



## **Thurrock Flexible Generation Plant**

**Environmental Statement Volume 4: Cumulative Environmental Assessment  
Chapter 20: Historic Environment**

**Date:** February 2020

**Environmental Impact Assessment**  
**Cumulative Effects Assessment**

**Volume 4**  
**Chapter 20**

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# 1. Introduction and Approach

## 1.1 Purpose of this chapter

1.1.1 This chapter of the Environmental Statement (ES) provides an assessment of the ES Volume 3, Chapter 7: Historic Environment effects of the proposed development in combination with other relevant future development projects that have been scoped into the cumulative assessment.

1.1.2 In particular, this cumulative effects assessment (CEA) topic chapter:

- identifies the potential impact interactions of the proposed development in combination with other relevant future development projects;
- identifies the receptors with the potential to be significantly affected by these potential impact interactions and characterises these receptors, including their sensitivity and any relevant environmental thresholds;
- evaluates the likely significant cumulative effects on these key receptors as a result of the proposed development in combination with other development projects;
- identifies any additional mitigation measures that are proposed to prevent, minimise, reduce or offset these significant cumulative effects; and
- taking into account any proposed mitigation measures, evaluates the significance of predicted residual cumulative effects.

## 1.2 Approach to cumulative assessment

1.2.1 The assessment of historic environment cumulative effects follows the approach set out in ES Volume 2, Chapter 4: EIA Methodology, Section 3.

## 1.3 Study area

1.3.1 The study area is a radius 5 km from the centre of the main development site (zone A), consistent with the study area adopted as described in Section 2.4 of Volume 3, Chapter 7: Historic Environment.

1.3.2 The same 5km radius study area has been adopted for the cumulative developments assessment as they have the potential to affect the same area as the proposed development. In particular, the Nationally Significant Infrastructure Projects (NSIPs) that are likely to have the most significant impacts in combination with the proposed development are located adjacent to it.

## 1.4 Screening of cumulative developments

1.4.1 ES Volume 4, Chapter 18: Cumulative Effects Assessment Introduction and Screening identifies a short-list of potential cumulative developments that have been screened as potentially relevant to the CEA overall (i.e. for one or more topic areas). From this shortlist of cumulative development projects, Table 1.1 identifies those projects that fall within the zone of influence for the historic environment and have potential for cumulative effects that require assessment in this topic area.

1.4.2 Developments have been shortlisted in Table 1.1 where:

- the conclusions of the environmental assessments for those developments predicted significant effects on receptors within the zone of influence for the proposed development; or
- where there is considered to be potential for effects that were not predicted to be significant for those individual developments but that may become significant in the cumulative scenario; or
- where environmental studies for those developments have not been published but there is sufficient information available about the development to both indicate the potential for cumulative effects and allow assessment.

1.4.3 Where sufficient information about a development to consider its potential for cumulative effects was not publicly available, the development has not been shortlisted.

Table 1.1: Shortlist of relevant cumulative developments.

ID	Development	Potential cumulative impacts (construction)	Potential cumulative impacts (operation and maintenance)	Potential cumulative impacts (decommissioning)	Receptor(s) affected
012	Urban expansion of Linford and East Tilbury: Application for outline planning permission with some matters (appearance, landscaping, layout and scale) reserved for the proposed development of up to 1,000 dwellings, a new local road network including a vehicular / pedestrian railway crossing, a new single form entry primary school, local centre, etc. Land for Development Muckingford Road, Linford, Essex	Impacts to buried archaeological remains disturbed/destroyed by groundworks associated with the development  Impacts to the settings of surrounding designated heritage assets through use of plant machinery, cranes etc (visual impact) and disturbance to tranquillity	None expected  Impacts to the settings of designated heritage assets (visual) during operation	Not applicable (will have been completed by the time of Thurrock Flexible Generation Plant decommissioning)	Scheduled Monuments Listed Buildings Conservation Areas Historic Landscape Non-designated buried archaeological remains
025	Demolition of Tilbury B Power Station	Impacts to buried archaeological remains disturbed/destroyed by groundworks associated with the development  Impacts to the settings of surrounding designated heritage assets through use of plant machinery, cranes etc (visual impact) and disturbance to tranquillity	None expected  Impacts to the settings of designated heritage assets (visual) and noise during operation	Not applicable (will have been completed by the time of Thurrock Flexible Generation Plant decommissioning)	Scheduled Monuments Listed Buildings Conservation Areas Historic Landscape Non-designated buried archaeological remains
042	Tilbury2: A new port facility acting alongside the existing Port of Tilbury. This will involve the extension of existing jetty facilities and the dredging of berth pockets in the River Thames, and land works and facilities for: a "Roll-On / Roll-Off" (Ro-Ro) terminal for importing and exporting containers on road trailers; a facility for importing and processing bulk construction materials; and areas of external storage for a variety of goods such as imported cars. The project also involves the construction of road and rail links to the site from adjacent networks	Impacts to buried archaeological remains disturbed/destroyed by groundworks associated with the development  Impacts to the settings of surrounding designated heritage assets through use of plant machinery, cranes etc (visual impact) and disturbance to tranquillity	None expected  Impacts to the settings of designated heritage assets (visual) and noise during operation	Not applicable (will have been completed by the time of Thurrock Flexible Generation Plant decommissioning)	Scheduled Monuments Listed Buildings Conservation Areas Historic Landscape Non-designated buried archaeological remains
058	Lower Thames Crossing: Principally, this a new road link between the A2 and M25, crossing the A13 at Orsett before crossing under the River Thames east of Tilbury and Gravesend. A new link road will take traffic to the A2 near Shorne close to where the route becomes the M2	Impacts to buried archaeological remains disturbed/destroyed by groundworks associated with the development  Impacts to the settings of surrounding designated heritage assets through use of plant machinery, cranes etc (visual impact) and disturbance to tranquillity	None expected  Impacts to the settings of designated heritage assets (visual) and noise during operation	Not applicable (will have been completed by the time of Thurrock Flexible Generation Plant decommissioning)	Scheduled Monuments Listed Buildings Conservation Areas Historic Landscape Non-designated buried archaeological remains

## 1.5 Identifying cumulative developments affecting each receptor

- 1.5.1 Table 1.2 and Table 1.3 summarise the cumulative developments that have the potential to cause cumulative effects at each identified receptor, the sensitivity of that receptor to cumulative impacts, and the starting position to the cumulative effects assessment, which is the predicted residual effect of the proposed development alone during construction and operation (as established in ES Volume 3).
- 1.5.2 Potential for cumulative effects to buried archaeological remains is only relevant during the construction phases of the cumulative developments.

**Table 1.2: Summary of cumulative developments affecting each receptor (construction)**

Receptor affected	Sensitivity of receptor to cumulative effects	Standalone effect of Thurrock Flexible Generation Plant on receptor	Cumulative development(s) with the potential to affect this receptor
Buried archaeological remains	Unknown to medium	Minor adverse (not significant)	All
Settings of Scheduled Monuments	High	Minor adverse (not significant)	All
Settings of Listed Buildings	High	Minor adverse (not significant)	All
Settings of Conservation Areas	Medium	Minor adverse (not significant) save for West Tilbury Conservation Area where moderate adverse (significant)	All
Historic landscape	Medium	Minor adverse (not significant)	All

**Table 1.3: Summary of cumulative developments affecting each receptor (operation and maintenance)**

Receptor affected	Sensitivity of receptor to cumulative effects	Standalone effect of Thurrock Flexible Generation Plant on receptor	Cumulative development(s) with the potential to affect this receptor
Settings of Scheduled Monuments	High	Minor adverse (not significant) save for Tilbury Fort where moderate adverse (significant)	12, 42, 58
Settings of Listed Buildings	High	Minor adverse (not significant)	12, 42, 58

Receptor affected	Sensitivity of receptor to cumulative effects	Standalone effect of Thurrock Flexible Generation Plant on receptor	Cumulative development(s) with the potential to affect this receptor
Settings of Conservation Areas	Medium	Minor adverse (not significant) save for West Tilbury Conservation Area where moderate adverse (significant)	12, 42, 58
Historic landscape	Medium	Minor adverse (not significant)	12, 42, 58

## 2. Assessment of Cumulative Effects

### 2.1 Construction phase of Thurrock Flexible Generation Plant

#### Potential for direct physical impacts to buried archaeological remains

- 2.1.1 The potential magnitude of impact from the proposed development alone was considered to be major and would affect receptors of medium to high sensitivity (if buried archaeological remains are present and are disturbed). With the implementation of appropriate mitigation as set out in Volume 3, Chapter 7, the residual effect was considered to be minor and not significant.
- 2.1.2 The potential cumulative impact of Tilbury B Power Station demolition, if still ongoing at the time of the construction of the proposed development, is predicted to be negligible and would not cause a significant cumulative effect.
- 2.1.3 The potential impact of other short listed cumulative developments identified within the 5km study area (see Table 1.1) is also considered to be up to moderate/major adverse in all cases due to the possible presence of buried archaeological remains.
- 2.1.4 However, there is a requirement for other developments to appropriately investigate, assess and remediate any impacts to the known and potential buried archaeological resource through offsetting works as part of the application and development process. A Written Scheme of Investigation for Archaeological Mitigation was submitted as part of the consented scheme 042: Tilbury2, and at present archaeological evaluation work for 058: Lower Thames Crossing is ongoing as part of a suite of pre-DCO application works. The impact and resulting effect of these developments alone, with implementation of their mitigation, is therefore considered likely to be minor.
- 2.1.5 The historic environment is a finite and non-renewable resource, and therefore any adverse impacts to heritage assets are permanent and non-reversible.
- 2.1.6 The potential for cumulative impacts to occur with the identified relevant developments is therefore considered to be minor. Minor cumulative impacts on receptors of low to high sensitivity would result in a negligible to minor adverse cumulative effect (assuming an effective mitigation/offsetting strategy), which is not significant in EIA terms.
- 2.1.7 As set out, the adoption of good working practice and implementation of control measures during construction for all developments will minimise any impacts to the settings of buried archaeological remains.

#### Potential for impacts to the settings of designated heritage assets

- 2.1.8 The potential magnitude of impact from the proposed development alone was considered to be negligible to minor, leading to a minor adverse effect on receptors of low to high sensitivity that was not significant. The exception was a moderate adverse effect on the West Tilbury Conservation Area.
- 2.1.9 If construction phase of the proposed development occurs at the same time as one or more of the relevant cumulative developments, the contribution to cumulative impacts is therefore considered to be minor to moderate. Given the scale of the adjacent NSIP developments and challenges inherent in mitigating the effect of motorway construction on the settings of heritage assets, adverse cumulative effects that are significant are considered possible. However, it is not considered that the contribution of Thurrock Flexible Generation Plant would materially increase the significance of any such cumulative effects.

#### Potential for impacts to historic landscape character

- 2.1.10 The potential magnitude of impact from the proposed development alone was considered to be minor, leading to a minor adverse effect on receptors of low to medium sensitivity.
- 2.1.11 The potential impact of relevant cumulative developments identified within the 5km study area is also considered to be minor in all cases, given that the historic landscape character of the areas surrounding these cumulative developments is well understood, and has good legibility to withstand change.
- 2.1.12 If the construction phase of the proposed development occurs at the same time as one or more of the relevant cumulative developments, the potential for cumulative impacts to occur is therefore considered to be minor. Minor cumulative impacts on receptors of low to medium sensitivity would result in a negligible to minor adverse cumulative effect, which is not significant in EIA terms.

#### Further mitigation or enhancement

- 2.1.13 No additional mitigation is required.

#### Residual effects

- 2.1.14 No material contribution by Thurrock Flexible Generation Plant to any significant residual adverse effects is predicted.

## 2.2 Operation and maintenance phase of Thurrock Flexible Generation Plant

### Potential for impacts to the settings of designated heritage assets

- 2.2.1 The potential magnitude of impact from the proposed development alone was considered to be negligible to minor adverse, leading to a minor adverse effect on receptors of low to high sensitivity. The two exceptions were the setting of Tilbury Fort and the West Tilbury Conservation Area, at which a moderate adverse and significant effect was predicted.
- 2.2.2 Given the scale of the adjacent NSIP developments and challenges inherent in mitigating the long-term effect of an operational port and motorway on the settings of nearby heritage assets, adverse cumulative effects that are significant are considered possible. However, it is not considered that the contribution of Thurrock Flexible Generation Plant would materially increase the significance of any such cumulative effects.

### Potential for impacts to historic landscape character

- 2.2.3 The potential magnitude of impact from the proposed development alone was considered to be minor, leading to a minor adverse effect on receptors of low to medium sensitivity.
- 2.2.4 The potential impact of relevant cumulative developments identified within the 5km study area is also considered to be minor in all cases, given that the historic landscape character of the areas surrounding these cumulative developments is well understood, and has good legibility to withstand change.
- 2.2.5 The potential for cumulative impacts to occur is therefore considered to be **minor**. Minor cumulative impacts on receptors of low to medium sensitivity would result in a negligible to minor adverse cumulative effect, which is not significant in EIA terms.

### Further mitigation or enhancement

- 2.2.6 No additional mitigation is required.

### Residual effects

- 2.2.7 No material contribution by Thurrock Flexible Generation Plant to any significant residual adverse effects is predicted.

## 2.3 Decommissioning phase of Thurrock Flexible Generation Plant

### Potential for impacts to the historic environment

- 2.3.1 As set out in Table 1.1, no cumulative developments with likely significant cumulative impacts during the decommissioning phase of the proposed development have been identified, and no significant cumulative effects are anticipated.

### Further mitigation or enhancement

- 2.3.2 No additional mitigation is required.

### Residual effects

- 2.3.3 No significant residual effects are predicted.

## 2.4 Conclusions

- 2.4.1 No material contribution by Thurrock Flexible Generation Plant to any significant residual adverse effects is predicted.