



Thurrock Power Limited is proposing to submit a development consent application to develop a flexible generation plant on land north of Tilbury Substation in Thurrock. The plant will provide up to 600 megawatts (MW) of electrical generation capacity on a fast response basis when called for by National Grid. The development will also include up to 150 MW of battery storage capacity.

The Aims of this Public Consultation Exhibition

The public consultation exhibitions have been arranged to:

- Introduce the Thurrock Flexible Generation Plant Project;
- Provide detail of the proposed project and explain its rationale;
- Explain predicted effects and proposed mitigation;
- Explain how you can give feedback on the proposed project; and
- Explain the timeline for the proposed project.

The Developers – Thurrock Power Limited

Thurrock Power Limited is an energy development company specifically established for the Thurrock Power Flexible Generation Plant project by Statera Energy Limited.

Statera Energy Limited is a British company that develops, builds and operates flexible electricity generating plants and battery storage facilities in the UK.

Brief Summary of the DCO Application Process

The project is classified as a Nationally Significant Infrastructure Project, which means that a Development Consent Order (DCO) is required to build, operate, maintain and (eventually) decommission it.

The determining authority for the DCO application will not be the local Planning Authority (Thurrock Council). The Planning Inspectorate will make a recommendation to the Secretary of State for Business, Environment and Industrial Strategy. The final decision will be made by the Secretary of State.

Brief Summary of the Purpose of the Public Consultation Process

Consultation with Thurrock Council, local people and businesses and other organisations such as the Environment Agency, Natural England, English Heritage and Highways England, is an essential part of the DCO process and will influence the final design of the project.

Comment and Feedback

Your feedback is important to us and to the consultation process. In particular, we would like your views on the following:

- The project in general; and
- The findings of the preliminary environmental studies.

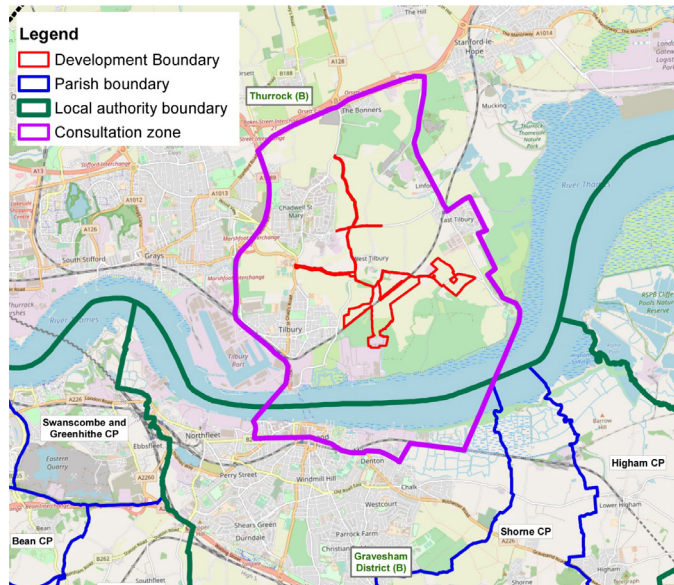
The best way to provide your feedback is to complete one of our feedback forms, which are available at this public consultation exhibition, online at: www.thurrockpower.co.uk, or at the local community venues listed on exhibition board No 2.

Please note that the formal consultation period is running from Tuesday 16th October 2018 to Wednesday 14th November 2018 and that feedback should be received by Thurrock Power Limited by 11.59pm on 14th November to ensure that it is considered.

Key Details of the Project

The site for the plant will cover an area of approximately 18 hectares, though the footprint for the plant will be smaller than the full site.

The plant will provide back-up electricity generation capacity which can operate flexibly to respond quickly and efficiently to both customer demand and intermittent output from renewable energy sources.



Why This Site?

As part of a detailed feasibility assessment, alternative sites have been considered. The key factors considered by the assessment were: technical (e.g. the size of the site and proximity to existing gas and electrical connections), environmental, economic and whether the proposals would be in line with local planning policy.

Given the extent of Green Belt around London and the M25, extensive work was undertaken to consider first alternatives outside Green Belt and then sites within Green Belt where the impact could be minimised. The study concluded that the Tilbury site was the optimum location.

Preliminary Environmental Assessment

Steps to mitigate the impact of the project on the local environment are a major part of the planning and consultation processes.

Because of the size of the project, we are undertaking an Environmental Impact Assessment (EIA), which will consider the project’s potential impacts, both positive and negative.

The information provided at this exhibition summarises the key findings in the Preliminary Environmental Impact Report (PEIR). The full PEIR, along with a Non-Technical Summary (NTS), is available at this public exhibition. You can also view both these documents on the project website: www.thurrockpower.co.uk, or at the following local community venues during the formal consultation period (opening hours may vary):

Location	Address
Thurrock Library	Civic Offices, New Road, Grays, RM17 6SL
Tilbury Hub	16 Civic Square, Tilbury, RM18 8ZZ
Gravesend Library	Windmill Street, Gravesend, DA12 1BE
Chadwell St Mary Library	Brentwood Road, Chadwell St Mary, Grays, RM16 4JP

Community Benefits

The project would be a substantial investment in the local area and would deliver economic benefits for a period of up to 35 years, including:-

- Potential for the creation of 300 full time jobs during the construction phase;
- Potential for the creation of up to 20 permanent skilled jobs for ongoing operation and/or maintenance;
- Potential business opportunities for local suppliers particularly during the construction phase; and
- Business rates.



The DCO Planning Process in More Detail

The Planning Inspectorate is the independent body that examines applications for Nationally Significant Infrastructure Projects (NSIPs). These are projects such as railways, wind farms, power stations, harbours, airports and reservoirs.

As Thurrock Flexible Generation Plant will have a generating capacity of more than 50 MW, it falls within the definition of NSIP in Section 15(2)(c) of the Planning Act 2008. Accordingly, Thurrock Power has to apply to the Secretary of State for Business, Environment and Industrial Strategy for a Development Consent in order to proceed with development of the project.

The Process

The application process can be broken down to a number of stages, and the Thurrock Flexible Generation Plant project is currently in the 'pre-application' stage.

Pre-Application Stage

Thurrock Power Limited progresses the design of its scheme and begins to consult with the public over its proposals. Any feedback received is considered and may result in changes being made to the scheme. Feedback will be recorded in a document called the 'Consultation Report', which will be submitted with the application for the DCO.

Acceptance

Once an application has been submitted to the Planning Inspectorate, it has twenty-eight days from the day after receipt of the application to decide whether to accept it for examination. A number of factors will be taken in to account when making this decision, including whether the right environmental issues have been identified and whether the applicant's public consultation has been adequate.

Pre-examination (3 months)

During this phase, the public are able to register to give their views on the proposed project to the Planning Inspectorate and provide their feedback in writing. Everyone who has registered in this way will then be invited to attend a preliminary meeting run and chaired by the Planning Inspectorate. This stage takes approximately three months from the time the Planning Inspectorate notifies the developer of acceptance of the application for DCO.

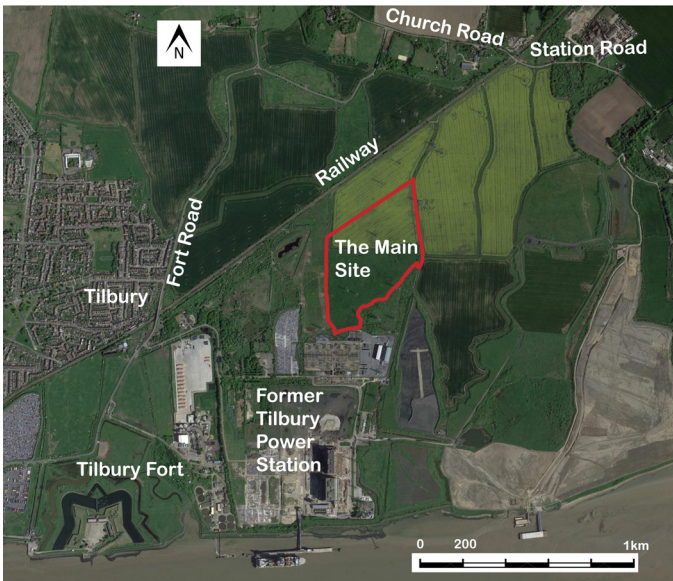
Examination (up to 6 months)

The Planning Inspectorate has six months to conduct the examination. During this stage, anyone who has registered to have their say will be invited to provide their views in detail and in writing. It is possible that open floor hearings may be held on certain issues.

Decision

The Planning Inspectorate will make a recommendation to the Secretary of State for Business, Environment and Industrial Strategy who will make the final decision on the application.

The proposed project in more detail



The proposed DCO would, among other things, license and authorise:

- (a) reciprocating gas engines with rated electrical output totalling up to 600 MW;
- (b) batteries with rated electrical output of 150 MW and storage capacity of up to 600 MW hours;
- (c) gas and electricity connections, new temporary access road(s) and minor public highway widening for delivery of abnormal loads;
- (d) designation of replacement common land (exchange land) and creation of habitat for protected species translocation;
- (e) if required, the permanent and/or temporary compulsory acquisition of land and/or rights over land for this project;

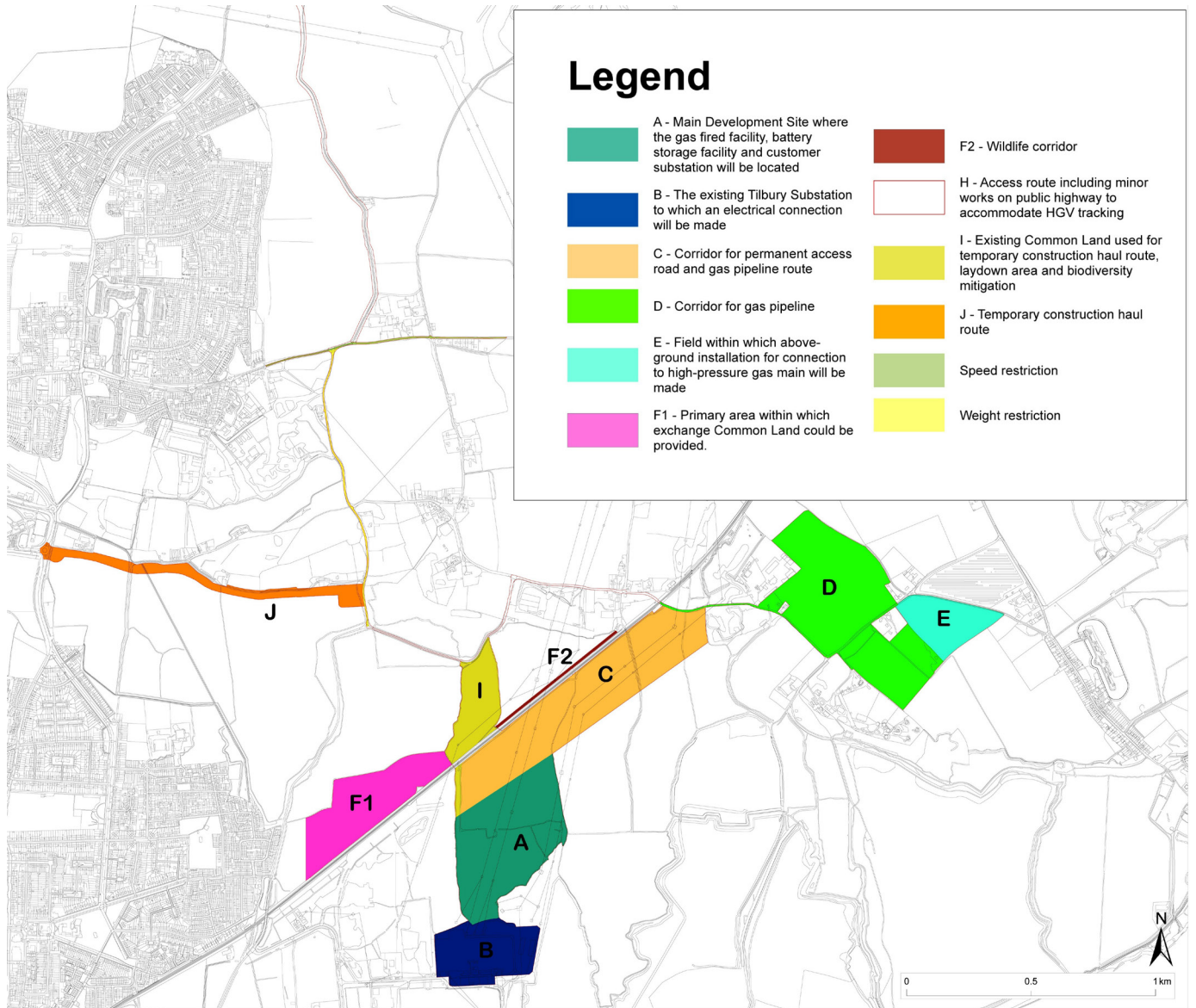
- (f) if required, overriding of easements and other rights over or affecting land for this project;
- (g) if required, permanent and/or temporary changes to the highway network for this project;
- (h) temporary construction compounds for the flexible power generation plant, gas connection and electrical connection;
- (i) site drainage and waste management infrastructure and other services;
- (j) the application and/or disapplication of legislation relevant to the project; as may be required;
- (k) construction, operation and maintenance of associated development;
- (l) if required, the temporary stopping up of public footpaths during construction; and
- (m) such ancillary, incidental and consequential works, provisions, permits consents, waivers or releases as are necessary and/or convenient for the successful construction, operation, maintenance and decommissioning of the project.

The proposed development will not generate waste water or process effluent during normal operation.

The plant will be designed to operate for up to 35 years, after which time a decision will be taken to continue operation or decommission the plant.

For further information, please see the full Preliminary Environmental Information Report (PEIR), which includes a Non-Technical Summary (NTS) and the plan of the full proposed red line boundary, which are all available to view at this exhibition.





Location of the Thurrock Power Flexible Generation Plant

The proposed site of the project is currently located on farmland and part common land, close to the former Tilbury Power Station, Anglian Water Treatment Works and Tilbury Port to the south and west. The site is within the Green Belt.

The nearest substantial residential area to the proposed Main Development Site is Tilbury, which is approximately 0.8 kilometres away.

The nearest nationally and/or internationally designated areas of nature conservation to the proposed site (excluding potential access routes and gas pipe connection corridors) are the banks of the River Thames, between two and three kilometres away.

The Need for Gas Generation

- There is growing acknowledgement that established renewable energy technologies are unable to provide the security of supply that consumers require.
- The Government Department for Business, Environment and Industrial Strategy forecasts a growing demand for new gas, nuclear and carbon capture and storage capacity in the UK by 2030 as we move towards a low-carbon economy.
- Delays to nuclear, continued closure of old plants and further deployment of renewables.
- The type of gas generated electricity required after 2020 must be more flexible to support intermittent renewable energy sources such as wind and solar power.

The main National Policy Statement (NPS) for energy is NPS EN-1, which sets out UK national policy on energy infrastructure and explains the need for such infrastructure.

NPS EN-1 affirms the transitional role of new gas generation of electricity in the UK and highlights the importance of a diverse range of energy generating technologies in securing electricity supplies.

NPS EN-1 therefore establishes the general need for energy NSIPs, including gas generation. In July 2018, an assessment by the National Infrastructure Commission stated that a more flexible energy supply was of critical importance and that this could be provided by energy which can be generated on demand, with energy storage, as offered by the proposed Thurrock Flexible Generation Plant. National Grid states in its 'Future Energy Scenarios Report' that:

"...gas will remain critical for both heating and electricity generation in all scenarios for the coming decades".

The Need for the Thurrock Power Flexible Generation Plant

The Thurrock Flexible Generation Plant is needed to provide resilience to the electricity grid network, especially around London and the south-east. Reasons electricity might be required quickly include unplanned outages and intermittent generation of electricity from renewable energy sources, principally wind farms and solar power. The proposed development will also be able to

satisfy the demand for electricity at peak times, such as mornings and evenings, particularly in winter.

It is recognised that securing a continuous, reliable and low-carbon supply of electricity in the UK will involve the development of nationally significant energy infrastructure, which is vital to economic prosperity, particularly when a number of existing oil, coal and nuclear power stations are due to close over the next five to ten years and electricity demand is expected to rise as heat and transport systems are increasingly electrified. It is also recognised that gas-fuelled electricity generating technologies can play a significant role in securing supplies.

The Thurrock Flexible Generation Plant will deliver exactly the type of flexible and decentralised power system sought by the National Infrastructure Commission, National Grid and the Government.

It is for these reasons that Thurrock Power Limited considers there to be a clear national need for the proposed development.

Summary of Preliminary Environmental Assessment

Due to the nature and size of the project, Thurrock Power is undertaking an Environmental Impact Assessment (EIA) and the project is therefore classified as an EIA development under the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017. The EIA will consider the potential impacts of the proposed development, including air quality, noise, visual amenity, landscape character, traffic, ecology, archaeology, heritage, and socio-economics.

In accordance with Regulation 10 of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2009, Thurrock Power has prepared a Preliminary Environment Information Report (PEIR). This presents information gathered to date, as well as the results of our preliminary assessments as to the potential environmental impacts of the construction, operation and decommissioning of the proposed development. The PEIR does not set out our final findings but does include preliminary information relating to proposed mitigation measures. The Non-Technical Summary (NTS) to the PEIR presents a summary of the information in the full PEIR. Both documents are available to view at this public consultation exhibition.

Air Quality

Gas engines emit carbon dioxide and nitrogen dioxide as the two principal gases from combustion. Gas burns cleanly so there are no fine particles and the main pollutant to control is nitrogen dioxide. The gas engines will be fitted with control systems post-combustion to ensure the level of nitrogen dioxide is kept as low as possible. The background nitrogen dioxide levels around the site are well within air quality standards though further away, in some areas of Tilbury and Gravesend with heavy road traffic, background pollution is higher. Emissions from the plant would not cause air quality standards to be newly exceeded or make a significant contribution to air pollution at any location on average over each year, with nitrogen dioxide from the plant generally being less than 10% of the air quality standard.

Although carbon dioxide emissions would contribute to climate change, the purpose of the plant is to provide power when it is needed as a back-up to low-carbon renewable generation. Electricity demand is not going down and the highly efficient design of this project means it will displace other less efficient, more polluting power stations. Compared to this alternative, the plant's effect on climate change is expected to be lower.

Cultural Heritage and Archaeology

The nearest heritage assets to the site are Tilbury Fort, the earthworks located near the church at West Tilbury and World War II battery and artillery defences. None of these will be directly affected. The plant would be visible from some locations in and around Tilbury Fort, which has a sensitive setting despite the generally industrial landscape around it. Beneath the plant site, there are possible signs of archaeology in the form of WW2 defences, which would be recorded if uncovered during construction work.

Ecology

There are several ecological designated sites within 5 km of the Project including Sites of Special Scientific Interest (SSSI) and Special Protection Areas (SPA), such as Mucking Flats and Marshes SSSI and the South Thames Estuary and Marshes SSSI and SPA. None of these will be significantly affected by emissions from the plant. Surveys of the site area show an abundance of reptiles and invertebrate species. This habitat will largely be lost though we expect to retain the valuable ditches on site for water voles as far as possible. The overall loss will be compensated by maximising other neighbouring land for biodiversity and taking it out of intensive farming use.

Geology, hydrogeology and Land Contamination

The project site is underlain by river deposits and chalk, the latter of which is likely to contain groundwater. An active landfill site is located immediately to the east of the site, however there is no known activity which has been undertaken within the project site which could have caused contamination of the soils.

Landscape and Visual Impact

The main views of the plant would be from higher ground to the north of the railway and, distantly, from high ground south of the Thames. If Tilbury Power Station is not replaced with a new power station as proposed when demolition is finished, the plant would also become noticeable from some sections of the footpath along the river. The plant will be clearly seen from these vantage points. If the observer had an expectation that overtime this area of the marshes would gradually change to a less industrial landscape then our project would be an unwelcome intrusion. There is no expectation though that National Grid's critical infrastructure, in the form of the substation and transmission pylons, will become redundant in the foreseeable future. The impact of our project should therefore be judged in context of this

industrial landscape. Should the Tilbury Energy Centre and Lower Thames Crossing be constructed the landscape will clearly be further industrialised.

Noise and Vibration

There are five principal forms of noise from the plant. For the gas engines it is the engines themselves, the exhaust stacks and the cooling fans. For the batteries it is the inverters and cooling systems. Finally, the transformers at our substation emit noise. Of these five sources the loudest source is from the engines. We are continuing to work on the design and mitigation measures that will be put in place. We expect that noise from the plant will be evident at the nearest houses which are some 700 metres away to the north of the railway at the quietest time of the evening and night. Predictions have shown that for the majority of the time, noise from the operation of the proposed plant items would not be perceptible at the closest dwellings.

There will be no vibration from the plant. The engines sit on an independent foundation with cushioning layers inserted between the concrete and engine block.

Traffic, Transport and Access

The proposed access routes to the project have been identified taking into account the size and nature of the construction vehicles required to use them. The number and size of the vehicles using the public highway will be negligible compared to existing traffic and will be carefully managed with traffic control for safety where needed. A limited full-time work force is anticipated once the Project is operational therefore traffic during this time is only likely to include occasional staff and maintenance visits.

Hydrology and Flood Risk

The whole Tilbury Marsh area is defended from tidal flooding. The project will create an impermeable area which increases the rate of rainfall run off. We are required to manage this additional flow by holding excess water in ponds.

Land Use, Agriculture and Socio-economics

The Common Land is semi mature grass which is occasionally grazed but more often topped to keep it tidy. The northern part of the site grows cereal crops. The site forms less than 1% of the landowner's land holding. The construction will provide employment within the locality.

Human Health

We take public health impacts seriously. The only possible impact that the plant could have on health is nitrogen dioxide. Under the Air Quality heading we explain the emissions of Nitrogen Dioxide will be carefully controlled and monitored by the Environment Agency.

Cumulative Effects

The Environmental Statement will not only consider the effects of the project itself on the environment but will also consider how other planned or proposed developments in the area might jointly affect the environment. Consideration has also been given to how the effects of different environmental topics might combine to create a larger effect.

Construction Phases

Subject to being granted development consent and the subsequent final investment decision, the earliest date construction of the proposed development would start is 2020, for work in advance of the main construction period to provide exchange common land, protected species management and habitat creation. The start of construction work on the main development site, access road(s) and gas connection is expected to be during 2021.

The proposed development may be constructed as a whole in a single phase of work or may be split into three phases, subject to the final investment decision.

National Grid will have completed the necessary works for the proposed development’s electrical export connection within Tilbury Substation by late 2021.

The minimum construction period for a single-phase development, after the advance works in 2021, is expected to be 12–18 months.

The alternative is for the proposed development to be constructed in three phases. In this case, each phase may last up to 18 months and the overall construction programme may last four and a half to six years, i.e. each phase may be back to

back or there may be a gap of nine to 18 months between phases.

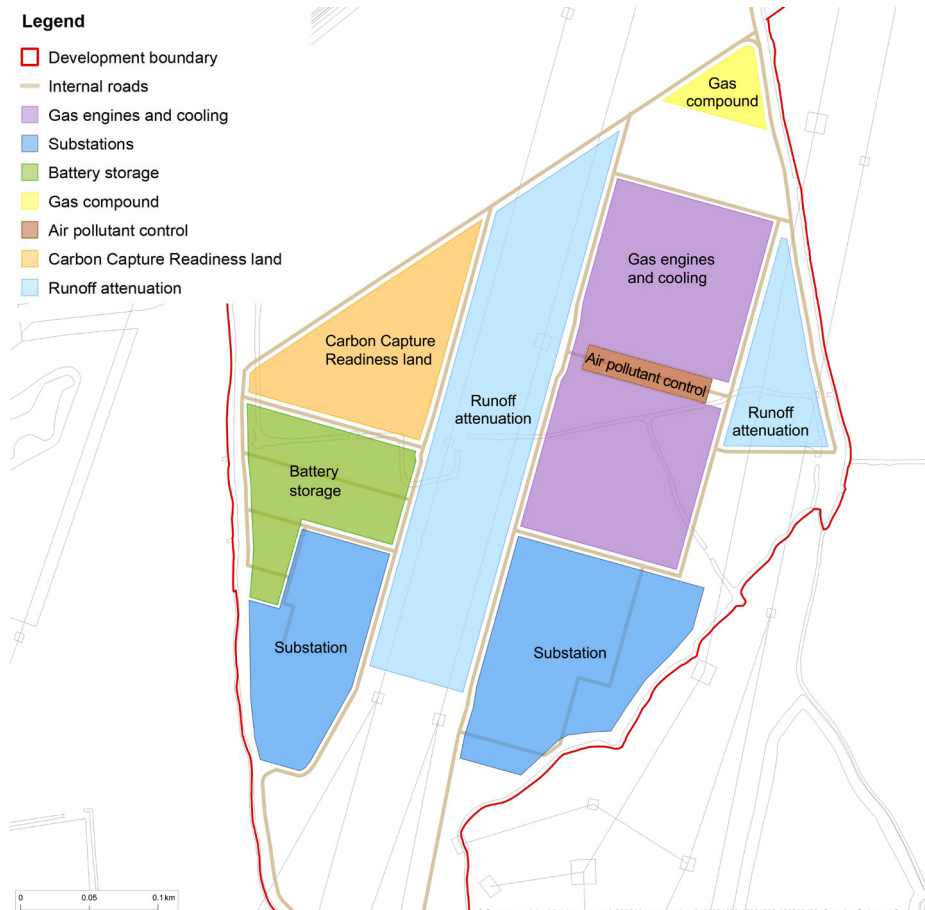
If construction is undertaken in three phases, these are anticipated to be as follows:

(i) Phase One: The first 300 MW of gas engines and one on-site substation would be constructed with necessary ground works, drainage, control equipment and internal access roads for that part of the main development site only.

Construction access roads, gas pipeline and electrical export cables with capacity for the full 750 MW development would all be installed in this first construction phase. All exchange common land and habitat creation/enhancement would be provided, together with protected species management for the disturbed part of the main development site.

(ii) Phase Two: The second 300 MW of gas engines, substation and associated equipment would be constructed, as above.

(iii) Phase Three: The 150 MW battery storage facility, substation and associated equipment would be constructed, as above.





Access Routes

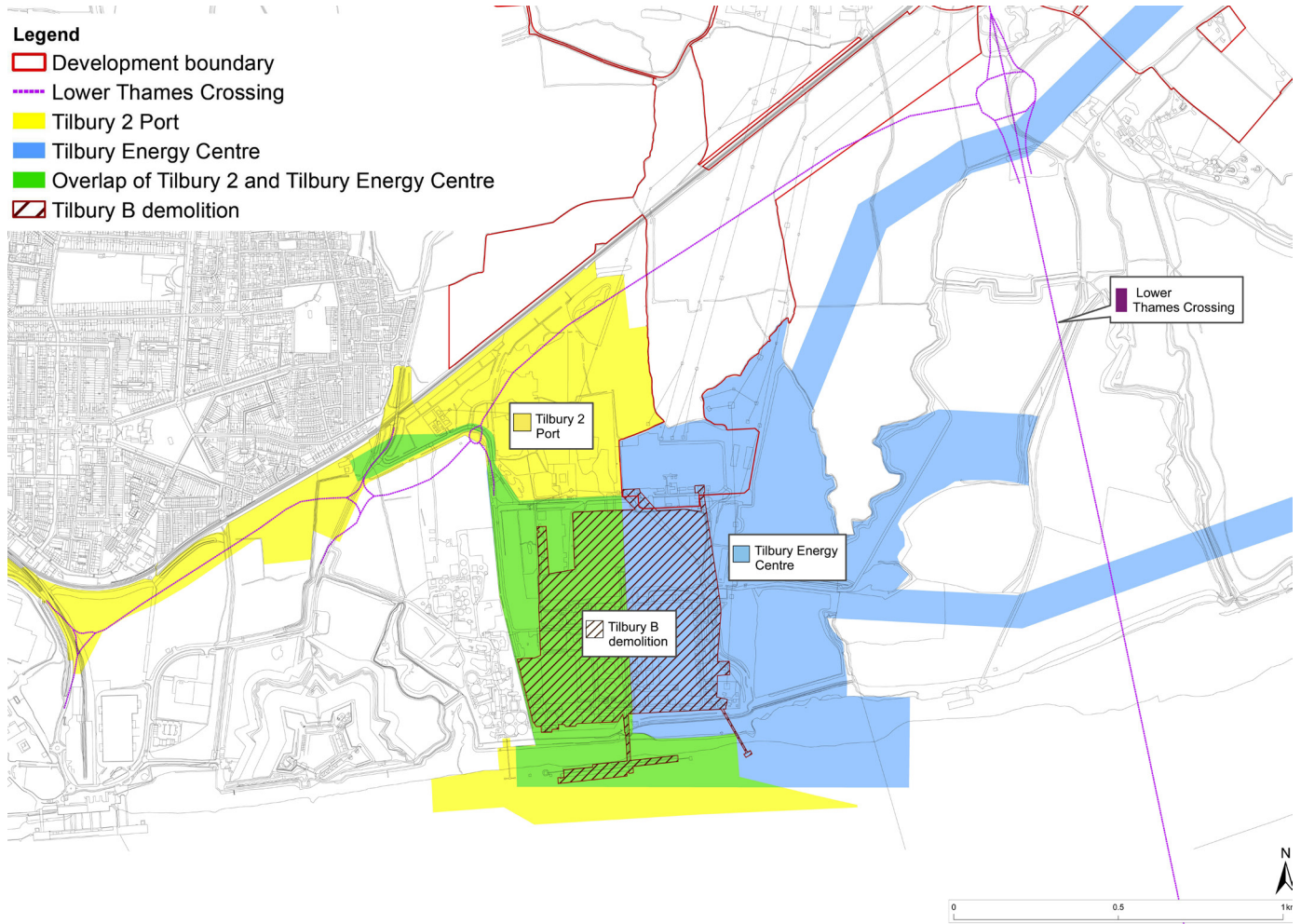
Existing access to the main development site is via a farm track from a junction with Station Road immediately south of the level crossing over the railway. During construction of the proposed development, access will be required for heavy goods vehicles (HGVs), abnormal loads for certain items (gas engine blocks, transformers, large cranes or construction plant) and for construction workforce traffic. For this purpose, there are two possible access routes which will be used by Thurrock Power, as follows:

- (a) Thurrock Council’s preferred route is a temporary haul road from the A126/Gateway Academy roundabout due east to Gun Hill and south along Coopers Shaw Road to the site.
- (b) The alternative access would exit the Orsett roundabout on the A13 and run southbound along Brentwood Rd, High House Lane, across the staggered junction (with traffic management in place) at Linford Rd, continuing south along Turnpike Lane and Gun Hill to Coopers Shaw Rd.

(c) In both cases abnormal loads may need to be lifted over the railway at Parsonage Common.

It is not possible to commit to a single construction access for the DCO application due to various logistical considerations and ongoing discussions with third parties, so both options are included within the current design and the impact assessments reported in the PEIR consider the effects of both options.

There are a number of possible entry ports which could be used for delivery of equipment. These include Port of Tilbury, Thames Gateway Port or Felixstowe, or indeed a combination of two or three of these.



Relationship with Other Projects in the Locality

The proposed Thurrock Flexible Generation Plant development will be considered in relation to other developments in the local area. These may include developments which have been granted planning permission but are not yet constructed, are in the planning process, or are at conceptual stages of development.

There are five major projects in the area:

- Tilbury2 port expansion; (NSIP)
- Tilbury Energy Centre; (NSIP)
- Lower Thames Crossing; (NSIP)
- Thames Tideway Spoil Deposition (LPA); and
- Tilbury B demolition.

An additional NSIP project is currently in the planning process at Swanscombe Peninsula. This proposal is for a theme park resort including hotels, bars, restaurants and other business facilities.

The council is also reviewing land available in the area north of the railway for substantial further housing provision for its future Local Plan.

Have Your Say

To date, we have:

- Written to over 16,000 homes and businesses within approximately 3 kilometres of the proposed site for the Thurrock Flexible Generation Plant.
- Produced a 'Have Your Say' document and feedback form, both of which are available at this exhibition.
- Written to various local key stakeholders, including landowners, Thurrock Council, local councillors, local MPs and local community groups.
- Set up a website for the proposed project, which includes key consultation details and documents.
- Advertised the proposed project and the consultation locally and online.

Where You can Find Documents Relating to this Statutory Public Consultation

The following documents which support our consultation are online during the formal consultation period at: www.thurrockpower.co.uk

- Statement of Community Consultation ('SoCC')
- 'Have Your Say' Document
- Feedback Form
- Preliminary Environmental Information Report (PEIR) and Non-Technical Summary (NTS)
- Map showing Red Line Boundary

These documents are also available to view free of charge during the formal consultation period at the inspection locations listed below:

Location	Address
Thurrock Library	Civic Offices, New Road, Grays, RM17 6SL
Tilbury Hub	16 Civic Square, Tilbury, RM18 8ZZ
Gravesend Library	Windmill Street, Gravesend, DA12 1BE
Chadwell St Mary Library	Brentwood Road, Chadwell St Mary, Grays, RM16 4JP

How to Provide Your Views

- complete a feedback form at this public consultation exhibition and hand it to a member of our team
- complete a feedback form online at: www.thurrockpower.co.uk
- complete a feedback form and return it to us using the following Freepost address: Freepost THURROCK POWER
- email us at: contact@thurrockpower.co.uk
- write to us at: Freepost THURROCK POWER

The closing date and time for submitting your feedback is 11.59pm on 14th November 2018.

How Your Feedback will be Used

Your feedback will help us to:

- Make sure all potential impacts on the community and the environment have been fully considered.
- Ensure the final project design is updated to reflect relevant responses where applicable.
- Ensure the final Environmental Statement considers impacts or mitigation resulting from the consultation process.
- Record in the Consultation Report submitted with our application for DCO how we have considered your feedback to develop the project.

All feedback will be analysed by us and/or our specialist consultants. Your details will only be used in connection with the Thurrock Flexible Generation Plant consultation process and will not be passed to any other third parties. All personal details will be stored in accordance with current relevant data protection legislation.

We are unable to respond to each individual comment, but we will take them all in to consideration.

THANK YOU FOR TAKING THE TIME TO ATTEND THIS PUBLIC CONSULTATION EXHIBITION. WE HOPE YOU HAVE FOUND IT INFORMATIVE.

If you require any further information or have any further questions you would like to ask our team, please email us: contact@thurrockpower.co.uk or call us: 0207 186 0580