station is located in this area and Centrica is concerned about the potential for overtopping of flood defences in this area and the resulting risk of flooding to the pumping station and therefore requests that a DCO is only granted on the premise that these flood defences will be provided.

3.62 In addition, the FRA states that parts of the application site will be raised by approximately 1m to reduce the risk of flooding to the site. Centrica is extremely concerned that the raising of the site will increase the risk of flooding to the surrounding areas, and in particular the pumping station, and in the event of a flood event, would restrict the flow of flood waters away from the surrounding land. The increased site levels could also increase the extent of the area impacted by flooding in the event of a breach of flood defences.

3.63 The FRA acknowledges that the raised site levels will obstruct the route of floodwaters and would increase flood risk on land near a breach. It shows the site of the pumping station being a location of a breach during the flood risk modelling exercise. However, no mitigation measures are proposed to reduce this level of risk to the surrounding sites, including the pumping station. Centrica strongly objects to this and requires that a DCO is not granted until sufficient mitigation measures are proposed by Able and secured by way of either a provision in the DCO or a Development Consent Obligation.

Potential Restriction of Centrica's Ability to Expand its Operations in the Area in Future

3.64 Given the large area of land that Able UK proposes to require, there is the potential that this may restrict Centrica's ability to expand its operations in the area in the future. In particular, the application site and the land proposed to be acquired by compulsory purchase completely surrounds the CSL site on Station Road, and includes land immediately adjacent to the power station's pumping

station. The proposed development may therefore restrict Centrica's ability to expand these sites if necessary for operational purposes in future. The development therefore may limit the extent to which Centrica can increase cargo deliveries to its offshore platforms or the extent to which the power station can be extended or upgraded in the future.

3.65 In addition, the significant volume of traffic generated by the proposed development may prejudice future development in the area, including the expansion of Centrica's assets, as local roads may not have sufficient capacity to cope with any cumulative impacts of traffic from the proposed development and any future developments combined.

3.66 In light of the above, Centrica requests that the Examining Panel gives consideration to the potential impacts of the proposed development on the future development and growth of the area. In particular, Centrica requests that consideration is given to the extent to which the proposed development will reduce the Company's ability to expand its operations in the future if necessary.

Compensation

3.67 Centrica would seek compensation for a loss of business from Able in the event that the power station was unable to operate as a result of its actions. The compensation likely to be sought would be in the region of £100,000 to £200,000 per day that the power station remains un-operational.

3.68 It is therefore considered important that sufficient mitigation measures are agreed between the two parties and any DCO granted is subject to provisions or a Development Consent Obligation which secures these mitigation measures.

3.69 The next section of this report provides a conclusion.

4 Conclusion

4.1 Centrica owns and operates a number of assets in the North Killingholme area. These include:

- Killingholme Power Station on Chase Hill Road, North Killingholme;
- The Power Station's associated infrastructure, including its Cooling Inlet and Outfall in the River Humber, pumping station and other associated cables and pipelines;
- The Centrica Storage Ltd site on Station Road, North Killingholme; and
- The Condensate Pipeline running north to south through the proposed development area and continuing to Easington.

4.2 All of these assets are essential to the continued efficient operation of either the Killingholme Power Station or Centrica's national gas storage business.

4.3 Centrica has a number of concerns over Able's proposed development, including the following:

- Centrica is concerned that the development of a large quay close to its cooling inlet and outfall will have an impact on the efficient operation of these pieces of infrastructure. In particular, Centrica is concerned that the proposed quay will result in increased water temperatures close to its inlet and outfall by reducing the speed by which warm water discharged from the outfall can disburse from the area. The implications of this are that the water extracted by the cooling inlet would be increased, thereby reducing the thermal efficiency of the power station, and the increased concentrations of warmer water in the immediate surrounding area would have implications for Centrica under its existing discharge licence from the Environment Agency, and potentially including shut downs of the power station.
- Centrica is also concerned that the proposed quay would interfere with hydrodynamic and sedimentary regime of the Humber Estuary and would result in increased levels of silt being deposited close to the cooling inlet and outfall. Increases in sediment deposition could potentially result in a reduced ability to extract and discharge water, as well as the increased likelihood of sediment-laden water entering the cooling inlet. The inlets filtering systems and the existing silt removal plant are only designed to filter the level of suspended sediment experienced during the natural ebb and flow of the river, and would not be able to cope with increased levels of sedimentation. If sediment enters the power station's cooling water systems it would significantly reduce the efficiency of the power station.
- Centrica also has concerns over the proposed daily dredging mitigation proposed by Able. Dredging the river bed close to the cooling inlet will increase the level of sediment in the water column and will result in increased levels of sediment-laden water entering the power station's cooling water systems. As stated above, the power stations existing filtration equipment is not capable of filtering levels of silt / sediment above what is experienced during the normal ebb and flow of the river.
- Centrica would like assurances from Able that it will not alter or extinguish Centrica's existing rights and easements over the application site. These include the access road to the Centrica Storage site on Station Road, the access road to the pumping station, access to existing pipelines and cables

passing through the application site, including the condensate pipeline and cooling water pipelines, and its right of free passage of services across the site. Centrica requires access to its pipelines and other services which cross the application site for maintenance and service purposes. Any access restrictions to these pipelines and services would detrimentally impact on Centrica's operations in the area. Similarly, any restrictions on access to the CSL site on Station Road would reduce Centrica's ability to deliver cargo to its offshore platform.

- Centrica is concerned that the increases in traffic that would result from the proposed development would create delays and queuing traffic on local roads, particularly as some roads in the area all already at capacity. This would potential delay or restrict access to the power station or Centrica's other assets in the area, including delaying the delivery of cargo from the CSL site on Station Road. Centrica requires unrestricted access to these assets at all times in case of emergency or urgent maintenance.

- Centrica is also concerned that Able will utilise the access road to power station to access the proposed development. This could potentially create delays and restrict Centrica's access to the power station. It could also damage services and pipelines running under the road, including the fibreglass pipeline to the Eon power station.

- Centrica is concerned that the proposed development, and the proposed flood defences would increase the risk of inundation by flood waters of the pumping station in the event of a breach or overtopping of defences, as well as reducing the ability for water to drain away in the event of a flood event.

- Given the large area of land that Able UK proposes to require, there is the potential that this may restrict Centrica's ability to expand its operations in the area in the future. In particular, the application site and the land proposed to be acquired by compulsory purchase completely surrounds the CSL site on Station Road, and includes land immediately adjacent to the power station's pumping station. The proposed development may therefore restrict Centrica's ability to expand these sites if necessary for operational purposes in future. The development therefore may limit the extent to which Centrica can increase cargo deliveries to its offshore platforms or the extent to which the power station can be extended or upgraded in the future.

- In addition, the significant volume of traffic generated by the proposed development may prejudice future development in the area, including the expansion of Centrica's assets, as local roads may not have sufficient capacity to cope with any cumulative impacts of traffic from the proposed development and any future developments combined.

4.4 As a result of the above, Centrica requires that the Examining Panel considers the impact of the proposed development on Centrica's assets and requires that any DCO or CPO granted for the proposed development requires Able to undertake sufficient measures which would mitigate any impact on Centrica's assets in the area. These mitigation measures may include, but are not limited to, the following:

- The installation of a breakwater to the north of the cooling inlet / outfall which would reduce the level of silt deposition at the inlet / outfall;

- The potential relocation of Centrica's inlet / outfall if no other options are available to a location where there would be less impact;

- The construction of a new silt removal plant to serve both the Centrica and Eon power stations; and

- The continued frequent monitoring of sediment levels at the cooling inlet / outfall to ensure that sediment levels on the river bed and suspended in the water column are at a level that would not have a negative impact on the efficient operation of the power station. Where levels do rise to an unacceptable level, the DCO or a Development Consent Obligation should require Able to cease activities until levels drop to an acceptable level.

4.5 In addition to the above, Centrica will be seeking to enter into legal agreements with Able that ensure that its existing rights of access and easements are not amended or extinguished. Notwithstanding this, Centrica would also like any DCO or CPO granted to contain provisions which restrict Able from amending or extinguishing its rights or easements.

4.6 If sufficient mitigation measures cannot be agreed, it is likely that the proposed development would severely impact on Centrica's assets and operations in the area. If this is the case, Centrica would seek compensation from Able UK for any loss of business as a result of the proposed development. In respect of the power station not being able to operate as a result of the proposed development, Centrica would seek in the region of £100,000 to £200,000 per day that the power station remains un-operational.

4.7 Centrica requests that if sufficient mitigation measures cannot be agreed between Able and Centrica and secured through provisions in a DCO, CPO, or Development Consent Obligation, the Examining Panel considers refusing to grant a DCO for the proposed development due to the significant impacts on Centrica's assets in the area that would occur.

4.8 In addition to the above, Centrica also requests that the Examining Panel takes into consideration the potential highways and flood risk impacts of the proposed development, as well as potential restrictions that the development may pose on Centrica's ability to expand its operations in the area in the future. It is requested that the Examining Panel considers not granting a DCO unless these issues can satisfactorily be overcome.

4.9 Centrica will however, continue to work with Able to address its concerns and agree suitable mitigation measures, starting with a Risk Workshop with Able and potentially Eon and C.GEN. Any mitigation measures considered necessary or agreed with Able will be presented at the first DCO Hearing with a view that the draft DCO is amended to include provisions to mitigate any impacts on Centrica.

Appendix 1 - Power Station Location Plan

Appendix 2 - Plan Showing Lease of River Bed for Cooling Inlet / Outfall

Appendix 3 - Plan Showing Location of Cooling Pipeline and Access Road to Pumping Station

Appendix 4 - Pumping Station Location Plan

Appendix 5 - Centrica Storage Site (Station Road) Location Plan

Appendix 6 - Photographs Showing Route of Condensate Pipeline

Appendix 7 - Location of Land Over which Centrica has the Right to the Free Passage of Services Through Conducting Media

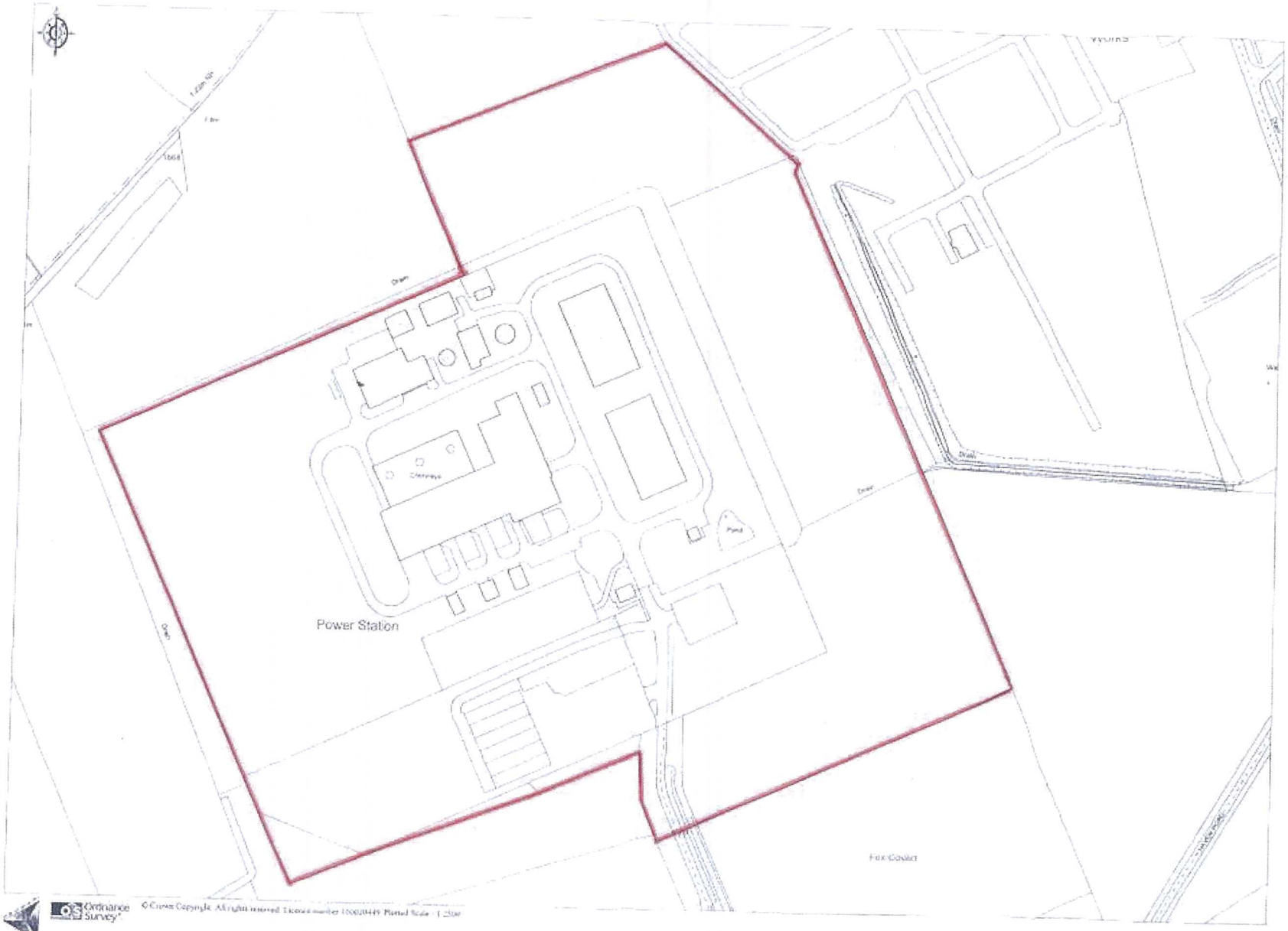
Appendix 8 - Previous Representations to Able / IPC / PINs

Appendix 9 - Plan Showing Location of Cooling Inlet / Outfall in Relation to Proposed Quay

Appendix 10 - 30 January 2012 Letter from Able

Appendix 1 - Power Station Location Plan

KILLINGHOLME POWER STATION
CHASE HILL ROAD, NORTH KILLINGHOLME



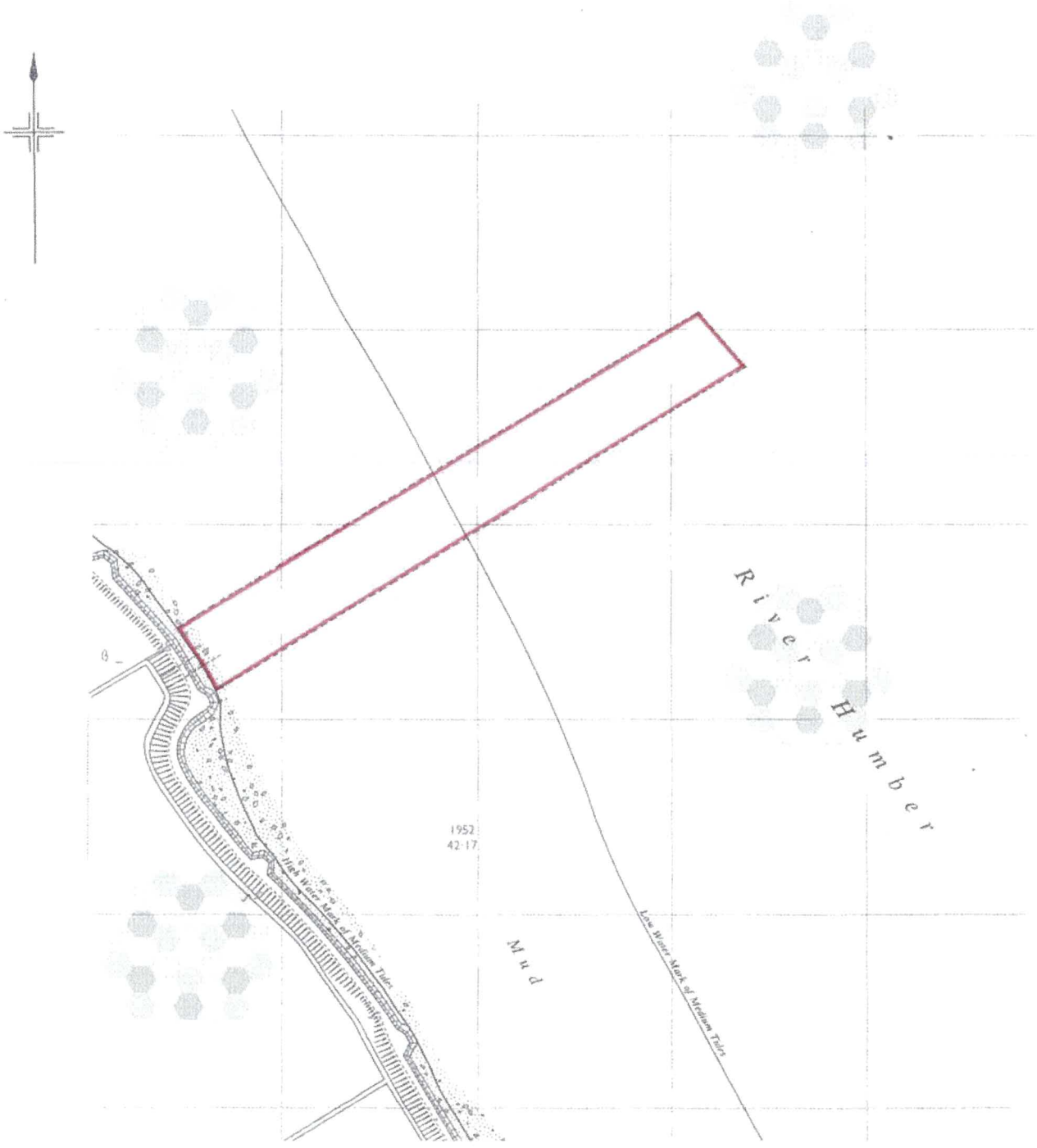
This plan is for identification purposes only and should not be relied upon for accuracy
DN40 3EH

Chesterton

BNP PARIBAS REAL ESTATE

Appendix 2 - Plan Showing Lease of River Bed for Cooling Inlet / Outfall

H.M. LAND REGISTRY	TITLE NUMBER HS284418
ORDNANCE SURVEY PLAN REFERENCE: TA 1719	Scale 1/2500
ADMINISTRATIVE AREA: NORTH LINCOLNSHIRE	© Crown copyright



BNP PARIBAS
REAL ESTATE

Appendix 3 - Plan Showing Location of Cooling Pipeline and Access Road to Pumping Station

N

National Power

Corporate Geographic Database
Sigma
Windmill Hill Business Park
Whitehill Way
Swindon SN5 6PP

KILLINGHOLME

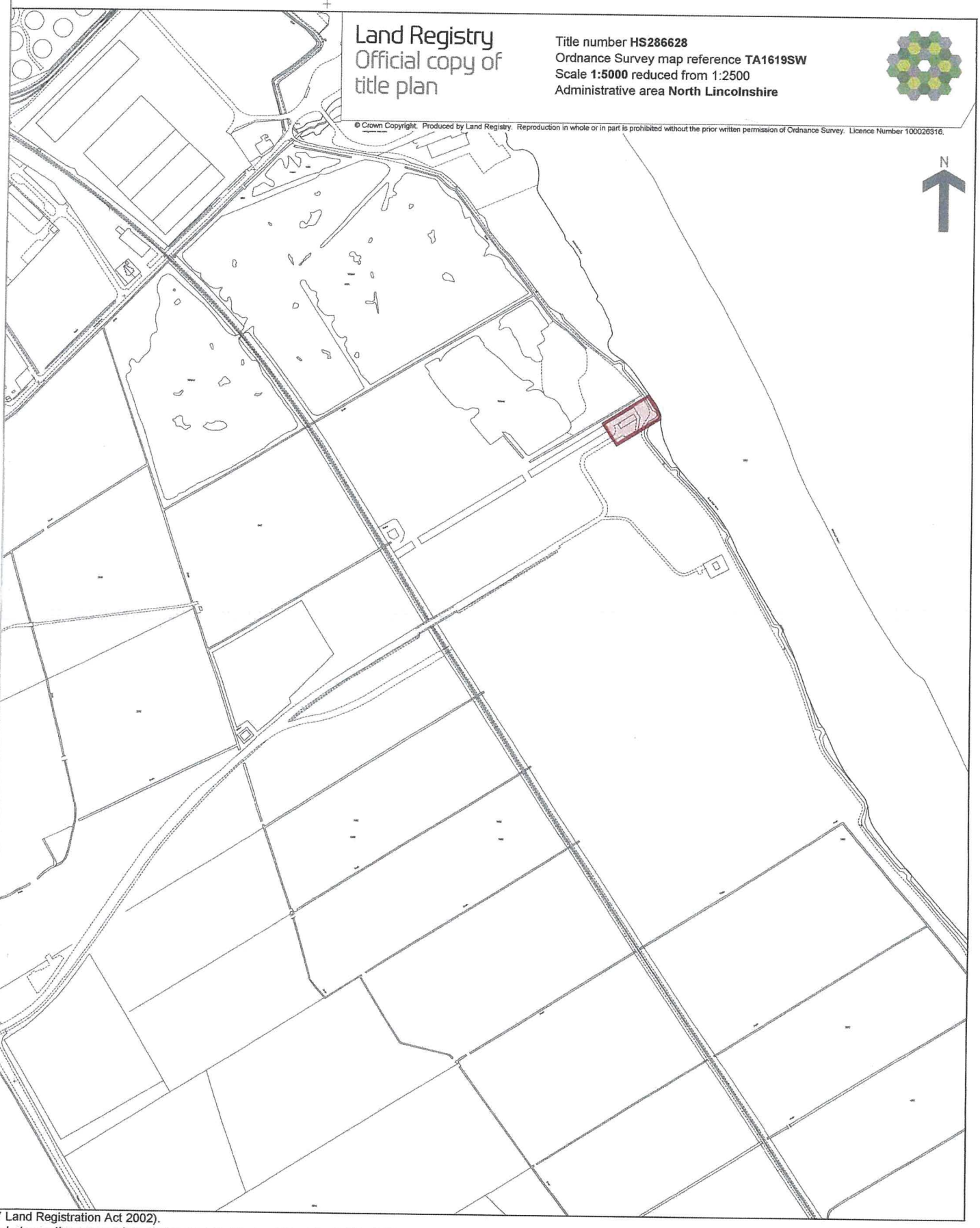
P.M.S. Screen Ref:

Scale 1:4000 Date: 12/11/99

Appendix 4 - Pumping Station Location Plan

Land Registry
Official copy of title plan

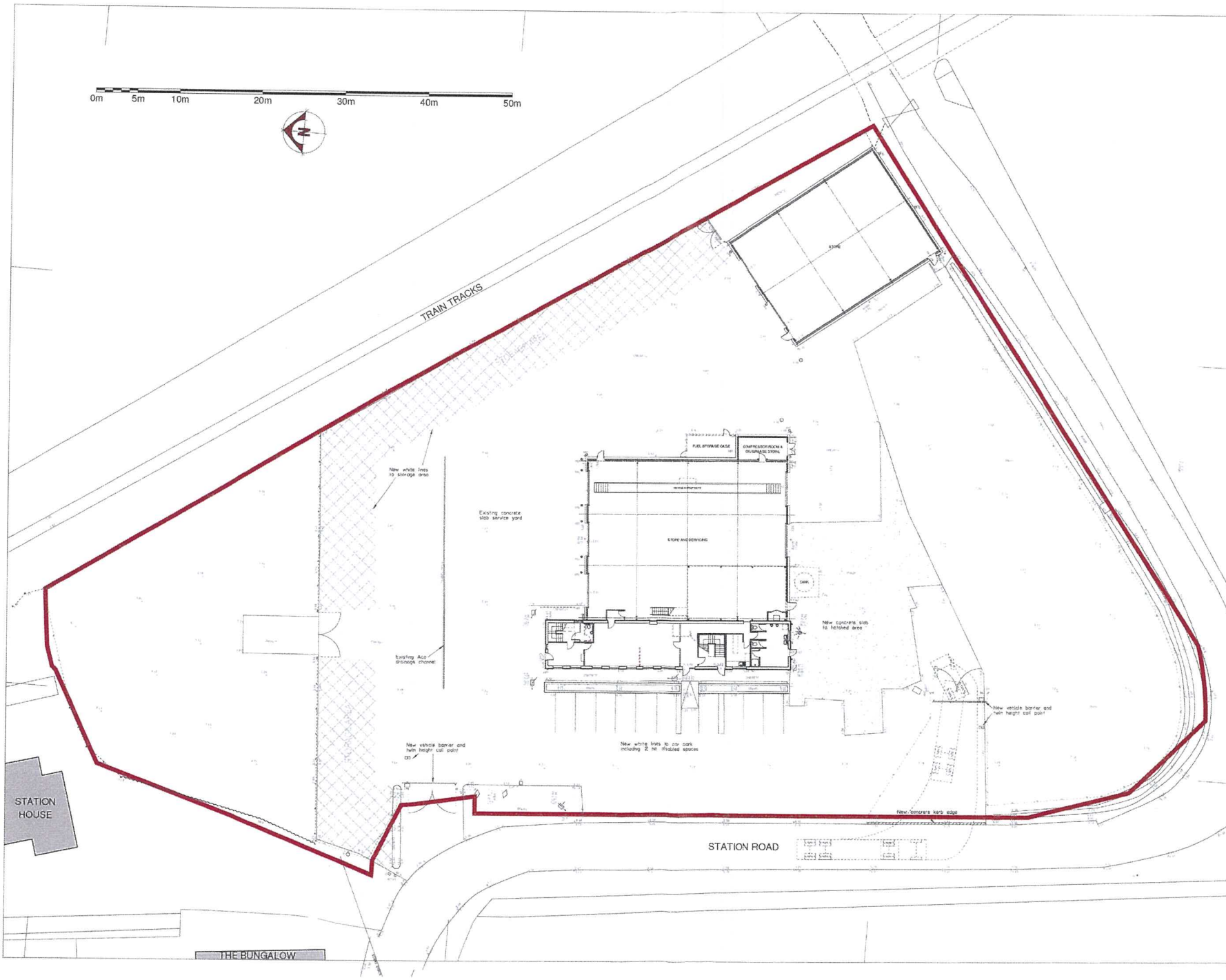
Title number **HS286628**
Ordnance Survey map reference **TA1619SW**
Scale **1:5000** reduced from 1:2500
Administrative area **North Lincolnshire**



67 Land Registration Act 2002).
its between the same points on the ground. See Land Registry Public Guide 19 - Title Plans and Boundaries.

BNP PARIBAS
REAL ESTATE

Appendix 5 - Centrica Storage Site (Station Road) Location Plan



REV		DATE
A	Amendments and extension to fence line	25-01-10
B	Gates amended, barriers and duct indicated	03-02-10
C	Traps information added	05-03-10
D	Site boundary added	15-03-10

Existing slab to be yellow lined to delineate external storage area

New concrete slab to service area to engineers details

New 2.4m high galvanised steel palisade fence with posts at 3m centres

RATCLIFF

CLIENT
CSL IMMINGHAM

PROJECT
WORKS TO WORKSHOP AT
STATION ROAD
SOUTH KILLING HOME
IMMINGHAM

DRAWING
SITE PLAN
AS PROPOSED

DRAWING NUMBER	REV
930-004	D
SCALE@A1	DATE
1:200	25-11-09
AUTHOR	STATUS
G.M.K.	1

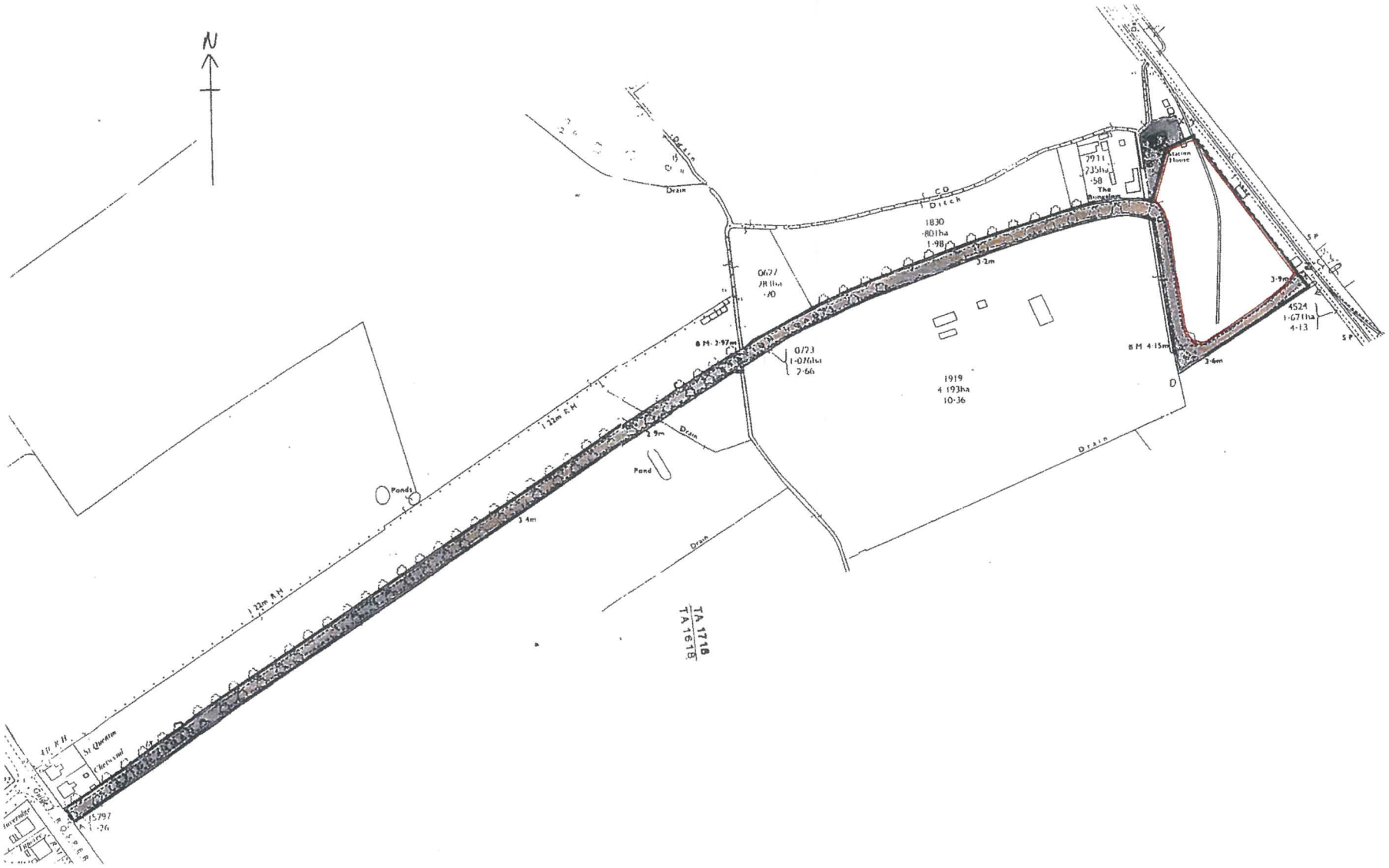
CHARTERED ARCHITECTS
PROJECT MANAGERS
INTERIOR DESIGNERS

THE RATCLIFF PARTNERSHIP LIMITED

24 Kennedy Street, Manchester, M2 4BY
Tel: 0161 236 8060 Fax: 0161 228 3599
E-mail: name@ratcliffpartnership.com
Web: www.ratcliffpartnership.com

STRY	TITLE NUMBER HS 233528
A 1617 TA 1618 TA 1718	Scale 1/2500
~~DISTRICT~~ ~~GLANFORD~~	© Crown copyright

NORTH LINCOLNSHIRE



Appendix 6 - Photographs Showing Route of Condensate Pipeline

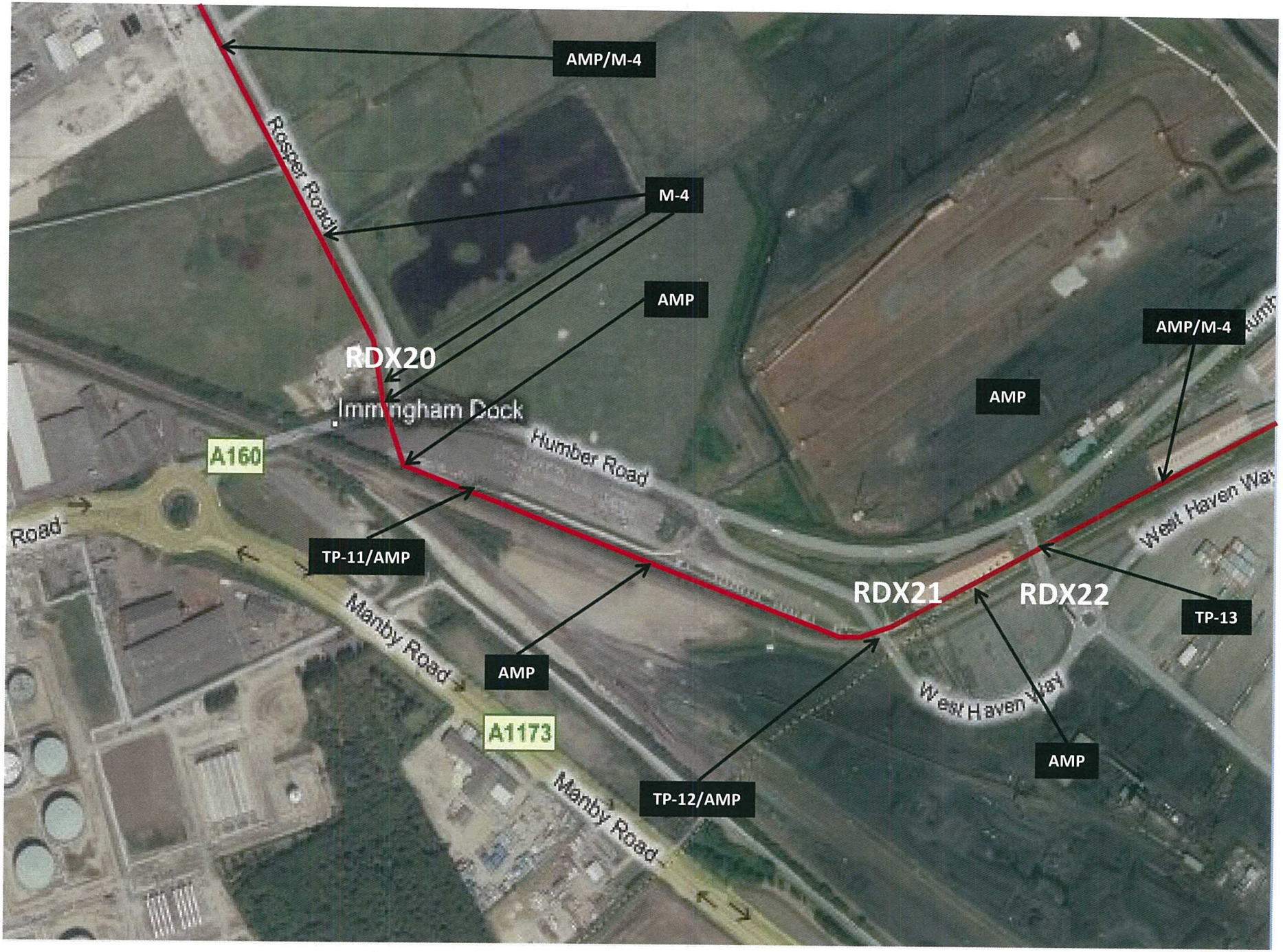

TP-03/T/R
AMP/M-4
TP-04/AMP
M-4
Skitter Road
Skitter Road
Jericho Lane
King Street
Station Road

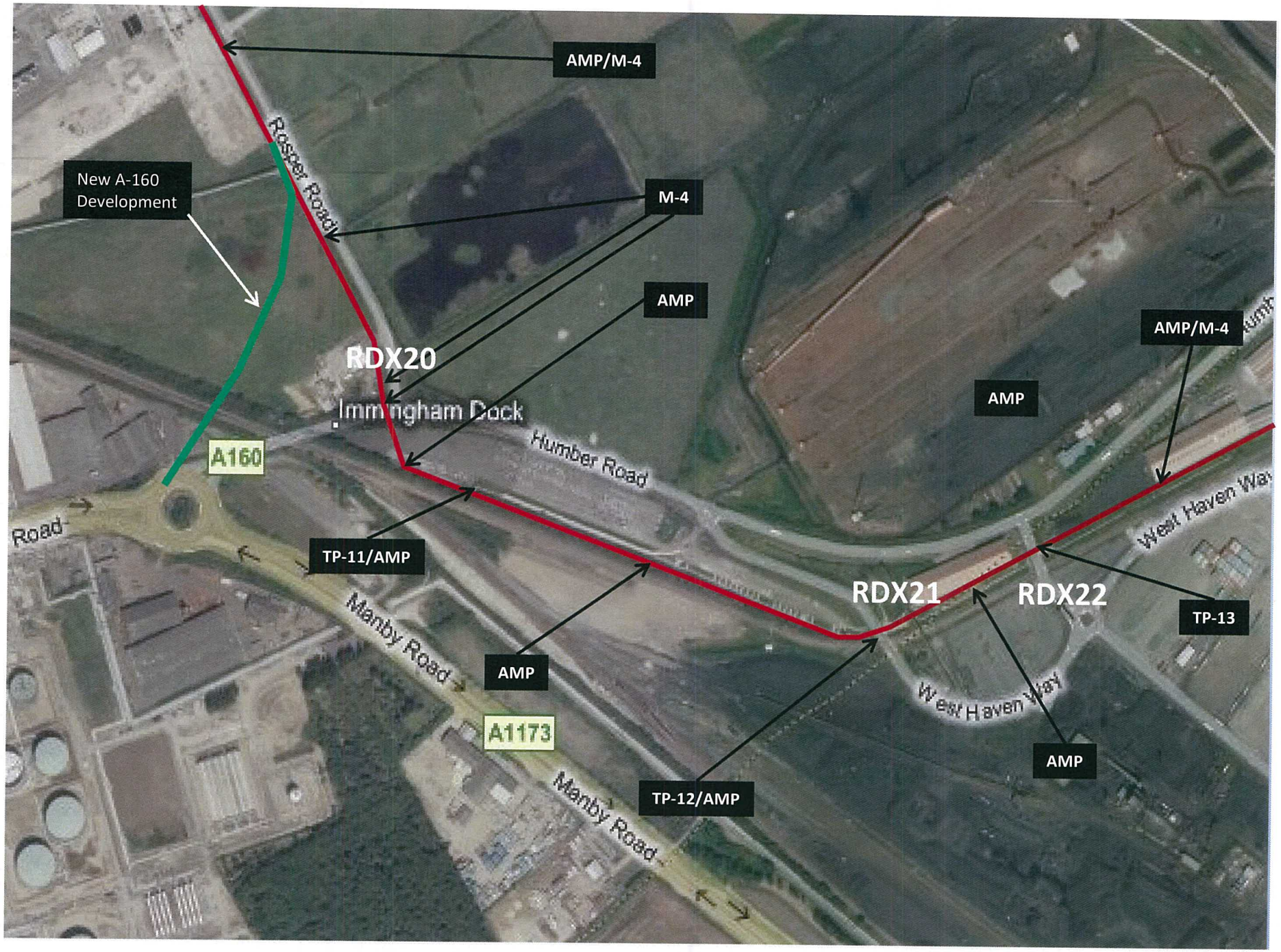

TP-04/AMP
AMP/M-4
M-4
AMP/M-4
M-4
M-4
M-4
M-4
TP-05/AMP
AMP
Shutter Road


AMP/M-4
M-4
M-4
M-4
AMP
M-4
AMP/M-4
TP-06
TP-07
M-4
Clough Lane


New Road Layout
New M-4 installed for new Road Layout
TP-08/AMP
AMP/M-4
AMP/M-4
Station Ro


Rosner Road
TP-09/AMP
TP-10/AMP
M-4
Marsh Lane
AMP/M-4

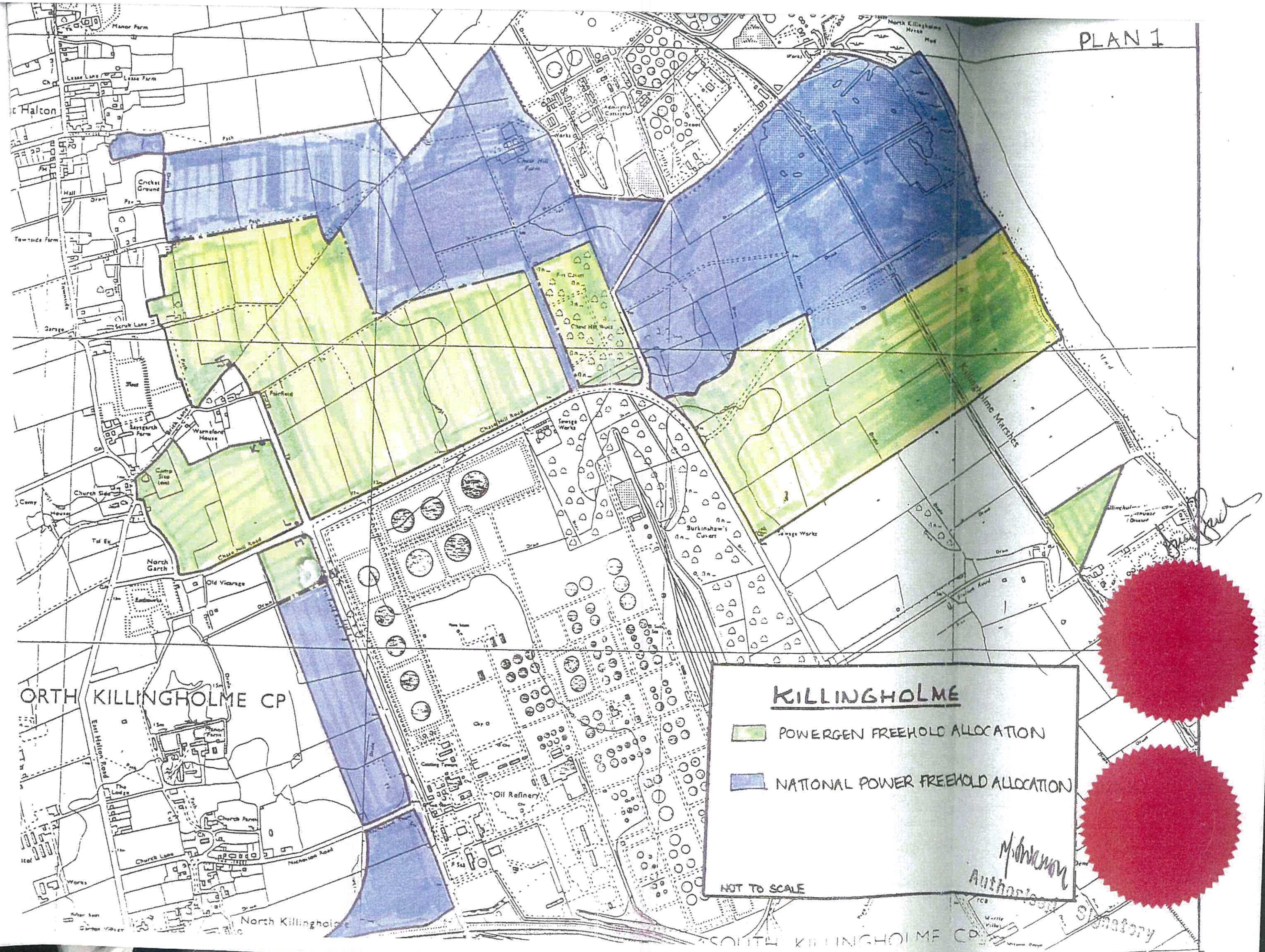

AMP/M-4
Rosper Road
M-4
AMP
RDX20
Immingham Dock
Humber Road
A160
Road
TP-11/AMP
AMP
AMP/M-4
AMP
West Haven Way
RDX21
RDX22
TP-13
Manby Road
AMP
West Haven Way
A1173
AMP
TP-12/AMP
Manby Road


AMP/M-4
New A-160
Development
M-4
AMP
RDX20
AMP/M-4
AMP
A160
Humber Road
TP-11/AMP
RDX21
RDX22
TP-13
Manby Road
AMP
A1173
AMP
TP-12/AMP
Manby Road


AMP/M-4
M-4
TP-15
RDX-24
TP-14
AMP/M-4
M-4
TP-16
Humber Road
West Haven Way
West Riverside
West Riverside
Western Access Road

BNP PARIBAS
REAL ESTATE

Appendix 7 - Location of Land Over which Centrica has the Right to the Free Passage of Services Through Conducting Media


PLAN 1
KILLINGHOLME
POWERGEN FREEHOLD ALLOCATION
NATIONAL POWER FREEHOLD ALLOCATION
NOT TO SCALE
Authorised Signatory
NORTH KILLINGHOLME CP
SOUTH KILLINGHOLME CP
Killingholme Marshes
Oil Refinery
Chase Hill Road
Chase Hill Farm
Chase Hill Wood
Burkinshaw's Covert
Fir Covert
Sewage Works
Manor Farm
Lease Lane
Lease Farm
Townside Farm
Scrub Lane
Cricket Ground
Fairfield
Warnsford House
Baysgarth Farm
Church Side
North Garth
Old Vicarage
East Halton Road
The Lodge
Church Farm
Church Lane
Manor Farm
Cooling Towers
North Killingholme

BNP PARIBAS
REAL ESTATE

Appendix 8 - Previous Representations to Able / IPC / PINs

BNP PARIBAS REAL ESTATE

Marine Energy Park Consultation Team
Able UK Ltd
Able House
Billingham Reach Industrial Estate
Billingham
TS23 1PX
FAO J. R. Monk

BNP Paribas Real Estate
Belgrave House
Bank Street
Sheffield S1 2DR

Tel: [redacted]
Switchboard: +44 (0)870 700 2233
Fax: +44 (0)114 275 2565
Email: [redacted]

Your ref:
Our ref: PBF L100810

13 August 2010

Dear Sirs

ABLE UK MARINE ENERGY PARK INFORMAL PRE-APPLICATION CONSULTATION

COMMENTS ON BEHALF OF CENTRICA ENERGY

We have been instructed by our clients, Centrica plc, to comment on Able's proposed Marine Energy Park on the south bank of the River Humber close to North Killingholme.

Background

Centrica plc is one of the largest energy companies in the UK, employing 30,000 people worldwide. The company secures and supplies gas and electricity for millions of homes and business across the UK.

Centrica Killingholme Power Ltd, part of Centrica Plc, own and operate the 652 MW Killingholme Power Station, which is located off Chase Hill Road, adjacent to the site of the proposed Marine Energy Park. A site plan is enclosed for your information. The power station is a Combined Cycle Gas Turbine Plant (CCGT) and produces electricity from natural gas. It produces approximately 3 million MW hours of power every year. The Power Station operates 24 hours a day, 265 days a year and employs approximately 50 skilled employees.

The primary purpose of operations at Killingholme Power Station is to provide electricity to the National Grid. The operational regime that the Power Station is required to follow is generally determined by market demand with gas turbine power stations fulfilling an important role in meeting electricity demand at peak times.

Centrica requires that the Marine Energy Park proposals do not negatively impact on its operations at Killingholme Power Station or any of its other assets, by way of its construction or operation. In particular, Centrica requests that in creating more detailed proposals for the Marine Energy Park and applying to the Infrastructure Planning Commission (IPC), or its successor, Able take into account the following issues:

Access

Vehicular access to the site is gained off Chase Hill Road. Unrestricted access is required to the Power Station at all times. In particular, access is required at all times for emergency response

vehicles. Increased vehicle movements on Chase Hill Road may cause a delay to emergency response vehicles attending an incident at the Power Station. This may be particularly true of slow moving construction traffic or traffic carrying large machinery and plant for wind turbine manufacture. As such, it is requested that vehicle movements to / from the proposed Marine Energy Park along Chase Hill Road are kept to a minimum.

Increased traffic movements may also increase levels of congestion on Chase Hill Road and may restrict access in general to the Power Station.

The pre-application document states that the majority of material used in the assembly of wind turbines and the material to fuel the biomass power plant will arrive by sea, either directly to the proposed quay, or via rail from the Port of Immingham. However, consent will be required from ABP and Network Rail for use of the Port and railway line, and there is therefore no guarantee that access via the Port of Immingham will be possible. If this is the case, Centrica requests that alternative access to the site, other than Chase Hill Road is found.

In addition to the above, it is requested that vehicle parking along Chase Hill Road is also restricted as this may also reduce the ability for emergency response vehicles to access the Power Station in the event of an emergency.

Centrica therefore requests that the application made to the IPC, or its successor, specifically addresses any potential transport and access impacts that the proposed development may have, and that a full Transport Assessment is submitted that ensures that that vehicle movements to and from the Marine Energy Park and vehicle parking along Chase Hill Road will not impact on access to the Power Station.

Cooling Inlet

The Power Station uses a water-cooled condenser to dispose of waste heat from its steam turbine. Cooling water is extracted from the River Humber via an inlet located to the north of the proposed location of the Marine Energy Park's quay. This inlet is essential to the efficient operation of the Power Station and Centrica hold a licence from the Environment Agency to extract water from the River Humber at this location.

Centrica therefore require that both the operation and construction of the Marine Energy Park do not have any negative impacts on the cooling inlet. The Pre-application Consultation Document acknowledges the existence of this inlet and states that the quay will not be built of solid construction in front of the inlet.

However, the Pre-application Consultation Document also states that dredging will be required to allow ships to access the quay. Centrica therefore also requests that any dredging activity does not impact on the operation of the inlet. It is also requested that the application made to the IPC (or its successor) demonstrates that there will be no negative impacts on the inlet.

Flooding

The proposed Marine Energy Park will result in a large area of land on the south bank of the River Humber being developed and land being reclaimed from the Humber. This land is located within Environment Agency Flood Zones 3a and 3b and is therefore at high risk from flooding. There is also the possibility that the proposed development could increase flooding in the surrounding areas by increasing the area of built development. Centrica therefore requests that Able's application to the IPC, or its successor, includes a Flood Risk Assessment which demonstrates that the risk of flooding to surrounding properties, including the Power Station, will not be increased.

BNP PARIBAS
REAL ESTATE

Safety, Surveillance and Safety

Centrica needs to ensure that the security of the Power Station is not compromised. In particular, there should be no structures located close to the boundary of the Power Station that would obscure surveillance from the Power Station or would allow the perimeter fence to be scaled.

Centrica therefore requests that Able's detailed proposals for the Marine Energy Park do not propose to locate any buildings or structures close to the boundary of the site with the Power Station. In order to maintain an unobstructed view of the surrounding area for surveillance cameras, any landscaping or planting on the boundary should also be kept to a minimum, and there should be no trees or dense vegetation which would obscure surveillance cameras.

Centrica therefore requests that in creating more detailed proposals for submission to the IPC, or its successor, no buildings, structures or dense planting are located close to the boundary of the site with the Power Station.

In addition to the above, Centrica requests that they are fully consulted on detailed proposals for the Marine Energy Park so that any potential impacts on the operation of the Power Station can be fully assessed.

Conclusion

Centrica provides a vital function in securing and supplying energy to the UK which is of significant importance to the national, regional and local economy in terms of ensuring a security of energy supply as well as promoting economic growth and job creation. It is therefore important that Centrica's operations at Killingholme Power Station are protected.

Centrica therefore request that the proposals for the Marine Energy Park do not impact on the safe and efficient operation of Killingholme Power Station. In particular, Centrica requests that:

- Vehicular access to the Marine Energy Park along Chase Hill Road during construction and operation should be limited so as not to restrict access to the Power Station. Car parking along Chase Hill Road should also be restricted;
- Construction and operation of the Marine Energy Park, including dredging activities, should not impact on Centrica's cooling inlet located to the north of the proposed location of the quay as this is integral to the operation of the Power Station;
- The proposed development should not increase the risk of flooding to the Power Station and the application to the IPC, or its successor should demonstrate that the risk of flooding to the Power Station will not be increased; and
- For security reasons, there should be no buildings, structures or dense planting close to the boundary of the site with the Power Station.

Centrica requests that in the creation of more detailed proposals for the Marine Energy Park and the submission of an application to the IPC, or its successor, Able takes into account the above and demonstrates that the proposed Marine Energy Park will not impact on the safe and efficient operation of Killingholme Power Station.

We reserve the right to amend or withdraw these comments, if necessary.

We trust the above is clear and satisfactory; however, if you require further information or would like to discuss the above please do not hesitate to contact either Paul Forshaw or Claire Harron at the above office.

BNP PARIBAS
REAL ESTATE

Finally, we would be grateful if you would acknowledge receipt of these comments and we request that Centrica is kept updated on progress with the proposals and application to the IPC, or its successor, and is fully consulted on the detailed proposals for the Marine Energy Park.

Yours faithfully

BNP Paribas Real Estate

Cc Mr N Warwick – Centrica Plc

BNP PARIBAS REAL ESTATE

Marine Energy Park Consultation Team
Able House
Billingham Reach Industrial Estate
Billingham
TS23 1PX

BNP Paribas Real Estate
Belgrave House
Bank Street
Sheffield S1 2DR

Tel: [redacted]
Switchboard: +44 (0)870 700 2233
Fax: +44 (0)114 275 2565
Email: [redacted]

Your ref:
Our ref: 090237 PBF L170311

17 March 2011

Dear Sirs

PROPOSED MARINE ENERGY PARK AT ABLE HUMBER PORT, KILLINGHOLME – FORMAL PER-APPLICATION CONSULTATION

REPRESENTATIONS ON BEHALF OF CENTRICA PLC

We have been instructed by our clients, Centrica Plc (Centrica), to comment on the formal pre-application consultation into Able's proposal for a Marine Energy Park on the south bank of the River Humber, close to North Killingholme.

Background

Centrica is one of the largest energy companies in the UK, employing 30,000 people worldwide. The company secures and supplies gas and electricity for millions of homes and businesses across the UK.

Killingholme Power Station and Associated Cooling Inlet and Pumping House

Centrica Killingholme Power Ltd, part of Centrica Plc, own and operate the 652 MW Killingholme Power Station, which is located off Chase Hill Road, adjacent to the site of the proposed Marine Energy Park. A site plan is enclosed for your information. The power station is a Combined Cycle Gas Turbine Plant (CCGT) and produces electricity from natural gas. It produces approximately 3 million MW hours of power every year. The Power Station operates 24 hours a day, 365 days a year and employs approximately 50 skilled employees.

The primary purpose of operations at Killingholme Power Station is to provide electricity to the National Grid. The operational regime that the Power Station is required to follow is generally determined by market demand with gas turbine power stations fulfilling an important role in meeting electricity demand at peak times.

The Power Station uses a water-cooled condenser to dispose of waste heat from its steam turbine. Cooling water is extracted from the River Humber via an inlet located to the north of the proposed location of the Marine Energy Park's quay, with an associated pumping house located adjacent to the northern boundary of the application site. A site plan is enclosed for your information.

Centrica also has a right of way over the access road to the pumping house, off Rosper Road. This road is included within the red line boundary of the proposed Marine Energy Park. A plan showing this right of access is also enclosed for your information.

Centrica Storage Land

Centrica Storage Ltd, a subsidiary of Centrica Plc, also leases a site on Station Road for storage purposes.

The site is located to the north and east of Station Road, between proposed plots T1 and T2 and the Overspill Low Level Storage 3 area of the proposed Marine Energy Park. The site is excluded from the Proposed Marine Energy Park's red line boundary however.

The site contains modern storage and office premises and a large yard providing external storage space. The site extends to approximately 0.72 hectares. A site plan is enclosed for your information.

Previous Representations to the Marine Energy Park Proposals

Centrica has previously submitted representations to the Marine Energy Park Proposals at the informal consultation stage in August 2010. These representations requested that in the creation of more detailed proposals for submission to the Infrastructure Planning Commission (IPC) (or its successor) consideration is given to Centrica's landholdings and operations in the area. In particular, it was requested that the Marine Energy Park proposals gave consideration to the following:

- The need for there to be no impacts on the Cooling Inlet;
- The need to ensure that increased traffic on local roads would not restrict access to the Power Station at all times, and
- The need to ensure that the proposed Marine Energy Park would not create any security risks for the power station by locating buildings or structures close to the boundary with the Power Station.

Centrica has also completed and returned the Request for Information setting out details of their land and property ownership in the area.

In light of the above, please find below Centrica's response to the formal consultation on the proposed Marine Energy Park.

Representations to the Formal Consultation Stage

As stated above, Centrica requires that the Marine Energy park proposals do not negatively impact on its operations at Killingholme Power Station or any of its other assets, by way of its construction or operation. In particular, the proposed Marine Energy Park should not have a negative impact on the following:

- Access to the Power Station, pumping house or storage site;
- The operation of the Cooling Inlet;
- The risk of flooding to Centrica's landholdings and property; and
- Centrica's right to the free passage of services through conducting media.

These are discussed in more detail below.

Access

Vehicular access is required to the Power Station, pumping house and the storage site at all times. Access is required for staff, emergency response vehicles and also for maintenance.

Increased vehicle movements on local roads, including Chase Hill Road and Rosper Road, may delay access to the Power Station, pumping house and storage land. This would create significant problems for the efficient operation of the Power Station in the case when urgent repairs or maintenance is required to either the Power Station or pumping house.

The Marine Energy Park Preliminary Environmental Information Report (PEI Report) states that the majority of the materials and equipment being delivered to or from the site will take place by boat, or if possible by rail. Centrica supports this, and requests that any vehicle movements by road are kept to a minimum. In particular, it is considered that no large turbine parts should be transported by road. Transportation of these parts by road is likely to require large slow moving vehicles, which could potentially create long delays on the surrounding road network. It is also considered that the local road network would not be suitable for these types of vehicles.

The Power Station is accessed of a private road extending northwards from Chase Hill Road. The PEI Report does not state that this road will be used for access to the Marine Energy Park. Centrica would like assurance that this road will not be used. Centrica's vehicles which use this road are restricted to maximum load of 40 tonnes so as to not damage pipelines which pass under this road. Use of this road for access to the proposed Marine Energy Park may increase the likelihood of damage being caused to these pipelines, and it is therefore considered that access to the Marine Energy Park using this road would not be appropriate.

Access to the pumping house is gained via the road which is proposed to be the northern access road into the Marine Energy Park. The area immediately adjacent to the pumping house is currently a car park in relation to Able's current operations at the site, and Centrica's maintenance and repair vehicles are required to travel through this car park to access the pumping house.

Centrica has a right of access over this access road and, as stated above, require unrestricted access to the pump house at all times. Able's proposals should therefore not restrict Centrica's access to this pump house in any way. The PEI Report states that all land which is included within the red line boundary, but not under Able's ownership, will be compulsorily purchased. Centrica requires that its right of access over this road remains, and request that this is taken into consideration in the application submitted to the IPC, or its successor.

Station Road, which Centrica use to access its storage site is also included within the red line boundary. Again, access is required to this site at all times, and should not be restricted.

Cooling Inlet

The Power Station uses a water-cooled condenser to dispose of waste heat from its steam turbine. Cooling water is extracted from the River Humber via an inlet located to the north of the proposed location of the Marine Energy Park's quay. This inlet is essential to the efficient operation of the Power Station and Centrica holds a licence from the Environment Agency to extract water from the River Humber at this location.

Centrica therefore requires that both the operation and construction of the quay, and any associated dredging activities, do not have any negative impact on the cooling inlet itself and its operation.

The Formal Pre-Application Consultation Document acknowledges the existence of Centrica's cooling inlet and states that the quay will not be constructed in front of them. However, the construction of the quay as proposed so close to the inlets could impact on its efficient operation. In particular, the quay could change the current patterns and impede the free flow of water. This could result in silt deposition around the inlet and also an increase in the inlet temperature. Centrica therefore requests that measures are put in place to ensure that there is no silt build-up that would impact on the operation of the cooling inlet.

The REI Report states that dredging will take place to create an approach channel to the quay. This channel will be located adjacent to the cooling inlet. There is potential that dredging activities could also impact on the efficient operation of the cooling inlet. Centrica therefore requests that the application to the IPC, or its successor, demonstrates that there will be no impact on the efficient operation of the cooling inlet during both construction of the quay and dredging operations.

Flooding

The proposed Marine Energy Park will result in a large area of land on the south bank of the River Humber being developed and land being reclaimed from the Humber. This land is located within Environment Agency Flood Zones 3a and 3b and forms part of the Humber Functional Floodplain and is therefore at high risk from flooding.

The PEI Report states that that existing outfall into the Humber will be relocated to the north of the proposed quay and a pumping station built to enable surface water to be discharged into the Humber.

Centrica are concerned however, that due to the large amount of hardstanding to be developed in this location, part of the River Humber's Functional Floodplain will be lost. The loss of this floodplain will result in a reduction in floodwater storage areas in flood events, and therefore may increase flooding on the surrounding sites.

Centrica therefore requests that a Flood Risk Assessment is submitted with the application to the IPC, or its successor, which demonstrates that the risk of flooding to surrounding properties, including the Power Station, will not be increased.

Centrica's Right to the Free Passage of Services through Conducting Media

Centrica has an easement which gives right to the free passage of services trough conduction media over the property shown coloured green on the enclosed plan. This area includes part of the land within the proposed Marine Energy Park's red line boundary.

As referred to above, the PEI Report states that any land within the red line boundary which is not under the ownership of Able will be compulsory purchased. Centrica would like assurances that the proposed development will not restrict their ability to undertake its easement to pass services through this land.

Conclusion

Centrica provides a vital function in securing and supplying energy to the UK. This is of significant importance to the national, regional and local economy in terms of ensuring a security of energy supply, as well as promoting economic growth and job creation.

Centrica owns and operates the Killingholme Power Station, along within the associated cooling inlet and pumping house on the south bank of the River Humber. It also leases a site off School Road for storage purposes. Centrica requires that the proposed Marine Energy Park does not impact on the safe and efficient operation of the Power Stations and its other assets in the area. In particular, Centrica requests that:

- Vehicle trips to the proposed Marine Energy Park by road are kept to a minimum. Centrica requires unrestricted access to the Power Station, pumping station and storage site at all times. Increased vehicular movements on the surrounding roads could restrict or delay access to these sites. This would be particularly problematic in instances when urgent maintenance is required;
- No large turbine parts should be transported by road, as the large slow vehicles used to transport them would create delays and restrict access to the Power Station;

BNP PARIBAS
REAL ESTATE

- The private access road to the Power Station of Chase Hill Road should not be used to access the proposed Marine Energy Park;
- Centrica's right of access to the pumping station along the proposed northern access route into the Marine Energy Park should not be restricted in any way;
- It should be ensured that the construction of the proposed quay and any dredging activity do not impact on Centrica's cooling inlet by altering the free flow of water or increasing siltation. Centrica would like the application to the IPC, or its successor, to demonstrate that there will be no impact on the cooling inlet;
- The risk of flooding should not be increased to surrounding property, including Centrica's Power Station, pumping house, and storage site; and
- Centrica's ability to exercise its right to the free passage of services through conducting media across part of the proposed site of the Marine Energy Park should not be restricted.

Centric requests that the above, and it operations in the area are taken into account in the application to the IPC or its successor.

We reserve the right to amend or withdraw these comments if necessary.

Finally we trust the above is clear and satisfactory; however, if you require further information or would like to discuss the above please do not hesitate to contact either Paul Forshaw or Claire Harron at the above office. Otherwise, we would be grateful if you could confirm receipt of this letter.

Yours faithfully

BNP Paribas Real Estate

Enc Power Station Site Plan

Pumping Station Site Plan

Right of Access to Pumping Station Plan

Storage Land Site Plan

Right to Free Passage of Services through Conducting Media Plan

Cc Mr N Warwick – Centrica Plc

BNP PARIBAS REAL ESTATE

Richard Cram
Able UK Ltd
Billingham Reach Industrial Estate
Billingham
Teesside
TS23 1PX

BNP Paribas Real Estate
1st Floor
Fountain Precinct
Balm Green
Sheffield
S1 2JA

Tel: [redacted]
Switchboard: +44 (0)870 700 2233
Fax: +44 (0)114 263 9244
Email: [redacted]

DRAFT

FOR CLIENT APPROVAL

Your ref:
Our ref: 090237 PBF L210411

21 April 2011

Dear Richard

PROPOSED MARINE ENERGY PARK AT ABLE HUMBER PORT, KILLINGHOLME

CENTRICA PLC, KILLINGHOLME POWER STATION

I refer to representations submitted by BNP Paribas Real Estate, on behalf of Centrica, to the informal and formal consultation exercises on the above project in August 2010 and March 2011 respectfully, as well as the meeting held between Centrica and Able on 18 November 2010.

These representations and discussions at the above meeting both referred to Centrica's concerns that the proposed development would have a negative impact on Centrica's inlet and outfall culverts.

In particular, Centrica is concerned that given the location of its inlet and outlet culverts directly to the north of the proposed quay, excess siltation deposition or changes in water temperature as a result of this structure may have a negative impact on the operation of these culverts.

Water Temperature

Killingholme Power Station uses a water-cooled condenser to dispose of waste heat from its steam turbine. Cooling water is extracted from the River Humber from the cooling inlet, located to the north of the proposed quay. Any increase in the temperature of water entering the cooling inlet is likely to reduce the efficiency of the Power Station and reduce its MW output.

In addition, the Preliminary Environmental Information Report (PEIR) states that the proposed quay will displace water, and it is likely that water levels will rise as a result. This, along with the changes in levels of silt and other material in the water column is likely to impact on water temperatures. As stated above, any changes in the temperature of water entering Centrica's cooling inlet, particularly increases, is likely to reduce the efficiency of the power station and reduce MW output. Centrica is currently investigation the affect that the above may have on the efficiency and output of the Power Station.

BNP PARIBAS
REAL ESTATE

Silt Deposition

The PEIR states that the estuary morphology around Killingholme will be altered as a result of the solid quay and the deepening of the channel through dredging. It states that the changes that could be experienced could include variations in tidal velocities, direction and timing

In addition to impacts on water temperatures, the above is also likely to impact on concentrations of silt in the water and the levels of siltation deposition. In particular, as silt and material is transported in a southerly direction along the Lincolnshire Coast by the process of longshore drift, it is likely that when waves meet the proposed quay they will deposit the material they carry. It is therefore likely that increases in siltation deposition will occur to the north of the quay.

Increases in siltation deposition will have a negative impact on Centrica's cooling inlet and outfall, which are located to the north of the proposed quay. This is likely to have further impacts on the efficiency of the Power Station and reduce MW output.

Since these concerns were raised through representations and at the 18 November 2010 meeting, Centrica has not received any feedback from Able on these issues. It is therefore requested that Able confirms that Centrica's cooling inlet will not be exposed to any rise in water temperatures and that the inlet and outfall will not be impacted through increases in siltation deposition.

We trust the above is clear and satisfactory; however, if you require further information or would like to discuss the above please do not hesitate to contact either Paul Forshaw or Claire Harron at the above office. Otherwise, we look forward to receiving your response.

Yours sincerely

BNP Paribas Real Estate

Cc Mr N Warwick – Centrica Plc

RELEVANT REPRESENTATIONS

Centrica own and operate the 652 MW Killingholme Power Station, which is located off Chase Hill Road, adjacent to the site of the proposed Marine Energy Park. The power station is a Combined Cycle Gas Turbine Plant and produces electricity from natural gas. It produces approximately 3 million MW hours of power every year. The Power Station operates 24 hours a day, 365 days a year and employs approximately 50 skilled employees.

The Power Station uses a water-cooled condenser to dispose of waste heat from its steam turbine. Cooling water is extracted from the River Humber via an inlet located to the north of the proposed location of the Marine Energy Park's (AMEP) quay, with an associated pumping house located adjacent to the northern boundary of the application site.

Centrica also has a right of way over the access road to the pumping house, off Rosper Road. This road is included within the red line boundary of the proposed AMEP.

Centrica also has an easement which gives right to the free passage of services through conduction media over a large area surrounding the Power Station, including Plots B2 and T1 of the Able proposals. There are also a number of underground pipelines and cables in the area surrounding the Power Station which are required for its operation, including electrical and optical cables for controlling the Pumping House, which run along the length of the cooling pipeline and through the proposed development area.

Centrica Storage Ltd (CSL), a subsidiary of Centrica Plc, also leases a site on Station Road for storage purposes which contains modern storage and office premises and a large storage yard. The site is located to the north and east of Station Road, between proposed plots T1 and T2 and the Overspill Low Level Storage 3 area of the proposed Marine Energy Park. The site is excluded from the Proposed Marine Energy Park's red line boundary however.

CSL also operates a condensate pipeline which runs from Ulceby Skitter to Immingham along Chase Hill Road and Skitter Road, and partly falls within the application site.

Centrica has previously submitted representations to Able on the proposals in August 2010 and March 2011 and has met with representatives of Able on a number of occasions. Centrica has expressed concern over the following:

Access

Vehicular access is required to the Power Station, pumping house and storage site at all times. Access is required for staff, emergency response vehicles and also for maintenance. Increased vehicle movements on local roads, including Chase Hill Road and Rosper Road, may delay access to the Power Station, pumping house and storage land. This would create significant problems for the efficient operation of the Power Station in the case when urgent repairs or maintenance is required to either the Power Station or pumping house.

Centrica requests that any vehicle movements by road are kept to a minimum. In particular, it is considered that no large turbine parts should be transported by road. Transportation of these parts by road is likely to require large slow moving vehicles, which could potentially create long delays on the surrounding road network. It is also considered that the local road network would not be suitable for these types of vehicles.

The Power Station is accessed off a private road extending northwards from Chase Hill Road. This road should not be used for access to the AMEP. Centrica's vehicles which use this road are restricted to maximum load of 40 tonnes so as to not damage pipelines which pass under this road. Use of this road for access to the AMEP may increase the likelihood of damage being caused to these pipelines, and would therefore not be appropriate.

Access to the pumping house is gained via the road which is proposed to be the northern access road into the AMEP, which Centrica has a right of access over. The area immediately adjacent to the pumping house is currently a car park in relation to Able's current operations

at the site, and Centrica's maintenance and repair vehicles are required to travel through this car park to access the pumping house. Centrica therefore requires that its rights of access to this pump house are not restricted in any way. However, Land Plan 3 submitted with the DCO application indicates that private rights and easements will be extinguished over the access road which leads to the CSL site, and Centrica is extremely concerned by this.

Access should also not be restricted to Centrica's pipelines and cables in the area for maintenance purposes, including the Condensate Pipeline and the numerous cables which pass through the proposed development site. Centrica holds a freehold easement over the route of these cables and pipelines to allow access. Land Plan 5 shows that existing easements and rights of way will not be extinguished in the area within which the cooling pipeline and other cables pass. Centrica would like confirmation that its easements and rights of access to these pipelines and cables will not be restricted.

Flooding

The AMEP will result in a large area of land on the south bank of the River Humber being developed and land being reclaimed from the Humber. This land is located within Environment Agency Flood Zones 3a and 3b and forms part of the Humber Functional Floodplain and is therefore at high risk from flooding.

Centrica is concerned that due to the large amount of hardstanding to be developed in this location, part of the River Humber's Functional Floodplain will be lost, resulting in a reduction in floodwater storage areas and increased flooding on surrounding sites. Centrica therefore requests that Able is required to provide suitable mitigation measures to ensure that there is no adverse impact on Centrica's operations in the area by way of flooding.

Centrica's Right to the Free Passage of Services through Conducting Media

Centrica requires that the proposed development will not restrict their ability to undertake its easement to pass services through the application site and surrounding land.

Cooling Inlet / Outfall

The Power Station uses a water-cooled condenser to dispose of waste heat from its steam turbine. Cooling water is extracted from the River Humber via an inlet located to the north of the proposed location of the Marine Energy Park's quay. This inlet is essential to the efficient operation of the Power Station and Centrica holds a licence from the Environment Agency to extract water from the River Humber at this location.

Centrica therefore requires that both the operation and construction of the quay, and any associated dredging activities, do not have any negative impact on the cooling inlet / outfall itself and its operation.

Able has acknowledged that there will be an impact on Centrica's Inlet / Outfall as a result of increased deposition of sediment, and has proposed to mitigate this through dredging the river channel close to the inlet / outfall.

Centrica is currently reviewing the dredging strategy proposed by Able to identify whether it will sufficiently mitigate any impacts on the operation of the inlet / outfall, and will provide further comments on this at the Written Representation stage and at the Examination. However, in the meantime, Centrica remains concerned over the impact of increased sediment and temperatures on the inlet / outfall.

Centrica will expand on the above points at the Written Representation stage and at the examination. It is requested that the examining authority acknowledges these potential impacts, and in particular Centrica's concerns regarding the impact on the inlet / outfall pipeline, and access to its assets in the area. It is requested that the examining authority considers holding hearing sessions at the Examination covering these issues.

BNP PARIBAS
REAL ESTATE

Appendix 9 - Plan Showing Location of Cooling Inlet / Outfall in Relation to Proposed Quay

KEY

- Limit of deviation for siting of building up to 45m high.
- Limit of deviation for siting of building up to 25m high
- Limit of deviation for siting of building up to 15m high
- 48 Space Car Park
- Stone Surfacing
- Landscaping
- Rock Revetment
- Existing Lighting Column (21-30m High)
- Proposed Lighting Column (50m High)
- Existing Cooling Water Intake
- Existing Cooling Water Outfall
- Existing Building
- Proposed Building
- Electric Substation
- HMRC Office
- Berthing Pocket
- Waste Recycling & Transfer Facility
- Able Approach Channel & Turning Area
- Proposed Pumping Station

Rev	Date	Comments	Drw	Chk	App
A	12-12-11	Preliminary Issue	RK	RC	RC

able www.ableuk.com

Project: ABLE Marine Energy Park

Client: ABLE UK Ltd

Title: Indicative Masterplan

PRELIMINARY

Scale	Drawn	Checked	Approved
1:5,000@A1	R Kent	R Cram	R Cram
Date	12/12/2011	12/12/2011	12/12/2011
Drawing No. AME - 02006		Revision	A

BNP PARIBAS
REAL ESTATE

Appendix 10 - 30 January 2012 Letter from Able

Able UK Ltd
Head Office: Able House
Billingham Reach Industrial Estate
BILLINGHAM
Teesside TS23 1PX
United Kingdom

☎ 01642 806080
Fax 01642 655655
Email info@ableuk.com
Web www.ableuk.com

BNP Paribas Real Estate
Belgrave House
Bank Street
Sheffield
S1 2DR

Your Ref: 090237 PBF L10311

Our Ref: RC.LH.A.L12-0033

Date: 30th January 2012

For the attention of Paul Forshaw

By Email [redacted]

Dear Sir,

ABLE MARINE ENERGY PARK (AMEP)

Further to your letter dated 17 March 2011 regarding the above I confirm that we submitted our application documents to the Infrastructure Planning Commission on 19 December 2011. The IPC accepted the application on 12 January 2012.

A copy of the submitted Masterplan is enclosed. The entire application is available to download from the IPC website. We will notify you in due course of the acceptance in accordance with the relevant regulatory requirements. For the avoidance of doubt, this letter is not formal notification of acceptance.

You will, of course be aware of the strategic significance of the AMEP development, not least of course in terms of attracting new investment to the UK, re-vitalising the UK's manufacturing base and creating a significant number of much needed new employment opportunities. Indeed Centrica, as a major offshore wind developer, may, at some point, be a user/beneficiary of the site's proposed activities.

Your letter expressed a number of concerns and I record below how these have been addressed within the application.

1. **Road Traffic**

   You were concerned regarding increased traffic on the road network local to your client's site and also about slow moving traffic causing increased congestion.

   The application is accompanied by a Transport Assessment and a Framework Travel Plan. The scheme includes for works to a number of existing road junctions to cater for increased traffic as a consequence of the development in the event that the proposed A160 dualling works do not come to pass.

2. **The Private Access Road to the Power Station from Chase Hill Road**

   You required that this road should not be used.

   The application does not include any use of your access road.

3. **The Centrica Pumping Station**

   You required that access should not be restricted in any way.

   The application does not provide for any changes to your existing rights.

cont./...

4. **Cooling Water Infrastructure**

You required us to ensure that neither the construction of the quay nor any dredging activity had any effect on your client's cooling water infrastructure.

Firstly, we have endeavored to mitigate the impacts of the proposals on your cooling water infrastructure by ensuring that no buildings are located over your pipeline routes. In addition, as the estuarine environment is characterised by fine sedimentary material carried in suspension within the waterbody, we have sought to configure the quay so as to avoid suspended sediment settling onto the estuary bed in the vicinity of your cooling water intake and outfall structures. Numerous quay alignments were considered and the impacts of each were investigated by hydrodynamic modeling in order to understand likely changes in accretion patterns; a broad summary of the iterative design approach to the quay is included in *Annex 4.4* of the Environmental Statement which I enclose.

As you may be aware, hydrodynamic modeling is not an exact science, estuarine systems are complex and modeling of them is, necessarily, a simplification of the 'real world'. Accurate computer modeling of sedimentation patterns is particularly challenging and the results have high degrees of uncertainty both in terms of the area likely to be affected and with regard to the quantum and rate of any change. The deposition of suspended sediment within the estuary is controlled by the speed of the currents and the particle size of the sediments. Clearly, the velocity of the water column at the application site is in a state of flux, being influenced by the tidal cycle, and a range of sedimentary particles (gravels, sands and muds) may be eroded, transported and deposited.

To address the issue as comprehensively as possible, we appointed consultants to develop both cohesive and non-cohesive transport models (HR Wallingford and JBA Consultants respectively) to cover the behavior of the full range of sediments that might be in the water column and would be available for deposition. Non-cohesive modeling is relevant for coarser grained suspended sediments (sands and gravels) whilst the cohesive modeling covers the finer sediments (clay and silt fractions).

The cohesive transport modeling gave the most adverse results with respect to the rate of accretion to the north of the proposed quay. Our consultant has compared computer predictions of sedimentation rates in existing berths to actual maintenance dredge volumes and this indicates that cohesive computer modeling is overestimating the average rate of sedimentation by a factor of around two.

In the scheme that has been submitted for consent the cohesive modeling indicates that there is little risk of significant sedimentation at the Centrica intake but that there is potentially a risk of sedimentation at the outfall. It is proposed within the application to manage this risk by observation and by intervention if necessary. Intervention would be by dredging, details of the particular technique are set out in the Dredge Strategy document that is also enclosed.

cont./...

Clearly you will need to know that our proposals are sustainable and we would be happy to respond to any queries you may have with regard to the technical reports that have been prepared by our consultants.

5. **Flood Risk**

You were concerned that the risk of flooding to your client's property should not be increased

A comprehensive flood risk assessment has been undertaken and was submitted with the application.

Centrica's power station lies on relatively high ground that is not at any significant risk of flooding whether or not AMEP goes ahead. The pumping station that is located on low lying ground behind the existing flood defences is at risk of flooding in the event of a breach of those defences and will continue to be subject to such risk. The likelihood of flooding due to a breach will reduce as a consequence of the development.

The development will incorporate a new surface water pumping station that will be designed to cater for 1:100 year rainfall events.

6. **Existing Rights for services Passing through the Site**

You advised that there should be no change to Centrica's existing rights within the application site.

The application does not provide for any changes to your existing rights.

I trust the above clarifies the mitigation that we propose in order to avoid any adverse impact on your operations and we look forward to further developing a constructive working relationship with you that enables the quay to be constructed whilst fully safeguarding your interests.

Yours sincerely,

[redacted]

RICHARD CRAM
Design Manager

Enc Drawings AMEP_P1D_001/I, 002/G, 003/G, 004/E, 005/E, 006/G, 007/D, 009/G
AMEP Dredge Strategy
AMEP ES *Annex 4.4*