Investment Evaluation Summary (IES)

Project Details:

Project Name:	Oil Management
Project ID:	00636
Thread:	Overhead
CAPEX/OPEX:	OPEX
Service Classification:	Standard Control
Scope Type:	B
Work Category Code:	AROIL
Work Category Description:	Oil Management
Preferred Option Description:	Oil management and disposal - internally resourced model
Preferred Option Estimate (Nominal Dollars):	$7,380,000

	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 ($)	$738,000	$738,000	$738,000	$738,000	$738,000	$738,000	$738,000	$738,000	$738,000	$738,000

Governance:

Project Initiator:	David Ellis	**Date:**	25/03/2015
Thread Approved:	David Ellis	**Date:**	02/11/2015
Project Approver:	David Eccles	**Date:**	30/10/2015

Document Details:

Version Number:	1

Related Documents:

Description	URL

Section 1 (Gated Investment Step 1)

1. Background

Transformers are disposed of via the TasNetworks Oil Farm, at Rocherlea.

Disposal of transformers containing PCBs

TasNetworks manages PCBs in accordance with TasNetworks' Environmental procedure EM-M09 Management of PCBs, which reflects the requirements of the Australian and New Zealand Environment and Conservation Council (ANZECC) Polychlorinated Biphenyls Management Plan. Both plans satisfy the legislative requirements of the TAS Environmental Management and Pollution Control Act 1994 and the NEPM standards Act.

Polychlorinated biphenyls (PCBs) were used in transformers and capacitors amongst other things from the 1930s to the 1970s. However, they were shown to be toxic and carcinogenic and have been banned in Australia in the 1970s.

Whilst records indicate that no distribution transformers were purchased with PCB insulating material, contamination has occurred over time where oil management was undertaken using equipment also used for oil management of PCB-contaminated assets (such as Extra High Voltage instrument transformers). This has led to a number of transformer sites with PCB contamination.

All pole mounted transformers are classified as 'Small Items' by EM M09 Management of PCBs, i.e. containing less than 1,000 litres of oil. As such if any is identified as containing PCBs above the threshold concentration, they are:

- Collected at the end of their useful life and managed as scheduled PCB waste – if not in a priority area (as defined in EM-M09); or
- Removed within two years of identification and managed as scheduled PCB waste – if in a priority area (as defined in EM-M09). Current contractor for disposal is Hazell Bros Pty Ltd, and they submit the Sustainability Report.

1.1 Investment Need

The drivers for this program are compliance with regulations and managing business operating risks (safety).

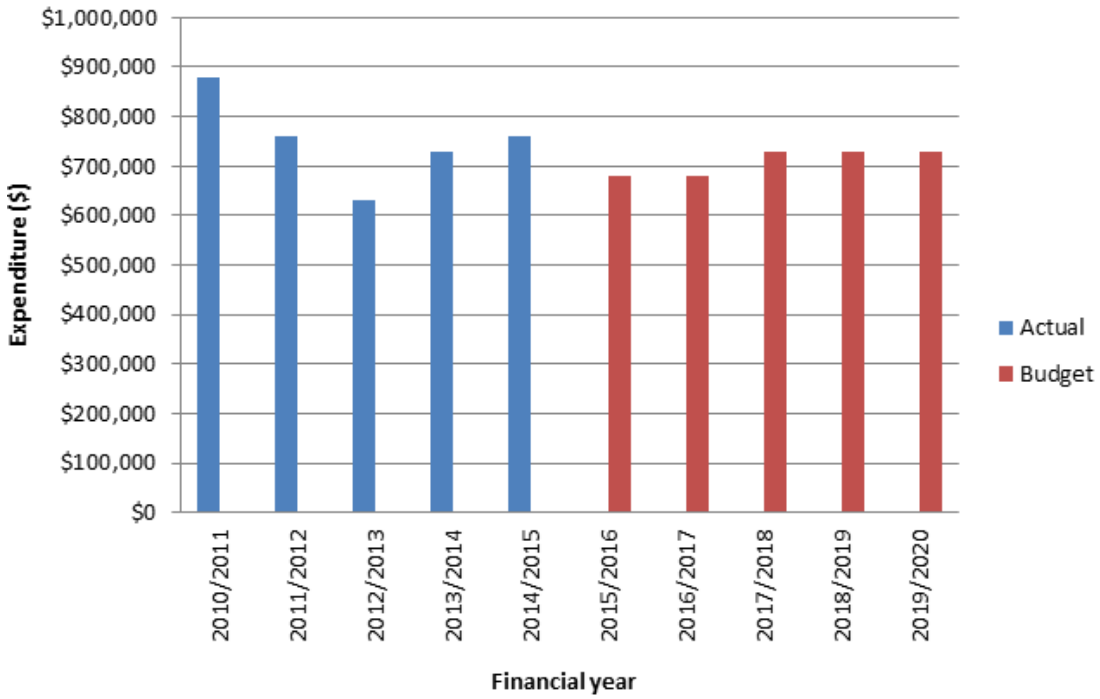
TasNetworks is required to dispose of oil and oil-contaminated assets in accordance with Australian Standards. This program funds TasNetworks' oil farms who manage the removal and disposal of oil from redundant oil-filled assets.

TasNetworks has over 30,000 transformers, over 300 oil filled switchgear and ground mounted oil filled assets in service in the distribution system. The 30,000 distribution pole mounted transformers each contain between 45 and 720 litres of oil. When the assets fails or reach the end of their useful life the oil has to be removed and disposed of.

The primary objective is to recover oil from assets that reached the end of their useful life along with response to oil spills, test for PCBs and dispose according to environmental requirements (including obtaining permits and arranging transport) and dispose of oil free equipment.

There are no major changes to this program and the proposed expenditure is to remain consistent with historical spend as shown in Figure 1.

Figure 1: Trend of planned work and spend (AROIL)



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 ensure insulation oil is prudently managed within the environmental compliance and other requirements and obligations.

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
Environment and Community	Transformer failure causes localised damage to surrounding environment (e.g oil spill into adjacent waterways, etc)	Unlikely	Major	Medium
Regulatory Compliance	Non-complinace to environmental legislation.	Unlikely	Major	Medium

Section 1 Approvals (Gated Investment Step 1)

Project Initiator:	David Ellis	**Date:**	25/03/2015
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:

Management and disposal of insulating oil as per environmental regulation internally.

5.1 Scope

To effectively manage TasNetworks' insulating oil requirements and ensure environmental and other compliance obligations are satisfied

5.2 Expected outcomes and benefits

Compliance with environmental regulation Safe and efficient disposal of contaminated oil.

5.3 Regulatory Test

6. Options Analysis

6.1 Option Summary

Option description	
Option 0	Do nothing
Option 1 (preferred)	Oil management and disposal - internally resourced model
Option 2	Oil management and disposal - outsourced model

6.2 Summary of Drivers

Option	
Option 0	Poses an unacceptable risk in regulatory compliance and environmental management.
Option 1 (preferred)	Mitigates risk in regulatory compliance and environmental management.
Option 2	Mitigates risk in regulatory compliance and environmental management.

6.3 Summary of Costs

Option	Total Cost ($)
Option 0	$0
Option 1 (preferred)	$7,380,000
Option 2	$7,380,000

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)	Oil management and disposal - internally resourced model	$7,380,000
Option 2	Oil management and disposal - outsourced model	$7,380,000

6.5.1 Quantitative Risk Analysis

6.5.2 Benchmarking

6.5.3 Expert findings

6.5.4 Assumptions

Section 2 Approvals (Gated Investment Step 2)

Project Initiator:	David Ellis	**Date:**	25/03/2015
Project Manager:		**Date:**	

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