Statutory Nuisance Statement

Thurrock Flexible Generation Plant

Application document number A7.1

APFP Regulations reference 5(2)(f)

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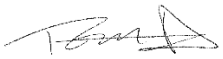
Tom Dearing		19 February 2020

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SUMMARY

1. This Statement of Statutory Nuisances (the Statement) relates to an application by Thurrock Power Ltd (the Applicant), for a Development Consent Order (DCO) to construct and operate a Flexible Generation Plant on land south west of Station Road near Tilbury, Essex (the Scheme).

2. This statement provides an explanation of matters set out in section 79(1) of the Environmental Protection Act 1990 (EPA 1990) in respect of statutory nuisances, the potential implications of the Scheme, and proposals for mitigating or limiting any such potential statutory nuisances identified.

3. The Scheme will potentially engage the following sub sections of section 79(1) of the EPA 1990: (a) relating to general conditions on the site, (c) fumes or gases, (d) dust, steam, smell or other effluvia, (e) accumulation or deposit, (fb) artificial light, (g) noise and (ga) noise from a street, with potential for statutory nuisance to be caused in the absence of mitigation.

4. Construction phase activities will be managed, and mitigated where necessary, through a Code of Construction Practice (CoCP) (application document A8.6). Operational phase activities will be controlled by the relevant requirements of the DCO and regulated via an Environmental Permit.

5. While both construction and operational activities will be controlled using appropriate methods which will provide a protection against statutory nuisance, this does not provide an absolute guarantee that effects that might be considered by third parties to constitute a statutory nuisance will not arise.

6. Certain assumptions have necessarily been made about the construction and operation of the facility, to enable an assessment of the likely significant effects of the project during normal operation. An assessment of accidents has also been considered. It is possible that emergency and essential out of hours activity could be needed in exceptional circumstances, which this statement considers.

Contents

1 INTRODUCTION

1.1 Background

1.1.1 This Statutory Nuisance Statement has been prepared as part of the application by Thurrock Power Ltd (the Applicant) for a Development Consent Order (a DCO), that has been submitted to the Secretary of State (the SoS) for Business, Energy and Industrial Strategy (BEIS), under section 37 of the Planning Act 2008 (as amended) (the PA 2008), in respect of the proposed Scheme.

1.1.2 Thurrock Power proposes to develop a flexible generation plant on land north of Tilbury Substation in Thurrock. The flexible generation plant will provide up to 600 megawatts (MW) of electrical generation capacity on a fast response basis, together with up to 150 MW of battery storage and an overall storage capacity of 600MWh.

1.1.3 Schedule 1 of the draft DCO (application document A3.1) identifies the development for which development consent is being applied and for which this Statutory Nuisance Statement has been prepared.

1.1.4 A DCO is required for the Scheme as it falls within the definition and thresholds for a Nationally Significant Infrastructure Project (an NSIP) under sections 14 and 15 of the PA 2008.

1.1.5 This Statement provides an explanation of matters set out in Section 79(1) of the Environmental Protection Act (EPA) 1990 in respect of statutory nuisances, the potential implications of the Scheme, and proposals for mitigating or limiting any such potential statutory nuisances identified.

1.1.6 The requirement for a Statement of Statutory Nuisances is set out in the Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009 (the APFP Regulations 2009) at regulation 5(2)(f), which states: *"the application must be accompanied by…a statement whether the proposal engages one or more of the matters set out in Section 79(1) (statutory nuisances and inspections therefor) of the Environmental Protection Act 1990, and if so how the applicant proposes to mitigate or limit them".*

1.2 Structure of this Document

1.2.1 A description of the Scheme is provided below. Section 2 sets out the provisions of Section 79(1) of the EPA 1990, listing those matters that the Scheme would not engage. Section 3 outlines the potential effects of the Scheme and any mitigation measures planned in relation to them. Finally, Section 4 concludes this statement.

1.3 Project Description

1.3.1 The proposed development site is located on land south west of Station Road near Tilbury, Essex. The British National Grid coordinates are TQ662766 and the nearest existing postcode is RM18 8UL. It is within the administrative area of Thurrock Borough Council and lies in the Thurrock Green Belt.

1.3.2 The application boundary and location of the proposed development are shown in the Location and Order Limits Plans, application document A2.1.

1.3.3 The main development site for the generating plant and battery storage facility currently comprises open fields crossed by drainage ditches and three overhead power lines with steel lattice electricity pylons. Land for access routes (including causeway for barge deliveries during construction) and connections to the gas and electricity grid within the Order Limits comprises farm land, previously developed industrial sites, and the north bank of the River Thames.

1.3.4 In overview, the proposed development comprises the construction and operation of:

- reciprocating gas engines with rated electrical output totalling 600 MW;
- batteries with rated electrical output of 150 MW and storage capacity of up to 600 MWh;
- gas and electricity connections;
- creation of temporary and permanent private access routes for construction haul and access in operation, including a causeway for barge deliveries; and
- designation of exchange Common Land and habitat creation or enhancement for protected species translocation and biodiversity gain.

1.3.5 The flexible generation plant is needed to provide resilience to the electricity grid when that is required due to unplanned outages and intermittent generation from renewable sources, particularly wind power, or short-term demand from consumers (typically in the morning and evening, particularly in the winter). It will do so through providing peaking generation capacity from the fast-start gas engines, which will typically run for short periods. The battery storage facility will provide both electricity balancing and frequency management services for the grid.

1.4 The Purpose of this Document

1.4.1 The purpose of this document is to comply with Regulation 5(2)(f) of the APFP Regulations 2009, which states that any application for a DCO should be accompanied by a statement setting out whether the development proposal could cause a statutory nuisance pursuant to Section 79(1) of the EPA. If such a nuisance could occur, the statement must set out how the applicant proposes to mitigate or limit the effects.

1.4.2 Paragraph 4.14.1 of the 'Overarching National Policy Statement for Energy EN-1' states that:

"Section 158 of the Planning Act 2008 confers statutory authority for carrying out development or doing anything else authorised by a development consent order. Such authority is conferred only for the purpose of providing a defence in any civil or criminal proceedings for nuisance. This would include defence for proceedings for nuisance under Part III of the EPA (statutory nuisance) but only to the extent that the nuisance is the inevitable consequence of what has been authorised. The defence does not extinguish the local authority's duties under Part III of the EPA to inspect its area and take reasonable steps to investigate complaints of statutory nuisance and to serve abatement notice where satisfied to its existence, likely occurrence or recurrence. The defence is not intended to extend to proceedings where the matter is 'prejudicial to health' and not a nuisance."

1.4.3 Paragraph 4.14.2 goes on to state that it is very important that at the application stage, the SoS considers sources of nuisance under Section 79(1) of the EPA and how these may be mitigated or limited, so that appropriate 'requirements' can be included in any DCO that is granted.

1.4.4 This Statement describes the legislative context for the identification of matters that constitute statutory nuisance and the methodology for the assessment of these. This is followed by a summary of the assessment of the potential statutory nuisances, using information from the Environmental Statement (ES) (application document A6), including any relevant mitigation measures and residual effects, whether embedded within the design of the Scheme or secured through requirements within the DCO.

2 APPROACH TO ASSESSMENT OF STATUTORY NUISANCE

2.1 Legislative Framework

2.1.1 Section 79(1) of the EPA identifies the matters which are considered to be statutory nuisance as follows:

"(1)…the following matters constitute "statutory nuisances" for the purposes of this Part, that is to say—

(a) any premises in such a state as to be prejudicial to health or a nuisance;

(b) smoke emitted from premises so as to be prejudicial to health or a nuisance;

(c) fumes or gases emitted from premises so as to be prejudicial to health or a nuisance;

(d) any dust, steam, smell or other effluvia arising on industrial, trade or business premises and being prejudicial to health or a nuisance;

(e) any accumulation or deposit which is prejudicial to health or a nuisance;

(f) any animal kept in such a place or manner as to be prejudicial to health or a nuisance;

(fa) any insects emanating from relevant industrial, trade or business premises and being prejudicial to health or a nuisance;

(fb) artificial light emitted from premises so as to be prejudicial to health or a nuisance;

(g) noise emitted from premises so as to be prejudicial to health or a nuisance;

(ga) noise that is prejudicial to health or a nuisance and is emitted from or caused by a vehicle, machinery or equipment in a street;

(h) any other matter declared by any enactment to be a statutory nuisance;

and it shall be the duty of every local authority to cause its area to be inspected from time to time to detect any statutory nuisances which ought to be dealt with under section 80 below and, where a complaint of a statutory nuisance is made to it by a person living within its area, to take such steps as are reasonably practicable to investigate the complaint."

2.1.2 The nature of the Scheme is such that the statutory nuisances described by sub-sections (b), (f) and (fa) will not be engaged, and they are not discussed further in this Statement.

2.1.3 Sub-sections (a) and (e), relating to general conditions at the site, (c) and (d), relating to air emissions and effluvia, (fb), relating to lighting, and (g) and (ga), relating to noise and vibration, may potentially be engaged as a consequence of the Scheme. These are discussed further in Section 4 of this Statement.

2.2 Assessment of Significance

2.2.1 The ES for the proposed Scheme addresses the likelihood of significant effects arising that could constitute a statutory nuisance. Chapters 10 (Transport), 11 (Noise and Vibration), 12 (Air Quality), 13 (Human Health) in Volume 3 of the ES and their associated appendices in Volume 6 provide detailed assessments of these potential effects and identify mitigation measures where necessary. These assessments have been used to provide the baseline information and predictions of effects used to determine the likelihood of statutory nuisance arising from the Scheme.

2.2.2 The ES provides an assessment of the potential effects on properties (receptors) as negligible, minor, moderate or major. Moderate and major impacts are considered to be significant for the purposes of the ES. Moderate and major impacts indicate that there is potential for statutory nuisance to occur and that further consideration is required in this statement. Minor impacts require to be considered with regard to the affected property individually. Negligible impacts are considered not to create any risk of statutory nuisance arising.

2.2.3 Matters which are considered to be statutory nuisance under Section 79(1) of the EPA are covered within Section 3 or are excluded as outlined in Table 1 below, depending on whether potentially significant effects were identified within the ES.

Table 1: EPA Section 79(1) Matters, Significance of Effects and likelihood of statutory nuisance being created

EPA Section 79(1) Matter	Likelihood of statutory nuisance
(a) any premises in such a state as to be prejudicial to health or a nuisance	No assessments identified likely significant impacts on health or nuisance from this scheme.
(b) smoke emitted from premises so as to be prejudicial to health or a nuisance	No smoke would be generated during normal operation of the proposed Scheme. This matter is not considered further within this Statement.
(c) fumes or gases emitted from premises so as to be prejudicial to health or a nuisance	The air quality assessment did not identify any likely significant effects for human receptors from fumes or gases. This matter is not considered further within this Statement.
(d) any dust, steam, smell or other effluvia arising on industrial, trade or business premises and being prejudicial to health or a nuisance	The air quality assessment did not identify any likely significant effects for human receptors from dust, steam, smell or other effluvia. A dust management plan is proposed for the construction as part of the Code of Construction Practice. Some measures anticipate adverse weather conditions which cannot be fully controlled.
(e) any accumulation or deposit which is prejudicial to health or a nuisance	The ground conditions assessment did not identify any likely significant effects for human receptors. The project will not generate accumulations or deposits during operation.
(f) any animal kept in such a place or manner as to be prejudicial to health or a nuisance	No animals will be kept at the proposed Scheme. This matter is not considered further within this Statement.
(fa) any insects emanating from relevant industrial, trade or business premises and being prejudicial to health or a nuisance	The nature of the proposed Scheme is such that no insects will emanate from the premises or be attracted to

	it. This matter is not considered further within this Statement.
(fb) artificial light emitted from premises so as to be prejudicial to health or a nuisance	No likely significant effects are anticipated from light emitted from the premises during operation. A detailed lighting scheme for both construction and operation will be developed during detailed design.
(g) noise emitted from premises so as to be prejudicial to health or a nuisance	The noise assessment did not identify any likely significant effects for human receptors from noise emitted from premises during operation, which will be regulated using BAT by the Environment Agency. Noise during construction will be controlled by a noise limit set at the nearest sensitive residential locations.
(ga) noise that is prejudicial to health or a nuisance and is emitted from or caused by a vehicle, machinery or equipment in a street	The noise assessment did not identify any likely significant effects for human receptors from noise emitted or caused by a vehicle, machinery or equipment in the street.
(h) any other matter declared by any enactment to be a statutory nuisance	No other matters are considered to be a potential statutory nuisance associated with the construction, operation or demolition of the proposed Scheme.

3 IMPACTS OF POTENTIAL RELEVANCE FOR STATUTORY NUISANCE

3.1 Air Emissions and Dust

3.1.1 An assessment of the potential effects of air pollutant emissions and dust from construction and operation has been undertaken: full details can be found in Chapter 12 of Volume 3 of the ES.

Construction

3.1.2 The types of activities that could cause dust emissions are earthworks, handling and disposal of spoil and soil, wind-blown particulate matter from stockpiles, handling of loose construction materials and movement of vehicles, both on and off site.

3.1.3 The level and distribution of construction dust emissions will vary according to factors such as the type of dust, duration and location of dust-generating activity, weather conditions and the effectiveness of suppression methods.

3.1.4 The main effect of any dust emissions, if not mitigated, could be annoyance due to soiling of surfaces, particularly windows, cars and laundry. However, it is normally possible, by implementation of proper controls, to ensure that dust deposition does not give rise to significant adverse effects, although short-term events may occur (for example, due to technical failure or exceptional weather conditions). Therefore the potential for statutory nuisance is considered to be low but cannot be completely ruled out. The proper control of dust during construction is secured through the Outline Code of Construction Practice (application document A8.6) which will be implemented under a final Code of Construction Practice approved under by the requirements.

3.1.5 The number of vehicle movements generated by construction activities is below the threshold for requiring an assessment. The impacts due to emissions from construction-related vehicle emissions are therefore considered unlikely to create a statutory nuisance.

3.1.6 A series of designed-in measures to mitigate any potential impacts on air quality during the construction phase including communication, dust management, site management and monitoring, can be found in the Outline Code of Construction Practice (application document A8.6).

Operation

3.1.7 Emissions from the operation of the Scheme have been assessed through detailed dispersion modelling using best practice approaches. Emissions will be regulated under an Environmental Permit and the likelihood of statutory nuisance due to emissions during operation is considered to be negligible.

3.2 Lighting

3.2.1 An assessment of the potential effects of artificial lighting associated with the Scheme has been undertaken. Having regard to the distance of more than 600 m between the Flexible Generation Plant and the nearest residential properties, no

nuisance is assessed as being likely to arise. Full details can be found in Chapter 6 of Volume 3 of the ES.

Construction

3.2.2 Construction working hours for the Scheme will be Monday to Friday 08:00-18:00 and Saturday 08:00-13:00. Sunday, bank holiday and night working is not proposed in this instance bar specific circumstances such as continuous concrete pour, exceptional out of hours working or non-noisy fit-out activities.

3.2.3 Directional lighting is likely to be required during normal construction hours in winter. Outside normal construction working hours, motion-activated directional security lighting may be used within certain construction areas, but these would not be lit full-time at night except during any period that requires 24-hour working that cannot be interrupted (described in Chapter 2 of the ES) or other exceptional circumstances.

3.2.4 Mitigation measures will be put in place to negate the possible negative impacts of construction lighting as described in the Outline Code of Construction Practice (application document A8.6).

3.2.5 Lighting during construction will take into account the requirements set out in BS EN 12464-2:2014 (British Standards Institution (BSI), 2014a). Lighting units will be designed to minimise illumination outside the construction works area (e.g. will be directional, task orientated and where possible, fully shielded).

3.2.6 External lighting will be designed and positioned in a manner as to limit emissions in accordance with good practice whilst maintaining safety and security standards.

3.2.7 Positioning and direction of site lighting will be managed as to minimise impact on footpath users, residents, passing drivers on public highways and to minimise skyglow, so far as reasonably practical.

Operation

3.2.8 The Flexible Generation Plant will be controlled remotely but will have a small workforce of 4-6 full-time equivalent (FTE) staff on site during operation.

3.2.9 The facility will not be externally unlit except for motion-sensitive security lighting, which will be directional to minimise light spillage. The private access roads to the Flexible Generation Plant will be unlit.

3.2.10 The nature of external lighting required for personnel during normal operation coupled with the typical daylight working hours for intermittent maintenance activity mean that there will be no adverse impacts or creation of statutory nuisance through artificial lighting during normal operation.

3.3 Noise and Vibration

3.3.1 An assessment of the potential effects of noise from construction and operation activity associated with the Scheme has been undertaken: full details can be found in Chapter 11 of Volume 3 of the ES. Baseline noise conditions have been established via noise surveys carried out at representative locations near to the site of the Scheme.

Construction

3.3.2 There are a number of noise sensitive residential receptors located along Fort Road, Turnpike Lane, Gun Hill Road, Cooper Shaw Road, Church Road and Station Road. During the peak construction period, a noise change is predicted on Cooper Shaw Road / Church Road / Station Road, between Gun Hill Road and EMR East Tilbury junction, Consented Tilbury 2 Road, between A1089 St Andrews Road and Fort Road and Fort Road between Brennan Road and Cooper Shaw Road during the daytime period of up to 1.6 dB. A noise change of up to 2 dB is predicted on the same links during the night-time period.

3.3.3 The highest predicted noise levels from the general activities and HDD drilling within Zone C are predicted at the façade of Walnut Tree Farm with levels of 55 dB $L_{Aeq,T}$. The highest noise level due to piling activities within Zone A is predicted at Havers Lodge, with levels of 46 dB $L_{Aeq,T}$.

3.3.4 A number of measures have been designed to reduce the potential impacts on noise and vibration during the construction phase of the project. These measures include: Best Practicable Measures (BPM) such as the use of quieter alternative methods and equipment where reasonably practical and the use of site hoardings, enclosures, acoustic barriers, portable screens and/or screening nosier items of plant where reasonably practicable; construction noise management measures and normal construction working hours. These measures are secured in the outline Code of Construction Practice (application document A8.6).

3.3.5 As aforementioned in the 'Lighting' section, working hours will be enforced to minimise noise and vibration impact during quieter periods.

Operation

3.3.6 A moderate adverse effect at the most-affected residential receptors in the vicinity of Buckland is predicted during normal operation. Negligible or minor effects are predicted at all other sensitive receptors. Taking the change in noise levels and the absolute sound levels during the day and night into consideration, it is considered that sound from the facility will not result in any adverse impacts on the quality of life of residents. It has been assumed that limited hours of operation will occur at night. For extended hours of operation at night, potentially due to exceptional demand or outages, or where equipment fails temporarily and operation is needed, there is the potential for short term changes in noise impact.

3.3.7 A number of measures have been assumed to reduce the potential impacts on noise and vibration during the operation phase of the project. A list of the measures assumed in the assessment can be found in Chapter 11 of Volume 3 of the ES. These include: enclosures surrounding gas engines; high specification exhaust silencers fitted to each of the gas engine exhausts; external exhaust ductwork acoustically lagged up to the silencers; enhanced inlet/outlet silencers and low noise air conditioning units for battery enclosures. Alternative and/or additional techniques may be proposed during the detailed design phase.

3.3.8 In exceptional circumstances, such as where there are unexpected outages from wind farm generators or other generating assets there may be an exceptional demand from the National Grid to operate outside of the hours that have been assumed as standard operating hours within the assessment. The ambient and background noise environment is not constant and quieter periods will occur for a proportion of the time. It is possible but very unlikely that short term operation in

exceptional circumstances could cause disturbance or annoyance to a small number of properties. However it is not considered that this is likely to create a statutory nuisance on a recurring basis.

3.4 Geology, Hydrogeology and Ground conditions

3.4.1 An assessment of the potential effects on geology, hydrogeology and ground conditions from construction and operation activity associated with the proposed development has been undertaken, full details of which can be found in Chapter 16 of Volume 3 of the ES.

Construction

3.4.2 The construction phase will include a number of intrusive activities including earthworks, piling and construction of underground pipes and cable corridors. These activities could include general ground disturbance, establishment of haul routes, removal of vegetation and temporary stockpiling. Any existing sources of contaminants of concern could be mobilised by the physical disturbance and/or removal of materials.

3.4.3 Potential impacts arising from the construction phase would be expected to be localised and short term. The likely significance of effects would be negligible to minor adverse during the construction phase and accordingly there is no reasonable likelihood of statutory nuisance being created..

Operation

3.4.4 Operational impacts are considered to be unlikely, as the proposed development will be operated in accordance with an Environmental Permit and will have a managed surface drainage system with oil interceptors, bunding and spill kits in case of accidents. Potential operational impacts would be limited to accidental spillage of polluting materials including during any maintenance works.

3.4.5 If this were to occur, the impact type is predicted to be of local spatial extent, short term duration, intermittent and of high reversibility and accordingly no statutory nuisance is assessed as being likely.

3.4.6 A number of measures have been designed to reduce the potential impacts on geology, hydrology and ground conditions during the operation phase of the project. A detailed list can be found in Chapter 16 of Volume 3 of the ES.

3.4.7 These measures include restrictions on quantities and suitable storage conditions of hazardous or polluting substances stored on site, in accordance with the Environmental Permit.

3.5 Health effects

3.5.1 An assessment of the potential effects on population and health associated with the Scheme has been undertaken: full details can be found in Chapter 13 of Volume 3 of the ES.

3.5.2 No significant human health effects resulting from the construction or operational phases of the Scheme are predicted. This has been concluded on the basis that any change in health determinants, via the environmental and social impact pathways assessed in the ES, would not be sufficient to quantify any change in baseline health outcomes within the surrounding community.

4 CONCLUSION

4.1 Potential for Nuisance

4.1.1 This Statement identifies the matters set out in Section 79(1) of the EPA in respect of statutory nuisance and considers whether the Scheme could cause a statutory nuisance.

4.1.2 During normal operation in both construction and operation phases, it is not anticipated that there will be any impacts as a result of this Scheme likely to lead to a statutory nuisance.

4.1.3 No measurable adverse health impacts are anticipated as a result of this Scheme.

4.1.4 Construction phase impacts will be managed, including mitigation where necessary, through the Code of Construction Practice.

4.1.5 The operation of the Scheme will be regulated by the Environment Agency through an Environmental Permit.

4.1.6 Other than during possible extended hours of operation at night, in the event of grid outages or other exceptional demand, which might lead to noise during quieter periods, there is a low probability that statutory nuisance would arise. There is a slightly increased short term potential due to construction lighting, as this is phased throughout construction and from construction dust in adverse weather conditions.