

Investment Evaluation Summary (IES)



Project Details:

Project Name:	Emergency Mgt - Cust Damage to TasNetworks Asset
Project ID:	00965
Thread:	System Operations
CAPEX/OPEX:	OPEX
Service Classification:	Standard Control
Scope Type:	B
Work Category Code:	EMDAA
Work Category Description:	Emergency Mgt - Cust Damage to TasNetworks Asset
Preferred Option Description:	Option 1 (preferred): Enable operational expenditure for the rectification of asset damage that has been caused by a third party causing "Damage to TasNetworks Property".
Preferred Option Estimate (Nominal Dollars):	\$7,500,000

	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27
Unit (\$)	\$750,000	\$750,000	\$750,000	\$750,000	\$750,000	\$750,000	\$750,000	\$750,000	\$750,000	\$750,000
Volume	1	1	1	1	1	1	1	1	1	1
Estimate (\$)	\$750,000	\$750,000	\$750,000	\$750,000	\$750,000	\$750,000	\$750,000	\$750,000	\$750,000	\$750,000
Total (\$)	\$750,000	\$750,000	\$750,000	\$750,000	\$750,000	\$750,000	\$750,000	\$750,000	\$750,000	\$750,000

Governance:

Project Initiator:	Jason King	Date:	08/04/2015
Thread Approved:	Nicole Eastoe	Date:	01/11/2015
Project Approver:	Nicole Eastoe	Date:	01/11/2015

Document Details:

Version Number:	1
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Related Documents:

Description	URL
TasNetworks Risk Metrics	http://collaborationzone.tnad.tasnetworks.com.au/business-functions/audit-risk-compliance/Risk-Management/Risk%20Management

	/TasNetworks%20-%20Risk%20Metrics%20FINAL.docx
TasNetwork Risk Appetite Statement	http://collaborationzone.tnad.tasnetworks.com.au/business-functions/audit-risk-compliance/Risk-Management/Risk%20Management /TasNetworks%20-%20Risk%20Appetite%20Statement%20FINAL.docx
Emergency Response Asset Management Plan	-

Section 1 (Gated Investment Step 1)

1. Background

TasNetworks distribution network is currently managed utilising various asset management strategies. These asset management strategies vary from run to failure, through to more mature condition based preventive management strategies. As a result of these varying strategies, at times there is a need to undertake emergency response activities on the distribution network to repair or replace assets. This work is required to ensure the safe and reliable operation of the distribution network.

In addition to the asset management strategies, the distribution network is also operated in an environment for which exogenous factors influence the status of the network. At times the distribution network experiences damage or failure of assets due to third parties.

Damage or failure of assets due to a third party has been an area of operational expenditure over the current period, and are expected to continue to drive operational expenditure over the forthcoming period.

1.1 Investment Need

The emergency response category (EDMAA) is allowed for to enable rectification of failure or damage to TasNetworks property or assets, that has been caused by a third party. This category includes operational activities associated with attending and rectifying system faults and emergencies caused by a third party. This work is reactive in nature and is predominantly driven by external events, such as failure of network assets due to vehicles coming into contact with network assets. These events can result in network outages and/or damage to assets, and associated interruptions to customer supply. When this occurs, TasNetworks needs to undertake activities (and incur costs) to:

- Ensure the safety of the effected assets and the community;
- Restore supply to customers;
- Repair damaged assets;
- Report details of the third party; and
- Identify costs of fault response and asset repair caused by a third party.

When possible, TasNetworks takes actions to recover costs from customers.

1.2 Customer Needs or Impact

TasNetworks continues to undertake customer engagement as part of business as usual activities 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;
- outage experiences (frequency and duration) and expectations;
- communication expectations;
- STPIS expectations (reliability standards and incentive payments); and
- Increasing understanding of the electricity industry and TasNetworks.

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

This operational expenditure specifically addresses the requirements of customers in the area of safety, restoration of faults/emergencies and supply reliability

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 operational expenditure objectives as described by the National Electricity Rules section 6.5.6(a). The specific requirements that this project meets in alignment with the forecast operating expenditure 6.5.6 (a) are as follows:

- (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

The Emergency Management Management - Customer Damage to TasNetworks Asset management objectives is to identify Asset failures caused by a third party for reporting and cost recovery.

The management objectives for the emergency response plan focus' on the following key areas:

- a. Zero Harm will continue to be our top priority and we will ensure that our safety performance continues to improve;
- b. cost performance will be improved through prioritisation and efficiency improvements that enable us provide predictable and lowest sustainable pricing to our customers;
- c. service performance will be maintained at current overall network service levels, whilst service to poorly performing reliability communities will be improved to meet regulatory requirements;
- d. customer engagement will be improved to ensure that we understand customer needs, and incorporate these into our decision making to maximise value to them;
- e. our program of work will be developed and delivered on time and within budget; and
- f. our asset management capability will be continually improved to support our cost and service performance, and efficiency improvements.

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.
- 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 and Option 2 are not an acceptable option to TasNetworks risk appetite.

The level of risk identified is such that a treatment plan is required to reduce the risks to a tolerable level, in line with TasNetworks' Risk Management Framework as at February 2015.

Option 1 presents the only option with an acceptable risk appetite.

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
Customer	Material supply interruption to customers.	Likely	Minor	Medium
Environment and Community	Damage to the general public and / or the environment	Possible	Moderate	Medium
Network Performance	Damage to plant and equipment with asset failure or damage that leads to poor network performance outcomes	Possible	Minor	Low
Regulatory Compliance	Regulatory non-compliance due to failure or damage of the network assets.	Unlikely	Moderate	Medium
Reputation	Local or state publicity that results due to the incident.	Rare	Minor	Low
Safety and People	Damage to personnel and/or the general public. Potential shock resulting in injury or death due to electrocution.	Rare	Major	Medium

Section 1 Approvals (Gated Investment Step 1)

Project Initiator:	Jason King	Date:	08/04/2015
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:

The preferred solution is to ensure that operational budget is available to reinstate distribution network assets when failure or damage is incurred by a third party. The operational budget that has been allowed, is outlined in the emergency response asset management plan. The expenditure is in alignment with historical trends.

5.1 Scope

When attending an emergency response that caused damage to TasNetworks by a third party damage the attending Field Operators is to report the cause as "Damage by a third party"

5.2 Expected outcomes and benefits

The expected outcomes of this operational expenditure is to:

- Reduce safety risk associated with asset failure or damage;
- Reduce risk to public safety from asset failure or damage; and
- Maintain asset reliability.
- Identify the third party who damaged TasNetworks Assets.

5.3 Regulatory Test

The regulatory test does not apply to this expenditure.

6. Options Analysis

6.1 Option Summary

Option description	
Option 0	Do nothing
Option 1 (preferred)	Option 1 (preferred): Enable operational expenditure for the rectification of asset damage that has been caused by a third party causing "Damage to TasNetworks Property".
Option 2	Emergency response operational expenditure reduced to half of current average and capital to remain the same

6.2 Summary of Drivers

Option	
Option 0	<p>Do not repair or replace assets that are the result of third party damage.</p> <p>This does not address the risks identified associated with safety and people, environmental and community, reputation, network performance, regulatory compliance or customer.</p> <p>This options presents a minimum cost solution to the customer, however, it does not address the risks associated with failed or damaged assets.</p>
Option 1 (preferred)	<p>This category includes operational activities associated with attending and rectifying system faults and emergencies caused by a third party. This work is reactive in nature and is predominantly driven by external events, such as failure of network assets due to</p>

	<p>vehicles coming into contact with network assets. These events can result in network outages and/or damage to assets, and associated interruptions to customer supply. When this occurs, TasNetworks needs to undertake activities (and incur costs) to:</p> <ul style="list-style-type: none"> • Ensure the safety of the effected assets and the community • Restore supply to customers • Repair damaged assets. • Report details and costs to rectify cost of repairs and replacement of assets caused by a third party. <p>When possible, TasNetworks takes actions to recover costs from customers.</p> <p>This option assumes a constant operational expenditure and GSL payments for customers. It also assumes a constant capital investment across all distribution network assets.</p> <p>An NPV calculation has been completed that takes into account all operational expenditure associated with Emergency Expenditure (work category codes - EMDAA, EMMAJ, EMRES).</p>
Option 2	<p>This category includes operational activities associated with attending and rectifying system faults and emergencies caused by a third party. It assumes that the operational expenditure incurred for these activities is half of what is currently incurred. This work is reactive in nature and is predominantly driven by external events, such as failure of network assets due to vehicles coming into contact with network assets. These events can result in network outages and/or damage to assets, and associated interruptions to customer supply. When this occurs, TasNetworks needs to undertake activities (and incur costs) to:</p> <ul style="list-style-type: none"> • Ensure the safety of the effected assets and the community • Restore supply to customers • Repair damaged assets. • Report details and costs to rectify cost of repairs and replacement of assets caused by a third party. <p>By reducing the operational expenditure to half of what is currently expended, it is assumed that an inappropriate amount of risk would be presented to the community and TasNetworks employees in relation to a safe network. It would also result in network performance lower than required by the customers and under the jurisdictional network performance criteria. It is considered that this option is not acceptable due to the risk profile that it presents.</p> <p>This option assumes a constant operational expenditure and GSL payments for customers. It also assumes a constant capital investment across all distribution network assets.</p> <p>An NPV calculation has been completed that takes into account all operational expenditure associated with Emergency Expenditure (work category codes - EMDAA, EMMAJ, EMRES).</p>

6.3 Summary of Costs

Option	Total Cost (\$)
Option 0	\$0
Option 1 (preferred)	\$7,500,000
Option 2	\$3,750,000

6.4 Summary of Risk

Option	Risk Assessment
Option 0	Medium

Option 1 (preferred)	Low
Option 2 - Emergency response operational expenditure reduced to half of current average and capital to remain the same	Medium

The risk rating assessment if expenditure was not incurred is assessed as medium risk, with unacceptable risk ratings in the areas of Customer, Regulatory Compliance, Environment and Community and Safety and People. By implementing the operational expenditure associated with this work category, it is considered that the risk rating will be reduced to low.

6.5 Economic analysis

Option	Description	NPV
Option 0	Do nothing	\$0
Option 1 (preferred)	Option 1 (preferred): Enable operational expenditure for the rectification of asset damage that has been caused by a third party causing "Damage to TasNetworks Property".	\$0
Option 2	Emergency response operational expenditure reduced to half of current average and capital to remain the same	\$0

6.5.1 Quantitative Risk Analysis

Quantitative risk assessment has not been completed for this project.

6.5.2 Benchmarking

While TasNetworks emergency response operational expenditure is a significant component of the total operational budget, along with other 'core' activities of an efficient network business, such as customer service, asset inspection, routine and condition based maintenance. TasNetworks emergency response is strongly influenced by operating environment factors external to its control. These include:

- Environmental factors (e.g. mountainous terrain);
- Customer demographics (e.g. low average customer density); and
- Economic conditions (e.g. demand and supply of labour and contractors).

These environmental factors have influenced expenditure during the current period, and are expected to continue to drive opex over the forthcoming period. Anticipating operating environment change is crucial to the development of an opex forecast that reflects the costs that a prudent operator would require to achieve the opex objectives.

TasNetworks total emergency response opex per unplanned interruption of \$24 is the 6th best performing in the NEM. TasNetworks believes that this an acceptable outcome given the geography and weather conditions that the network is operated within.

TasNetworks' emergency response opex per OH km is slightly higher than that of its peers but around industry average when normalised against customer.

TasNetworks' emergency response opex per OH km is slightly higher than that of its peers but around industry average when normalised against customer. TasNetworks believes that the environment in which TasNetworks operates, significantly impacts the overall emergency response opex.

The category analysis results confirm TasNetworks' performance in opex benchmarking, comparing favourably to peers and broader industry in all categories. The only category where TasNetworks does not have demonstrably lower cost performance than industry averages is emergency response opex, which is a function of the operating environment, rather than managerial efficiency. TasNetworks is a sparsely populated network with a considerable spread of customers in rural areas. As such, it has a high level of radial network and significant assets required to reach customers. Parts of Tasmania also have rainfall levels similar to the NSW north coast. It is believed that

these key aspects of the environment for which we operate the network, impact on the operational expenditure associated with the emergency response.

6.5.3 Expert findings

The opex benchmarking analysis completed by Huegin in June 2015 demonstrates the operational emergency response is less favourable than industry peers. However, it is noted that this is a function of the operating environment.

6.5.4 Assumptions

TasNetworks has assumed that the level of damage or failure caused by a third party will continue at a similar level into the future.

All costs are in 2014/15 dollars.

Section 2 Approvals (Gated Investment Step 2)

Project Initiator:	Jason King	Date:	08/04/2015
Project Manager:		Date:	

Actions

Submitted for CIRT review:		Actioned by:	
CIRT outcome:			