

## Appendix E Possible network investments for the 10-year outlook period

*This appendix summarises possible network investments for the 10-year outlook period.*

Through the annual planning review, Powerlink has identified that the investments listed in this appendix are likely to be required to address the risks arising from network assets reaching end of technical service life and to maintain reliability of supply in the 10-year outlook period. Potential projects have been grouped by region and zone as described in Chapter 5. It should be noted that the indicative cost of potential projects also excludes known and unknown contingencies.

As required by the Australian Energy Regulator's Transmission Annual Planning Report Guidelines, additional information on these potential projects is available in the TAPR Templates which can be accessed through Powerlink's TAPR Portal. Where appropriate, the technical envelope for potential non-network solutions has been included in the relevant table.

Potential condition-based programs of work are listed in Table 5.10.

### E.1 Northern Region

#### E.1.1 Far North zone

**Table E.1** Possible network investments in the Far North zone in the 10-year outlook period

Potential project	High level scope	Purpose	Earliest possible commissioning date	Alternatives	Indicative cost
<b>Joint Regulatory Investment Test for Transmission with Ergon Energy</b>					
Rebuild the 132kV transmission line between Woree and Kamerunga substations and Kamerunga 132kV Substation rebuild (1)	New 132kV double circuit transmission line, substation establishment on a new site and associated Ergon 22kV works	Maintain supply reliability to the Far North zone	December 2028	Two 132kV single circuit transmission lines, substation establishment on a new site and associated Ergon 22kV works (2)	\$201m (3)
<b>Transmission lines</b>					
Line refit works on the 275kV transmission lines between Ross and Chalumbin substations	Staged line refit works on steel lattice structures	Maintain supply reliability to the Far North and Ross zones	Staged works by June 2031 (4)	New transmission line (2)	\$39m (5)
Line refit works on the 132kV transmission line between Chalumbin and Turkinje substations (5)	Refit of the Chalumbin to Turkinje 132kV transmission line	Maintain supply reliability to Turkinje area	December 2033 (3)	Establishment of 275/132kV switching substation near Turkinje including two transformers	\$21m (4)
<b>Substations</b>					
Tully 132/22kV transformer replacement	Replacement of the transformer	Maintain supply reliability to the Far North zone	June 2028	Life extension of the existing transformer or a non-network alternative of up to 15MW at peak and up to 100MWh per day on a continuous basis to provide supply to the 22kV network at Tully	\$9m
Edmonton 132kV secondary systems replacement	Full replacement of 132kV secondary systems	Maintain supply reliability to the Far North zone	June 2033 (4)	Selected replacement of 132kV secondary systems	\$9m

**Table E.1** Possible network investments in the Far North zone in the 10-year outlook period (*continued*)

Potential project	High level scope	Purpose	Earliest possible commissioning date	Alternatives	Indicative cost
Barron Gorge 132kV secondary systems replacement	Full replacement of 132kV secondary systems	Maintain supply reliability to the Far North zone	June 2036 (4)	Selected replacement of 132kV secondary systems	\$3m
Chalumbin 275kV Substation reinvestment	Selected replacement of 275kV and 132kV primary plant	Maintain supply reliability to the Far North zone	June 2031 (4)	Full replacement of all 275kV and 132kV primary plant and secondary systems	\$58m (5)
Woree PASS M1 replacement	Replacement of PASS M1 unit of reactors	Maintain supply reliability to the Far North zone	June 2028	Replacement of PASS M1 units as dead tank circuit breakers	\$9m
Woree 275kV and 132kV secondary systems replacement	Selected replacement of 275kV and 132kV secondary systems	Maintain supply reliability to the Far North zone	June 2033	Full replacement of 275kV and 132kV secondary systems	\$12m (5)
El Arish 132kV secondary systems replacement	Selected replacement of 132kV secondary systems	Maintain supply reliability to the Far North zone	June 2036 (4)	Full replacement of 275kV and 132kV secondary systems	\$10m

**Notes:**

- (1) The template data for the transmission line and substation investments are identified separately in the TAPR portal.
- (2) The envelope for non-network solutions is defined in Section 5.5.1.
- (3) Reflects the estimated costs in the Project Specification Consultation Report. Powerlink and Ergon Energy are progressing the development of the Project Assessment Draft Report at the time of 2025 TAPR publication.
- (4) The change in timing of the network solution from the 2024 TAPR is based upon updated information on the condition of the assets.
- (5) Compared to the 2024 TAPR, the change in the estimated cost of the proposed network solution is based upon updated information in relation to the construction costs of recently completed projects.
- (6) Compared to the 2024 TAPR, the potential project (proposed network solution) has been updated to reflect the result of the most recent planning analysis (refer to Section 5.5.1).

## E.1.2 Ross zone

**Table E.2** Possible network investments in the Ross zone in the 10-year outlook period

Potential project	High level scope	Purpose	Earliest possible commissioning date	Alternatives	Indicative cost
<b>Transmission lines</b>					
Line refit works on the 132kV transmission line between Ross and Dan Gleeson substations	Line refit works on steel lattice structures	Maintain supply reliability to the Ross zone	June 2031 (1)	New 132kV transmission line (2)	\$12m (2)
<b>Substations</b>					
Ingham South 132kV Substation reinvestment	Full replacement of 132kV primary plant and secondary systems	Maintain supply reliability to the Ross zone	December 2028 (1)	Selected replacement of 132kV primary plant and secondary systems (3)	\$26m
Garbutt 132kV secondary systems replacement	Full replacement of 132kV secondary systems	Maintain supply reliability to the Ross zone	June 2029 (1)	Selected replacement of 132kV secondary systems (2)	\$13m (2)
Alan Sherriff 132kV secondary systems replacement	Selected replacement of 132kV secondary systems	Maintain supply reliability to the Ross zone	June 2028 (1)	Full replacement of 132kV secondary systems (2)	\$26m (3)
Townsville East 132kV secondary systems replacement	Staged replacement of secondary systems	Maintain supply reliability to the Ross zone	June 2028 (1)	Full replacement of secondary systems (2)	\$10m
Townsville South 132kV secondary systems replacement	Selected replacement of 132kV secondary systems	Maintain supply reliability to the Ross zone	June 2028 (1)	Full replacement of 132kV secondary systems (2)	\$11m
Yabulu South 132kV secondary systems replacement	Selected replacement of 132kV secondary systems	Maintain supply reliability to the Ross zone	June 2034	Full replacement of 132kV secondary systems	\$13m
Clare South 132kV secondary systems replacement	Selected replacement of 132kV secondary systems	Maintain supply reliability to the Ross zone	June 2036 (1)	Full replacement of 132kV secondary systems	\$14m
Ross 275kV reactor bushing replacement	Replacement of bushing on one of the 275kV reactors	Maintain supply reliability to the Ross zone	June 2033	Replacement of 275kV reactor	\$4m

Notes:

- (1) The change in timing of the network solution from the 2024 TAPR is based upon updated information on the condition of the assets.
- (2) Compared to the 2024 TAPR, the change in the estimated cost of the proposed network solution is based upon updated information in relation to the construction costs of recently completed projects.
- (3) The envelope for non-network solutions is defined in this Section 5.5.2.

## E.1.3 North zone

**Table E.3** Possible network investments in the North zone in the 10-year outlook period

Potential project	High level scope	Purpose	Earliest possible commissioning date	Alternatives	Indicative cost
<b>Transmission lines</b>					
Line refit works on the 132kV transmission line between Collinsville North, Strathmore and Clare South substations	Line refit works on the 132kV transmission line	Maintain supply reliability to the North zone	June 2035	Rebuild of the 132kV transmission line between Collinsville North, Strathmore and Clare South substations	\$44m
<b>Substations</b>					
Alligator Creek 132kV Substation reinvestment	Selected replacement of 132kV primary plant and SVC secondary systems replacement	Maintain supply reliability to the North zone	December 2030 (1)	Full replacement of 132kV primary plant and SVC secondary systems replacement	\$34m (2)
Oonooie Substation reinvestment	Selected replacement of 132kV primary plant, replacement of 132kV secondary systems and SVC	Maintain supply reliability to Oonooie	June 2030	Replacement of all 132kV primary plant and secondary systems and SVC	TBC (3)
Life extension of 132/69/11kV transformer at Newlands Substation	10-year life extension of 132/69/11kV transformer	Maintain supply reliability to the North zone	December 2028	Replacement of 132/69/11kV transformer	\$3m
North Goonyella 132kV secondary systems replacement	Selected replacement of 132kV secondary systems in the existing building	Maintain supply reliability to the North zone	December 2027	Replacement of 132kV secondary systems in a new building	\$9m (2)
Coppabella 132kV Substation reinvestment	Replacement of all 132kV primary plant and secondary systems and SVC	Maintain supply reliability to Coppabella	June 2029	Replacement of all 132kV primary plant and secondary systems and SVC	TBC (3)
Pioneer Valley 132kV primary plant replacement	Selected replacement of 132kV primary plant	Maintain supply reliability to the North zone	June 2035	Full replacement of 132kV primary plant	\$3m
Strathmore SVC secondary systems replacement	Full replacement of SVC secondary systems	Maintain supply reliability to the North zone	June 2028 (1)	Staged replacement of secondary systems (4)	\$24m (2)
Strathmore 275kV and 132kV secondary systems replacement	Selected replacement of 275 and 132kV secondary systems in a new prefabricated building	Maintain supply reliability to the North zone	June 2034	Selected replacement of 275kV and 132kV secondary systems in existing panels	\$15m
Nebo 275kV line reactor replacement	Replacement of 275kV line reactor	Maintain supply reliability to the North zone	June 2032	Life extension of the 275kV line reactor	\$10m
Wandoo 132kV Substation reinvestment	Selected replacement of 132kV primary plant and full replacement of 132kV secondary systems	Maintain supply reliability to Wandoo	December 2029	Replacement of 132kV primary plant and 132kV secondary systems	TBC (3)

**Notes:**

- (1) The revised timing from the 2024 TAPR is based upon the latest condition assessment.
- (2) Compared to the 2024 TAPR, the change in the estimated cost of the proposed network solution is based upon updated information in relation to condition and scope of works.
- (3) To be confirmed. Powerlink is continuing to work with affected customers to determine the detailed scope of works required.
- (4) The envelope for non-network solutions is defined in Section 5.5.3.

## E.2 Central Region

### E.2.1 Central West zone

**Table E.4** Possible network investments in the Central West zone in the 10-year outlook period

Potential project	High level scope	Purpose	Earliest possible commissioning date	Alternatives	Indicative cost
<b>Transmission Lines</b>					
Line refit works on the 275kV transmission line between Bouldercombe and Broadsound substations	Line refit works on the 275kV transmission line	Maintain reliability in the Central West zone	December 2035	Rebuild the 275kV transmission line between Bouldercombe and Broadsound substation	\$6m
Line reinvestment on the 275kV transmission line between Bouldercombe and Nebo substations	Line refit works on the 275kV transmission line between Bouldercombe and Nebo substations	Maintain supply reliability in the Central West zone and Northern region	December 2032 (1)	Stanwell to Broadsound second side stringing  New 275kV transmission line between Bouldercombe and Broadsound substation	\$41m (2)
Line refit works on the 132kV transmission line between Collinsville North, Goonyella Riverside and Moranbah substations	Line refit works on the 132kV transmission line	Maintain supply reliability in the Central West zone	June 2035	Rebuild the 132kV transmission line between Collinsville North, Goonyella Riverside and Moranbah substations	\$58m
Line refit works on the 132kV transmission line between Moranbah, Kemmis and Nebo substations	Line refit works on the 132kV transmission line	Maintain supply reliability in the Central West zone and Northern region	June 2035	Rebuild the 132kV transmission line between Moranbah, Kemmis and Nebo substations	\$40m
<b>Substations</b>					
Blackwater selected 132kV primary plant replacement	Selected replacement of 132kV primary plant	Maintain supply reliability to the Central West zone	June 2029 (1)	Full replacement of 132kV primary plant	\$28m (2)
Biloela 132kV secondary systems replacement	Selected replacement of 132kV secondary systems	Maintain supply reliability to the Central West zone	December 2033	Full replacement of 132kV secondary systems	\$21m (2)
Moura 132/22kV transformer replacements	Replacement of 132/22kV transformers	Maintain supply reliability to the Central West zone	June 2032	Refit of 132/22kV transformers	\$11m
Broadsound 275kV secondary systems replacement	Selected replacement of 275kV secondary systems	Maintain supply reliability to the Central West zone	June 2035 (1)	Full replacement of 275kV secondary systems	\$10m
Broadsound 275kV selected primary plant replacement	Selected replacement of 275kV primary plant	Maintain supply reliability to the Central West zone	June 2030 (1)	Full replacement of 275kV primary plant (2)	\$19m
Norwich Park 132kV Substation reinvestment	Selected replacement of 132kV primary plant and replacement of 132kV secondary systems	Maintain supply reliability to Norwich Park	June 2033	Replacement of all 132kV primary plant and secondary systems	TBC (3)
Lilyvale 132kV secondary systems replacement	Selected replacement of 132kV secondary systems	Maintain supply to the Central West zone	June 2036 (1)	Full replacement of 132kV secondary systems	\$5m

**Table E.4** Possible network investments in the Central West zone in the 10-year outlook period (*continued*)

Potential project	High level scope	Purpose	Earliest possible commissioning date	Alternatives	Indicative cost
Calvale 275kV selected primary plant replacement	Selected replacement of 275kV primary plant	Maintain supply reliability to the Central West zone	June 2031 (1)	Full replacement of 275kV primary plant (2)	\$39m (2)
Grantleigh 132kV Substation reinvestment	Selected replacement of 132kV primary plant and replacement of 132kV secondary systems and SVC	Maintain supply reliability to Grantleigh	December 2030	Replacement of all 132kV primary plant and secondary systems and SVC	TBC (3)
Blackwater 132kV secondary systems replacement	Selected replacement of 132kV secondary systems	Maintain supply reliability in the Central West zone	June 2033	Full replacement of 132kV secondary systems	\$19m
Stanwell 275kV selected primary plant replacement	Selected replacement of 275kV primary plant	Maintain supply reliability to the Central west zone and Northern region	June 2034	Full replacement of 275kV primary plant	\$22m

Notes:

- (1) The change in timing of the network solution from the 2024 TAPR is based upon updated information on the condition of the assets.
- (2) Compared to the 2024 TAPR, the change in the estimated cost of the proposed network solution is based upon updated information in relation to condition and scope of works.
- (3) To be confirmed. Powerlink is continuing to work with affected customers to determine the detailed scope of works required.

## E.2.2 Gladstone zone

**Table E.5** Possible network investments in the Gladstone zone in the 10-year outlook period

Potential project	High level scope	Purpose	Earliest possible commissioning date	Alternatives	Indicative cost
<b>Transmission lines</b>					
Reinvestment in the 132kV transmission line between Gladstone Power Station and Callemondah Substation	Line refit works on steel lattice structures	Maintain supply reliability in the Gladstone zone	June 2035	Rebuild the 132kV transmission line between Gladstone Power Station and Callemondah Substation	\$7m
<b>Substations</b>					
Callemondah Substation reinvestment	Selected replacement of 132kV primary plant and secondary systems	Maintain supply reliability to Callemondah	June 2029 (1)	Full replacement of 132kV primary plant and secondary systems	\$29m (2)
Rockhampton 132kV primary plant and secondary systems replacement	Selected replacement of 132kV primary plant and secondary systems	Maintain reliability in Rockhampton	June 2033 (1)	Full replacement of 132kV primary plant and secondary systems	\$11m (2)
Pandoin 132kV secondary systems replacement	Full replacement of the 132kV secondary systems	Maintain supply reliability in the Gladstone zone	June 2036 (1)	Selected replacement of 132kV secondary systems	\$6m
Wurdong 275kV selected primary plant replacement	Selected replacement of 275kV primary plant	Maintain supply reliability in the Gladstone zone	June 2035 (1)	Full replacement of 275kV primary plant	\$31m (2)

Notes:

- (1) The change in timing of the network solution from the 2024 TAPR is based upon updated information on the condition of the assets.
- (2) Compared to the 2024 TAPR, the change in the estimated cost of the proposed network solution is based upon updated information in relation to the construction costs of recently completed projects.

## E.3 Southern Region

### E.3.1 Wide Bay zone

**Table E.6** Possible network investments in the Wide Bay zone in the 10-year outlook period

Potential project	High level scope	Purpose	Earliest possible commissioning date	Alternatives	Indicative cost
<b>Transmission lines</b>					
Rebuild of the 275kV transmission line between Calliope River Substation and the Wurdong Tee	New double circuit transmission line for the first 15km out of Calliope River substation	Maintain supply reliability to the CQ-SQ transmission corridor (and Gladstone zone)	December 2035 (1)	Refit the two single circuit 275kV transmission lines	\$100m (2)
Line refit works on the 275kV transmission line between Calliope River Substation and Wurdong Substation	Refit the single circuit 275kV transmission line between Calliope River Substation and Wurdong Substation	Maintain supply reliability to the CQ-SQ transmission corridor (and Gladstone zone)	June 2033 (1)	Rebuild the 275kV transmission line as a double circuit	\$33m (2)
CQ-SQ coastal feeder uprating	Increase the MVA capacity of the coastal feeders to allow a higher line rating	Maintain supply reliability to the CQ-SQ transmission corridor	June 2031	Rebuild the 275kV coastal transmission line between CQ-SQ	\$20m
Line refit works on the 275kV transmission line between Woolooga and South Pine substations	Refit the 275kV transmission line between Woolooga and South Pine substations	Maintain supply reliability to the Moreton zone	June 2032 (1)	Rebuild the 275kV transmission line between Woolooga and South Pine substations	\$47m (2)
Targeted reinvestment in the 275kV transmission lines between Wurdong Tee and Gin Gin Substation	Refit the 275kV transmission line between Wurdong Tee and Gin Gin Substation	Maintain supply to the Wide Bay zone	December 2034 (1)	Targeted refit and partial double circuit rebuild of the 275kV transmission line between Wurdong Tee and Gin Gin Substation  New 275kV DCST transmission line	\$91m (2)
Line refit works on the 275kV transmission line between Woolooga and Teebar Creek substations	Refit the 275kV transmission line between Woolooga and Teebar Creek substations	Maintain supply to the Wide Bay zone	June 2034	Rebuild the 275kV transmission line between Woolooga and Teebar Creek substations	\$14m
<b>Substations</b>					
Teebar Creek secondary systems replacement	Full replacement of 132kV and 275kV secondary systems	Maintain supply to the Wide Bay zone	June 2034 (1)	Selected replacement of 132kV and 275kV secondary systems	\$39m (2)
Woolooga 132kV selected primary plant replacement	Selected replacement of 132kV primary plant	Maintain supply to the Wide Bay zone	June 2033 (1)	Full replacement of 132kV secondary systems	\$9m
Woolooga 275kV and 132kV secondary systems replacement	Full replacement of 275kV and 132kV secondary systems.	Maintain supply to the Wide Bay zone	June 2035 (1)	Selected replacement of 275kV, 132kV and SVC secondary systems	\$65m (2)
Palmwoods 275kV and 132kV selected primary plant replacement	Selected replacement of 275kV and 132kV primary plant	Maintain supply reliability to the Wide Bay zone	June 2034 (1)	Full replacement of 275kV and 132kV primary plant	\$18m (1)

**Notes:**

- (1) The change in timing of the network solution from the 2024 TAPR is based upon updated information on the condition of the assets.
- (2) Compared to the 2024 TAPR, the change in the estimated cost of the proposed network solution is based upon updated information in relation to the construction costs of recently completed projects.

## E.3.2 Surat zone

**Table E.7** Possible network investments in the Surat zone in the 10-year outlook period

Potential project	High level scope	Purpose	Earliest possible commissioning date	Alternatives	Indicative cost
<b>Substations</b>					
Columboola 132kV secondary systems replacement	Selected replacement of 132kV secondary systems	Maintain supply reliability in the Surat zone	June 2036 (1)	Full replacement of secondary systems	\$17m

Note:

(1) The change in timing of the network solution from the 2024 TAPR is based upon updated information on the condition of the assets.

## E.3.3 Bulli zone

**Table E.8** Possible network investments in the Bulli zone in the 10-year outlook period

Potential project	High level scope	Purpose	Earliest possible commissioning date	Alternatives	Indicative cost
<b>Substations</b>					
Millmerran 330kV AIS secondary systems replacement	Selected replacement of 330kV secondary systems	Maintain supply reliability in the Bulli zone	December 2035 (1)	Full replacement of secondary systems	\$14m (2)
Braemar 330kV secondary systems replacement non-iPASS	Selected replacement of 330kV secondary systems	Maintain supply reliability in the Bulli zone	June 2034	Full replacement of secondary systems	\$23m

Notes:

(1) The change in timing of the network solution from the 2024 TAPR is based upon updated information on the condition of the assets.

(2) Compared to the 2024 TAPR, the change in the estimated cost of the proposed network solution is based upon updated information in relation to the construction costs of recently completed projects.

## E.3.4 South West zone

**Table E.9** Possible network investments in the South West zone in the 10-year outlook period

Potential project	High level scope	Purpose	Earliest possible commissioning date	Alternatives	Indicative cost
<b>Substations</b>					
Middle Ridge 275kV and 110kV secondary systems replacement	Selected replacement of 275kV and 110kV secondary systems	Maintain supply reliability in the South West zone	June 2031 (1)	Full replacement of 275kV and 110kV secondary systems	\$63m (3)
Middle Ridge 275/110kV transformers life extension	Life extension of transformers 2 and 3	Maintain supply reliability in the South West zone	December 2032	Replacement of transformers 2 and 3 (2)	\$6m
Middle Ridge 110kV primary plant replacement	Selected replacement of selected 110kV primary plant	Maintain reliability of supply in the South West zone	December 2033 (1)	Full replacement of 110kV primary plant	\$15m (3)

Notes:

(1) The change in timing of the network solution from the 2024 TAPR is based upon updated information on the condition of the assets.

(2) The envelope for non-network solutions is defined in Section 5.7.4.

(3) Compared to the 2024 TAPR, the change in the estimated cost of the proposed network solution is based upon updated information in relation to the construction costs of recently completed projects.



## E.3.5 Moreton zone

**Table E.10** Possible network investments in the Moreton zone in the 10-year outlook period

Potential project	High level scope	Purpose	Earliest possible commissioning date	Alternatives	Indicative cost
<b>Transmission Lines</b>					
Replacement of the 110kV underground cable between Upper Kedron and Ashgrove West substations	Replace the 110kV underground cable between Upper Kedron and Ashgrove West substations using an alternate easement	Maintain supply reliability in the Moreton zone	June 2031 (1)	In-situ replacement of the 110kV underground cable between Upper Kedron and Ashgrove West substations (2)	\$53m (3)
Rearrangement of the 275kV feeder between Blackwall Substation and Karana Downs	275kV feeder rearrangement to enable construction of 4km of 275kV transmission line	Maintain supply reliability in the Moreton zone	December 2033	New 275kV double circuit line from Blackwall to South Pine	\$10m
<b>Substations</b>					
South Pine 275/110kV transformer replacement	Replacement of 275/110kV transformer	Maintain supply reliability in the Moreton zone	June 2030	Retirement of a single 275kV/110kV transformer with non-network support (2)	\$16m
South Pine 110kV secondary systems replacement	In-situ replacement of 110kV secondary systems in existing buildings	Maintain supply reliability in the Moreton zone	June 2031	Full replacement of 110kV secondary systems and buildings	\$38m
South Pine SVC secondary systems and 275kV secondary replacement	Replacement of the existing secondary systems and associated control systems for the SVC and upfront replacement of the 275kV secondary systems	Maintain supply reliability in the Moreton zone	June 2031	Full replacement of the SVC and staged replacement of the 275kV secondary systems	\$58m
South Pine 275kV primary plant replacement	Staged replacement of 275kV primary plant	Maintain supply reliability in the Moreton zone	June 2033 (1)	Full replacement of 275kV primary plant	\$42m (3)
Ashgrove West 110kV secondary systems replacement	Full replacement of 110kV secondary systems	Maintain supply reliability in the Moreton zone	December 2029 (1)	Staged replacement of 110kV secondary systems (2)	\$25m (3)
Murarrie 110kV secondary systems replacement	Full replacement of 110kV secondary systems	Maintain supply reliability in the Moreton zone	June 2033 (1)	Selected replacement of 110kV secondary systems (2)	\$56m
Algerter 110kV secondary systems replacements	Full replacement of 110kV secondary systems	Maintain supply reliability in the Moreton zone	June 2035 (1)	Staged replacement of 110kV secondary systems	\$31m (3)
Bundamba 110kV secondary systems replacement	Full replacement of 110kV secondary systems	Maintain supply reliability in the Moreton zone	June 2035	Staged replacement of 110kV secondary systems	\$17m (3)
Tennyson 110/33kV transformer replacement	Replacement of 110/33kV transformer	Maintain supply reliability in the Moreton zone	June 2028	Refit of the 110/33kV transformer (2)	\$11m

**Table E.10** Possible network investments in the Moreton zone in the 10-year outlook period (*continued*)

Potential project	High level scope	Purpose	Earliest possible commissioning date	Alternatives	Indicative cost
Goodna 275kV and 110kV secondary systems replacement	Full replacement of 275kV and 110kV secondary systems	Maintain supply reliability in the Moreton zone	December 2030 (1)	Staged replacement of 275kV and 110kV secondary systems (2)	\$39m (3)
West Darra 110kV secondary systems replacement	Full replacement of 110kV secondary systems	Maintain supply reliability in the Moreton zone	June 2032 (1)	Staged replacement of 110kV secondary systems	\$12m
Loganlea 275kV primary plant replacement	Full replacement of 275kV primary plant	Maintain supply reliability in the Moreton zone	June 2033 (1)	Staged replacement of 275kV primary plant	\$5m
Loganlea 275kV secondary systems replacement	Full replacement of 275kV secondary systems	Maintain supply reliability in the Moreton zone	December 2034	Selective replacement of 275kV secondary systems	\$28m
Greenbank SVC secondary systems replacement	Full replacement of SVC secondary systems	Maintain supply reliability in the Moreton and Gold Coast zones	June 2030 (1)	Staged replacement of SVC secondary systems (2)	\$26m (3)
Mount England 275kV primary plant replacement	Full replacement of 275kV primary plant	Maintain supply reliability in the Moreton zone	December 2033 (1)	Staged replacement of 275kV secondary systems and primary plant	\$5m (3)
Belmont 110kV and 275kV secondary systems replacement	Full replacement of secondary systems	Maintain supply reliability in the Moreton zone	June 2034	Staged replacement of 275kV and 110kV secondary systems	\$24m
Abermain 275kV and 110kV secondary systems replacement	Full replacement of 275kV and 110kV secondary systems	Maintain supply reliability in the Moreton zone	June 2036 (1)	Staged replacement of 275kV and 110kV secondary systems	\$10m (3)
Abermain 275kV and 110kV primary plant replacement	Selected 275kV and 110kV primary plant replacement	Maintain supply reliability in the Moreton zone	June 2033 (1)	Full replacement of 275kV and 110kV primary plant	\$8m
Greenbank 275kV secondary systems replacement	Full replacement of 275kV secondary systems	Maintain supply reliability in the Moreton and Gold Coast zones	June 2034	Staged replacement of 275kV secondary systems	\$71m (3)

**Notes:**

- (1) The change in timing of the network solution from the 2024 TAPR is based upon updated information on the condition of the assets.
- (2) The envelope for non-network solutions is defined in Section 5.7.5.
- (3) Compared to the 2024 TAPR, the change in the estimated cost of the proposed network solution is based upon updated information in relation to the scope of works and the construction costs of recently completed projects.

## E.3.6 Gold Coast zone

**Table E.11** Possible network investments in the Gold Coast zone in the 10-year outlook period

Potential project	High level scope	Purpose	Earliest possible commissioning date	Alternatives	Indicative cost
<b>Transmission lines</b>					
Line refit works on the 110kV transmission line between Mudgeeraba Substation and Terranora	Targeted line refit works on steel lattice structures	Maintain supply reliability from Queensland to NSW Interconnector	June 2031 (1)	Full line refit  New transmission line (2)	\$8m (3)
<b>Substations</b>					
Molendinar 275kV secondary systems replacement	Full replacement of 275kV secondary systems	Maintain supply reliability in the Gold Coast zone	June 2031 (1)	Selected replacement of 275kV secondary systems (2)	\$53m (3)
Mudgeeraba 110kV primary plant and secondary systems replacement	Selected replacement of 110kV primary plant and staged replacement of 110kV secondary systems	Maintain supply reliability in the Gold Coast zone	December 2031 (1)	Full replacement of 110kV secondary systems and replacement of the transformer	\$51m (3)

**Notes:**

- (1) The envelope for non-network solutions is defined in Section 5.7.6.
- (2) The change in timing of the network solution from the 2024 TAPR is based upon updated information on the condition of the assets.
- (3) Compared to the 2024 TAPR, the change in the estimated cost of the proposed network solution is based upon updated information in relation to the scope of works and the construction costs of recently completed projects.