

ALOOM

MW50 POC Engineering Visual Set

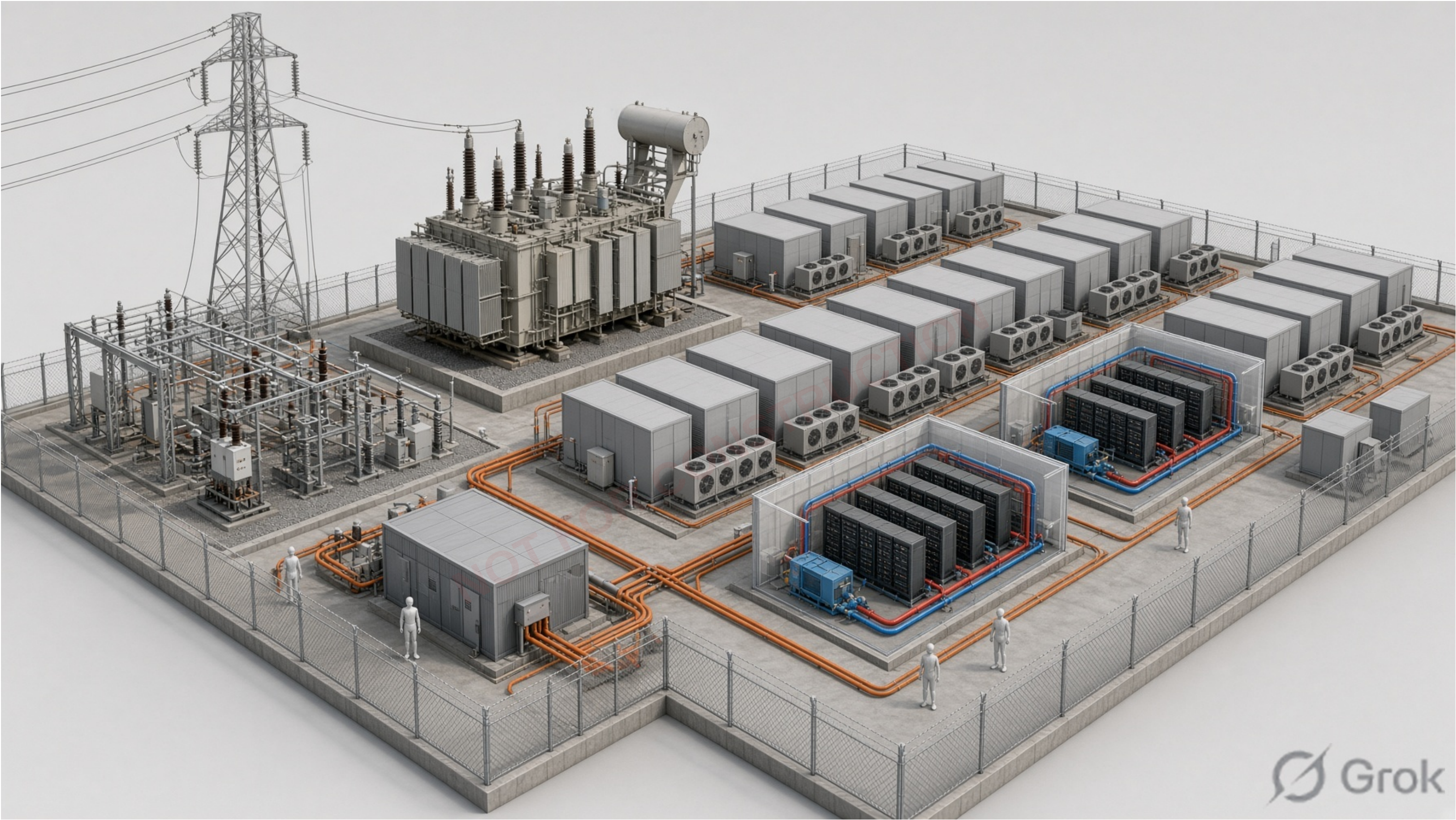
Concept A — Dual-OEM (NVIDIA / AMD 50–50) campus screening package

- Boundary: ≤ 50.0 MW continuous facility input at proposed project meter
- Main plant: 1×60 MVA oil-immersed main transformer
- Topology: $C250 \rightarrow MW1 \rightarrow B2 \rightarrow H10 \times 5 = MW50$
- POC silicon split: ~ 25 MW NVIDIA NVL-class · ~ 25 MW AMD Helios/MI-class
- Status: NOT FOR CONSTRUCTION · no site / grid offer / OEM reservation secured

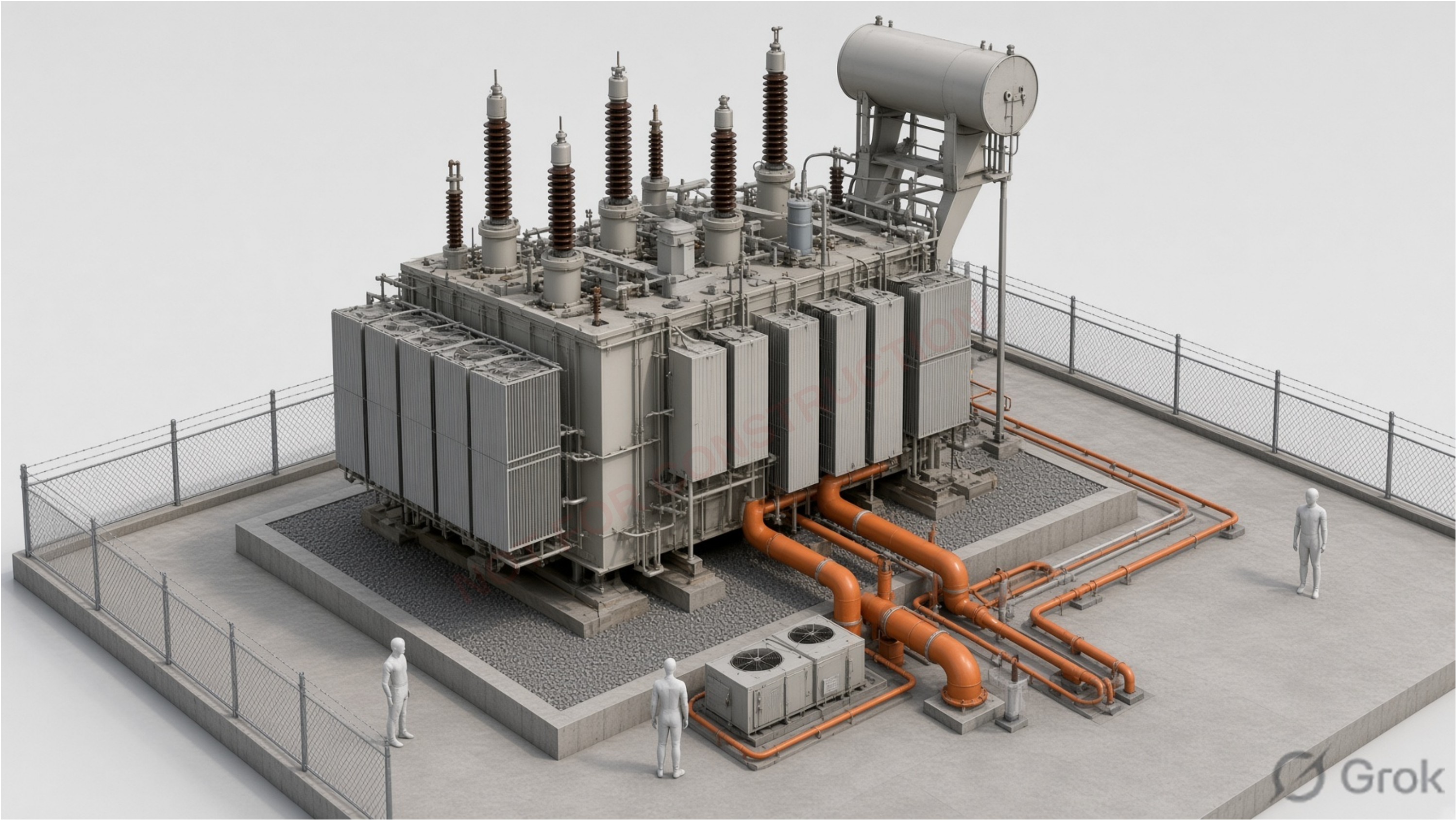
DOCUMENT No. ALOOM-MW50-ENG-SET-001

Revision A · 2026-08-10 · 6 sheets including cover

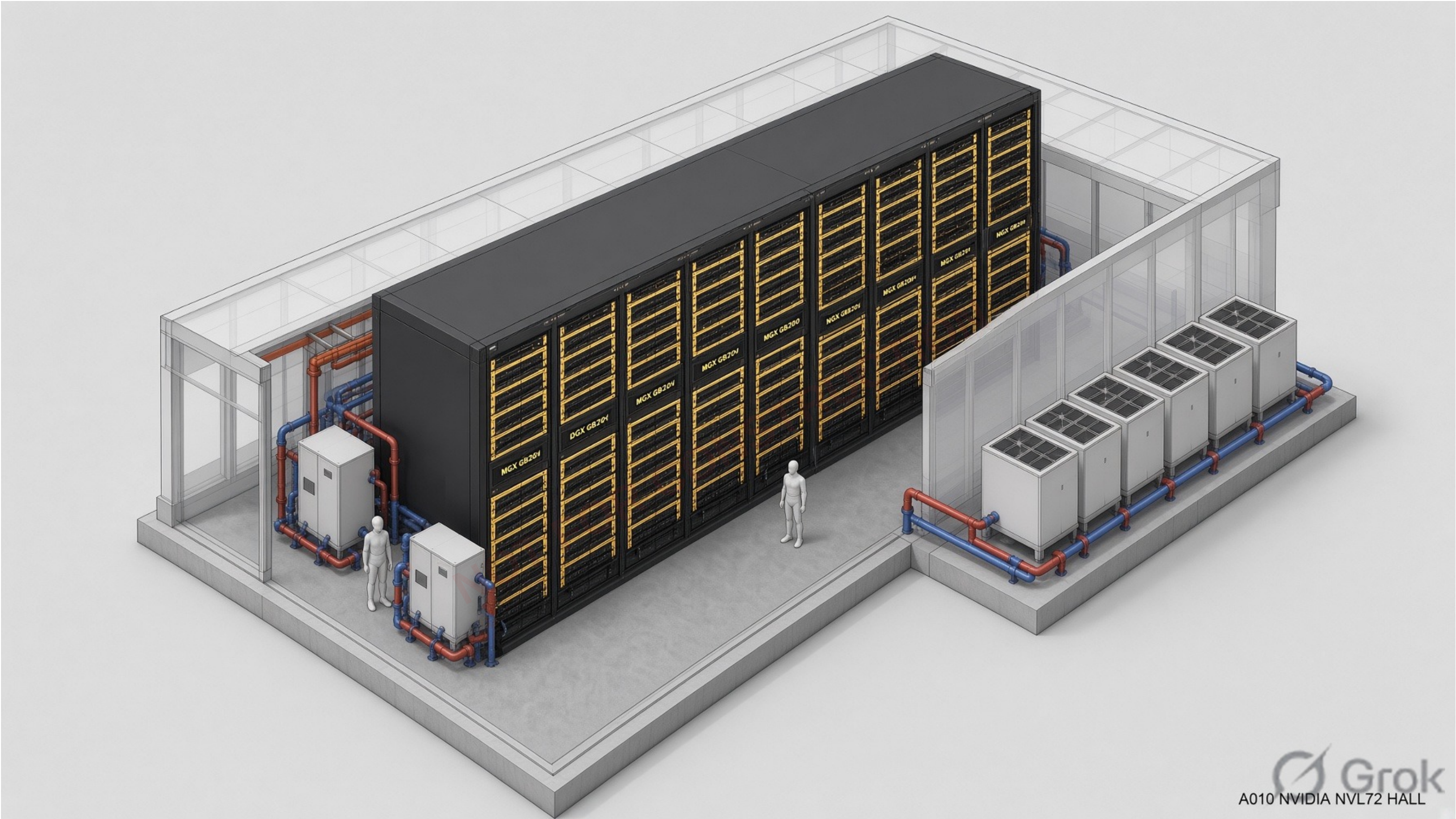
Screening visuals for stakeholder alignment only. Replace with accepted design issue before any procurement.



ALOOM Aloom Pty Ltd — Brisbane, Australia Sovereign modular AI infrastructure NOT FOR CONSTRUCTION	PROJECT	DRAWING No.	STATUS / DISCIPLINE
	MW50 POC — Dual-OEM Campus Concept A	ALOOM-MW50-A-001	ARCH / CIVIL
	50 MW facility-input boundary - 1 x 60 MVA main transformer - 50/50 NVIDIA/AMD POC	REV A DATE 2026-08-10	SCALE: INDICATIVE / NTS
	CAMPUS GENERAL ARRANGEMENT — 50 MW FACILITY INPUT	SHEET 2 OF 6	Single 60 MVA main transformer. Dual-OEM POC halls. Concept screening visual only.



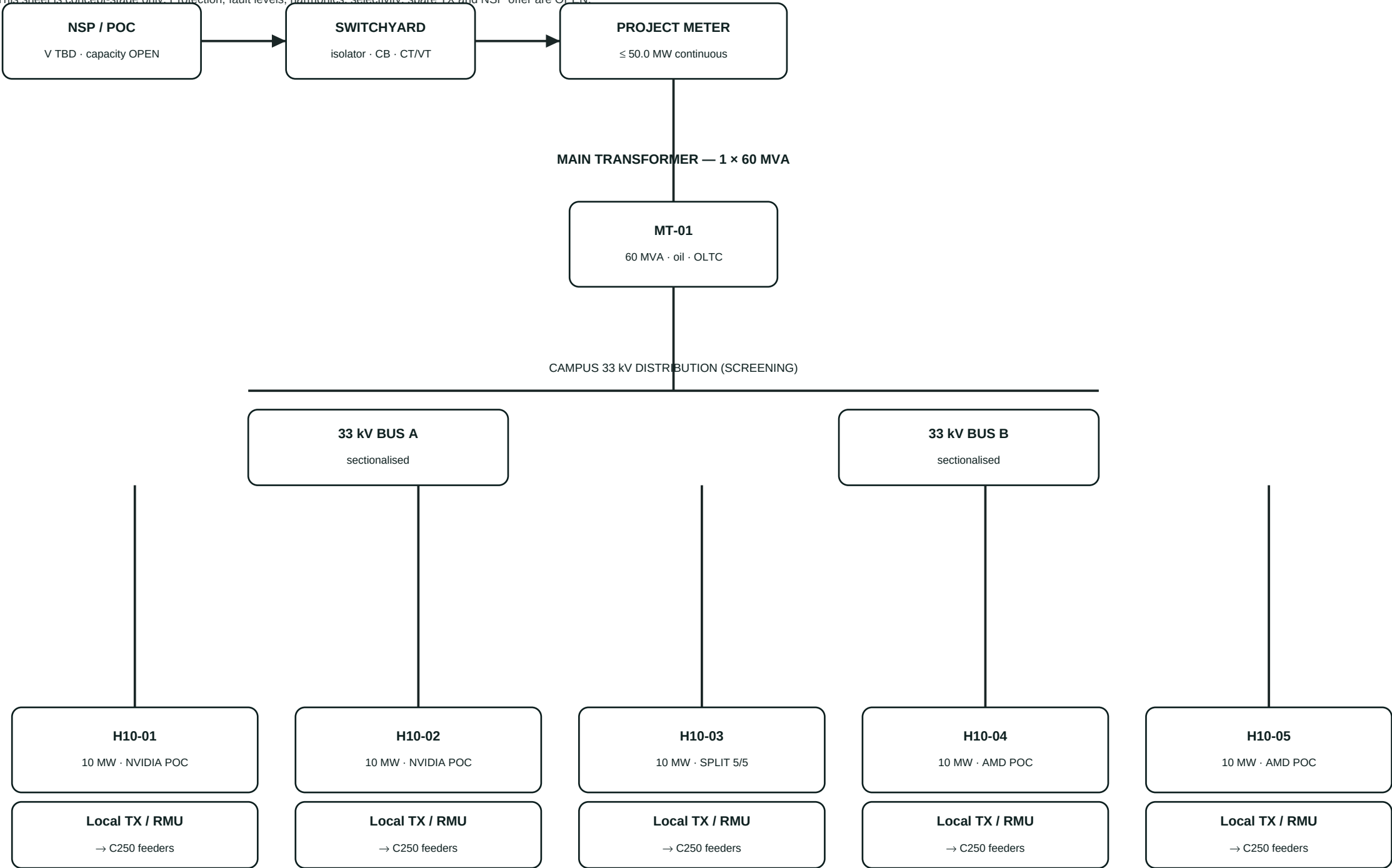
ALOOM Aloom Pty Ltd — Brisbane, Australia Sovereign modular AI infrastructure	PROJECT	DRAWING No.	STATUS / DISCIPLINE
	MW50 POC — Dual-OEM Campus Concept A	ALOOM-MW50-E-002	ELECTRICAL
	50 MW facility-input boundary - 1 x 60 MVA main transformer - 50/50 NVIDIA/AMD POC.	REV A DATE 2026-08-10	SCALE: INDICATIVE / NTS
NOT FOR CONSTRUCTION	MAIN TRANSFORMER COMPOUND — 1 x 60 MVA	SHEET 3 OF 6	Exactly one 60 MVA oil-immersed main transformer. NOT FOR CONSTRUCTION.




A010 NVIDIA NVL72 HALL

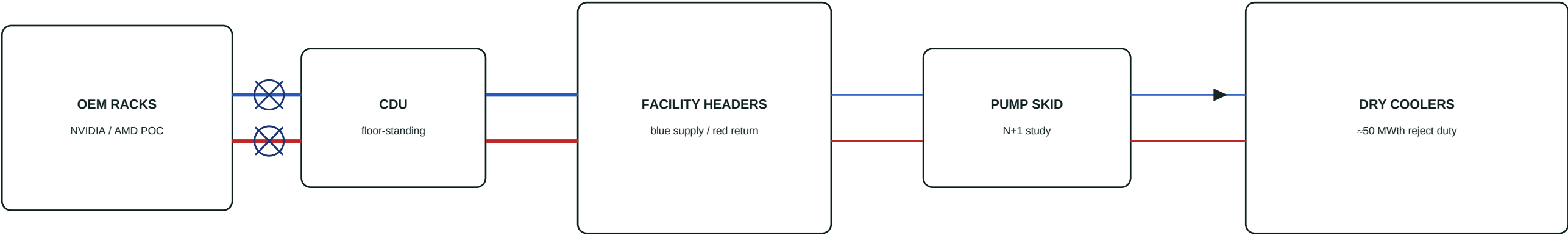
ALOOM Aloom Pty Ltd — Brisbane, Australia Sovereign modular AI infrastructure	PROJECT MW50 POC — Dual-OEM Campus Concept A 50 MW facility-input boundary - 1 x 60 MVA main transformer - 50/50 NVIDIA/AMD POC	DRAWING No.		STATUS / DISCIPLINE	
		ALOOM-MW50-A-010		MECH / IT	
		REV A	DATE 2026-08-10	SCALE: INDICATIVE / NTS	
NOT FOR CONSTRUCTION	NVIDIA POC HALL CUTAWAY — NVL72 / MGX GB200	SHEET 4 OF 6		Vendor-locked NVIDIA DGX/MGX GB200 NVL72 hall. Liquid CDUs + blue/red loops. NOT FOR CONSTRUCTION.	

1. Boundary: ≤50.0 MW continuous facility input at proposed project meter (PF scenario 0.95 → ≈52.6 MVA).
2. Main plant (POC basis): ONE oil-immersed 60 MVA main transformer — sized above 52.6 MVA full-cap arithmetic.
3. POC voltage NSP-selected (QLD screening often 110/132 kV for 50–150 MW; 275 kV shown as optional intake graphic).
4. Downstream: sectionalised 33 kV A/B → 5 × H10 halls → local transformation → C250 feeders → OEM rack conversion.
5. Dual-OEM POC: Halls H10-01..02 + half H10-03 ≈25 MW NVIDIA; remaining ≈25 MW AMD. Final OEM schedule OPEN.
6. This sheet is concent-stage only. Protection, fault levels, harmonics, selectivity, spare TX and NSP offer are OPEN.



Legend: solid boxes = equipment groups (not detailed schematics). Protection relays, earthing transformers and harmonic filters omitted at this screening revision.
Source arithmetic: facility input 50 MW → ≈52.6 MVA at PF 0.95; main plant = 1×60 MVA; dual-OEM POC allocation for visualisation only.

- 1. Steady-state heat balance at full facility input: $\dot{Q}_{reject,ss} \approx 50 \text{ MWth}$ (almost all electrical input becomes heat).
- 2. Colour code: BLUE = facility supply · RED = facility return. Temperatures, capture fraction and rejection technology remain SITE-SPECIFIC / OPEN.
- 3. Each cutaway hall shows rack → CDU → headers. Campus dry coolers / adiabatic banks are indicative only.
- 4. Dual-OEM POC does not change the campus thermal boundary; rack manifold geometry differs by silicon family.
- 5. No PUE claim. Water chemistry, acoustics, redundancy (N+1 study input) and ride-through are OPEN.



HALL MULTIPLICITY

Repeat liquid loop per H10 hall (5 halls). Shared campus rejection plant may be commoned subject to accepted failure-domain analysis.

Indicative water-equivalent flow at 50 MWth: $\Delta T \ 10 \text{ K} \approx 4,306 \text{ m}^3/\text{h}$ · $\Delta T \ 15 \text{ K} \approx 2,871 \text{ m}^3/\text{h}$ · $\Delta T \ 20 \text{ K} \approx 2,153 \text{ m}^3/\text{h}$ (scenario only).

Instruments (TT/PT/FT), chemical dosing, filtration and leak detection omitted at screening revision.

LINE LEGEND

Facility supply (CHW)

Facility return



Isolation valve (schematic)

P&ID is schematic only — not for construction, fabrication or tender. Close thermal duty via site ambient, OEM liquid interface and accepted redundancy study.