

Investment Evaluation Summary (IES)



Project Details:

Project Name:	Fleet Program
Project ID:	01674
Business Segment:	Business Services
Thread:	Fleet
CAPEX/OPEX:	CAPEX
Service Classification:	Business Services
Scope Type:	C
Work Category Code:	FTSSC
Work Category Description:	Fleet Shared Allocation Capex
Preferred Option Description:	Implement option 2 in conjunction with delivering business optimisation initiatives.
Preferred Option Estimate (Dollars \$2016/2017):	\$44,813,684

	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29
Unit (\$)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Volume	87.00	113.00	108.00	56.00	80.00	28.00	56.00	86.00	118.00	72.00
Estimate (\$)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total (\$)	\$3,971,683	\$4,099,280	\$4,254,307	\$3,353,486	\$4,488,306	\$4,648,166	\$4,742,610	\$5,626,241	\$4,603,135	\$5,026,471

Governance:

Works Initiator:	Bevan Knowles	Date:	04/08/2017
Team Leader Endorsed:	Bevan Knowles	Date:	04/08/2017
Leader Endorsed:	Emily Palermo	Date:	07/08/2017
General Manager Approved:		Date:	

Related Documents:

Description	URL
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Section 1 (Gated Investment Step 1)

1. Overview

1.1 Background

TasNetworks operates a fleet of Tool of Trade vehicles and plant assets to support business operational requirements. The fleet consists of light passenger, commercial and heavy vehicles, elevated work platforms, pole hole borers, cranes, trailers and other associated plant. Provision of appropriate Tool of Trade fleet is essential to provide services to our customers, deliver our Program of Work and meet network performance targets. TasNetworks own all fleet assets through the CAPEX program and as part of determining the replacement program, consideration is given to the following criteria:

- Volume required to meet operational business requirements;
- Ongoing Tool of Trade asset safety status;
- Safety ratings and features;
- Fit for operational purpose;
- Cost required to make Tool of Trade asset 'fit for purpose';
- Changes to service levels to meet operational requirements;
- Technology obsolescence;
- Potential useful life;
- Backup parts, servicing and maintenance;
- Major overhaul and inspection requirements for heavy Tool of Trade assets;
- Environmental ratings and sustainability;
- Operational impact of major breakdowns and failures;
- Optimal sourcing and procurement methods; and
- Replacement lead times.

In recent times TasNetworks has reviewed the replacement of heavy vehicles and elevated work platforms and where possible has adopted the practice of undertaking refurbishment to prolong the life of the asset and reduce capital spend. A key consideration is ensuring the vehicle and plant is still fit for purpose and safe.

Over the last year TasNetworks has also introduced hybrid and electric vehicles including charging stations to the existing fleet to reduce fuel costs and emissions however, as electric vehicle technology is in its infancy the capital outlays are higher than normal combustion vehicles at this stage. TasNetworks will continue to monitor the full lifecycle costs of hybrid and electric vehicles and where commercially appropriate will invest further in this technology.

Employees in leadership level 1-4 roles are eligible for novated leases with business contribution towards operating expenditure. These novated leases are excluded from the fleet capital replacement program.

1.2 Investment Need

Capital programs and expenditure are necessary to manage safety risks, operational requirements and maintain fleet assets at an acceptable level. In order to maintain a safe, reliable and cost effective fleet it is necessary for TasNetworks to manage maintenance costs, vehicle safety and compliance concerns associated with an ageing fleet by ensuring an effective replacement capital program is maintained to meet operational requirements whilst delivering TasNetworks' strategy initiatives.

1.3 Customer Needs or Impact

Fleet Services goal in managing the operational fleet is to provide safe, fit for purpose and legislatively compliant assets to provide the best outcome for our customers and owners in accordance with TasNetworks strategy.

1.4 Regulatory Considerations

N/A

2. Project Objectives

The aim of Fleet Services is to provide safe, fit for purpose, reliable and cost effective fleet assets, contributing to TasNetworks ability to deliver its vision of being "Trusted by our customers to deliver today and create a better tomorrow". Fleet Services seeks to provide sound fleet management services and functions to ensure that all fleet assets are managed efficiently and effectively and that decisions regarding safety, procurement, maintenance and management of fleet assets are undertaken in a consistent and transparent manner.

A key focus for Fleet Services is to maintain an efficient and effective Tool of Trade fleet, ensuring vehicles are replaced by following optimum replacement cycles, in line with defined replacement criteria.

The objective of the project is to deliver an effective replacement program that will manage vehicle safety risks and maintain operational

requirements.

3. Strategic Alignment

3.1 Business Objectives

The capital expenditure identified is necessary to manage safety risks, operational requirements and maintain fleet assets at an acceptable level. It is believed there are efficiencies to be gained through working with stakeholders to optimise fleet usage, continuing to strategically procure fleet assets and improve standardisation of fleet assets and fit outs.

Table 1 Capital expenditure objectives relevant to this project.

This project is required to achieve the following capital expenditure objectives:	Yes/No
<ul style="list-style-type: none">• meet or manage the expected demand for prescribed services	No
<ul style="list-style-type: none">• comply with all applicable regulatory obligations associated with the provision of prescribed services	No
<ul style="list-style-type: none">• maintain the quality, reliability and security of supply of prescribed services	Yes, by ensuring TasNetworks is able to perform business operations to meet customer expectations.
<ul style="list-style-type: none">• maintain the reliability and security of the system through the supply of prescribed services	Yes, by ensuring TasNetworks is able to perform business operations to meet customer expectations.
<ul style="list-style-type: none">• maintain the safety of the system through the supply of prescribed services	Yes, by ensuring TasNetworks is able to perform business operations to meet customer expectations.

3.2 Business Initiatives

This project will help to achieve the customer and business performance objectives in TasNetworks Corporate Plan 2016-17 to 2020-21 and business plan 2016-17. The relevant performance indicators and performance measures are presented in table 2.

Performance measure	Measure	Project objective
Customer service	Customer Net Promoter Score	To safely deliver electricity, telecommunications, network and complementary services, creating value for our customers, our owners and our community.
Zero harm	Number of reportable incidents	To safely deliver electricity, telecommunications, network and complementary services, creating value for our customers, our owners and our community.

Performance measure	Measure	Project objective
Sustained cost reduction	Efficient operating and capital expenditure.	Provide a fleet that is efficient to manage and operate and ensure all risks associated with an ageing fleet are managed effectively.
Asset management	Assets are managed at the lowest possible whole of life costs	Manage fleet assets in accordance with the Asset Management Plan to maintain a safe, compliant and cost effective fleet.

4. Current Risk Evaluation

The corporate plan identifies a number of business risks. Those risks that will be impacted by this project are presented in table 3.

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 as follows:

Risk Category	Risk	Likelihood	Consequence	Risk Rating
Customer	Bushfire	Rare	Negligible	Low
Network Performance	Widespread disruption to power supply	Rare	Negligible	Low
Reputation	Customer focus	Possible	Major	High
Reputation	Sustainable and predictable pricing	Possible	Major	High
Safety and People	Alignment of strategy and culture	Possible	Moderate	Medium
Safety and People	Death or serious injury of member of the public	Unlikely	Severe	High
Safety and People	Death or serious injury of employee or contractor	Unlikely	Severe	High

Section 2 (Gated Investment Step 2)

5. Preferred Option:

Option 3 is the preferred option.

When comparing the key business risks option 3 decreases the risk level associated with the following drivers:

- Alignment of strategy and culture,
- Sustainable and predictable pricing, and
- Customer focus.

Effective fleet management is critical to ensuring the efficient delivery of operational requirements and maximise the performance of fleet assets in terms of cost and operational reliability. Compliance with legislative obligations is an ongoing driver of specialised assets such as elevated work platforms. Option 3 considers the implementation of optimisation initiatives, legislative obligations, fleet suitability and performance and capital expenditure considerations.

Therefore, option 3 clearly differentiates itself from the other options presented.

5.1 Scope

The scope of work includes fully owned Tool of Trade vehicles and plant assets to support business operational requirements.

Fleet Services identifies fleet asset acquisition by considering the fleet assets age, kilometres travelled and condition. This methodology is reviewed regularly by Fleet Services in conjunction with budget allocation in order to establish the schedule of fleet asset replacement.

5.2 Expected outcomes and benefits

The benefits to TasNetworks from implementation of the preferred option will be:

- A reduction in capex spend over the period
- Fleet assets meet safety, fit for purpose and legislative requirements

Alignment with Fleet Asset Management Plan, Fleet policy and strategy and TasNetworks strategy

5.3 Regulatory Test

N/A

6. Options Analysis

An economic analysis has been undertaken to compare the options considered. Details of the NPV analysis are included in Appendix A.

This projection has been generated from a specific model to forecast fleet CAPEX and OPEX over a range of scenarios. This model evaluates Option 1, 2 and 3 relative to Option 0. The preferred option is selected as the investment which delivers the most cost effective and technically sound solution that best addresses the needs of TasNetworks.

Table 4 details the preferred option in respect to NPV results.

Table 4 NPV Summary Results

Option No.	Option description	NPV	Reason got selection/rejection
0	Do nothing, maintain existing replacement criteria.	\$56,392,924.91	Rejected. Does not align with TasNetworks operational and strategic objectives.
1	Increase the light passenger and commercial vehicle replacement criteria from 150,000 kms to 170,000 kms (subject to asset condition) and maintain existing heavy vehicle and plant replacement criteria.	\$55,710,389.51	Rejected. Does not align with TasNetworks operational and strategic objectives.
2	Increase the light passenger and commercial vehicle replacement criteria	\$50,649,160.54	Rejected.


	to 170,000 kms (subject to asset condition) and where fit for purpose suitability exists refurbish heavy vehicles and elevated work platforms as an alternative to replacing every 10 years extending the life for additional 5 years.		Does not align with TasNetworks operational and strategic objectives.
3	Implement option 2 in conjunction with delivering business optimisation initiatives.	\$43,489,738.09	Preferred. Aligns with TasNetworks operational and strategic objectives and is the most economically favourable option whilst maintaining a fit for purpose fleet.

6.1 Option Summary

Option description	
Option 0	Do nothing, maintain existing replacement criteria
Option 1	Increase the light passenger and commercial vehicle replacement criteria from 150,000 kms to 170,000 kms (subject to asset condition) and maintain existing heavy vehicle and plant replacement criteria.
Option 2	Increase the light passenger and commercial vehicle replacement criteria to 170,000 kms (subject to asset condition) and where fit for purpose suitability exists refurbish heavy vehicles and elevated work platforms as an alternative to replacing every 10 years extending the life for additional 5 years.
Option 3 (preferred)	Implement option 2 in conjunction with delivering business optimisation initiatives.

6.2 Summary of Drivers

Option	
Option 0	<p>The current replacement criteria is 150,000 kilometres for light passenger and commercial vehicles, 10 years/700,000 kilometres for heavy vehicles and elevated work platforms, 15 years/700,000 kilometres for other heavy vehicles and pole hole borers and 20 years/700,000 kilometres for other plant.</p> <p>The replacement criteria has been in place since 2011 and requires a review to ascertain the optimal replacement criteria for TasNetworks to meet operational and strategic objectives.</p>
Option 1	<p>TasNetworks replacement criteria already appears to be on the higher end when compared to other utilities across the country and shows that TasNetworks maintain one of the highest age and condition based light passenger and commercial fleets in Australia.</p> <p>Extension of the replacement criteria may increase operational maintenance costs subject to driver behaviour, utilisation demands and asset condition. The NPV analysis is calculated on historical maintenance costs and does not consider any reactive maintenance factors that may arise from increasing the replacement criteria.</p> <p>TasNetworks actual replacement of light vehicles is currently around 160,000-165,000 kilometres given current capital constraints. Therefore the increase to 170,000 kilometres is unlikely to result in a significant change to maintenance costs than currently being incurred.</p> <p>These assumptions are potentially mitigated by only slightly increasing the asset life (from currently actual replacement) and the adoption of optimisation initiatives [REDACTED] [REDACTED] will play a key role in reducing kilometres driven and vehicle deterioration rates. Maintenance programs in accordance with the Asset Management Plan will ensure optimum life of the asset.</p>
Option 2	<p>Light passenger and commercial vehicles are discussed in option 1.</p> <p>A new 4x4 live line truck and elevated work platform purchase can cost approximately \$600k, the refurbishment alternative can cost in the vicinity \$150k depending upon asset condition. As these assets are reaching a 10 year life cycle it is possible that fit for purpose suitability does not meet current business operational requirements.</p> <p>Maintenance costs, poor condition of asset and environmental and safety features will impact fit for purpose suitability. Refurbishment timing is also critical to business operations as the asset is not available for 3 months whilst the refurbishment is undertaken. Nevertheless, heavy vehicles and elevated work platforms could be utilised from other regions during this period and only suitable fleet assets are</p>

	<p>considered for refurbishing.</p> <p>There are also some minor efficiency savings in this option as work crews are not required to familiarise themselves with new equipment and technology as often, which can lead to some short term loss of efficiency.</p> <p>A consideration under this option is to ensure the fleet asset is still fit for purpose and the final refurbished condition is not detrimental to providing a safe and fit for purpose asset. There will be instances of not being able to refurbish an existing asset based on current condition and fit for purpose criteria. A qualitative and quantitative analysis on each asset will be required to determine refurbishment suitability. Vehicle weight compliance is an example where refurbishment should not be considered due to safety, manufacturers specifications and potential weight road rule non compliances.</p> <p>Fit for purpose refurbishment suitability will reduce costs in capital programs in the short term. This strategy delays the purchasing of new assets for another five years. To meet legislative requirements these assets need to be replaced once they reach the 15 year life cycle and to ensure new safety, technological, operational and environmental features are not deferred any longer.</p> <p>In combination with the proposed light passenger and commercial vehicles replacement option the capital investment is smoothed out in the first five year profile period. However, once the five year refurbishment period is completed a peak in capital spend occurs due to heavy vehicle and elevated work platform replacement cycles. This cycle creates high replacement spend in the last five years of the profile period and does not consider the adoption of business optimisation initiatives.</p>
Option 3 (preferred)	<p>This option includes the opportunities detailed in option 1 and 2 but also considers the potential benefits in delivering business optimisation initiatives.</p> <p>The implementation of business optimisation initiatives will provide further opportunities to reduce capital spend over the profile period, eliminates the peaks associated with replacement criteria life cycles and produces a NPV consistent with business and shareholder expectations over the profile period.</p>  <p>A reduction of light passenger and commercial vehicles as part of fleet optimisation initiatives may place a higher demand on the remaining vehicle fleet which may lead to safety concerns, increased downtime of fleet vehicles and quicker asset deterioration of a fully utilised fleet.</p>

6.3 Summary of Costs

Option	Total Cost (\$)
Option 0	\$55,004,912
Option 1	\$54,865,503
Option 2	\$57,356,225
Option 3 (preferred)	\$44,813,684

6.4 Summary of Risk

Table 3 Risks impacted by this project

Key business risks	Current situation Risk analysis (including specific company risk areas)
Death or serious injury of employee or contractor	Fleet vehicles fit for purpose and maintained as per manufacturer specifications and asset management plans.
Death or serious injury of member of the public	Fleet vehicles fit for purpose and maintained as per manufacturer specifications and asset management plans.
Alignment of strategy and culture	Fleet optimisation initiatives will not be achieved placing pressure on capital program budgets and not aligned with shareholder expectations.
Sustainable and predictable pricing	Fleet optimisation initiatives will not be achieved placing pressure on capital program budgets and not aligned with shareholder expectations.

Widespread disruption to power supply	Fleet vehicles fit for purpose and fully maintained with 24/7 maintenance call out service.
Bushfire	Potential grass fire from vehicle or plant exhaust or leaking components.
Customer focus	Fleet optimisation initiatives will not be achieved placing pressure on capital program budgets and not aligned with shareholder expectations. Fleet optimisation initiatives undertaken in conjunction with change management framework.

6.5 Economic analysis

Option	Description	NPV
Option 0	Do nothing, maintain existing replacement criteria	\$56,392,924
Option 1	Increase the light passenger and commercial vehicle replacement criteria from 150,000 kms to 170,000 kms (subject to asset condition) and maintain existing heavy vehicle and plant replacement criteria.	\$55,710,389
Option 2	Increase the light passenger and commercial vehicle replacement criteria to 170,000 kms (subject to asset condition) and where fit for purpose suitability exists refurbish heavy vehicles and elevated work platforms as an alternative to replacing every 10 years extending the life for additional 5 years.	\$50,649,160
Option 3 (preferred)	Implement option 2 in conjunction with delivering business optimisation initiatives.	\$43,489,738

6.5.1 Quantitative Risk Analysis

Financial modelling and NPV analysis was undertaken by Finance and Business Services Financial Modelling Analyst.

6.5.2 Benchmarking

A review of fleet expenditure forecast reports and discussions with other industry representatives provides evidence that other utilities are also embarking on business optimisation initiatives such as reducing fleet size, vehicle usage efficiency, heavy vehicle and elevated work platforms refurbishments and higher replacement criterion.

6.5.3 Expert findings

N/A

6.5.4 Assumptions

The major assumptions used in the NVP are as follows:

- NPV analysis is carried out for a 10 year period (2019-2029).
- WACC of 3.59 per cent is used.
- Model assumes all vehicles are replaced as per option policy. No adjustments have been made for vehicles that are currently past the official policy replacement date. They are assumed to have been replaced at their past specified replacement date.
- The earlier vehicles are retired the higher the selling price will be.
- Vehicle replacement cost is based on historical purchase price data averaged by fleet type.
- Maintenance costs are based on observed prices of maintenance on the existing fleet with a year on year increase in servicing costs.
- Maintenance costs for refurbished vehicles decline in the year immediately following the refurbishment.
- Fuel has been estimated at a cost \$1.35 per litre.
- Yearly fuel costs have been based on expected yearly average km based on life of vehicle and observed fuel usage per km by vehicle type.
- The economic analysis was conducted on the options to address detailed project outcomes. Options were evaluated against Option 0.
- Option 3 vehicle disposals have been selected on an arbitrary basis and the vehicle type may differ over the profile period.
- Fit for purpose refurbishment suitability proposed in option 2 and 3 will determine benefit realisation.