



# PROPOSED SOLAR FARM, BARRY DOCK

## TRANSPORT STATEMENT

ABPmer

AUGUST 2014



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## 1. INTRODUCTION

- 1.1. This Transport Statement (TS) has been prepared by PFA Consulting on behalf of ABPmer in support of a planning application for the development of a solar photovoltaic park which could produce approximately 10 MW of electricity at Barry Dock, east of Barry, South Wales.
- 1.2. The development site is located to the southeast of Number 2 Dock in the Port of Barry area, directly to the southeast of the town of Barry. The general location of the site is shown on the Site Context Plan, included as **Figure 1**.
- 1.3. The site is approximately 16.5ha in area and is comprised of an area of inert landfill, industrial buildings and scrapyards. The redline boundary of the site is set out in the Location Plan by ABPmer included at **Appendix A**.
- 1.4. Vehicular access is proposed from Atlantic Way and from the Atlantic Crescent junction leading from Atlantic Way, running alongside the northwest boundary of the site. There is also the option to bring in materials by rail and sea directly to the docks. For the purposes of this assessment it is assumed that all materials are brought in by road as a worst case.
- 1.5. This TS sets out the existing highway conditions; proposed access arrangements; and the principal traffic impacts which will occur during construction of the solar park. During operation, solar parks have limited associated traffic generation, with visits for maintenance purposes using light vans approximately 10-20 times per year.

## 2. EXISTING CONDITIONS & PROPOSED ACCESS

### Application Site and Surroundings

- 2.1. The development site on Barry Dock is located just south of the town of Barry, South Wales. The village of Sully is approximately 2km to the east. The surrounding area is comprised of dockland and industrial buildings. The general location of the site is shown on the Site Context Plan, a copy of which is included as **Figure 1**.
- 2.2. The site is approximately 16.5ha in area and is surrounded by industrial land and the Bristol Channel to the south. The Site boundary is shown on the Site Location Plan, a copy of which is included as **Appendix A**.

### Local Transport Network

- 2.3. Atlantic Way is a single carriageway road running along the northwest boundary of the proposed development site. It is a street-lit 30mph single carriageway road of approximately 9m in width. A footway runs along the northwest edge of the carriageway. It provides access to numerous industrial sites in the dock, connecting with Wimborne Road to the north and the main road network beyond.
- 2.4. Atlantic Crescent forms an internal loop of a 6.6m wide carriageway within the site from Atlantic Way.
- 2.5. As the site is surrounded by dockland, the surrounding roads are used by a large existing number of HGVs. From Wimborne Road, HGVs can reach the A4055, A4231 and continue north to the M4 J33.
- 2.6. There are no public rights of way across the site. Footpath B1/66/1 runs from the Cadoxton River eastwards along the coastline, continuing eastward as the Wales Coastal Path

### Proposed Access Arrangements

- 2.7. Access is proposed via the existing site accesses from Atlantic Way, and from the Atlantic Crescent junction off Atlantic Way. It is considered that there will be no need to change the existing access arrangements as they provide existing access to HGVs in Barry Dock. The proposed site access points are shown on the Block Plan included at **Appendix B**.
- 2.8. The HGV construction route to development site will be from the M4 J33, south along the A4232, A4050 and A4231, then west on the A4055 to Barry Docks.
- 2.9. A Construction Traffic Management Plan will be produced for the development proposals. This can be made a condition of any planning permission.

### 3. TRAFFIC GENERATION

#### Construction Period

- 3.1. The construction period of the solar park is anticipated to take approximately 12 weeks. During this period there will be trips associated with the arrival and departure of construction staff, and with the delivery of parts and construction materials.
- 3.2. Staff trips will mainly be made by cars, vans or minibuses, whilst deliveries of construction materials and equipment will mainly be made by HGVs. The majority of the deliveries will be during the first half of the construction period.
- 3.3. A construction compound and HGV turning area will be provided within the Port boundary and will remain for the duration of the construction period. It will be of a sufficient size to store materials for the construction of the solar park, and for vehicles to park and turning around.

#### Existing Site Materials

- 3.4. As set out in Section 1, the site includes industrial buildings and inert landfill. It has been confirmed that no material will be required to be removed from the site to prepare the site for development. The existing industrial buildings will remain, whilst the inert landfill material (on top of existing landfill cap) will be able to be spread over the site to provide a level development site.

#### Trip Generation: HGVs

- 3.5. Weeks 1 and 2 will see initial deliveries to the site involving site security measures, such as security fencing to be placed around the perimeter of the site, and establishment of a site construction compound. It is estimated that the security fencing and aggregates to surface the construction compound could result in approximately 15 HGV deliveries, with another 5 HGVs associated with hedgerow and tree planting.
- 3.6. There will be a number of other deliveries to the site including the machinery, temporary site welfare and office. These are expected to total approximately 20 HGV deliveries in Weeks 1 and 2. Over these 2 weeks the total deliveries equate to approximately 4 per day.
- 3.7. Over the next 8 weeks, between weeks 3 and 10, items such as the transformers/inverters, cabling, solar panels, solar panel support frames/ballast mounting and aggregate to construct internal access tracks will be delivered. It is calculated that this will result in approximately 150 deliveries over these 8 weeks, equating to approximately 19 per week or 4 per day.
- 3.8. The final 2 weeks of construction will see comparatively minimal HGV movements, with construction completed from the materials already delivered to site. Weeks 11 to 12 will also involve commissioning and testing of the works, and the removal of the site compound and temporary welfare. This will result in approximately 15 HGVs entering site to remove the items.
- 3.9. In total the construction of the solar park will result in approximately 205 deliveries to the site, spread over the 3-month construction period. It is unlikely that, even at the most intense period of construction, there will be more than 4 deliveries (8 HGV movements) per day.
- 3.10. The expected HGV numbers are based on best estimates at this stage and will be dependent upon the construction programme, such as the shipping of materials.



**Trip Generation: Light Vehicles**

- 3.11. The number of construction staff on site will vary over the construction period depending on the activity that is taking place. The majority of staff will travel in crew buses, which will park on site during the day. At the peak of activity, there could be 10 buses/minibuses/vans on the site. In addition, there are expected to be a small number of managerial cars/vans. There will be sufficient parking space provided during construction to accommodate these vehicles and the unloading of delivery vehicles.

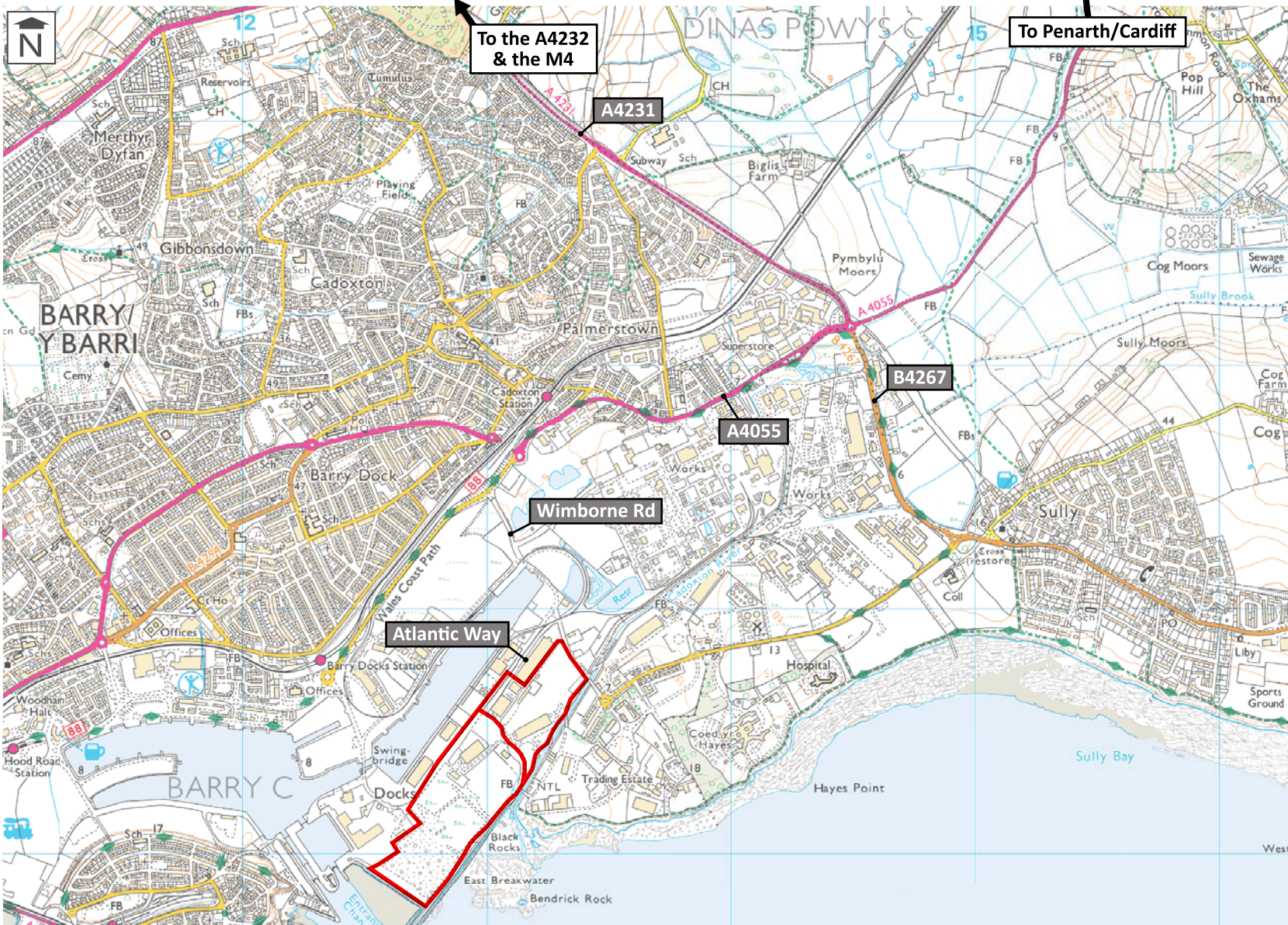
**Operational Period**

- 3.12. Vehicle movements associated during the operational period of the solar park are very low, being mainly associated with the monitoring, upkeep and cleaning of the site. These trips will typically be made by small vans.
- 3.13. The frequency of vehicle trips associated with monitoring and upkeep of the site is typically expected to be about 10-20 times a year.
- 3.14. Due to the low number of vehicular movements being made to and from the site during its operational period, the site is unlikely to have any significant impact to the local highway network once up and running.

## 4. CONCLUSION

- 4.1. This Transport Statement has been prepared by PFA Consulting on behalf of ABPmer in support of a planning application for the development of a solar park which could produce up to 10 MW of electricity on land at Barry Dock, Barry, South Wales.
- 4.2. The site is approximately 16.5ha in area and is comprised of an area of inert landfill, industrial buildings and scrapyards.
- 4.3. The development site on Barry Dock is located just east of the town of Barry, South Wales. The small village of Sully is approximately 2km to the east. The surrounding area is comprised of dockland and industrial buildings. The general location of the site is shown on the Site Context Plan, included at **Figure 1**.
- 4.4. Access to the site for construction and operational purposes is proposed from the existing accesses Atlantic Way from the Atlantic Crescent junction, leading from Atlantic Way.
- 4.5. It has been confirmed that no material will be required to be removed from the site to prepare the site for development. The existing industrial buildings will remain, whilst the inert landfill material (on top of existing landfill cap) will be able to be spread over the site to provide a level development site.
- 4.6. During the construction period it is anticipated that there will be approximately 205 deliveries for all equipment and materials. These trips will be spread over the entire construction phase of the development (12 weeks). It is estimated that the site will typically generate no more than 4 deliveries per day.
- 4.7. The proposed development will have negligible trip generation during the operational stage, with trips associated with maintenance or cleaning of the site. Such work typically requires 10-20 visits per year.
- 4.8. Given the scale of development and the proposed access arrangements, it is considered that subject to appropriate conditions there should be no highway related objections to the proposed development.





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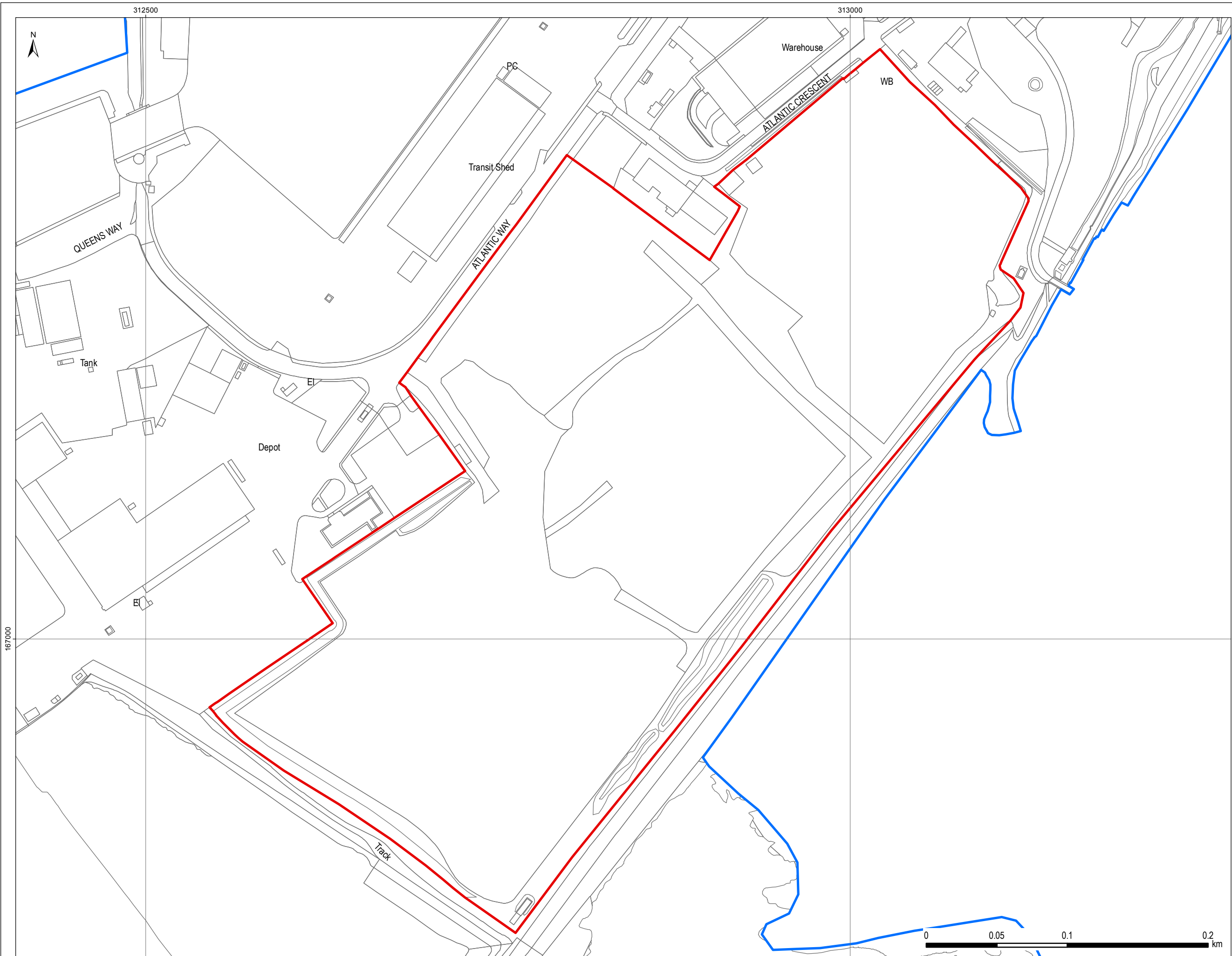
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Site Boundary  
(indicative only)

Client	<b>ABPmer</b>
Project	<b>Barry Dock, Proposed Solar Farm</b>
Figure Title	<b>Site Context Plan</b>
Figure No	<b>Figure 1</b>
Date	August 2014
Drawn By	EN
Checked By	PK
Scale	See Scale Bar
File Ref	A251/Figures/Fig1.ai
Doc Ref	A251







- Blue Line Boundary
- Red Line Boundary

Date	By	Size	Version
Sep 14	NMW	A3	1
<b>Coordinate System</b>		British National Grid	
<b>Projection</b>		Transverse Mercator	
<b>Scale</b>		1:2,500	
<b>QA</b>		FMM	
4233 Planning_1_Location_Plan.mxd			
Produced by ABPmer			



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**Location Plan**

**Figure 1**







- Blue Line Boundary
- Red Line Boundary
- Indicative Location of Proposed Solar Panels
- Indicative Fence Line
- Site Access Points

Date	By	Size	Version
Sep 14	NMW	A3	1
<b>Coordinate System</b>		British National Grid	
<b>Projection</b>		Transverse Mercator	
<b>Scale</b>		1:2,500	
<b>QA</b>		FMM	
4233 Planning_2_Block_Plan.mxd			
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**Block Plan**

**Figure 2**