

# AIR QUALITY REPORT

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## Introduction

Entran Ltd have been commissioned by Edge Power Ltd to carry out an assessment of air quality impacts associated with their proposed Short Term Operating Reserve (STOR) power plant.

## Background

An increasing proportion of the electricity generation capacity is coming from renewable sources. In order to manage short term fluctuations in demand and supply, the national grid has access to a number of reserve power generators, which can be used at short notice to cover any gaps in demand and supply.

The potential impacts of the proposed development on local air quality during the operational phase has been considered. The type, source and significance of potential impacts have been identified as have the measures that should be employed to minimise these impacts.

The key pollutants are: oxides of nitrogen (NO<sub>x</sub> as NO<sub>2</sub>) and carbon monoxide (CO), the primary pollutants arising from the combustion of natural gas. The emissions of other pollutants commonly associated with combustion such as sulphur dioxide (SO<sub>2</sub>) and particulate matter (PM<sub>10</sub>) are not significant when using this fuel type.

The site location and details of the development are presented in the planning application supporting statement and associated plans.

## Legislation, Policy And Guidance

European Directive 2008/50/EC of the European Parliament and of the Council of 21st May 2008, sets legally-binding Europe-wide limit values for the protection of public health and sensitive habitats. The Directive makes it clear that the ambient air quality standards shall not be enforced where there is no regular public access and fixed habitation.

The Government's policy on air quality within the UK is set out in the Air Quality Strategy (AQS) for England, Scotland, Wales and Northern Ireland (AQS) published in July 2007, pursuant to the requirements of Part IV of the Environment Act 1995. The AQS sets out a framework for reducing hazards to health from air pollution and ensuring that international commitments are met in the UK. The AQS is designed to be an evolving process that is monitored and regularly reviewed.

The air quality objectives are medium-term policy based targets set by the Government which take into account economic efficiency, practicability, technical feasibility and timescale. Some objectives are equal to the EPAQS recommended standards or WHO guideline limits, whereas others involve a margin of tolerance, i.e. a limited number of permitted exceedences of the standard over a given period.

For some pollutants there is both a long-term (annual mean) standard and a short-term standard. In the case of NO<sub>2</sub>, the short-term standard is for a 1-hour averaging period, whereas for CO it is the 8-hour averaging period. These periods reflect the varying impacts on health of differing exposures to pollutants.

The Industrial Emissions Directive (2010/75/EU) came into force on the 6th January 2011, replacing the seven existing Directives, including the Waste Incineration Directive (WID) and Large Combustion Plant Directive (LCPD), implemented through the Environmental Permitting Regulations (EPR). The IED has been transposed into UK law via the Environmental Permitting (England and Wales) (Amendment) Regulations 2013 (SI 2013 No, 390), which came into force on 27 February 2013.

Combustion activities listed in Section 1.1, Part (A) 1 of Schedule 1 of the Environmental Permitting Regulations will normally require an environmental permit issued by the Environment Agency. This section includes combustion appliances with an aggregated rated thermal input of greater than 50MW. The thermal input of the proposed combustion activities will be less than 50MWth. As such, the plant will not be regulated under IED. However, the medium combustion plant Directive (MCPD) which came into force on 18th December 2015 relates to combustion plant of a certain size (1-50MWth) is regulated in terms of emissions to air, where it is not already covered by other Directives (such as IPPC, for example). The proposed scheme will be encompassed within the MCPD.

## **Air Quality Constraints Review**

Paragraph 122 of the NPPF states that planning authorities should assume that the MCPD will be applied and operate effectively. The site is not within an AQMA, nor does it have the potential to significantly impact on an AQMA. Similarly, the site is not located close to any ecological sites with national or European protection.

The nature of the site, as a STOR, will mean that any emissions are infrequent and short-lived. This will result in impacts being very low in any one year and being highly unlikely to lead to any breaches of air quality objectives.

## **Conclusions**

Based on the above information, it is considered unlikely that the proposed scheme will lead to any potential for air quality impacts above levels which would be likely to result in declaration of an AQMA. However, a detailed dispersion modelling assessment will be carried out to confirm the above assumptions.

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