



Economic Regulation Authority

Western Power's regulatory test application for a proposed Baldivis zone substation

Determination

15 April 2026

Acknowledgement of Country

At the ERA we value our cultural diversity and respect the traditional custodians of the land and waters on which we live and work.

We acknowledge their continuing connection to culture and community, their traditions and stories. We commit to listening, continuously improving our performance and building a brighter future together.

Economic Regulation Authority

Level 4, Albert Facey House

469 Wellington Street, Perth WA 6000

Telephone 08 6557 7900

Email info@erawa.com.au

Website www.erawa.com.au

This document can also be made available in alternative formats on request.

National Relay Service TTY: 13 36 77

© 2026 Economic Regulation Authority. All rights reserved. This material may be reproduced in whole or in part provided the source is acknowledged.

Contents

1. Determination	1
2. Reasons	3
2.1 Proposed major augmentation and other options considered.....	4
2.2 Public consultation undertaken by Western Power	6

1. Determination

On 6 February 2026, Western Power submitted a regulatory test application for a proposed major augmentation of its network to construct a new zone substation in Baldivis.¹

The purpose of the regulatory test is to determine whether the proposal is the best way of overcoming constraints in the wider electricity system.²

This means Western Power must demonstrate that it has considered all reasonable alternative options, including non-network solutions such as demand-side management or generation, and that its proposed option maximises the net benefit to those who generate, transport and consume energy in Western Power's network.³

To assist with our assessment of Western Power's major augmentation proposal, we commissioned independent technical advice from Ampere Labs Pty Ltd.

As part of our assessment of the application, we undertook public consultation. We published an issues paper on 20 March 2026 inviting submissions by 7 April 2026. No submissions were received.

Having regard to Western Power's application and the independent advice from Ampere, we have determined that the regulatory test is satisfied, in that:

- Western Power's view that its proposed major augmentation maximises the net benefit after considering alternative options is defensible.
- Western Power has applied the regulatory test properly to the proposed major augmentation:
 - Using reasonable market development scenarios which incorporate varying levels of demand growth at relevant places.
 - Using reasonable timings, and testing alternative timings, for project commissioning dates and construction timetables for the proposed major augmentation and for alternative options.
- Western Power has conducted a public consultation process that:
 - Followed the requirements of the Access Code.

¹ Zone substations take high-voltage electricity from the transmission network and convert it to a lower voltage that can be sent through the distribution network.

² The regulatory test is prescribed in Chapter 9 of the *Electricity Networks Access Code 2004*. It applies to all major augmentations which are defined as being an increase in the capability of the network to provide services where the cost of the new shared assets exceeds \$46.8 million (\$ 2025) for the transmission network or \$15.6 million (\$ 2025) for the distribution network.

³ "Net benefit" means a net benefit (measured in present value terms to the extent possible) to those who generate, transport and consume electricity (as the case may be):

- (a) the covered network; or
- (b) the covered network and any interconnected system.

- Gave all interested parties a reasonable opportunity to state their views and to propose alternative options to the proposed major augmentations and had regard to those views and alternative options.
- Gave reasonable consideration to any information obtained from the consultation when forming its view that its proposed major augmentation maximises the net benefit after considering alternative options.

Our determination on Western Power’s proposed major augmentation is limited to the scope of the regulatory test under Chapter 9 of the Access Code. It only determines whether Western Power has demonstrated that the proposed Baldivis zone substation maximises the net benefit compared with other options and it is now able to “commit” to the project.⁴

The regulatory test is not a determination of whether the proposed costs for the project are efficient and can be passed on to customers. The efficiency of the project will be assessed as part of the next access arrangement review.⁵

The regulatory test approval also does not provide planning, environmental or other approvals that fall outside the functions of the ERA. Western Power will need to ensure that it complies with all such requirements. Western Power has stated that, if the project proceeds, it will work closely with the City of Rockingham to ensure architectural, noise and landscaping options chosen are suitable for the proposed facility.

⁴ Section 9.5 of the Code defines commit as being, when the service provider begins to put its intention into effect by doing an act that is more than merely preparatory, including making a substantial financial commitment such as a significant obligation that is legally binding or would have significant commercial repercussions if cancelled, discontinued or dishonoured. Section 9.6 states it does not include undertaking preparatory system or other studies, engaging in preparatory planning, design or costing activities or obtaining an approval, unless the approval comes within the description of section 9.5.

⁵ Western Power is due to submit its next access arrangement proposal (AA6) to the ERA in February 2027. The ERA’s review of the access arrangement will include a determination of whether Western Power’s expenditure meets the new facilities investment test.

2. Reasons

Western Power considers that investment is needed to address increases in demand in the Baldivis, Waikiki and Mandurah areas. It has considered a range of options and identified its preferred option is to build a new zone substation in Baldivis.⁶

As the proposed project falls within the definition of a “major augmentation” under the *Electricity Networks Access Code 2004*, Western Power submitted an application to the ERA to determine that the regulatory test has been satisfied.⁷

The Access Code includes a two-step assessment for major augmentations – the “regulatory test” followed by the “new facilities investment test”. A major augmentation must pass both tests before it can be added to the regulated asset base. Other types of capital investment are only required to pass the new facilities investment test before they can be added to the regulated asset base.

The regulatory test is an assessment of whether an increase in the capability of the covered network to provide covered services, including by the development, construction, acquisition or commissioning of new network assets maximises the net benefit to those who generate, transport and consume electricity after considering alternative options.

The new facilities investment test considers both the efficiency and purpose of an investment. The test ensures that prices increase only to the extent necessary to maintain the safety of the network and the reliability of provision of contracted covered services or, otherwise, there is a benefit to users that justifies an increase in prices.

Recognising that network augmentations are irreversible, the ERA must determine whether the regulatory test has been satisfied before the service provider can commit to a major augmentation. A service provider has “committed” to a major augmentation if it begins to put its intention into effect by doing an act which is more than merely preparatory to undertaking the major augmentation, including by:

- Making a substantial financial commitment in respect of augmentation, such as committing to a significant obligation which is legally binding; or which would have significant commercial repercussions if cancelled, discontinued or dishonoured.
- Commencing, or procuring the commencement of, construction of the major augmentation.

To determine whether the regulatory test has been satisfied, the ERA must be satisfied that:

- Western Power’s view that its proposed major augmentation maximises the net benefit after considering alternative options is defensible.
- Western Power has applied the regulatory test properly to the proposed major augmentation:

⁶ Zone substations take high-voltage electricity from the transmission network and convert it to a lower voltage that can be sent through the distribution network.

⁷ A major augmentation is an increase in the capability of the network to provide covered services where the expenditure exceeds \$15.6 million for a distribution system, and \$46.8 million for a transmission system (thresholds are 2025 CPI adjusted amounts).

- Using reasonable market development scenarios which incorporate varying levels of demand growth at relevant places.
- Using reasonable timings, and testing alternative timings, for project commissioning dates and construction timetables for the proposed major augmentation and for alternative options.
- Western Power has conducted a public consultation process that:
 - Followed the requirements of the *Electricity Networks Access Code 2004*.
 - Gave all interested parties a reasonable opportunity to state their views and to propose alternative options to the proposed major augmentations and had regard to those views and alternative options.
 - Gave reasonable consideration to any information obtained from the consultation when forming its view that its proposed major augmentation maximises the net benefit after considering alternative options.

We engaged Ampere Labs Pty Ltd to provide technical advice to assist us in making our determination including:

- If Western Power fully identified and considered all viable alternative options
- The technical aspects of the options considered
- The reasonableness of the demand forecasts, cost estimates and timings for project commissioning dates and construction timetables.

2.1 Proposed major augmentation and other options considered

Currently, electricity consumers in Baldivis are supplied by distribution feeders connected to the Waikiki (WAI) zone substation, supported to a lesser extent to the south by distribution feeders connected to the Meadow Springs (MSS) zone substation.

Due to growing demand, Western Power considers the current electricity infrastructure is reaching its limits and action is needed to ensure reliable power for homes and businesses as the community expands.

As set out in below in Figure 1, Western Power has considered a range of network and hybrid non-network solutions to address capacity issues at Waikiki substation and improve supply in the Baldivis area.

Figure 1: Extract from Western Power’s Options Paper – Table 2: Options to reinforce capacity in the Waikiki and Baldivis area

Option	Description	Estimated Cost ²¹ (Total NPC)	Remarks
Network options			
1	Do nothing	-	- Unacceptable risk levels in the coming years and inability to support future load growth.
2	Increase capacity at WAI	\$110.60 million	- capacity gained (at high cost) is constrained almost immediately. This option will not cope with new Baldivis loads and or future developments. - BVS construction can only be delayed in the short-term. - this is a challenging substation fourth transformer expansion, as WAI substation is designed for a maximum of three transformers.
3	Build a new substation at Baldivis in 2030	\$81.69 million	- cut-in/out and reconductor nearby transmission line. - reuses and upgrades distribution feeders. - Western Power owns suitably zoned land in Baldivis. - BVS brings significantly higher reliability and better shares load across substations; uses shorter, less lossy feeders.
Non-network (hybrid) options			
4	Contract network support services to achieve 3-year deferral of BVS	\$102.68 million	- use of distribution Network Support Services (NSS) to flatten the demand profile to defer BVS construction by three years, until 2033.
5	Contract network support services to achieve 5-year deferral of BVS	\$127.08 million	- use of distribution NSS to flatten the demand profile to defer BVS construction by five years until 2035.

Option 3, to build a new zone substation at Baldivis in 2030, is Western Power’s preferred option. It considers this option delivers the highest net benefit including:

- Minimal disruption and seamless integration for new (growth related) loads being added into the Wholesale Electricity Market.
- Network constraints are addressed for the full zone substation lifecycle at Waikiki and Baldivis.
- Supply and reliability are maintained for Baldivis customers presently at risk of emerging capacity and feeder constraints.
- The proposed site of the Baldivis zone substation is ideal in terms of distance to nearby load centres and is near an existing transmission line that it can connect to. Interconnecting with the transmission line will also enable future improvements to power flows in the north-south corridor between the cities of Rockingham and Mandurah.
- The lowest net present cost.

Western Power considers the alternative options, which involve incremental expansion of the existing Waikiki substation and short-term contracts for network support services, would require substantial additional investment as demand continues to grow and would not efficiently resolve the underlying network constraints in an economically prudent manner. On that basis it considers the alternatives have a higher net present cost and lower net benefit compared to its preferred option.

Considerations of the ERA

Ampere confirmed Western Power's view that Baldivis area's rapid population growth is straining the surrounding electrical infrastructure and has resulted in the Waikiki zone substation's utilisation exceeding its planning capacity in 2025 which necessitates investment. Use of the feeders supplying the Baldivis area has also been quickly increasing and they are nearing, or will soon exceed, their rated capacity.

The 2025 Transmission System Plan forecasts peak demand will continue to grow and exceed the Waikiki substation planning capacity by 22 per cent in 2030. Ampere has reviewed Western Power's demand forecast and considers the methodology aligns with good industry practice, utilising data validation, benchmarking and plausibility testing.

Ampere did not identify any potential alternative options from those considered by Western Power and advised it considered the cost estimates and timings were reasonable.

In summary Ampere's advice is that:

The preferred option—building a new zone substation at 60 Pike Rd, Baldivis—appears to be technically reasonable and maximises the net benefit. Primarily, this option reduces delivery time, risk, and cost, as Western Power already owns the land at the proposed site, and it is appropriately zoned. Given the rapid population growth in the Baldivis area, which has led to existing feeder utilisation exceeding the planned capacity, delivering a solution in the shortest timeframe is a key consideration. Western Power is confident in its ability to manage risks associated with reliability, non-compliance, and reputation in the near term (2026-2030) via numerous operational measures.

The technical aspects of the proposed options and any inadequacies identified by Western Power as they relate to the net benefits appear to be reasonable. None of the alternative options for alleviating the network capacity issue at the Waikiki zone substation appears to be feasible of being delivered faster than the proposed Baldivis zone substation. Moreover, the non-network options were found to provide only temporary relief, and we agree with Western Power's assessment that non-network options would not be suitable as a viable long-term solution.

Based on the information provided by Western Power and the advice from our technical consultant we are satisfied that Western Power has applied the regulatory test properly and its view that its proposed major augmentation (building a new zone substation in Baldivis) maximises the net benefit after considering alternative options is defensible.

2.2 Public consultation undertaken by Western Power

On 24 November 2025, Western Power published an options paper setting out the five options it had considered including its preferred option and inviting submissions from interested parties by 19 December 2025. Responses could be provided online, by email or post.

Western Power's public consultation was advertised on the ERA's website on 24 November 2025.

Western Power also held public engagement sessions as shown in Figure 2.

Figure 2: Extract from Western Power’s Regulatory Test Submission – Table 6 Public consultation sessions (BVS zone substation), Nov-Dec 2025

Event	Date and time details	Description
Library pop-up session	6 Dec 2025 9:00 AM - 6 Dec 2025 12:00 PM	Outside Mary Davies Library and Community Centre, 17 Settlers Avenue, Baldivis
Community drop-in session	10 Dec 2025 4:00 PM - 10 Dec 2025 6:00 PM	Mary Davies Library and Community Centre, Boobook Room, 17 Settlers Avenue, Baldivis WA, Australia
Stakeholder briefing	11 Dec 2025 2:00 PM - 11 Dec 2025 3:00 PM	Online Event - A presentation for stakeholders on the capacity expansion options to meet growing demand in Baldivis and surrounding areas, including our preferred approach.

Western Power received 55 submissions with 54 of those being from existing or future local residents and one from the City of Rockingham.

Submissions were fairly evenly split between supporters of the proposal and stakeholders who had concerns about the site of the proposed substation and/or considered that alternative options should have been considered.

Western Power’s consideration of the matters raised in submissions is included in its summary of stakeholder consultation attached to its application.

Western Power decided to retain its proposed option noting:

- It had considered alternative locations for the zone substation and its proposed site provides the best whole-of-system outcomes.
- If the project proceeds it will work closely with the City of Rockingham to ensure architectural, noise and landscaping options chosen are suitable for the proposed facility.

Considerations of the ERA

We have reviewed the information provided by Western Power on its consultation process. As shown in Figure 3 below it used a wide range of methods to notify the community and stakeholders of the proposal and the opportunity to provide feedback.

Figure 3: Communication channels used to inform the community and stakeholders

Project webpage – A dedicated page⁷ on Western Power’s ‘Let’s Talk Power’ platform provided detailed information about the proposal including the options paper, maps, FAQs, and an online feedback form.

Email invitations (EDMs) – Two emails were sent during the engagement period to residents and businesses in Baldivis and Waikiki to inform them of the proposal, community drop-in session and encourage submissions.






Brochures – Distributed and displayed at local community hubs, including the Mary Davies Library and Community Centre, cafes and local businesses at the Stockland Baldivis Shopping Centre to raise awareness among residents.

Direct stakeholder notifications – 45 stakeholder representatives, including local government officers, elected members, state government agencies, energy industry, and businesses and land developers were informed via email and invited to attend an online briefing.

Advertising – An advertisement appeared in local newspapers, including *The West Australian* on 9 December 2025 and *The Sound Telegraph* on 10 December 2025.

Direct contact – 33 landowners of undeveloped lots directly adjacent to the proposed Baldivis Substation site were contacted by phone to ensure they were informed of the proposal and invited to discuss further and make a submission.

Code requirements – A formal notice⁸ was published by the Economic Regulation Authority on 24 November 2025, in accordance with the Access Code.

Channel	Metric
	1,823 project engagement webpage views.
	21,000 households and businesses in Baldivis and Waikiki received two EDMs about the proposal and inviting them to attend a community event and provide feedback. Email sent to 63 stakeholders inviting them to provide feedback and attend an online briefing.
	500 project brochures distributed to local community hubs and businesses.
	51 phone calls to landowners of lots on Pike Road, Gibberd Street and Rondane Street, adjacent to the proposed Baldivis Substation site.
	Paid advertising in <i>The West Australian</i> and <i>The Sound Telegraph</i> newspapers with a combined print circulation of 393,000.

We consider Western Power’s consultation process met the requirements of Appendix 7 of the Access Code and provided interested parties a reasonable opportunity to state their views and to propose alternative options to the proposed major augmentation.

Western Power’s summary of stakeholder consultation includes the submissions it received and sets out how it has taken account of them. Although Western Power ultimately decided to maintain its original proposal, we consider it has responded satisfactorily to all the matters raised, including the reasons for the choice of site and that it will undertake further work to ensure architectural, noise and landscaping options chosen are suitable for the proposed facility.

We also undertook a consultation process which provides further evidence of the effectiveness of Western Power's consultation. We consider the fact that no submissions were received indicates stakeholders were satisfied with the consultation undertaken by Western Power and that any issues raised with Western Power had been dealt with satisfactorily.