

# Natural Resources Wales permitting decisions

## **New bespoke permit**

**The Application number is: PAN-022169**

**The permit number is: EPR/DB3094ZJ**

**The Applicant / Operator is: Hemiko Limited**

**The Facility is located at: Roath Dock Road, Cardiff, CF10 4ED**

We have decided to grant the permit for Back-up Energy Centre Cardiff Heat Network Adjacent to Compressor House operated by Hemiko Limited.

We consider in reaching that decision we have taken into account all relevant considerations and legal requirements and that the permit will ensure that the appropriate level of environmental protection is provided.

### **Purpose of this document**

This decision document:

- Highlights key issues in the determination
- Summarises the decision making process in the decision checklist to show how all relevant factors have been taken into account

Unless the decision document specifies otherwise we have accepted the applicant's proposals. Read the permitting decisions in conjunction with the environmental permit. The introductory note summarises what the permit covers.

### **Key issues of the decision**

Our decision includes but is not limited to the following:

- Air quality

This will be discussed separately in this decision document.

## **1 Our decision**

We consider that, in reaching that decision, we have taken into account all relevant considerations and legal requirements and that the permit will ensure that a high level of protection is provided for the environment and human health.

This Application is to operate a regulated facility which is subject principally to the Environmental Permitting Regulations 2016 (EPR) and Medium Combustion Plant Directive (MCPD).

The permit contains many conditions taken from our standard Environmental Permit template including the relevant Annexes. We developed these conditions in consultation with industry, having regard to the legal requirements of EPR and other relevant legislation. This document does not therefore include an explanation for these standard conditions. Where they are included in the permit, we have considered the Application and accepted the details are sufficient and satisfactory to make the standard conditions appropriate. This document should be read in conjunction with the application and supporting information and permit.

## 2 The Legal Framework

The permit will be granted, under Regulation **13** of the EPR. The Environmental Permitting regime is a legal vehicle which delivers most of the relevant legal requirements for activities falling within its scope. In particular, the regulated facility is:

- plant as described by Schedule 25A covering the Medium Combustion Plant Directive (MCPD) regulations; and
- subject to aspects of the Well-Being of Future Generations (Wales) Act 2015 and the Environment (Wales) Act 2016 which also have to be addressed.

The permit will regulate 4No. natural gas fuelled boilers that will emit oxides of nitrogen (NO<sub>x</sub>) to air. The boilers each have a net rated thermal input of 2.74 MW and the site's total aggregated net rated thermal input is 10.96 MW. Each boiler is housed within a single building with each boiler having an individual inlet and exhaust gas flue that release exhaust gasses at 3.5 m above ground level via impeded horizontal louvres, using fins. The purpose of the Site is to supply hot water to the adjacent Cardiff Heat Network and is located on land on Roath Dock Road, Cardiff, next to the Viridor Waste to Energy facility and Roath Dock. The Site is permitted to operate for a maximum of 336 hours per year and we have based all of our assessments of risk to human and health and the environment on this assumption. As the plant will operate for less than 500 hours per year the exhaust gases are not subject to the emission limit values (ELV) stipulated in the Medium Combustion Plant Directive.

During the determination, the company name changed from Pinnacle Power Limited to Hemiko Limited.

We address the legal requirements directly where relevant in the body of this document. NRW is satisfied that this decision is consistent with its general purpose of pursuing the sustainable management of natural resources (SMNR) in relation to Wales, and applying the principles of SMNR. In particular, NRW acknowledges that it is a principle of sustainable management to take action to prevent significant damage to ecosystems. We consider that, in granting the Permit a high level of protection will be delivered for the environment and human health through the operation of the Facility

in accordance with the permit conditions. NRW is satisfied that this decision is compatible with its general purpose of pursuing the sustainable management of natural resources in relation to Wales and applying the principles of sustainable management of natural resources.

### **Environment Wales Act 2016 – Biodiversity and resilience of ecosystems duty**

Section 6 of the Environment Wales Act 2016 requires that we seek to maintain and enhance biodiversity in the exercise of our functions, and in so doing promote the resilience of ecosystems, in a manner that is consistent with the proper exercise of our functions. NRW is satisfied that in this case we have taken into account and had due regard to this duty in so far as it is consistent with the function of determining an application for an EPR permit.

## **3 Air Quality**

For this kind of regulated activity, the principal emissions are emissions to air. There are no permit conditions for water, land, odour or noise and BAT does not apply.

The next sections of this document explain how we have approached the critical issue of assessing the likely impact of air emissions from the facility on human health and the environment and what measures we are requiring to ensure a high level of protection.

We have reviewed the operator's assessment of the environmental risk from the facility. The operator's risk assessment is satisfactory. The assessment shows that, applying the conservative criteria in our guidance on Environmental Risk Assessment, all emissions may be categorised as environmentally insignificant.

### **3.1 Assessment of Impact on Air Quality**

This section of the decision document deals primarily with the dispersion modelling of emissions to air from the stacks and its impact on local air quality.

The Applicant has assessed the facility's potential emissions to air against the relevant air quality standards, and the potential impact upon human health. These assessments predict the potential effects on local air quality from the Facility's stack emissions.

The air impact assessments, and the dispersion modelling has been based on the plant operating continuously at the relevant long-term or short-term emission limit values, i.e. the maximum permitted emission rate. We are in agreement with this approach. The assumptions underpinning the model have been checked and are reasonably precautionary. The output from the model has then been used to inform further assessment of health impacts.

The applicant has calculated process contributions (PC) on a modelled grid encompassing nearby sensitive receptors. The modelling results for NO<sub>x</sub> will be discussed separately below.

### **Nitrogen dioxide (NO<sub>2</sub>)**

A long term Air Quality Standard (AQS) of 40 µg/m<sup>3</sup> (annual) and short term AQS of 200 µg/m<sup>3</sup> (hourly) was assumed for NO<sub>2</sub>. The applicant has created contour maps showing the geographical extent of the modelled domain that is predicted to exceed 0.4 µg/m<sup>3</sup> and 2 µg/m<sup>3</sup> NO<sub>2</sub>, which are >1% and >10% of the annual and hourly AQSs respectively. All sensitive receptors in the vicinity of the site fall outside the extent of these modelled domains. Therefore, in accordance with NRW guidance, the long- and short-term impacts from NO<sub>x</sub> can be considered insignificant.

### **3.2 Impact on Habitats sites, SSSIs, non-statutory conservation sites**

The facility is within the relevant screening distance criteria for protected conservation sites. A full assessment of the application and its potential to affect any of the sites has been carried out as part of the permit determination process.

### **3.3 National Site Network<sup>1</sup>/Ramsar sites**

The following National Site Network/Ramsar sites are located within the 2.5km of the site (in line with AQTAG 14 for MCPs):

- Severn Estuary (Wales) SAC (UK0013030);
- Severn Estuary (Wales) SPA (UK9015022); and
- Severn Estuary (Wales) Ramsar (UK11081).

An OGN 200 Form 1 (Habitats Regulation Assessment) was completed to assess the potential to affect the National Site Network/Ramsar sites, this is available on the public register.

### **Assessment of Likely Significant Effect:**

The project has been screened for likelihood of significant effects and, taking account of the advice received from protected sites advisors, is considered not likely to have a significant effect on any National Site Network/Ramsar site (as documented in section 3.2 of OGN 200 form 1, or section 5 if applicable).

### **3.2.2 SSSI Assessment**

The following Sites of Special Scientific Interest (SSSI) are located within 2 km of the site (in line with AQTAG 14 for MCPs):

- Severn Estuary.

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<sup>1</sup> National Site Network means the networks of sites in the United Kingdom's territory consisting of such sites as – (a) immediately before exit day formed part of Natura 2000; or (b) at any time on or after exit day are European sites, European marine sites and European offshore marine sites for the purposes of any of the retained transposing regulations.

An Appendix 4 Form was completed to assess the potential to effect the SSSI site, this is available to view on the public register. The assessment concluded the facility is not likely to damage any of the features of the SSSI site.

### Non-statutory conservation sites

The following Non-statutory conservation sites are located within 100m of the site (in line with AQTAG 14):

- Ocean Way SINC.

The applicant has created contour maps showing the geographical extent of the modelled domain that is predicted to exceed 100% of all critical levels and loads that are applicable to the Ocean Way SINC and all parts of the Ocean Way SINC are located outside of these contours. We therefore concluded that the facility alone is not likely to cause significant pollution to the SINC.

### 4. Energy efficiency

The site has an aggregated net rated thermal input of 10.96 MWth and is therefore below the threshold that would require the applicant to conduct a cost benefit analysis under the requirements of the Energy Efficiency Directive (EED).

## Decision checklist

Aspect considered	Decision
<b>Receipt of application</b>	
Duly making	The Application was accepted as duly made on 21/07/2023. This means we considered it was in the correct form and contained sufficient information for us to begin our determination, but not that it necessarily contained all the information we would need to complete that determination.
Confidential application	The Applicant made no claim for commercial confidentiality.
Identifying confidential information	We have not identified information provided as part of the application that we consider to be confidential.
Requests for information	<p>In order for us to be able to consider the Application duly made, we needed more information. We requested further information correcting the registered office address on application form Part A1 and requesting that a person listed with Companies House as Director and / or Secretary of the company sign Form Part F1. We also requested that our application fee be paid. Upon receipt of this information we were able to consider the application Duly Made.</p> <p>Further information was also requested by way of a Schedule 5 Notice requiring Justification for use of selected critical levels and loads in air dispersion modelling study. The Schedule 5</p>

	<p>Notice was sent on 03/08/2023 with a response date of 18/08/2023. The Applicant's response to the Schedule 5 Notice was provided on 17/08/2023. The additional information supplied satisfied the requirements of the Schedule 5 notice issued on 03/08/2023.</p> <p>A copy of the information notice and e-mails requesting further information were placed on our public register as were the responses when received.</p>
<b>Operator</b>	
Control of the facility	We are satisfied that the Applicant (now the Operator) is the person who will have control over the operation of the facility after the grant of the permit. We are satisfied that the Applicant will be able to operate the facility so as to comply with the conditions included in the permit. This decision was taken in accordance with current guidance on legal operator for environmental permits.
<b>Operator competence</b>	
Relevant convictions	<p>NRW's COLINS Database has been checked to ensure that all relevant convictions have been declared. No relevant convictions were found/relevant convictions were found.</p> <p>The operator satisfies the criteria in RGN 5 on Operator Competence.</p>
Financial provision	There is no known reason to consider that the operator will not be financially able to comply with the permit. The decision was taken in accordance with RGN 5 on Operator Competence.
Management system	We are satisfied that appropriate management systems and management structures will be in place for this facility, and that sufficient resources are available to the Operator to ensure compliance with all the permit conditions.
<b>The facility</b>	
The regulated facility	<p>The regulated facility is subject to EPR because it carries out an activity as described in Schedule 25A of EPR as well as an activity listed in Part 2 of Schedule 1 of EPR:</p> <ul style="list-style-type: none"> <li>One new Medium Combustion Plant aggregated to &lt;50 MWth at a specified location.</li> </ul> <p>The Operator has provided the grid reference for the emission points from the plant and the activity is defined in Table S1.1 of the permit.</p>
Annex I of MCPD	The information contained within Annex I of MCPD has been provided by the Operator and incorporated into the permit in Schedule 7.
<b>The site</b>	
Biodiversity, heritage, landscape and nature conservation	The application is within the relevant distance criteria of a site of nature conservation or habitat.

	<p>We have assessed the application and its potential to affect all known sites of nature conservation or habitats identified in the screening as part of the permitting process.</p> <p>We have assessed the Operator's air emissions impact modelling report and consider that emissions will not affect any sites of nature conservation or habitats identified. See Key Issues section above.</p>
<b>Environmental risk assessment</b>	
Environmental risk	For this kind of regulated activity, the principal emissions are emissions to air. We have reviewed the Operator's assessment of the environmental risk from the facility. The Operator's risk assessment is satisfactory. See Key Issues section above.
<b>Operating techniques</b>	
Operating techniques	We have specified the operating techniques and the operator must use the operating techniques specified in Table S1.2.
<b>Permit conditions</b>	
Use of conditions other than those from the template	Based on the information in the application, we consider that we do not need to impose conditions other than those in our permit template.
Emission limits	We have not set ELVs in the permit because the plant will operate for <500 hours per year.
Monitoring	<p>We have decided that monitoring should be carried out for the parameters listed in the permit, using the methods detailed and to the frequencies specified.</p> <p>The monitoring requirements have been imposed in order to the Operator to demonstrate compliance with the emission limits specified in the permit, as per the ELV and monitoring frequency requirements specified within Schedules 25A of EPR and/or technical guidance notes.</p> <p>The Operator will carry out monitoring in accordance with the relevant MCERTS methods.</p> <p>These decisions have been made in line with current relevant guidance including TGN M5 and <a href="https://www.gov.uk/guidance/monitoring-stack-emissions-low-risk-mcps-and-specified-generators">Monitoring stack emissions: low risk MCPs and specified generators - GOV.UK (www.gov.uk)</a></p>
Reporting	We have specified the reporting requirements in Schedule 4 of the permit to ensure data is reported to enable timely review by NRW to ensure compliance with permit conditions.
MCPD charges and subsistence fees	The type of application regarding MCPD will have an associated charge. The MCPD application type and number of plant will also form the basis for ongoing subsistence fees. More information on this can be found in our charging scheme on our website.