

An artist's impression of one of the options for the fence line for the planned Ballarat East Zone Substation now subject to community consultation.

Ballarat East Zone Substation Site Selection

We are building a third zone substation to continue delivering safe and reliable power to the Ballarat region.

We have been asked what areas we investigated for this critical infrastructure and why we selected 203 York Street, Ballarat East.

Our engineering and technical specialists analysed a range of options to determine the best solution to reducing capacity issues on the existing two zone substations that supply power to the region.

We found that the most effective solution was to build a third zone substation by the summer of 2025-26 to ensure we can meet growing demand and support the operation of existing bushfire mitigation technology.

Over more than two years, our teams have reviewed many potential sites to find a suitable location for the zone substation. We need to balance a range of technical, economic and spatial factors when determining a new location.

This fact sheet provides further details about the areas we investigated and why we selected York Street as the site that will provide the best solution and value for all customers.

What we consider when looking for site locations?

When we are investigating locations for new power infrastructure, such as zone substations, we consider a range of factors to ensure we are delivering reliable and affordable power to all customers.

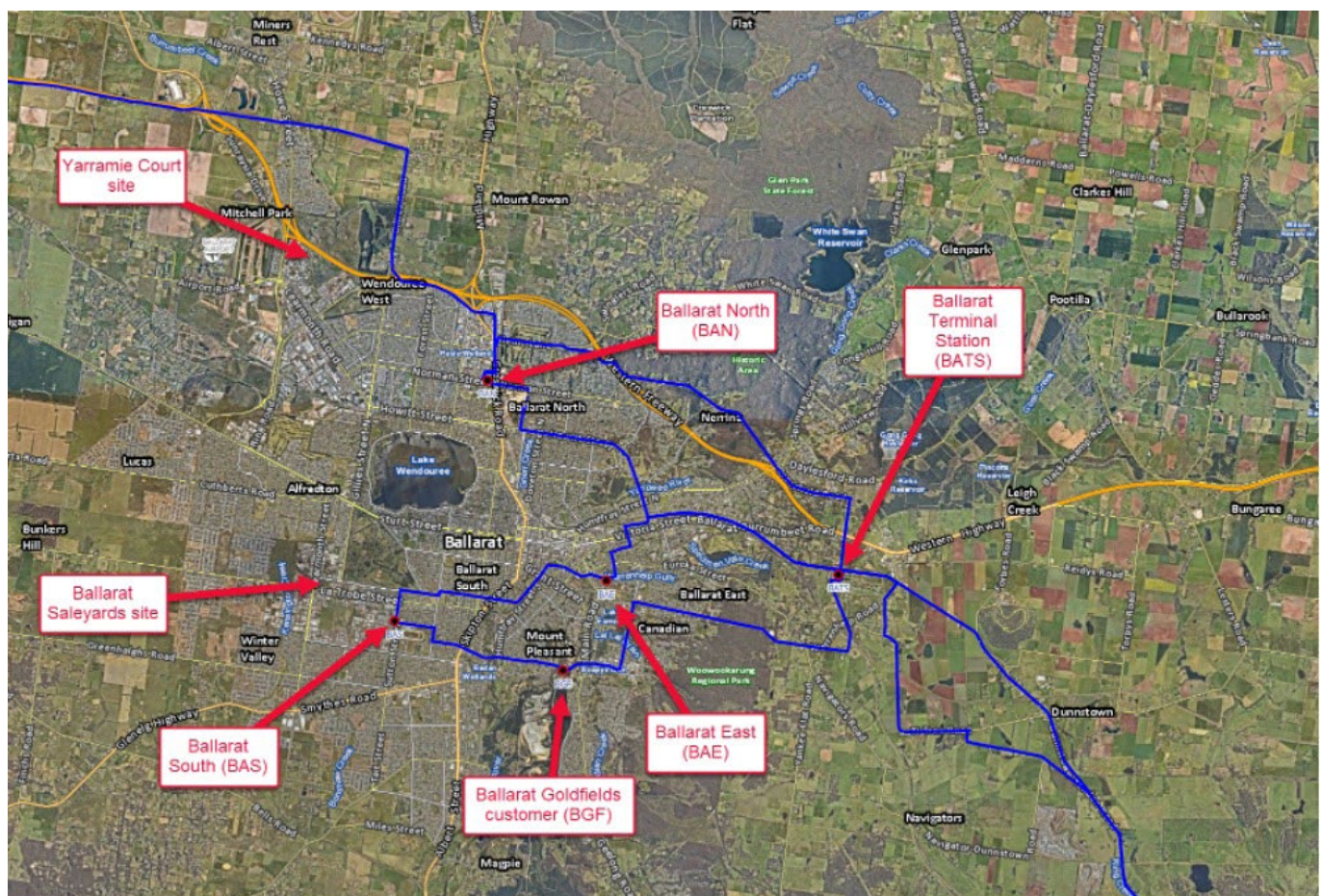
These factors include:

- Proximity to our existing network (66kV and 22kV powerlines)
- Capacity of the existing network (66kV and 22kV powerlines)
- Proximity to bulk customer demand
- Land availability, vacancy and zoning (both for existing and new sites)
- Spatial, architectural and environmental challenges to project delivery

These factors allow us to identify potential areas and site options that we then explore in detail to assess their costs, ability to meet any critical deadlines, and determine whether they meet customer needs and our regulatory obligations.

Economic viability of a site is also a key factor that we must take into consideration. This includes whether we would need to buy land, which can be the greatest single cost when developing in urban areas.

As a regulated essential service, Powercor must demonstrate we are delivering the 'least cost, technically acceptable' solution. This means, if we have multiple workable solutions to address a problem, cost is critical in the final decision under the current regulatory framework. As network costs are funded by all customers, we need to make sure that our projects are providing a range of benefits and we can justify our spending.



A map indicating sites we considered in detail when investigating locations for Ballarat's third zone substation. The blue line represents our 66kV powerlines.

What sites did we assess?

As well as 203 York Street, we investigated multiple sites in other areas across Ballarat. These included our existing Ballarat zone substations in Norman Street and Sutton Street, Ballarat Gold Fields Substation, Ballarat Terminal Station and land options in Ballarat West.

Below we have summarised our assessments of the various areas and sites we investigated.

Sites	Summary of assessments	
	Advantages	Disadvantages
Ballarat North Zone Substation, Norman Street	<ul style="list-style-type: none"> • Close to existing 66kV network and would need only minimal work to allow connection 	<ul style="list-style-type: none"> • Insufficient space on site with no land for expansion • Work still needed at other sites in Ballarat South to support demand • Significantly increased costs to integrate into the existing 22kV network
Ballarat South Zone Substation, Sutton Street	<ul style="list-style-type: none"> • Close to existing 66kV network and would need only minimal work to allow connection 	<ul style="list-style-type: none"> • Insufficient space on site without significant and costly redevelopment • Significantly increased costs to integrate into the existing 22kV network
Land Adjacent to Ballarat Gold Fields Substation, Elsworth Street West	<ul style="list-style-type: none"> • Close to existing 66kV network and would need only minimal work to allow connection 	<ul style="list-style-type: none"> • Existing substation not owned or operated by Powercor and cannot be used as it operates at a different voltage (11kV), which is not compatible with our network • Surrounding areas covered by heritage/ archaeological overlay, impacting timeline and cost • Located in a Hazardous Bushfire Risk Area • Requires additional land purchase, subdivision and re-zoning • Significant distance from distribution network • Significantly increased costs to integrate into the existing 22kV network
Ballarat Terminal Station, Coulsons Road	<ul style="list-style-type: none"> • Close to existing 66kV network and would need only minimal work to allow connection 	<ul style="list-style-type: none"> • Site owned by a third party • Insufficient space without redevelopment • Site is a significant distance from customers in Ballarat, increasing costs to integrate into the existing 22kV network • Work still needed at other sites in Ballarat South to support demand
Ballarat West Employment Zone and Cardigan areas (Multiple sites)	<ul style="list-style-type: none"> • Area has some vacant lots with mixed use or industrial zoning • Closer to Ballarat West growth area, which for some sites can reduce costs to integrate into the existing 22kV network 	<ul style="list-style-type: none"> • Existing 66kV network to the north requires upgrade to enable new substation • Additional distribution infrastructure needed to effectively service the eastern side of Ballarat • Located in a Hazardous Bushfire Risk Area • Land purchase and potential subdivision required

What about the two sites proposed by the City of Ballarat?

Following our site selection announcement, the City of Ballarat asked us to consider two alternative locations for the zone substation as a potential land swap option.

The sites proposed were Yarramie Court, Mitchell Park (in Ballarat's West) and the Ballarat Saleyards, which is owned by the State Government and operated by the council.

We were pleased to consider these sites and determine whether they would be suitable to build the third zone substation.

Our analysis found that both sites would:

- Be significantly more expensive than York Street due to either additional 66kV sub-transmission network costs to supply the zone substation or additional 22kV costs to integrate with our network and supply customers in Ballarat's Eastern region;
- Place the project timeline at risk, threatening the effective operation of our bushfire safety devices and subsequently community safety; and
- Require new significant electrical infrastructure to be built in other residential areas.

Yarramie Court, Mitchell Park

We were able to use work already undertaken to assess other sites in the Ballarat West area to define costs, benefits and expected issues associated with development here.

In comparison with 203 York Street:

- The Yarramie Court site would cost an extra \$22 million, with the overall project cost estimated at almost \$74 million
- The main driver for the additional costs is the need to build an extra 22 kilometres of new 66kV powerlines to supply the site
- While the site is located near 66kV powerlines in the north, these do not have enough capacity
- Preliminary estimates found that these new lines would impact approximately 900 properties across Ballarat
- Mitigating residential impacts from works through undergrounding 66kV powerlines would be six times more expensive, further increasing costs
- Shifting to this site at a late stage would risk our ability to meet our critical timeframes, specifically for bushfire safety

Price comparisons between 203 York Street, Ballarat East and Yarramie Court, Mitchell Park			
	Yarramie Court, Mitchell Park	York Street, Ballarat East*	Difference
Total cost	\$73.9m	\$52.2m	+\$21.7m

* Includes the \$2 million Community Benefits Package.

Ballarat Saleyards

We had not previously reviewed the Ballarat Sale Yards site in detail since, while it is zoned for industrial use, at the time of our initial assessments it was planned for development as part of the Commonwealth Games.

In comparison to 203 York Street:

- Ballarat Saleyards site would cost an extra \$16 million, with the overall project cost estimated at almost \$68 million
- Development would require an extra 30 kilometres of new 22kV powerlines and extra infrastructure at existing substations, as well as additional 66kV lines
- As this site is Crown Land and not owned by the council, its use would require agreement from the Victorian Government
- Shifting to this site at a late stage would risk our ability to meet our critical timeframes, specifically for bushfire safety

Price comparisons between 203 York Street, Ballarat East and Ballarat Saleyards			
	Ballarat Saleyards*	York Street, Ballarat East**	Difference
Total cost	\$67.9m	\$52.2m	+\$15.7m

* Includes a \$1 million Community Benefits Package for an estimated 22 residential property owners impacted by a new 66kV line.

** Includes the \$2 million Community Benefits Package.

Why was York Street chosen?

Our thorough analysis found that the York Street site was the most suitable option. This site:

- Is well located to improve power reliability for a large number of customers at a time when the city's population is increasing by more than 2,000 people each year
- Is readily able to be developed, taking into consideration its zoning and direct access to a 66kV powerline running parallel to one of the site's boundaries which has the required capacity
- Can be developed at the lowest cost of all options, delivering the best value for all Powercor customers.

To note, the York Street site was purchased by the State Electricity Commission in the early 1970s and is zoned for the construction of services and utilities.

Next Steps

Our site selection for the third zone substation is now finalised and we are not investigating any other locations.

Our project team is focused on progressing the design of the third zone substation, projected to be operational by late 2025, ahead of the 2025-26 summer.

To stay informed or for more information about the project, visit powercor.com.au/ballarateastzss

About Powercor

Powercor is your electricity network. We move energy from where it's generated to your property. Every day, our team works hard to make sure you always have the power you need. We're keeping power reliable while supporting the shift to more renewable energy like solar and wind, and people choosing to electrify their homes and vehicles.

For more information visit www.powercor.com.au/BallaradEastZSS, email majorprojects@powercor.com.au or call **13 22 06**