

DN27 - Generator function statement

4408 Belgrove House

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1 Introduction

This is a note to illustrate and elaborate on the function of the standby generator proposed to be installed in the basement of Belgrove House. The generator will only be used in case of total power loss to the building and will never operate in parallel with the normal power supply to supplement the load demand of the building.

The classification of its function for planning purposes in terms of noise emissions has been analysed and described in the below memos from Sandy Brown, please refer to them for further details.

- "23224-M005-A Updated assessment of generator noise transfer" issued on 01/08/2023.
- "23224-M006-A Comments on Planning Condition 4 and the proposed generator" issued on 07/08/2023.

2 Generator function

A single 2000kVA standby rated diesel generator will be provided to primarily support the life safety systems and fire-fighting protection equipment of Belgrove House in case of loss of power to the building due to failure in either UKPN's network or anywhere else in the main Low Voltage (LV) distribution network of the building. Below is the list of the base-build life safety and firefighting equipment supported by the generator:

- Lab extract fans
- Smoke extract fans
- Sprinkler pumps
- Firefighting lifts
- Evacuation lifts
- Firefighting shaft small power and lighting distribution boards
- Fire and security room distribution boards
- Central battery system for emergency lighting

The generator will also provide support to landlord's essential equipment such as landlord's ICT equipment and associated mechanical cooling that require power back-up in case of loss of power.

Finally, in case of loss of power to the building under a non-fire scenario, the generator will also be able to support the tenant's essential load requirements as defined by MSD.