



Planning Specialist Observations			
Specialism(s)	Air Quality		
Officer	Michael Briginshaw		
Site	Union Park UP4 NORTH HYDE GARDENS HAYES UB3 4QQ		
Proposal	Redevelopment of site to deliver extension to existing Union Park data centre campus consisting of (a) free standing data centre building; (b) energy, power, and water infrastructure; (c) site access and internal roads; (d) site security arrangements; (e) hard and soft, green landscaping; and (f) other ancillary and auxiliary forms of development.		
Planning Ref	75111/APP/2025/739	Date	15 08 2025

Objection	Condition	Informative	No Comments	Discharge of Condition
	x			

1 Summary of Comments

The proposed development is located within the LBH Air Quality Management Area and the Hayes Focus Area, bringing additional pollutant emissions which will add to current poor local air quality. As per the London Plan, developments need to be neutral as minimum and LBH requires a more stringent application of the air quality neutral application of benchmarks (LBH Air Quality Local Action Plan 2019-2024, Measure 5), with the application of Defra's Damage Cost Tool kit to determine the level of mitigation requirements associated with total emissions of development.

LBH Air Quality Local Action Plan 2019-2024 also requires development proposals located in Focus Areas to be air quality positive (LBH Air Quality Local Action Plan 2019-2024), contributing to the reduction of emissions in these sensitive areas. LBH requires developments to incorporate air quality positive design measures from the outset and suitable mitigation measures to reduce pollution, especially in areas where the air quality is already poor (LBH Air Quality Local Action Plan 2019-2024), namely Focus Areas. Furthermore, policy DMEI 14 of the emerging London Borough of Hillingdon Local Plan (part 2), requires active contribution towards the continued improvement of air quality, especially within the Air Quality Management Area.

The proposed data centre building (Class B8) with 14 emergency generators (14 no.) and associated flues is not air quality neutral as required by the London Plan, not air quality neutral as per LBH Air Quality Local Action Plan 2019-2024, and not air quality positive, as required by the LBH Local Action Plan.



Therefore, further mitigation is required. Below the level of mitigation required is presented.

DAMAGE COST AND MITIGATION MEASURES

The proposed development is not air quality positive and not air quality neutral. According to LBH Local Action Plan, proposed development within Focus Areas (or with impacts on FAs) needs to be Air Quality neutral and positive and further action is required to reduce total emissions produced by its operation.

Therefore, the total emissions associated with the proposed development activities need to be mitigated. Mitigation measures to reduce emissions can be applied on-site or off-site. Where this is not practical or desirable, pollutant off-setting will be applied. The level of mitigation required associated with the operation phase of the proposed development is calculated using Defra's Damage Cost Approach.

Any mitigation measures proposed are evaluated in terms of likely emission reductions onto local air quality. Wherever quantifiable, these are calculated and subtracted from the overall value due. When no quantification is possible, a flat rate discount is applied. Table 1 summarises the aspects of air quality and planning requirements for the proposed development.



Table 1 – Air Quality Neutral and Air Quality Positive

Development	Units/area (m ²)	Pollutant Emissions	AQ Neutral	Within FA/catchment area of FA?	Air Quality Positive?
data centre building with 14 emergency generators, with emission rates as described on Table 4.1 of Appendix 6.1 to 6.6 of Air Quality Chapter, with values based on unabated concentrations of 2362 mg.Nm-3 (at 100% load), 2172 mg.Nm-3 (at 75% load), 1375 mg.Nm-3 (at 25% load) and 2411 mg.Nm-3 (at 10% load). All PM is assumed to emit fully as both PM10 and PM2.5, for conservatism. traffic emissions associated with of 52 vehicles	18,910 m	NOx, PM ₁₀ , PM _{2.5}	No	Yes	No
Requirements		Mitigation of total NOx /PM _{2.5}			S106 required £ £189,413 for 14 generators and £21,095 for traffic emissions

The total level of mitigation required to the proposed development for pollutant emissions is £189,413 for 14 generators and £21,095 for traffic emissions, totalling £210,508.17.

Therefore, a section 106 agreement with the LAP of **£210,508.17** is to be paid for Hillingdon to deliver its air quality local action plan and or implement specific measures that pollutant emissions and or reduce human exposure to pollution levels, associated with the testing & maintenance regimen assumed, as well as a 2-hour power failure plus traffic emissions associated with the operation of the development.

Please note that any additional backup generators will be subject to a separate planning application, the proposed development shall not deploy any additional generators without LBH evaluation and approval.



2 Reason for Refusal (if objecting)

N/A

3 Observations

In addition, Air Quality conditions are required to manage operation and construction emissions as required by the Mayor of London. See text below.

Condition 4 - Compliance with Air Quality Emissions

The development shall be operated in accordance with the air quality emissions set out in Table A6.4.4: Generator Emission Calculation Inputs page 19 of the Appendix 6.1-6.6 - Air Quality Report (Dated 7th March 2025) and Table 4.1: Model Inputs for Generators of the Appendix 6.1-6.6 - Air Quality Report (Dated 7th March 2025), which confirms that the following emissions shall not be exceeded:

- (i) Emissions per generator per year: Total annual emissions per backup generator shall not exceed 0.0872748 tonnes of NO_x/year and not exceed 0.0020808 tonnes of PM_{2.5}/ year.
- (ii) Total emissions per year: Total annual emissions for the total 14 generators shall not exceed 0.6546216 tonnes of NO_x/year and not exceed 0.012622tonnes of PM_{2.5}/ year

REASON

As the application site is within an Air Quality Focus Area and Air Quality Management Area, in close proximity to sensitive receptors, and to reduce the impact on air quality in accordance with Policy EM8 of the Hillingdon Local Plan: Part 1 (2012), Policy DMEI 14 of the Hillingdon Local Plan: Part 2 (2020), the London Borough of Hillingdon Air Quality Action Plan 2019-2023, Policy SI 1 of the London Plan (2021), and the National Planning Policy Framework (2024).

Condition 9 - Backup Generator Testing Hours

The routine testing of equipment designed to operate only in an emergency shall be carried out on any normal working day Monday to Friday, between the hours of 0800 and 2000, with the duration and frequency stipulated by the Testing and Maintenance, regime, not to exceed an average of 15 hours per year per generator, unless agreed otherwise in writing by the Local Planning Authority.



REASON

To safeguard the noise environment and the amenity of neighbours, in accordance with Policy DMHB 11 of the Hillingdon Local Plan: Part 2 (2020) and Policy D14 of the London Plan (2021).

Condition 10 - Backup Generator Fuel

The generators shall be fuelled by hydrotreated vegetable oil (HVO) or an alternative fuel with an equivalent or lower level of pollutant emissions only, except where undertaking best endeavours, the operator has been unable to obtain a supply of HVO or an alternative low emission fuel.

REASON

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Condition 26 - Cleanest Generator and Fuel Technology

Prior to first occupation of the development, evidence that the cleanest backup emergency generators and cleanest fuel available to service the generators in the market will be deployed shall be submitted to and approved in writing by the Local Planning Authority. This should include a note explaining why alternative cleaner types of backup generators and fuel have not been chosen as emergency engines. Thereafter the development shall be implemented and operated in accordance with these details.

REASON

As the application site is within an Air Quality Focus Area and Air Quality Management Area, in close proximity to sensitive receptors, and to reduce the impact on air quality in accordance with Policy EM8 of the Hillingdon Local Plan: Part 1 (2012), Policy DMEI 14 of the Hillingdon Local Plan: Part 2 (2020), the London Borough of Hillingdon Air Quality Action Plan 2019-2023, Policy SI 1 of the London Plan (2021), and the National Planning Policy Framework (2024).

Condition 27- SCR to achieve 95mg/Nm3

Prior to first occupation of the development, evidence that the backup generators are to be fitted with selective catalytic reduction (SCR) technology to achieve a NO_x emission concentration of 95mg/Nm³ as minimum maximum (at normalized conditions: 273.15 K, 101.3 kPa, and corrected for water vapor content (dry gas) and



oxygen concentration of 15%) is to be submitted to and approved in writing by the Local Planning Authority. Evidence is to include, but is not restricted to, a written warranty and supporting documentation by the equipment manufacturers that this NOx emission concentration is to be achieved, within 20 minutes of generator start-up.

Thereafter the development shall be implemented and operated in accordance with these details.

REASON

As the application site is within an Air Quality Focus Area and Air Quality Management Area, in close proximity to sensitive receptors, and to reduce the impact on air quality in accordance with Policy EM8 of the Hillingdon Local Plan: Part 1 (2012), Policy DMEI 14 of the Hillingdon Local Plan: Part 2 (2020), the London Borough of Hillingdon Air Quality Action Plan 2019-2023, Policy SI 1 of the London Plan (2021), and the National Planning Policy Framework (2024).

Condition 28 - Operating Regime for the Emergency Backup Generators

Prior to first occupation of the development, an formal declaration Operating Regime (provided by the by the operator), supported by a manufacturer report, describing specifying the testing and maintenance regime and annual hours, shall be submitted to and approved in writing by the Local Planning Authority. The number of testing hours is to not exceed an average of 15 hours per generator per year and shall avoid AM and PM peak hours.

Thereafter the development shall be implemented and operated in accordance with these details.

REASON

As the application site is within an Air Quality Focus Area and Air Quality Management Area, in close proximity to sensitive receptors, and to reduce the impact on air quality in accordance with Policy EM8 of the Hillingdon Local Plan: Part 1 (2012), Policy DMEI 14 of the Hillingdon Local Plan: Part 2 (2020), the London Borough of Hillingdon Air Quality Action Plan 2019-2023, Policy SI 1 of the London Plan (2021), and the National Planning Policy Framework (2024).

Condition 29 - Emission Reduction and Management Plan

Prior to occupation of the development, an Emission Reduction and Management Plan (ERMP) for the development, shall be submitted to and approved in writing by the Local Planning Authority. This shall outline and commit to a programme for carrying out a viability study to review emissions performance and alternative options for the diesel backup units, with clear time scales, to be submitted no later than year 19 and implemented no later than year 20. The viability study shall be based on the BAT (best available technology) principle giving weigh to sustainability



principles and aligned with the objectives of the Borough on improving air quality. This shall include but is not limited to the following:

- (i) A review of options for reducing NO_x and PM_{2.5} emissions impacts for the National Grid power failures;
- (ii) A review of options for reducing NO_x and PM_{2.5} emissions for the testing regimes;
- (iii) A review of options for reducing NO_x and PM_{2.5} emissions by improved SCR systems /alternative retrofitting systems
- (iv) A review of options for reducing NO_x and PM_{2.5} emissions by alternative fuels
- (v) A feasibility study including benefit analysis for potential upgrades of the backup generators or other changes to infrastructure (e.g. SCR), type of fuel, generator type and operational regimes on site that could reduce emissions over time; alternative emergency backup solutions are to be also evaluated, e.g. fuel cells , etc.
- (vi) Use of the above information to propose appropriate changes in the generators type, selection of generators or other potential options for decreasing emissions over time no later than year 21; and
- (vii) Proposal of an appropriate timescale for improvements.

Thereafter the development shall be implemented and operated in accordance with these details.

REASON

As the application site is within an Air Quality Focus Area and Air Quality Management Area, in close proximity to sensitive receptors, and to reduce the impact on air quality in accordance with Policy EM8 of the Hillingdon Local Plan: Part 1 (2012), Policy DMEI 14 of the Hillingdon Local Plan: Part 2 (2020), the London Borough of Hillingdon Air Quality Action Plan 2019-2023, Policy SI 1 of the London Plan (2021), and the National Planning Policy Framework (2024).

Condition 30 - Emissions Monitoring Plan

Prior to first occupation of the development, an Emissions Monitoring Plan (EMP) shall be submitted to and approved in writing by the Local Planning Authority. The EMP shall detail the proposals for the implementation of flue gas monitoring to meet the requirements of Condition 4. The EMP must include all backup generators and shall be in place from the start of operations.

Thereafter the development shall be implemented and operated in accordance with these details.

REASON

As the application site is within an Air Quality Focus Area and Air Quality Management Area, in close proximity to sensitive receptors, and to reduce the impact on air quality in accordance with Policy EM8 of the Hillingdon Local Plan: Part 1 (2012), Policy DMEI 14 of the Hillingdon Local Plan: Part 2 (2020), the London Borough of Hillingdon Air Quality Action Plan 2019-2023, Policy SI 1 of the London Plan (2021), and the National Planning Policy Framework (2024).



Condition 35 - Low Emission Strategy

Prior to the first occupation of the development, a Low Emission Strategy (LES) shall be submitted to and approved in writing by the Local Planning Authority. The LES shall detail but be not restricted to:

- i) a clear and effective strategy to encourage users of development to:-
 - a) use public transport;
 - b) cycle / walk to work where practicable;
 - c) enter car share schemes;
 - d) purchase and drive to work zero emission vehicles.
- ii) Install EV fast charging points in accordance with the approved plans to promote the use of zero emission vehicles.

The measures in the agreed scheme shall be maintained throughout the life of the development.

REASON

As the application site is within an Air Quality Focus Area and Air Quality Management Area, and to reduce the impact on air quality in accordance with Policy EM8 of the Local Plan: Part 1 (2012), Policy DME1 14 of the Hillingdon Local Plan: Part 2 (2020), Policies SI 1 and T4 of the London Plan (2021) and the National Planning Policy Framework (2024).

Post-Occupation Conditions

Condition 39 - Backup Generator Emission Evidence and Cap

Within one year of first occupation of the development, and in accordance with the Emission Reduction and Monitoring Plan (Condition 29), details of the emergency backup generators shall be submitted to, and approved in writing by, the Local Planning Authority. The details shall demonstrate that the backup generators are of the same emission levels as described in Table A6.4.4 of Appendix 6 of the Air Quality Report (dated 7th March 2025) (as secured under Condition 4) or cleaner.

REASON

As the application site is within an Air Quality Focus Area and Air Quality Management Area, and to reduce the impact on air quality in accordance with Policy EM8 of the Local Plan: Part 1 (2012), Policy DME1 14 of the Hillingdon Local Plan: Part 2 (2020), Policies SI 1 and T4 of the London Plan (2021) and the National Planning Policy Framework (2024).

Heads of Terms

A minimum Air Quality damage cost of £210,508, potentially rising up to £657,388 or more, depending on the air pollutant emissions monitoring results in year two and



subsequent years, in accordance with an emission monitoring schedule as defined in Condition Pollutant Emission Monitoring Plan.

Context

The proposed development is within an Air Quality Management Area and will affect identified Air Quality Focus Areas. Air Quality Focus Areas are defined by the GLA as areas already suffering from poor air quality where prioritisation of improvements is required. This is supported by:

Local Plan Part 2 Policy DME1 14

A) Development proposals should demonstrate appropriate reductions in emissions to sustain compliance with and contribute towards meeting EU limit values and national air quality objectives for pollutants.

B) Development proposals should, as a minimum:

- i) be at least “air quality neutral”;
- ii) include sufficient mitigation to ensure there is no unacceptable risk from air pollution to sensitive receptors, both existing and new; and
- iii) actively contribute towards the continued improvement of air quality, especially within the Air Quality Management Area.

Name

Title