



28/05/2025
Att: CWAdmin
Endeavour Energy

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MAXIMUM DEMAND
NEW PREMISES: 39-45 & 47-65 Old Castlereagh Rd, Castlereagh

This calculation is based on a new Tourism development at the three lots(12,14 and 16) on 39-65 Old Castlereagh Road.

We have prepared the maximum demand calculation for the proposal based on the following development details:

Lot 12: 7-storey hotel building with 147 rooms, restaurant, gym, external terrace, pool and spa facilities and undercroft carparking

Lot 14: A 5,697*m² indoor recreation facility building with 2 x drive-thru restaurants and undercroft carparking

Lot 16: 5,177*m² club and undercroft carparking

We confirm that, based on our assessment of the existing power supply at Old Castlereagh Road fronting the proposed development and our evaluation of the maximum demand required to service the proposed development, this project is capable of being serviced with the supply of electricity. The proposed method of supply is shown on the attached Level 3 ASP Concept Design.

We confirm that our assessment has been prepared in satisfaction of the Penrith Lakes DCP Clause 5.2.2 Tourism South Precinct Master Planning Objective (b) Ensure that infrastructure, services and amenities are sufficient to support growth and development in the precinct.

The provision of electrical services to the proposed development have been designed following Table C3 AS/NZS 3000:2007 as detailed below.

Lot 12 DP 793163

Light and power	7570m ² x 15 VA/m ²	=	113.55 kVA = 161.06 Amps / phase
Ventilation	7570m ² x 15 VA/m ²	=	113.55 kVA = 161.06 Amps / phase
Air Conditioning	7570m ² x 40 VA/m ²	=	302.8 kVA = 429.50 Amps / phase

60 Hotel Rooms at 3.5kVA = 302.4 Amps/ phase

Lot 14 & 16 DP 793163

Light and power	19760m ² x 15 VA/m ²	=	296.4 kVA = 420.43 Amps / phase
Ventilation	19760m ² x 15 VA/m ²	=	296.4 kVA = 420.43 Amps / phase

Total Phase A = 1894.88 Amps
Phase B = 1894.88 Amps
Phase C = 1894.88 Amps

Say 2000 Amps / phase

Therefore a new proposed 1500kVA Padmount Substation is required

Should you required any further information, please do not hesitate to contact me.

Kind Regards,



Charbel Lahoud

Level 3 Accredited Service Provider 3942