Planning Service
London Borough Of Camden
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London
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Reply to:
Simon McKee
Veolia
Springfield Farm Quarry
Broad Lane, Hotspur,
Buckinghamshire HP9 1XD

4 April 2025

Dear Planning Service,

Town and Country Planning Act 1990 (as amended).
Full Planning Application for Air Source (ASHPs) and Ancillary Development.
Royal Free Hospital, Pond St, London NW3 2QG

I am pleased to submit a planning application, via the planning portal, on behalf of the Royal Free London, NHS Foundation Trust ('the Trust), for the above proposed development.

Background

The Royal Free Hospital is a large acute general hospital located within the Hampstead Heath area of London. The building consists of 15 stories including the lower ground and service level floors. The hospital is operational 24 hours a day, 365/6 days a year and includes wards, acute medical departments, office areas, restaurant and retail outlets and service areas.

The Royal Free London NHS Foundation Trust is seeking to decarbonise their site at the Royal Free Hospital (RFH) and improve energy efficiency throughout the site. Scheduled works shall include replacement of the existing steam heating distribution circuit with a Low Temperature Hot Water (LTHW) circuit integrated with a new heat pump system and new modern chilled water (CHW) generating equipment also integrated with the new heat pump system. This change will improve the heating and cooling services for the Hospital's Patients, Visitors and Staff. The project will be funded with a mixture of private finance and a grant from the Public Sector Decarbonisation Scheme.

Overview

Veolia is working on behalf of the Royal Free London, NHS Foundation Trust to deliver measures aimed at providing energy efficiency and cost reductions across the Royal Free Hospital site. The Veolia developments consist of:

1. 4 x Air Source Heat Pumps (ASHPs), 10 x Adiabatic Coolers, 2 x 800kVA transformers and 1 x pump enclosure,
2. New, on site, pipe connections to connect to low carbon heating and cooling equipment and distribute the lower temperature hot water to plant rooms and air handling units (AHUs) across the Hospital site.

This application specifically deals with the ASHPs and associated infrastructure. The pipework will be covered under Permitted Development Rights (see below) and confirmed by way of a Certificate of Lawful Use (CLU).

Planning Approach Considerations

Many developments at hospital sites (Part 7, Class M) or involving renewable energy development (Part 14) benefit from Permitted Development Rights under The Town and Country Planning (General Permitted Development) Order 2015 (as amended)..

While Permitted Development was considered for this specific application the dimensions and location of the ASHPs prompting the consideration of noise (see below) meant the submitting of an application was considered the most appropriate planning approach for the avoidance of doubt.

The Proposed Development

The ASHP development is part of a redevelopment of the existing heating and cooler systems. The application site is on the top of the central tower roof of the hospital (see submitted plan *VES_TD_RFREE_100_000).* The hospital is a large 14 storey building in Hampstead Heath, with the nearest noise receptors being the residential apartments on the corner of Fleet Road and Pond Street which are approximately 123m North of the main hospital tower. The entire roof redevelopment consists of the installation of 4 x Air Source Heat Pumps (ASHPs), 10 x Adiabatic Coolers, 2 x 800kVA transformer and 1 x pump enclosure, and the removal of one cooling tower from the tower roof. This is shown on submitted plan *VES_TD_RFREE_100_004.* It should be noted that the existing equipment has resulted in complaints from residents in the past and the new equipment will include noise attenuation measures which will improve the local noise profile for residents. The total area within the red line is approximately 1,010m2. The proposed development would create 1.3mw of installed capacity.

High-temperature heat pumps will be implemented to cover part of the domestic hot water and heating loads. Low-temperature reversible air source heat pumps will be installed to provide low temperature heat to the water source heat pump in heating season and cooling water in cooling season. The air source heat pump generates heat at 35°C and the water source heat pump lifts hot water temperature to 85°C. The water source heat pump additionally recovers waste heat from the water cooled chillers and offset heat otherwise generated from air source heat pumps. This phase also includes the installation of new rooftop transformers and distribution for additional electrical loads associated with heat pump systems. New Building Management System (BMS) outstations and equipment compatible with the existing site network will be implemented for a holistic controls strategy by the Trust.

A noise assessment has been undertaken and includes noise mitigation measures recommended by noise assessment specialists. Access to the roof will be via existing and will not be obstructed.

The ASHPs would feed into a new Water Source Heat Pump (WSHP), and Chiller arrangement to be located in the existing Chiller Plant Room on the service level. It should be noted that installation of any external WSHP is covered by Permitted Development Rights (Part 14, Class M of the Town and Country Planning (General Permitted Development) Order 2015). However as the WSHP is to be located within the existing chiller room it is not a development to which this would apply.

The proposals outlined above will allow a de-steam of the current heating and Domestic Hot Water (DHW) network, as lower temperature hot water is distributed around multiple plant rooms across the Hospital site. The above will also enable replacement of the chilled water network to provide more efficient and resilient cooling to the Hospital.

Potential Environmental Impacts

Environmental Considerations

Noise

A Noise Impact Assessment has been produced in support of this application. In addition to the plant proposed by Veolia, an additional plant is also in proposal at Royal Free Hospital that falls outside of Veolia's scope. Therefore, this report presents two assessment scenarios that have been conducted: one including the proposed plant beyond Veolia's scope and another excluding it. This is to consider the potential cumulative noise impacts.

A BS4142 assessment was undertaken and showed that during the daytime and night-time rating levels where above the measured background noise levels predicting that noise from the proposed site will result in a Significant Observed Adverse Effect Limit (SOAEL) at nearby existing receptors when the proposed plant outside of Veolia's scope was included in the assessment. A mitigation strategy including 2.5m noise barriers and noise attenuators/quieter plant items were included in the assessment.

With mitigation in place a BS4142 assessment showed that daytime and night-time rating levels were above the measured background noise levels predicting that noise from the proposed site will result in a Lowest Observed Adverse Effect Limit (LOAEL) at a nearby existing receptors. To provide a contextual element to the assessment a noise intrusion assessment was presented.

However, when just the proposed plant within Veolia's scope were assessed, only the night- time rating levels were above the measured background noise levels, resulting in a Lowest Observed Adverse Effect Limit (LOAEL) at nearby existing receptors. The indicative noise break-in calculations have been undertaken to determine likely impacts of noise upon existing sensitive receptors. Based on calculations undertaken, it is anticipated that internal noise level criteria outlined in Section 2 of this report are met at the majority of receptors. A change in noise level assessment was also undertaken and predicted that noise from the proposed site will result in the Lowest Observed Adverse Effect Limit (LOAEL) at nearby existing receptors. Considering the assessments and that with context the effect of the proposed noise falls within the Lowest Observed Adverse Effect Level (LOAEL) in accordance with the NPPF, noise from the site is therefore also considered to be in accordance with Camden Council's Policy A4. The NPPF provides test points against which the proposed development has been assessed. Considering these points, the following conclusions were drawn within the report:

NPPF paragraphs 198 and 201:

Based upon the assessments presented, it is considered that the development does not adversely affect or put sensitive receptors at risk from noise pollution, and no significant adverse effects are predicted to occur.

NPPF paragraph 200:

Considering the existing use of the site and wider development site, it is not considered that any existing businesses wanting to develop would be restricted by the proposals.

Planning Practice Guidance:

Noise It has been predicted that on-site operational noise effects associated with the Development will be below the Significant Observed Adverse Effect and therefore the development will have a low impact in relation to noise.

Visual Impact

Due to the location of the equipment on the roof of the tallest central building on site and the inclusion , in part, of a 2.5m noise barrier it is concluded that the development will have no or limited impact visually, especially when viewed in the context of the hospital building and complex as a whole.

Planning Policy Summary

National Strategy

Net Zero Strategy (Build Back Greener)

The Government's main climate change policy document is the Net Zero Strategy (Build Back Greener) which was published on 19 October 2021 (updated April 2022). It set out policies and proposals for decarbonising all sectors

of the UK economy to meet the Government's net zero target by 2050. This proposed development will contribute to those aims at a local level.

Local Policy

Camden Local Plan 2017

Policy CC1- Climate Change Mitigation

It is stated:

The Council will require all development to minimise the effects of climate change and encourage all developments to meet the highest feasible environmental standards that are financially viable during construction and occupation. We will:

d. support and encourage sensitive energy efficiency improvements to existing buildings;

The development will contribute to Camden's climate and renewable targets by providing energy saving measures to the Royal Free Hospital.

Policy A4- Noise and Vibration

Policy A4 has been considered earlier in this statement under *'Noise'* and within the Noise Impact Assessment and the development was demonstrated to be in accordance with this policy.

Submitted Documents

The following documents have been submitted, via the planning portal, to support the application:

- Completed Application Form (Portal)
- Noise Impact Assessment Ref: 784-B070059 (Tetratech)
- Community Infrastructure Levy (CIL) - Form 1: CIL Additional Information
- VES_TD_RFREE_100_000 (Site Location Plan)
- VES_TD_RFREE_100_001 (Current Elevations)
- VES_TD_RFREE_100_002 (Proposed Elevations)
- VES_TD_RFREE_100_003 (Current Layout)
- VES_TD_RFREE_100_004 (Proposed Layout)

We look forward to receiving a positive outcome from this application in due course. In the meantime, should you have any queries or require any further information, please do not hesitate to contact me [redacted]

Yours sincerely

[redacted]

Simon McKee
Planning Manager
For Veolia ES (UK) Ltd