

Investment Evaluation Summary (IES)



Project Details:

Project Name:	Install OH Equipment - Anti-Climbing barriers or Signage Program
Project ID:	00664
Thread:	Structures
CAPEX/OPEX:	CAPEX
Service Classification:	Standard Control
Scope Type:	D
Work Category Code:	RECBA
Work Category Description:	Install anticlimbing barriers / signage program
Preferred Option Description:	Option 1 – Install Anti-Climbing Barriers / Signage
Preferred Option Estimate (Nominal Dollars):	\$300,000

	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27
Unit (\$)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Volume	1	1	1	1	1	1	1	1	1	1
Estimate (\$)										
Total (\$)	\$30,000	\$30,000	\$30,000	\$30,000	\$30,000	\$30,000	\$30,000	\$30,000	\$30,000	\$30,000

Governance:

Project Initiator:	Gary Carleton	Date:	26/03/2015
Thread Approved:	David Ellis	Date:	02/11/2015
Project Approver:	David Eccles	Date:	30/10/2015

Document Details:

Version Number:	1
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Related Documents:

Description	URL
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IES - RECBA	http://teamzone.tnad.tasnetworks.com.au/asset-strategy/Shared%20Documents/DD17/Overhead%20Thread/RECBA%20-%20Install%20Anti-Climbing%20Barriers%20or%20Signage%20Program/IES%20-%20RECBA.docx
NPV - RECBA	http://teamzone.tnad.tasnetworks.com.au/asset-strategy/Shared%20Documents/DD17/Overhead%20Thread/RECBA%20-%20Install%20Anti-Climbing%20Barriers%20or%20Signage%20Program/NPV%20-%20RECBA.xlsm

Section 1 (Gated Investment Step 1)

1. Background

Anti-climbing barriers and signage are required for steel lattice tower to discourage and prevent unauthorised access onto these structures. Approximately 1500 climbable steel distribution structures exist in TasNetwork's network.

ENA Guidelines for Design and Maintenance of Overhead Distribution and Transmission Lines (C(b)1), Section 8.4.3 requires that:

'Provision shall be made on all climbable structures for the fixing of signage and devices to ensure the protection of the public from hazards associated with access to electrical works, and to provide public awareness of operational safety issues'.

1.1 Investment Need

Anti-climbing barriers and/or signage are required for steel lattice type towers to discourage and prevent the unauthorised access onto such structures. These structures are very easy to climb because of their construction. This is a compliance requirement coming from AS 7000 (formerly C(b)1).

1.2 Customer Needs or Impact

TasNetworks continues to undertake consumer engagement as part of business as usual and through the Voice of the Customer program. This engagement seeks in depth feedback on specific issues relating to:

- How its prices impact on its services
- Current and future consumer energy use
- Outage experiences (frequency and duration) and expectations
- Communication expectations
- STPIS expectations (reliability standards and incentive payments)
- Increasing understanding of the electricity industry and TasNetworks

Consumers have identified safety, restoration of faults/emergencies and supply reliability as the highest performing services offered by TasNetworks.

Consumers also identified that into the future they believe that affordability, green, communicative, innovative, efficient and reliable services must be provided by TasNetworks.

This project specifically addresses the requirements of consumers in the areas of:

- safety, restoration of faults/emergencies and supply reliability
- affordability, green, communicative, innovative, efficient and reliable services

Customers will continue to be consulted through routine TasNetworks processes, including the Voice of the customer program, the Annual Planning Review and ongoing regular customer liaison meetings.

1.3 Regulatory Considerations

This project is required to achieve the following capital and operational expenditure objectives as described by the National Electricity Rules section 6.5.7(a) and 6.5.6(a).

6.5.7 (a) Forecast capital expenditure

- (1) meet or manage the expected demand for standard control services over that period;
- (2) comply with all applicable regulatory obligations or requirements associated with the provision of standard control services;
- (3) to the extent that there is no applicable regulatory obligation or requirement in relation to:
 - (i) the quality, reliability or security of supply of standard control services; or
 - (ii) the reliability or security of the distribution system through the supply of standard control services, to the relevant extent:
 - (iii) maintain the quality, reliability and security of supply of standard control services; and
 - (iv) maintain the reliability and security of the distribution system through the supply of standard control services; and
- (4) maintain the safety of the distribution system through the supply of standard control services.

2. Project Objectives

To provide for the supply and installation of anti-climbing barriers and or signs to ensure access to the overhead line is limited to accredited personnel.

3. Strategic Alignment

3.1 Business Objectives

Strategic and operational performance objectives relevant to this project are derived from TasNetworks 2014 Corporate Plan, approved by the board in 2014. This project is relevant to the following areas of the corporate plan:

- We understand our customers by making them central to all we do;
- We enable our people to deliver value; and
- We care for our assets, delivering safe and reliable networks services while transforming our business.

3.2 Business Initiatives

The business initiatives that relate to this project are as follows:

- Safety of our people and the community, while reliably providing network services, is fundamental to the TasNetworks business and remains our immediate priority
- We care for our assets to ensure they deliver safe and reliable network services
- We will transform our business with a focus on:
 - An appropriate approach to the management and allocation of risk
 - The strategic key performance indicators that will be impacted through undertaking this project are as follows:
 - Customer engagement and service – customer net promoter score

- Price for customers – lowest sustainable prices
- Culture and people engagement – Culture score
- Zero harm – significant and reportable incidents
- Network service performance – meet network planning standards
- Network service performance – outcomes under service target performance incentive schemes
- Sustainable cost reduction – efficient operating and capital expenditure

4. Current Risk Evaluation

Do nothing is not an acceptable option to TasNetworks' risk appetite. The level of risk identified above is such that a treatment plan is required to reduce the risks to a tolerable level, in line with TasNetworks' Risk Management Framework.

4.1 5x5 Risk Matrix

TasNetworks business risks are analysed utilising the 5x5 corporate risk matrix, as outlined in TasNetworks Risk Management Framework.

Relevant strategic business risk factors that apply are follows:

Risk Category	Risk	Likelihood	Consequence	Risk Rating
Safety and People	Fatality as a result of someone climbing a structure and contacting live conductors or components.	Unlikely	Severe	High

Section 1 Approvals (Gated Investment Step 1)

Project Initiator:	Gary Carleton	Date:	26/03/2015
Line Manager:		Date:	
Manager (Network Projects) or Group/Business Manager (Non-network projects):		Date:	
[Send this signed and endorsed summary to the Capital Works Program Coordinator.]			

Actions			
CWP Project Manager commenced initiation:		Assigned CW Project Manager:	
PI notified project initiation commenced:		Actioned by:	

Section 2 (Gated Investment Step 2)

5. Preferred Option:

To provide for the supply and installation of anti-climbing barriers and or signs to ensure access to the overhead line is limited to accredited personnel.

5.1 Scope

Install anti climbing barriers and/ or warning signage on TasNetwork's owned steel lattice structures including towers.

Work may be generated by:

- a) RAMs
- b) Works Delivery
- c) Asset inspectors

5.2 Expected outcomes and benefits

This work has been identified in the Overhead and Structures Asset Management Plan and is intended to prevent or discourage people from climbing TasNetworks' structures.

5.3 Regulatory Test

6. Options Analysis

6.1 Option Summary

Option description	
Option 0	Do nothing.
Option 1 (preferred)	Option 1 – Install Anti-Climbing Barriers / Signage

6.2 Summary of Drivers

Option	
Option 0	Poses an unacceptable risk in preventing unauthorised access onto such structures.
Option 1 (preferred)	Reduces the safety risk by preventing or discouraging unauthorised people from climbing TasNetworks' structures.

6.3 Summary of Costs

Option	Total Cost (\$)
Option 0	\$0
Option 1 (preferred)	\$300,000

6.4 Summary of Risk

This section outlines an overall residual asset risk level, for each of the options.

Option	Risk Assessment
Option 0	High
Option 1	Medium

6.5 Economic analysis

Option	Description	NPV
Option 0	Do nothing.	\$0
Option 1 (preferred)	Option 1 – Install Anti-Climbing Barriers / Signage	-\$223,190

6.5.1 Quantitative Risk Analysis

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6.5.2 Benchmarking

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6.5.3 Expert findings

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6.5.4 Assumptions

Signage and barriers to prevent or discourage unauthorised access on to structures has an economic life of 20 years.

Section 2 Approvals (Gated Investment Step 2)

Project Initiator:	Gary Carleton	Date:	26/03/2015
Project Manager:		Date:	

Actions			
Submitted for CIRT review:		Actioned by:	
CIRT outcome:			