



Solutions Overview

Energise the Revolution

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EV Charging and Energy Storage Solutions.

eLumina offers turnkey solutions to help customers quickly adopt and scale EV charging and energy storage infrastructure. Its mobile and flexible charging solutions are tailored to a range of EV charging and battery energy storage scenarios.

Solution Areas:

- **60kW–360kW EV Charging** – Direct to grid EV charging options for ultra-fast charging.
- **160kW–400kW Battery-Integrated EV Charging** – EV chargers with integrated battery and energy storage for ultra-fast charging at power-constrained sites.
- **Off-Grid Solutions** – incorporating BESS, charging, renewable integration and grid connection equipment as a complete engineered solution.
- **Fleet Charging & Depot Electrification** – Charging infrastructure to support the transition to electric fleets.
- **Battery Energy Storage System (BESS)** – Battery storage to maximise energy usage and ensure consistent power supply.
- **FCAS & Arbitrage** – Frequency Control Ancillary Services supporting grid stability and energy trading opportunities.

eLumina works with customers to understand current and future EV charging and energy storage challenges and develop tailored solutions.

- Tailored plans may include reliable and scalable solutions
- Cutting-edge technology suitable for all EVs
- Flexible financial arrangements.

60kW–400kW EV Charging

Cutting-edge EV charging and energy storage options for ultra-fast charging and heavy vehicles.

Key Features

- **Fast Charging** – Option to charge multiple vehicles simultaneously.
- **Flexible Applications** – Battery-integrated for on-grid or off-grid applications.

eLumina offers EV charging infrastructure for industrial and commercial settings, including regional and remote locations, with a focus on efficiency, reliability and sustainability.

Available solutions include:

- **D3 Battery-integrated EV Charger (BIEVC)** – for power-constrained and regional/remote locations.
- **D2 / D2+ Fast Charger** – designed for outdoor use in urban and regional settings.
- **DS400 Satellite Battery Integrated EV Charger** – suitable for grid-constrained on-grid and off-grid operations.

Performance highlights listed on the page include D3, D2, D2+ and DS400 charging outputs and power-input requirements.

Related case studies showcase EV charging and battery energy storage deployments.

400 kW

DS400 max output

From <70 kW draw on the grid.

350 kW

DS400 battery capacity

A built-in battery with liquid cooling.

200 kW

D3 max output

Needs maximum <35 kW grid input for up to 200 kW charging output.

175 kW

D3 battery capacity

A built-in battery with liquid cooling.

Battery-integrated EV Charging (BIEVC)

Innovative EV chargers with integrated battery and energy storage for power-constrained sites, including rural, regional and remote locations.

Key Features

- **Off-grid capability** through integrated battery storage to reduce reliance on the grid.
- **Advanced B2G and B2L** capabilities, allowing energy to be sent back to the grid.

eLumina states it is the only EV charging infrastructure manufacturer in Australia offering battery-integrated solutions designed for Australian energy and environmental conditions, including locations where grid power is unavailable or unreliable.

Available solutions include:

- **DS400 Battery-integrated EV Charger (BIEVC)** – for fleets and heavy vehicles.
- **D3 Battery-integrated EV Charger (BIEVC)** – designed for Australian operating conditions.

Performance highlights include D3 and DS400 charging outputs, integrated battery capacity and liquid-cooling technology.

Related case studies showcase battery-integrated EV charging and energy storage deployments.

400 kW

DS400 max output

From <70 kW draw on the grid.

350 kW

DS400 battery capacity

A built-in battery with liquid cooling.

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D3 max output

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175 kW

D3 battery capacity

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Off-Grid Solutions

Battery-integrated off-grid EV charging solutions for locations where grid power is non-existent, limited or unstable, including regional, rural and remote areas.

Key Features

- **Optimised Efficiency** – Smart solutions to monitor and manage power usage.
- **Sustainability** – Optimising the use of alternative energy sources.

eLumina positions its off-grid solutions around battery storage, EV charging and clean energy integration.

- Microgrid, skid-based and standalone power station solutions.
- Additional battery capacity to provide power and EV charging while sites await grid upgrades.
- Potential revenue generation by selling power back to the grid.
- Options for incorporating biodiesel to supplement battery power.

eLumina states it offers battery storage solutions that capture renewable energy, such as solar, and help provide reliable off-grid power.

Related case studies demonstrate deployments of EV charging and energy storage solutions.

12 mths

Average delays for grid upgrades

The complexity of grid upgrade projects results in extensive delays.

~20%

Solar as a % of total on-grid electricity

Solar on-grid generation grew 17 per cent in 2024-2025.

9%

Renewables as % of total energy consumption

Renewables including solar, wind, and biofuels, make up nearly a tenth of energy consumption in 2024-2025.

5%

Increase in renewable energy electricity generation

Renewable energy used for electricity generation increased by 5% in 2024-2025.

Fleet Charging & Depot Electrification

EV charging and depot electrification solutions for fleet operators transitioning cars, buses and trucks to electric vehicles.

Key Features

- **Fast Charging** – Fast-charge multiple vehicles simultaneously.
- **Maximise Efficiency** – Easily installed and scalable EV infrastructure.

eLumina's EV charging and energy storage solutions are designed to support government and commercial fleet transitions to electric vehicles.

Benefits highlighted include:

- Minimising unscheduled downtime and maximising vehicle productivity.
- Reducing operating costs through electric charging compared with diesel and petrol.
- Delivering charging where it is needed through mobile and remote solutions.
- Enhancing corporate brand image through sustainability initiatives.

Related case studies showcase fleet charging and electrification deployments.

23%

Truck fuel consumption as % of total transport consumption

Truck consume nearly quarter of all road transport fuel - despite being only 4% of the entire Australian road vehicle fleet.

\$1000

Avg annual cost savings per vehicle by adopting EV

EVs are cheaper to run a service than petrol or diesel vehicles.

~1900

Number of EV buses in 2024

The adoption of EV buses in Australia is growing yearly by approx 58%.

30%

Electric trucks as of total truck fleet by 2030

Australia aims for 100% of truck fleets to be EV by 2040.

FCAS & Arbitrage

Frequency Control Ancillary Services (FCAS) and Arbitrage solutions support stability and reliability of grid frequency by maintaining a balance between electricity supply and demand. The solutions can also generate revenue by directing electricity back to the grid.

Key Features

- **Revenue Generation** - Receive payment for feeding stored energy back to the grid.
- **Optimised Power Consumption** - Eliminate short-term spikes in energy demand and lower costs.

As the energy sector pursues net-zero targets, FCAS and energy arbitrage provide opportunities for businesses and grid operators to use electricity more efficiently and profitably.

- Sell electricity back to the grid from a fully charged battery.
- Energy Management Systems (EMS) determine the lowest-cost energy source and the best times to export power to the grid.
- Revenue-sharing arrangements between eLumina, customers and aggregators can increase financial returns.

Statistics highlighted on the page include increasing battery durations, reduced FCAS costs, growing BESS output, and increased arbitrage revenue from utility-scale batteries.

2.5 hrs

Avg battery duration by 2027

Battery durations are increasing, with 95% of future being 2 hours or greater.

\$13M

Cost of FCAS in Q1 2025

A \$16M decrease compared to the same period in 2024.

86%

BESS output annual increase

BESS output reached an average of 98MW in Q1 2025.

\$165.4M

Arbitrage revenue (AUD) in 2024

Utility-scale batteries in the National Electricity Market earned more than triple the arbitrage revenue of 2023.



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