

Powering your Growth in Western Sydney





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**We have the expertise and strengths
to deliver innovative energy
solutions to power sustainable
growth in Western Sydney**

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*Endeavour Energy acknowledges the Traditional Custodians of
Country where we work - the people of the Dharug, Wiradjuri,
Dharawal, Gundungurra and Yuin nations.*

*We recognise their continuing connection to the land, waters, and
community and pay our respects to Elders, past, present and emerging.*

Australia's growth engine

Western Sydney is facing a once-in-a-generation opportunity. The region will be Australia's new gateway with the Western Sydney International (Nancy-Bird Walton) Airport at Badgerys Creek, and the home of dynamic cutting-edge businesses and thriving technology hubs.

As Western Sydney grows, reliable and renewable electricity will be critical to ensure the region becomes a vibrant, liveable, and sustainable place to live and work.

To harness this opportunity, Endeavour Energy is moving at pace building a modern and renewable grid, deploying community batteries, microgrids, EV charging stations and critical energy infrastructure to power the Western Sydney International (Nancy-Bird Walton) Airport, the Aerotropolis and surrounding precincts.

At Endeavour Energy our commitment is to enable this growth and investment and, deliver a new way of working with you.

As part of our commitment to power your growth, we are pleased to share this publication which outlines our capabilities to assist in the efficient delivery of your projects.

Endeavour Energy's new **Developer Engagement Process** is a 'concept to completion' bespoke service where our team can implement electrical and renewable energy solutions with large landowners and developers for greenfield projects.

Talk to us about your project. We look forward to working with you.

The Endeavour Energy Western Sydney Development Team

**Please contact us on
westernsydney@endeavourenergy.com.au**



Planning for unprecedented growth

Sydney's Greater West is one of the fastest growing regions in Australia. By 2036, it's predicted that half of Sydney's population will reside in the area.

At the heart of this expansion is the Aerotropolis, the home of Bradfield City, Sydney Science Park and the new Western Sydney International (Nancy-Bird Walton) Airport that will power innovation hubs and residential precincts along with new local and global agribusiness.

Why choose us?

Western Sydney is our heartland. When you connect with Endeavour Energy, you're tapping into more than 130 years of energy know-how. We know electricity in our patch better than anyone else.

To support the expansion and creation of new industries and business and residential precincts we are building a modern and renewable grid that fulfills the sustainability aspiration of every customer on our network.

We're powering big businesses and major infrastructure including rail, hospitals, data centres, advanced manufacturing, and fully automated distribution centres. We are ensuring that our customers can draw from energy that supports a sustainable future.

We are united in our vision; to lead the energy transition with smart energy solutions; and we strive to ensure the energy flows to millions of people in NSW every day of the year.

We're supporting renewable energy, rolling out grid scale batteries, community batteries, scaling our capability to support electric vehicles and microgrids. It's a new era in energy, one that is giving our customers more choice in how they generate, store, and use energy.

Now is the time to power together and create smarter energy solutions for your project. Because when we come together, we listen, learn, and better meet your needs.

Delivering energy innovation

- Renewable energy solutions
- Establishing a dynamic and two-way flow of energy
- Helping customers generate, store, and share energy
- Creating a legacy of sustainable infrastructure
- Providing accessible and equitable energy across the precincts of Western Sydney

A new way of working with you

To provide our large customers with expert and trusted solutions, Endeavour Energy is proud to launch its new **Developer Engagement Process**, to help efficiently deliver your greenfield projects.

The Endeavour Energy team will work with you from the very start and support the vision and objectives for your precinct and project right through to completion.

We have a dedicated team of highly skilled experts from electrical substation and network designers, engineers and renewable energy product specialists to help explore an energy solution that will deliver an efficient outcome for you and your customers.

Talk to us about your project:

westernsydney@endeavourenergy.com.au

Developer Engagement Process



01.

Together we define your vision and prioritise objectives for your project



02.

Identify technology options as well as associated commercial options for delivery



03.

Determine the infrastructure commitments, delivery partners and strategy



04.

Formalise with required agreements



05.

Commence design and construction phases



Lights on

Our network



2.7m
customers

over 25,000km² across
23 council areas

207

major substations

1m+

connected business
and residential
customers

1

Most efficient distribution
network in NSW

225k

customers with
renewable energy
generation



50%

of Sydney's population
will live in the Greater
West by 2036

430k

power poles



60k+

km of power
lines

Supporting sustainable growth

As Western Sydney grows rapidly, Endeavour Energy is supporting the pursuit of a net zero economy.



**Waste neutral
by 2030**



**100% of new fleet to
be zero emissions
by 2030**



**Nature positive
by 2025**



**590,000 solar
systems and batteries
connected by 2030**



**40% emission
reduction by
2030**

Investing in the future

Endeavour Energy is building new infrastructure in Western Sydney, to support future industrial and residential growth.



South Erskine Park

In July 2022, we commissioned the South Erskine Park substation, a new digital 90MVA substation to support the precincts of Oakdale West and Mamre Road. Built to a new modular design to cater for expected growth, the investment includes an additional third transformer to serve the adjacent business park.

Aerotropolis Foundation Supply Feeder

Endeavour Energy is building the 29km Aerotropolis underground feeder from South Erskine Park to Bringelly, for delivery in December 2024. The 200MVA foundational asset will support the growth of the proposed Science Park, Northern Gateway, Badgerys Creek, Aerotropolis Core, Western Sydney International (Nancy-Bird Walton) Airport and Sydney Metro.



Supporting Western Sydney's new airport

The Western Sydney International (Nancy-Bird Walton) Airport will be commencing operations in 2026. Currently under construction is the 132/33KV transmission substation that will power the airport and the surrounding precincts.



Beyond 2025

Endeavour Energy is developing additional substations to support the rapidly increasing energy demand in the region.*



*The final number of substations and their locations is subject to several factors, including confirming ultimate need as well as compliance to the respective regulatory investment tests



Bradfield City

The future Bradfield North substation will support the growth of the new Bradfield City Centre and adjacent developments. The Aerotropolis Core Precinct will become a hub for commerce, enterprise, education, as well as science and technology.

Northern Aerotropolis

Servicing Burra Park and Adams Road precincts, the substation located to the north of the new Western Sydney International (Nancy-Bird Walton) Airport will provide electricity to the new precincts and proposed large commercial, residential or industrial developments in the area.



Agribusiness Precinct

Future substations will provide additional capacity to support the development of the proposed industrial Agribusiness precinct, as well as commercial developments in the Agribusiness and Adams Road precincts.



All future substations will be subject to regulatory approval and changing requirements for the region.



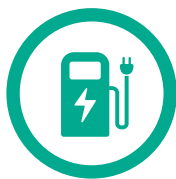
Powering opportunities

Endeavour Energy works closely with partners to collaborate and implement innovative solutions to meet the energy needs of today and withstand the changing demands of an evolving energy landscape.

Endeavour Energy has successfully delivered solutions to support communities transitioning to the new energy future. Over the following pages we outline our capabilities and welcome the opportunity to work with you to develop an effective energy solution for your project.



Microgrids



EV charging solutions



Substation co-design



Enabling infrastructure for customer technologies

Microgrids

Microgrids offer new opportunities for developers and their customers. Microgrids can deliver growth and harness rooftop solar and battery storage, providing local, cost effective grid options that deliver resilient energy supply.



CASE STUDY

Microgrids: Leading the distribution revolution

Endeavour Energy is launching the first microgrid on the NSW South Coast in the coastal towns of Bawley Point and Kioloa in late 2023.

These edge-of-grid villages needed a more resilient and reliable power supply to help the local community manage peak holiday periods and extreme weather events.

Funded with support from the NSW Government's Bushfire Local Economic Recovery Fund, the initiative will see Bawley Point and Kioloa become the centre piece of Endeavour Energy's first community microgrid, providing a resilient, renewable, and stand-alone power local supply.

The community microgrid is a local energy system that draws electricity from renewable sources such as solar panels and batteries. While it's connected to the main electricity grid, it can operate independently during outages, providing a consistent power supply to residents.

To help manage electricity through the microgrid, state-of-the-art software will forecast the renewable energy load and manage it across all the solar panels and batteries, in real time.

Endeavour Energy will work with Western Sydney developers to build on the learnings from the Bawley Point and Kioloa microgrid trial, to bring efficient micro grid solutions to the Aerotropolis and its surroundings.



EV charging solutions

Endeavour Energy forecasts that one in four of its customers will be driving an electric vehicle (EV) within the next decade. So, we are partnering with innovative companies to make it easier for our customers to choose an electric vehicle as their transport of choice.



CASE STUDY

Aussie innovation supports electric bus rollout

A world-first project to better integrate bus depots with the energy market and support faster rollout of electric buses in NSW is being trialled in Western Sydney.

Funded under Transport for NSW's Zero Emissions Bus program, the project is the innovation of a cross-industry consortium including bus operator, Busways, software, and advisory company Everergi and Endeavour Energy.

Currently a trial is underway with 12 electric buses at Busway's Penrith Depot to help future proof the power supply to be capable of powering an entirely electric bus fleet.

This trial will allow us to have real time visibility of the load on the network, allowing new buses to be charged outside periods of peak demand and smooth out the load on the network.



CASE STUDY

EV charging stations to help turbo charge Western Sydney's growth

Our partnership with JOLT will provide EV drivers with more access to additional charging stations. This initiative will help support the EV intake in current and new Western Sydney neighbourhoods. Through our work, we are targeting:

- 230+ EV charging stations to be installed on existing Endeavour Energy street side substations in the next two years.
- Up to 1000 EV chargers to be in place by 2030.





Courtesy of Ingham Property Group

Substation co-design

A future-focussed substation design can help the network resilience in precincts and make available future energy products such as provisions of batteries and EV charging. Endeavour Energy can develop additional options to increase the use of renewable energy within Western Sydney precincts and drive the revolution in the area.



CASE STUDY

Powering the Aerotropolis for take-off: The Bradfield Zone substation

Endeavour Energy is developing a new 90MW major substation that will support the growth of industrial and warehouse development at the Aerotropolis. The significant investment in the new substation will enable world-class organisations to invest in the Aerotropolis with confidence.

We are working with the Ingham Property Group to support delivery of more than one million square metres of industrial, warehouse and office space on 182 hectares of employment zoned land. Our investment helps to support new jobs near the new Western Sydney International (Nancy-Bird Walton) Airport and drive the revolution in the area.

Customer DER and Demand Management, VPPs and P2P Trading

The introduction of community batteries, Virtual Power Plants, and other solutions can help customers in Western Sydney generate income from their solar rooftop PV or home battery systems, allowing them to offset a part of their energy bill.

Endeavour Energy is well-equipped to advise you on no-regret, low-cost solutions through the design process, and to implement the chosen approach to future-proof your development.

DER Management

Distributed Energy Resources (DER) are renewable energy systems that are commonly located at houses or businesses such as rooftop solar panels or home-battery systems. Distributed Energy Resources allow more renewable power onto the network, which is often more cost effective.

Virtual Power Plants

Virtual Power Plants (VPP) allow thousands of individual home batteries to 'talk' to each other through a cloud-based platform using smart controls, forming a grid connected system. This connected system enables renewable energy to be injected into the grid to address frequency and voltage imbalances, local disruptions or disturbances and keeps the network stable.

Community and grid connected batteries

Community batteries and grid batteries are larger sized battery units embedded in the network that allow for shared battery storage. Community batteries enable customers to store the excess power generated during the day by their rooftop solar cells for use later in the evening, when demand on the electricity network is higher.



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