

Memorandum

To	Christopher Croucamp	From	Josh Clancy
Copy	Juan Lewis, Henry Moore, Leanne Mills	Reference	521243 NEXTDC S4
Date	23/10/2025	Pages (including this page)	2
Subject	NEXTDC S4 Battery Room Sizing		

1 Introduction

This memo outlines the spatial requirement for the lithium battery cabinets proposed to be used at NEXTDC S4 Data Centre, Horsley Park (SSD-63741210).

2 Battery Room Size

The Battery Rooms at NEXTDC S4 are sized to cater for the number of battery cabinets/racks associated with the uninterruptible power supplies (UPS) within the building switchrooms. Each battery room houses 10 Battery Racks for each associated 3-Megawatt Switchroom, with additional spare spaces for 2 racks (total 12 racks for spatial planning purposes). Each battery room is sized to consider the footprint of the battery cabinets and associated clearances and egress. See a breakdown of the spatial allocation below:

Footprint	Dimensions (m)	Area (m ²)
Battery Cabinet Footprint (including front access clearance)	1.9m x 0.6m	1.14m ²
12 Battery Cabinets	N/A	13.68m ²
Battery Room Area (Approximately)	4.3m x 4.4m	18.92m ²

The battery cabinets and clearances take up ~72% of the internal space of the battery rooms with the remaining space being used for non-standard structural elements, construction tolerances, access doors etc. refer to the architectural drawings for specific locations.

3 Batteries Stored on Site

Each battery rack is composed of a rack frame and the 12 battery modules themselves. As per the figure below, the weight of a module proposed to be used is 54kg.

Cell & Module Technical Specification

	Cell	Module
Rated voltage (V)	3.2	51.2
Rated Capacity (Ah)	52	104
Rated Energy (kWh)	0.166	5.324
Series & Parallels	-	16S2P
Dimensions (W*D*H)	122*13.0*360	442*752*120
Weight (kg)	1.08	54

Figure 3.1: Eaton 93Li G2 Lithium Battery Cell & Module Technical Specification

For the total weight of Lithium battery modules proposed to be used in the project refer to the table below. Only 10 racks are required within each battery room for the capacity of the electrical infrastructure designed.

Building	Module Weight (kg)	Modules per Rack	Lithium-ion Battery Weight per rack (kg)	Racks per Battery Room	No. Battery Rooms	Total Battery weight per Building (kg)
Building A	54	12	648	10	30	194400
Building B	54	12	648	10	30	194400
Building C	54	12	648	10	30	194400
Building D	54	12	648	10	30	194400
Total (t):						777.6t

Note that other small-scale batteries for individual devices/panels are not considered within this calculation.

4 Conclusion

The spatial allocation of the battery rooms is sufficient to cater for the quantity of batteries proposed to be used in the NEXTDC S4 Data Centre.