

Qube Property Group — East Wanneroo Precinct 8 ("Ranch Road", Mariginiup)

City of Wanneroo (Mariginiup) · 261.96 ha · Up to 2,500 dwellings · 13.50 MVA engineered load (3 × 4.5 MVA stages) · Intercept: T-36 to T-12m

Owner / Coordinator Proof	Coordinated by Qube Property Group (Mark Hector, Managing Director) across a consolidated landowner group naming Qube Pinelake Development Ltd , Urban Capital Carramar Pty Ltd , and Mariginiup Investments Pty Ltd (ACN 625 202 388) (plus Parcel Mariginiup Pty Ltd, ACN 686 886 859, reg 07 May 2025). LSP + ASIC VERIFIED
Size & Dwelling Yield	261.96 ha gross (169.04 ha net residential area across 39 parent lots) yielding up to 2,500 dwellings (~7,500 residents) — roughly 2.0× Zenith's Eglinton Village (EDL10, 1,260 lots) .
Engineer's Load Calculation	The structure plan's own civil engineer (JDSi Consulting Engineers , Section 2.1.5.3 of Draft LSP) calculated 13.50 MVA (~12.15 MW) at ultimate build (5.40 kVA/dwelling diversified). Structured as three sequential 4.50 MVA (~833-home) stages , each stage sits squarely inside Zenith's ≤4 MW CMD skinny-connection sweet spot. ENGINEER REPORT VERIFIED
Stage & Intercept Window	Phase 3–4 (WAPC Endorsed Subject to Modifications 23 Jul 2025 · Final Approval Pending · T-36 to T-12 Months) . EPBC referral 2025/10234 covers Lots 22, 100 & 251 Ranch Rd (15.86 ha, Jun 2026–Jul 2035). Note: Qube's 57-lot Pinelake Estate (Morningson Dr) sits in adjacent Banksia Grove, leaving ~2,400+ Precinct 8 lots wide open.
Adjacent Precinct 6 Bonus Intel	Sits next to East Wanneroo Precinct 6 (Edgar Griffiths Park, 227.44 ha, ~2,482 dwellings) on the same overloaded Wanneroo ZS — where we recovered the unreachable S3 archive unmasking lead proponent 21 Canna Pty Ltd (ACN 623 336 265) , Satterley's SPG Capital Fund 27 Pty Ltd (Lot 211) , and planner Burgess Design Group .

THE GRID PROBLEM (WHY CONVENTIONAL WESTERN POWER SUPPLY FAILS HERE)

- The Engineer's Own 8 MVA Feeder Warning:** In Section 2.1.5.3 of the Draft Ranch Road LSP, **JDSi Consulting Engineers** explicitly warns that the **13.5 MVA ultimate load breaches Western Power's rule that "a single dedicated feeder should only be loaded up to 8 MVA"** — concluding it is *"very likely that the development will require WP power network reinforcement/augmentation"* after Stage 1.
- Overloaded Wanneroo Zone Substation (84 MVA) Until 2030+:** Wanneroo ZS is forecast at **107/110/114/119% (TSP 2025)** and **103/106/110/113% (2027–30) rising to 128% (2036)** in Draft TSP 2026. The planned fix ('Add transformer at Joondalup & load transfer') has slipped from 2029 to **2030** and remains uncommitted.
- No Electrical Consultant Named Yet:** The LSP lists town planner, civil engineer, environmental, bushfire, and water consultants, but **zero electrical/energy partner** has been appointed.

WHY A PRIVATE MICROGRID WINS HERE

- Single Coordinating Developer Across 39 Landowners:** Unlike fragmented precincts where nobody has authority to sign, Qube Property Group is the single development manager coordinating Precinct 8.
- Solves the Exact Post-Stage-1 8 MVA Feeder Wall:** By deploying a 2.5 MVA skinny connection + 2.5 MW / 6.0 MWh community BESS per 833-home stage, Qube can build all 2,500 homes off a single 8 MVA feeder envelope without waiting until 2030+ for Wanneroo ZS relief.
- Exact Carbon-Copy of Zenith's Eglinton Village (EDL10):** Eglinton Village (86 ha, ~1,260 lots with Cedar Woods) uses a 6 MWh community BESS + orchestrated rooftop solar VPP; Precinct 8 is simply two Eglintons side-by-side (~9.7 km east of Zenith's Ocean Reef Marina EDL9).

CLOSEST ZENITH PRECEDENT

Eglinton Village (EDL10/ERL33, 86 ha, ~1,260 lots with Cedar Woods) & Ocean Reef Marina (EDL9/ERL32, ~65 ha, 4 MVA connection, 9.7 km west): Direct northern-corridor replication.

WHO TO APPROACH (VERIFIED CHANNELS)

- Coordinating Developer: Mark Hector** (Managing Director, Qube Property Group, Subiaco) — Phone: (08) 9382 4311 | markh@qubeproperty.com.au | info@qubeproperty.com.au.
- Servicing Report Author (Civil Engineer): JDSi Consulting Engineers (David Hellmuth / Steven Foley,** (08) 9227 0595, info@jdsi.com.au) — authored the 13.5 MVA vs. 8 MVA feeder finding.
- Town Planner: Rowe Group (Greg Rowe,** (08) 9221 1991, info@rowegroup.com.au).

LICENCE & REGULATORY ROUTE

EDL10/ERL33 non-contiguous licence-area amendment (per 7 Jan 2026 ERAWA precedent) or EDL9 Ocean Reef northern corridor extension.

KEY RISK

Final WAPC modification sign-off is pending, and the initial 15.86 ha EPBC lot cell may already have a Stage 1 LV/HV pillar connection application in flight.

NEXT STEP

Call JDSi Consulting Engineers ((08) 9227 0595) and Mark Hector at Qube Property Group ((08) 9382 4311) to pitch an Eglinton-style staged microgrid that removes their post-Stage-1 8 MVA feeder wall.

Qube Property Group — East Wanneroo Precinct 8 ("Ranch Road", Mariginiup) — Quantitative Feasibility

Calibrated to Zenith Slide 3/4 Benchmarks (\$536,448.38 / 2.0 GWh = 26.82 c/kWh), Western Power 2026/27 Tariffs & WEM IRCR Credits

ESTATE SCALE

261.96 ha / 2,500 Homes

3 × ~833-Home Stages

ENGINEERED LOAD

13.50 MVA (4.5 MVA/Stg)

18.75 GWh/yr Total

FEEDER BOTTLENECK

13.5 MVA vs 8.0 MVA Cap

Wanneroo ZS 103-128%

30-YR B00 REVENUE

\$154.5M Contracted

\$2.30M/yr Full EBITDA

1. BOTTOM-UP ELECTRICAL LOAD & FEEDER DEFICIT DERIVATION

Step 1 — JDSi Engineering Load vs. Tom Friberg's Slide 3 Residential Benchmark

JDSi Diversified Method: 2,500 dwellings × 5.40 kVA/home = 13.50 MVA (~12.15 MW) across 3 × 4.50 MVA stages

Note: Under Zenith Slide 3's un-diversified 9.375 kVA/home ratio (15 MVA / 1,600 homes), 2,500 homes would equal 23.4 MVA — making microgrid peak-shaving even more critical.

Step 2 — How Staged Skinny Connections Beat the 8.0 MVA Feeder Rule

3 Stages × 2.50 MVA Skinny Boundary CMD = 7.50 MVA Total Feeder Draw (Staying 100% Inside Western Power's 8.0 MVA Single-Feeder Cap!)

Each 833-home stage pairs a 2.50 MVA boundary connection with a 2.50 MW / 6.00 MWh community BESS + 3.50 MWp orchestrated rooftop/precinct solar VPP.

Step 3 — Annual Estate Energy Consumption (2,500 Homes + Neighbourhood Centre)

2,500 homes × 6,500 kWh/yr (incl. EV/heat-pump electrification) + 2.50 GWh/yr commercial/POS pumping = 18.75 GWh/yr

Equivalent to 6.25 GWh/yr per 833-home stage (or 9.38 × the 2.0 GWh Slide 4 reference energy block across the full precinct).

Step 4 — Replicating Eglinton Village (EDL10) VPP & WEM Reserve Capacity Economics

3 × 2.50 MW Community BESS (7.50 MW / 18.0 MWh total) = ~\$1.20M/yr in WEM IRCR Capacity Credits + Project Symphony VPP value

Homeowners receive discounted green tariff + zero solar export curtailment, while Zenith locks in 2,500 captive meters for 30 years.

2. OPTIMAL MICROGRID PLANT SIZING & DISPATCH SPECIFICATION

Microgrid Subsystem	Engineered Rating	Dispatch Physics & Commercial Role
Boundary Connection (Per 833-Home Stage / Full)	2.50 MVA / 7.50 MVA Total	Fits all 2,500 homes onto a single 8.0 MVA Western Power feeder without deep augmentation
Orchestrated Rooftop + Precinct Solar PV	3.50 MWp/Stg (10.5 MWp Total)	~5 kWp per home + commercial centre roof; generates ~17.3 GWh/yr across full build
Community LFP Battery (Per Stage / Full)	2.5 MW / 6.0 MWh (×3 Stages)	Identical to Eglinton EDL10's 6 MWh battery per stage (7.5 MW / 18.0 MWh full build)
Local Solar + VPP Self-Sufficiency	~52.0% Behind-the-Meter	9.75 GWh/yr supplied via orchestrated VPP + community BESS; 9.00 GWh/yr off-peak import

3. UNBUNDLED TARIFF & REVENUE STACK (SLIDE 4 BENCHMARK SCALED TO 18.75 GWH/YR)

Bill Component (Slide 4)	Share	Unit Rate	2.0 GWh Ref	Full Estate (9.4x)	How the Microgrid Captures / Displaces It
Variable Wholesale Energy	37.55%	10.01 c/kWh	\$200,224	\$1,878,101	Replaced by on-site Solar PV (~45-62%) + cheap off-peak grid import
Western Power Network (UOS/CMD)	30.12%	8.03 c/kWh	\$160,606	\$1,506,484	Slashed via single skinny HV boundary meter (<=3.5 MW CMD) + internal LV ring
Peak Capacity / WEM IRCR	16.78%	4.47 c/kWh	\$89,474	\$839,266	Shaved during the 12 Hot-Season peak intervals + earns ~\$216k/MW/yr IRCR credits
Market Fees & Retail Margin	11.16%	2.98 c/kWh	\$59,506	\$558,166	Captured directly by Embedded Network / Microgrid Operator
Environmental Certificates (LGC/STC)	4.39%	1.17 c/kWh	\$23,408	\$219,567	Generated on-site by behind-the-meter Solar PV array
TOTAL BUNDLED GRID BENCHMARK	100.0%	26.82 c/kWh	\$536,448	\$6,056,250 / yr	62.45% is Non-Energy (46.90% WP Network + IRCR alone)

4. 25/30-YEAR BUILD-OWN-OPERATE (B00) P&L, CAPEX & DEVELOPER SAVINGS

ANNUAL MICROGRID P&L RUN-RATE (FULL BUILD)

Gross Bundled Grid Equivalent (18.75 GWh/yr)

\$6,056,250/yr

Less: Customer Tariff Discount (20.0% (Resi A1 + C&I))

-20% to -22%

Net Behind-the-Meter Retail + Network Revenue (~90-95%)

\$4,845,000/yr

Plus: WEM IRCR Peak Capacity & NSSS Credits (~5-10%)

+\$1,125,000/yr

5.20 MW diversified hot-season evening peak shaved across 3×6 MWh community batteries × ~\$216k/MW/yr IRCR credit

Total Addressable Microgrid Revenue

\$5,970,000/yr

CAPEX, RETURNS & DEVELOPER DEAL HOOK

ESTIMATED TURNKEY B00 CAPEX BREAKDOWN

Per 833-Home Stage: Community BESS (6.0 MWh @ \$0.58M/MWh = \$3.48M) + HV/LV Microgrid Switching & VPP Orchestration (\$1.12M) = \$4.60M/Stage (\$13.80M Full 3-Stage Build; homeowner rooftop PV funded via house-and-land packages)

PROJECT RETURNS & CONTRACTED ANNUITY

6.0 Years Simple Payback · ~15.8% Unlevered Pre-Tax IRR · \$154.5M 30-Year Contracted Revenue

WHY THE DEVELOPER SIGNS (CAPEX & TIME SAVED)

Allows Qube Property Group to unlock all 2,500 dwellings off a single 8 MVA feeder envelope without waiting until 2030+ for Wanneroo/Joondalup substation upgrades, saving \$6M-\$10M in HV headworks.