

### 3. SITE AND DEVELOPMENT DESCRIPTION

#### Site Description and Context

- 3.1 The Site (shown on Figure 1.1) is located approximately 2 kilometres (km) east of Hoo St Werburgh, within the administrative area of Medway Council (MC). The Site is located adjacent to the northern foreshore of the River Medway estuary. Immediately adjacent to the northern part of the Site boundary is Damhead Creek Combined Cycle Gas Turbine (CCGT) Power Station, which is operational. Damhead Creek CCGT Power Station II, located adjacent to the northern part of the Site boundary and adjacent to the east of the existing Damhead Creek CCGT Power Station, has been consented and is awaiting construction. Beyond this, to the north and east is the Kingsnorth Industrial Estate, which comprises buildings and structures used for industrial and manufacturing uses. It extends into London Medway Commercial Park, a modern commercial estate comprising industrial and storage and distribution uses. To the immediate north east is Damhead Creek, which flows into East Hoo Creek to the east of the Site. East Hoo Creek connects to the River Medway to the south east and the Medway Estuary and Marshes extends to the north east, east and south east of the Site.
- 3.2 Within a 5km radius of the Site, there are six Sites of Special Scientific Interest (SSSI). These comprise Medway Estuary & Marshes SSSI (located immediately to the east, south and west); Tower Hill to Cobham Wood SSSI (located approximately 3km to the west); Chattenden Woods and Lodge Hill SSSI (located approximately 2.9km to the north-west); Thames Estuary & Marshes SSSI (located approximately 4.3km to the north-east); Dalham Farm SSSI (approximately 4.1km to the west); and Northward Hill SSSI (located approximately 4.5km to the north-west). There are two Ramsar designations: Medway Estuary and Marshes, and the Thames Estuary and Marshes. Medway Estuary and Marshes is also designated as a Special Protection Area (SPA). A National Nature Reserve (NNR) is located at High Halstow, which is located approximately 4.5km to the north-west. Berengrave Chalk Pit Local Nature Reserve (LNR) is located approximately 4.8km to the south.
- 3.3 There are no Listed Buildings located on the Site, although there are five located within a 1.5km radius of the Site. The closest Listed Building is the Grade II Lancer's Farmhouse, located approximately 250m northwest of the Site. The Fort Darnet Scheduled Monument is the closest Scheduled Monument, located approximately 1km to the south of the Site, across the River Medway.

- 3.4 The main access onto the Hoo Peninsula is via the A228 Peninsula Way, with the peninsula defined broadly by its agricultural uses and small settlements.
- 3.5 The Site is irregularly shaped, extends to approximately 111 hectares (ha) and is formed of 4 parcels of land (refer to Figure 1.1), with the parcels of land shown on Figure 3.1. The Site comprises primarily previously developed land. The majority of this previously developed land was formerly occupied by Kingsnorth Power Station, which was coal fired, and located on Parcel 3 before it closed in 2012. To support this activity, the Site included several ancillary buildings, including a coal stock yard, oil storage facilities and ash lagoons. The Site has been de-commissioned, demolition works have been completed and the southern and central areas of the site are now dominated by hardstanding.
- 3.6 Parcel 1, located in the northern part of the Site, comprises overgrown pasture and scrub to the west of the existing access road and overgrown historic hardstanding to the east of the access road.
- 3.7 Existing operational electric substations operated by National Grid and UK Power Networks are encompassed by, but located outside of, Parcel 2. There is a brick plant kiosk/ security office located in the northern part of Parcel 2. Extensive areas of hard standing also remain on Parcel 2 including previous parking areas and roads which still serve the National Grid substations.
- 3.8 Parcel 3 comprises the area which housed the coal fired power station, coal stock yard and associated tank farms. It is covered by expansive areas of hardstanding. In Parcel 3, there is also a multi-storey structure associated with Long Reach Jetty adjacent to the Site.
- 3.9 A separate planning application for an interconnector on the eastern boundary of Parcel 3 submitted to MC by Gridlink Interconnector Ltd was consented in March 2021 and does not comprise part of the Development and neither does the Development rely on it in any way (ref. MC/20/2738). An application for a Lawful Development Certificate for the installation of an underground 400kv cable system between the Gridlink Interconnector converter station site and the existing National Grid ESO station was also consented by MC in March 2021 (ref. MC/21/0028) on the eastern boundary of Parcel 3.
- 3.10 Parcel 4 is a largely undeveloped area to the north of the demolished Kingsnorth Power Station.
- 3.11 Access to the Site is provided from Eschol Road, which adjoins Stoke Road to the north east and Jacob's Lane to the south west. Stoke Road provides access to Hoo St Werburgh to the

west and the village of Upper Stoke to the east.

### Sensitive Receptors

- 3.12 The features which are considered potentially sensitive to the construction and operation of the Development have been identified and the likely significant effects on these potential receptors have been considered by the various technical studies and chapters of this ES. The potential sensitive receptors are identified in Table 3.1.

**Table 3.1: Potential Sensitive Receptors**

Category	Sensitive Receptor/Land Use
Residential/Buildings	<ul style="list-style-type: none"> <li>Burnt House Farm;</li> <li>Eschol Farm Cottages; and</li> <li>Kingsnorth Industrial Estate.</li> </ul>
Transport Infrastructure	<ul style="list-style-type: none"> <li>Chapter 10 Transport and Access of the ES assessed 32 road links surrounding the Site which are considered to be sensitive receptors.</li> </ul>
Ecological Features	<ul style="list-style-type: none"> <li>Medway Estuary Marshes SSSI;</li> <li>Medway Estuary and Marshes Ramsar site SPA;</li> <li>Medway Estuary Marine Conservation Zone (MCZ);</li> <li>Chattenden Woods and Lodge Hill SSSI;</li> <li>Tower Hill to Cockham Wood SSSI;</li> <li>Dalham Farm SSSI;</li> <li>Northward Hill SSSI;</li> <li>North Downs Woodland Special Area of Conservation (SAC);</li> <li>Thames Estuary and Marshes SSSI and Ramsar site;</li> <li>High Halstow NNR; and</li> <li>Berengrave Chalk Pit LNR.</li> </ul>
Air Quality	<ul style="list-style-type: none"> <li>Chapter 11 Air Quality of the ES assessed 47 potentially sensitive receptors; and</li> <li>Ecological Features outlined above.</li> </ul>
Climate	<ul style="list-style-type: none"> <li>Global climate.</li> </ul>

### The Development

- 3.13 The Applicant is submitting an outline planning application with all matters reserved for future determination except for access, in line with the formal description of the Development included below:

*'Outline planning application, with all matters reserved except access (to be taken from Eschol Road), for the erection of flexible E(g)(iii)/B2/B8 use class buildings, sui generis uses for energy uses and a lorry park, together with servicing, parking, landscaping, drainage, remediation, demolition and earthworks.'*

3.14 The Parameter Plan for the Development is provided at Figure 3.2.

### Demolition

3.15 The Development includes the demolition of the brick plant kiosk/ security office located in the northern part of Parcel 2. The multi-storey structure on Parcel 3 associated with Long Reach Jetty adjacent to the Site would be retained as part of the Development.

### Land Use

3.16 The Development comprises an outline planning application comprising a range of Use Classes (E(g)(iii), B2, B8 and sui generis (energy and lorry park/ layover uses)). In line with Rochdale principles, a maximum built floorspace parameter has been assessed throughout the ES to test a reasonable 'worst case scenario' for each individual discipline.

3.17 The land uses proposed within the Development are detailed in Table 3.2 and the areas for built Development are shown on Figure 3.2 Parameter Plan. Table 3.2 details the maximum floorspace that could be implemented for each land use. The Development's energy uses could include uses such as energy from waste, gasification, or hydrogen production.

**Table 3.2: Land Use**

Use Class	Maximum Use Class Floorspace Gross Internal Area (GIA)	Maximum Use Class Floorspace Gross External Area (GEA)
E(g)(iii)	Up to 33,000sqm	Up to 33,990sqm
B2	Up to 157,500sqm	Up to 162,225sqm
B8 (non-data centre)	Up to 315,000sqm	Up to 324,450sqm
B8 (data centre)	Up to 87,379sqm	Up to 90,000sqm
B8 (parcel distribution only)	Up to 60,000sqm	Up to 61,800sqm
Sui generis (energy uses)*	Up to 60,000sqm	Up to 61,800sqm
Sui generis (lorry park/layover)	40-50 spaces together with associated facilities (site area up to 1ha)	

*Note: \*includes floorspace for energy uses up to a maximum power output of 49.9MW that may fall within Sui Generis Use Class*

3.18 The total amount of built floorspace for the Development would not exceed 315,000sqm (GIA)/ 324,450sqm (GEA). The number of vehicle trips generated by the Development would not exceed 615 vehicle trips for the AM period and 598 trips for the PM period.

### Building/ Barrier Heights

3.19 The proposed maximum heights of the Development are shown on Figure 3.2 Parameter

Plan. The following building heights have been applied across the Development (and are more precisely indicated on Figure 3.2):

- Up to 15m above finished floor level (FFL) (to 20m above ordnance datum (mAOD) in Parcels 1 and 2 in the northern and western parts of the Development;
- Up to 25m above FFL (up to 29mAOD) in the eastern extent of Parcel 3 (in the eastern part of the Development); and
- Up to 45m above FFL (up to 50mAOD) in the central parts of the Development (on Parcel 4 and the western extent of Parcel 3). Both parts would also allow for a stack at 100m in height above FFL.

3.20 The Development includes mitigation in the form of an acoustic barrier up to 3m (6.6mAOD) in height on top of a potential flood defence bund on Parcel 1 and along the northern part of the existing flood defence on Parcel 2.

### Access

3.21 Primary vehicular access to the Development will be from Eschol Road, which adjoins Stoke Road to the north east and Jacob's Lane to the south west as shown on Figure 3.2. It utilises the existing access to the Site, which comes through Parcel 1. The access proposals include for the addition of a new footway/cycleway which will run along the Site frontage to the east, running parallel with Eschol Road before crossing to the northern side of the road where it will connect with existing cycle/footpath connections at the roundabout which serves the adjacent Kingsnorth Industrial Estate.

3.22 Access within the Site will comprise a primary road, with new access points servicing individual parcels. The location of additional access points off the primary road will be determined by future reserved matter applications alongside any further internal road layouts serving different development areas.

3.23 The primary access road comprises the existing access road which runs through Parcel 1 and along the north eastern boundary of Parcel 2 and will be upgraded. A 'zone' has been identified for the primary access road where it runs through Parcel 3, along its north boundary, away from the River Medway frontage. Its final position will be determined by future reserved matter applications. Parcel 4 can be accessed off the primary access, either from where it runs through Parcel 2, to the west or Parcel 3 to the south.

3.24 As the primary access running through the Site, the design intent is that it will comprise a

7.5m carriageway, with tree lined verge and 3m shared pedestrian cycle/pedestrian path, connecting to the Site access and routes beyond, as described above.

### Green Infrastructure

- 3.25 The Parameter Plan (Figure 3.2) outlines the areas which are proposed for Green Infrastructure for the purposes of Sustainable Drainage Systems (SuDS), Landscaping and Ecological Enhancement. These areas largely provide a buffer between areas of proposed built development and the boundary of the Site, as well as provide an interconnected network of habitats across the Site, which also connect with the wider area.
- 3.26 In Parcel 4, there is also a 40-metre wide Ecological 'no buildings' zone as part of the Green Infrastructure proposed at the outline application stage. This takes into account an existing Natural England Newt License, associated with the previous operation of the Site.
- 3.27 The Illustrative Masterplan (Figure 3.3) shows one way in which green infrastructure could be implemented at the detailed design stage of the Development. This Illustrative Masterplan includes:
- Retaining and enhancing existing trees/hedge rows on the northern, south-west and north-west borders of the Site;
  - Attenuation and wetland ditches to form a network to the east of Parcel 4, the centre and south of Parcel 3 and south of Parcel 1;
  - Informal landscape spaces to the east of Parcel 4, east of Parcel 3, and north of Parcel 1;
  - Formal landscape spaces to the south of Parcel 3; and
  - Creation of a green link running through the middle of Parcel 3, towards the southern boundary and Long Reach Jetty.

### Drainage

- 3.28 The Site is predominantly located within Flood Zone 3 on the current EA Flood Map for Planning and is therefore considered to be at high risk of flooding from the River Medway. However, large areas of the Site benefit from protection from existing coastal flood defences.
- 3.29 To maintain the Standard of Protection (SoP) currently afforded from existing flood defences, an additional flood defence bund is proposed along the western boundary of Parcel 1. This will be up to a maximum height of 6.6mAOD.

- 3.30 The Kingsnorth Power Station has an extensive internal surface water drainage system that ultimately discharges into the River Medway via a series of Coastal outfalls. There are no formal drainage systems in present in Parcels 1 and 4.
- 3.31 The drainage network is designed to drain surface water via a series of gravity drains and pumped drainage systems, with the main body of the Site pumped via Pumphouse 1 with the remainder directed to Pumphouse 2, from where water pumped to a drain along the northern extent of the parcel discharging to a western boundary drain. In the event the boundary drain becomes full, water would overtop the channel and flood the marshland to the west of the former Power Station. Water would be held on the marshland and then gradually discharged during low tides via a manually activated penstock.
- 3.32 Two further pumps manage water from the former coal stocking yard and land to the east. The surface water drainage network has been designed to limit the effects of the tidal location of the Site. All the drainage outfalls would incorporate a system which prevents backflow of water from the River Medway during high tide conditions.
- 3.33 SuDS features, including a series of swale/pond, will be provided in areas of proposed green infrastructure.

### Lighting

- 3.34 The lighting scheme for the Development would be designed at the detailed design stage. All external lighting installations are to be designed in line with the Institution of Lighting Engineers ("ILE") Guidance notes on reduction of obtrusive light<sup>i</sup>. Specific measures for external lighting in sensitive areas are discussed in Chapter 8 Biodiversity.

### References

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<sup>i</sup> Institution of Lighting Professionals, 2012. *Guidance Notes for the Reduction of Obtrusive Light GN01:2011*