Investment Evaluation Summary (IES)

Project Details:

Project Name:	*MECMS Upgrade*
Project Id:	IT.CST.29
Thread:	Information Technology
CAPEX / OPEX:	CAPEX
Scope Type:	C
Service Classification:	Standard Control
Work Category Code:	ITC
Work Category Description:	IT & Communications
Record Point ID:	R0000150749
Preferred Option Description:	The preferred option is to maintain the 'Major Event Call Management System' (MECMS) to be compliant under the National Electricity Law (NEL) and resolve defects identified as not meeting the TasNetworks corporate strategy, including defects that have an impact on customer service deliverables, safety, and predictable and sustainable pricing.

	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27
Estimate ($)		0.5M			1.2M			0.6M		
Total ($) 2017-2019	466,080									
Total ($) 2017-2022	2,256,240									

Governance:

	IES Section 1		IES Section 2	
Business Unit Review:	[redacted]	17/06/2105	[redacted]	17/06/2105
Thread Endorsed:	[redacted]	18/05/2015	[redacted]	18/05/2015
Project Approver:				

Document Details:

Version Number:	1.0

Section 1 (Gated Investment Step 1)

1. Background

As one of its network management responsibilities, TasNetworks maintains a 24/7 electricity faults and emergency call-taking capability, currently based in its Customer Service Centre. In order to manage call volumes during faults and outages, TasNetworks currently use [redacted] along with Telstra services at the exchange. [redacted], and [redacted] are in the process of being replaced by a new application called 'Major Event Call Management System' (MECMS), an in-house purpose built application that is planned to be in production by August 2015.

MECMS is designed to receive outage notifications, and if necessary will upload a recorded voice message during a network outage to the Telstra exchange. A customer calling to report a fault will hear the recorded message and if they still want to connect to an operator, the system steps the customer through a series of prompts to determine the nature and urgency of the call, prior to transferring the customer to the appropriate 'Service Centre Operator'.

This initiative is recognising the need to evolve MECMS to account for changes in the business and to build on the base product with new enhancements that value add to the business.

An example of a new value add enhancement that will not be in the July 2015 release is to integrate the SCADA system with MECMS to enable unplanned outages determined by SCADA data, to be immediately flagged in MECMS. The current process of recording unplanned outages first identified by SCADA in Avalanche (and soon to be MECMS) is highly manually intensive and therefore not timely or efficient. By having SCADA alert MECMS to an outage electronically, will allow MECMS to use and publish the information immediately to the public.

This initiative addresses the first phase of three proposed MECMS upgrade phases. Phase 2 (due to start in 2021/2022) and phase 3 (due to start in 2024/2025) will be part of the next regulatory period.

1.1 Investment Need

The investment need of this initiative is about recognising the need for continual product improvement to account for:

- Changes to business practice.
- Identification of new functions that will value add to the business.
- Resolving a back log of product issues/bugs.

1.2 Customer Needs or Impact

For customers, more timely and detailed communication of actual outages, removes the need for customers to report outages that are already known and being actioned. Customers can continue to access up to date information directly from TasNetworks systems on demand.

1.3 Regulatory Considerations

Under chapter 6.6.2(a) (titled 'Service Target Performance Incentive Scheme' (STPIS)) of the National Electricity Rules, TasNetworks are required abide by the following:

The AER must, in accordance with the distribution consultation procedures, develop and publish an incentive scheme or schemes (service target performance incentive scheme) to provide incentives (which may include targets) for Distribution Network Service Providers to maintain and improve performance.

In regard to "Customer Service' TasNetworks needs to continually evolve its grade of service to meet the objectives of STPIS.

2. Project Objectives

The key objectives of the project is to maintain MECMS to be compliant under the National Electricity Law (NEL) and resolve defects identified as not meeting the TasNetworks corporate strategy, including defects that have an impact on customer service deliverables, safety, and predictable and sustainable pricing.

3. Strategic Alignment

3.1 Business Objectives

The following table highlights how the initiative will further strategic goals.

Strategic Goal	How initiative will further strategic goals
"we understand our customers by making them central to all we do"	• Defects will be rectified ensuring a better quality customer facing application. • Functions will be updated to align with modern TasNetworks business practices, ensuring that customer data is relevant and contemporary. • New functions will deliver customer benefits.
"we enable our people to deliver value"	• Functions will be updated to align with modern TasNetworks business practices. • New functions will assist TasNetworks becoming more efficient and effective.
"we care for our assets,	• Defects will be rectified ensuring industry compliant

delivering safe and reliable network services while transforming our business"	systems.

3.2 Business Initiative Alignment

By supporting our customers' ability to access outage information on demand in a more timely, and accurate manner this initiative is expected to further 'TasNetworks Strategy on a Page' aims of:

- Customer net promoter score.
- Voice of the customer program.

4. Current Risk Evaluation

This chapter details the risk of 'Do Nothing'.

The TasNetworks Risk Framework details the level of risk the business finds acceptable in each category (Safety & People, Financial, Customer, Regulatory Compliance, Network Performance, Reputation and Environment & Community).

This initiative addresses Network Performance risk, of which TasNetworks has [redacted].

The Major Event Call Management System needs to be maintained after its implementation in order to continue TasNetworks ability to receive reports of faults, as well as maintain accurate customer communications.

4.1 Risk Matrix

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

Relevant strategic business risk factors that apply are follows:

Risk #	Risk Category	Risk	Impact	Likelihood	Consequence	Risk Rating
IT-045	Network Performance	[redacted]	TasNetworks may not get accurate reporting of faults as well as customers not being informed correctly.	Possible	Minor	Low
IT-089	Reputation	[redacted]	TasNetworks may not be able to meet its STPIS customer service obligation.	Possible	Minor	Low

		[redacted]				

Section 1 Approvals (Gated Investment Step 1)

Business Unit Review:	[redacted]	**Date**	17/06/2105
IT Project Initiator:	[redacted]	**Date**	18/05/2015
IT Thread Approved:	[redacted]	**Date**	18/05/2015
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 option is to maintain MECMS to be compliant under the National Electricity Law (NEL) and resolve defects identified as not meeting the TasNetworks corporate strategy, including defects that have an impact on customer service deliverables, safety, and predictable and sustainable pricing.

This option has been selected because it has best alignment with the investment need whilst:

- Minimising the cost.
- Minimising the negative business impacts and maximising the positive business impacts.
- Maximising the strategic alignment.
- Maximising the IT strategic alignment[1].
- Minimising the project complexity.
- Minimising the risk to the organisation.

5.1 Scope

The scope for Phase 1 (the focus of this initiative) is to:

- Resolve issue/product defects in MECMS that have been identified as having impacts on the business.
- Update functions in line with changed business practices.

In addition phase 2 (planned to start in the next regulatory period) will also include changes to cope with changes to the Private Automated Branch Exchange (PABX) and Interactive Voice Response (IVR) systems.

High level implementation activities

The high level activities identified include:

- Review and prioritisation of changes and bug fixes.

[1] This is a test against criteria including:

- Solutions will leverage the expertise and conformity of vendor products designed for NEM market interfaces.
- Solutions are designed for TasNetworks work practices and work processes to be as efficient and effective as possible without compromise.
- Solutions are maintainable and supported.
- Solutions are 'fit for purpose'.
- Alignment with current IT infrastructure.
- Alignment with other IT roadmap initiatives.

- Review of 'As Is' business process in-context of changes and re-engineering of the 'To Be' process if necessary.
- Draft requirements sufficient for an in-house build.
- Design functions.
- Build functions.
- Installation and test (UAT, SIT) of new functions. Depending on the breadth of changes, limited regression testing may be sufficient or a full end to end will be required.
- Installation of the new functions into the production environment.
- Potential training in use of the latest software versions and new processes where relevant, including creation/update of all documentation (administrative or end user).
- External Communications – Current and potential customers will need to be made aware of the new functionality.

5.2 Expected outcomes and benefits

The outcomes and benefits are considered from a TasNetworks' perspective and from an external stakeholder perspective, in this case the customer and retailer.

Outcomes and benefits have also been segregated into tangible (i.e. measureable) and intangible (not measureable). Tangible benefits will be used as part of the NPV calculations in chapter 6.

TasNetworks' perspective	**Tangible benefits** The potential benefits of the preferred option have no tangible bottom line direct savings that can be derived, but rather productivity gains provided via process improvements. Unquantifiable benefits of the options are listed below. **Intangible benefits** MECMS will: • Become more 'robust' and compliant with bug fixes. • Provide the required business processes and reliability to meet regulatory commitments. • Continue to provide accurate fault identification. • Continue to assist with an optimised response time for crews to attend to faults/outages. • Continue to maintain business reputation by ensuring a clear channel of communication to the customer. • Improved output. • Improved efficiency.

	• Achieving the same with less staff. • Achieving more with the same staff.
Customer and retailers perspective	From a customer perspective, there will be: • Improvement in customer interaction with TasNetworks by providing accurate information in regards to faults/outages. • Improvements in advisory services to customers in relation to visibility of network availability.

5.3 Regulatory Test

N/A

6. Options Analysis

Three options have been considered as described in the following chapter:

- Option 0 - Do Nothing.
- Option 1 (preferred option) – maintain MECMS to be compliant under the National Electricity Law (NEL) and resolve defects identified as not meeting the TasNetworks corporate strategy, including defects that have an impact on customer service deliverables, safety, and predictable and sustainable pricing.
- Option 2 – maintain MECMS to be compliant under the National Electricity Law (NEL) and resolve defects identified as not meeting the TasNetworks corporate strategy, including defects that have an impact on customer service deliverables, safety, and predictable and sustainable pricing **AND** include enhancements to support improvements to TasNetworks outage processes.

Each option is commented with regard to the following criteria:

- Solution effectiveness. Solution effectiveness is tested against the 'Investment Need' (detailed in chapter titled 'Investment Need'). In simple terms, does the option achieve the project objectives?
- Cost.
- Business impact – the selected option will consider the level of change to TasNetworks environment (including during project implementation and post implementation).
- Business Strategic alignment – does the option fulfil the business objectives and current business initiatives (detailed in chapter titled 'Strategic Alignment').
- IT strategic alignment.
- Project complexity – solutions will not be un-necessarily complex. Complexity introduces risk through combination of resource requirements, increased change etc.
- Risk profile – solutions will be risk adverse.

- Ability to achieve compliance – solutions will be fully compliant with all regulatory requirements and applicable industry standards.
- Time – ability to implement within deadline. Solutions will be implemented within a suitable timeframe to ensure compliance (where relevant), minimise disruption to the business and reduce the likelihood of project requirements becoming dated.

6.1 Option Summary

Option 0 – Do Nothing

The option of 'Do Nothing' assesses the scenario where this initiative is not approved.

Criteria	Advantages	Disadvantages
Solution effectiveness	N/A	N/A
Cost	No initial CAPEX cost to consider. However, as described under disadvantages there will be a cost!	TasNetworks will lose support. The MECMS system may partially or fully fail requiring manual workarounds or replacement with alternate product.
Business impact		TasNetworks may need manual workarounds.
Business strategic alignment		The business objective *'we understand our customers by making them central to all we do'* will not be fulfilled due to potential revenue loss and unpredictable pricing as a result of unexpected application replacement or manual workarounds. The business objective, *'enable our people to deliver value'* will not be fulfilled due to potential negative business impacts or applications failing. The business objectives, *'we care for our assets, delivering safe and reliable network services while transforming our business'* will not be fulfilled due to issues with compliancy, and risk.

IT strategic alignment	N/A	N/A
Project complexity	N/A	N/A
Risk profile		See chapter titled 'Current Risk Evaluation'
Ability to achieve compliance		TasNetworks systems would become non-compliant.
Time – ability to implement within a deadline	N/A	N/A

Option 1 – Meet compliance and fix defects

Maintain systems and procedures at market compliant level under the NEL AND resolve defects identified as not meeting the TasNetworks corporate strategy, including defects that have an impact on customer service deliverables, safety, and predictable and sustainable pricing.

As this is the preferred option, the scope has already been covered in detail in the chapter titled 'Preferred Option'.

Criteria	Advantages	Disadvantages
Solution effectiveness	This option addresses the investment needs outlined in section 1.	
Cost	This option is the most cost effective option compared with option 2.	
Business impact	With regard to implementation, this option has the least impact to the business compared with option 2. It will only touch those parts of the business that need to be impacted option 2.	This option does not offer opportunity for process improvement, unlike option 2.
Business strategic alignment	It will fulfil the business objectives of *'we understand our customers by making them central to all we do', 'we care for our assets, delivering safe and reliable network services while transforming our business'* detailed in the chapter titled	The business objective, *'enable our people to deliver value'* will not be fulfilled due to process improvement opportunities not being realized.

	'Business Objectives'. It will align with the business initiatives detailed in the chapter titled 'Business Initiative Alignment'.	
IT strategic alignment	TasNetworks market systems are contemporary and built for Australia's NEM. These systems will not be considered at end of life until past 2020. It will be designed to suit TasNetworks work practices and work processes so as to be as efficient and effective as possible without compromise. It will be maintainable and supported. It will be 'fit for purpose'. It will align with current IT infrastructure. It will align with other IT road map initiatives.	
Project Complexity	This option has less complexity compared with Option 2, as it will only touch those parts of the business that need to be impacted unlike option 2	
Risk profile		
Ability to achieve compliance	TasNetworks leverages the expertise and conformity of vendor products designed for NEM market interfaces which ensures compliance with industry standards and regulations.	
Time - ability to implement within a regulatory deadline	Regulatory milestones will be put in place. This option has a shorter implementation timeframe compared with Option 2, as it will only touch those parts of the business that need to be impacted unlike option 2.	

Option 2 – Meet compliance, fix defects, and include enhancements

Maintain MECMS to be compliant under the National Electricity Law (NEL) and resolve defects identified as not meeting the TasNetworks corporate strategy, including defects that have an impact on customer service deliverables, safety, and predictable and sustainable pricing **AND** include enhancements to support improvements to TasNetworks outage processes.

The functional scope for this option goes beyond that described for option 1. In addition to the functional scope described for option 1, it will also include enhancements to support improvement to TasNetworks outage processes.

The implementation activities will be more expansive. Key differences in high level activities include:

- TasNetworks will need to have a phase for:
    - The identification and design of processes that can improve TasNetworks outage processes.
    - Elicitation of requirements to support new or changed processes.
- The build and test phases will be more expansive than for option 1.
- Training of staff in the new functionality and new 'To Be' processes where relevant, including creation/update of all documentation (administrative or end user).

Criteria	Advantages	Disadvantages
Solution effectiveness	This option addresses the investment needs outlined in section 1.	
Cost		Due to the more expansive scope, it is a higher cost option compared with option 1.
Business impact	This option offers opportunity for process improvement unlike option 1.	With regard to implementation, due to the more expansive scope, the business will need to be more widely engaged.
Business strategic alignment	It will fulfil the business objectives of *'we understand our customers by making them central to all we do', 'enable our people to deliver value', 'we care for our assets, delivering safe and reliable network services while transforming our business'*	

	detailed in the chapter titled 'Business Objectives'. It will align with the business initiatives detailed in the chapter titled 'Business Initiative Alignment'.	
IT strategic alignment	It will be designed to suit TasNetworks work practices and work processes so as to be as efficient and effective as possible without compromise. It will be maintainable and supported. It will be 'fit for purpose'. It will align with current IT infrastructure. It will align with other IT road map initiatives.	
Project complexity		The complexity of this solution will be higher compared with option 1 due to the more expansive scope.
Risk profile		
Compliance	TasNetworks leverages the expertise and conformity of vendor products designed for NEM market interfaces which ensures compliance with industry standards and regulations.	
Time - ability to implement within a regulatory deadline	Regulatory milestones will be put in place. Process improvements would only be scheduled if these dates were not compromised.	

6.2 Summary of Drivers

The following table compares the options presented with regard to the criteria assessed in the previous chapter.

Criteria	Option 0	Option 1	Option 2
Solution effectiveness	N/A		
Cost			
Business Impact			
Business Strategic alignment			
IT strategic alignment	N/A		
Project complexity	N/A		
Risk profile			
Ability to achieve compliance			
Time - ability to implement within a deadline	N/A		

Key			
Solution effectiveness	Addresses most requirements	Addresses some requirements	Addresses few requirements
Cost	Low	Medium	High
Business Impact	Low	Medium	High
Business strategic alignment	Good alignment	Partial alignment	Poor alignment
IT strategic alignment	Good alignment	Partial alignment	Poor alignment
Project complexity	Low	Medium	High
Risk profile	Low	Medium	High
Ability to achieve compliance	Easy	Moderate	Hard
Time - ability to implement within a deadline	Easy	Moderate	Hard

6.3 Summary of Costs

Option	Total Costs ($)
0 – Do Nothing	No Capital Expenditure
1 – Upgrade MEMCS	$466,080 (one upgrades between 2017-2019)
2 – Upgrade MECMS with enhancements	$2,256,240 (three upgrades between 2017-2027)

6.4 Preferred Option Cost Breakdown

	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27
Estimate ($)		0.5M			1.2M			0.6M		
Total ($) 2017-2019	466,080									
Total ($) 2017-2022	2,256,240									

6.5 Summary of Risk

The preferred option addresses Network Performance risks, as analysed utilising the corporate risk matrix, as outlined in TasNetworks Risk Management Framework.

Risk Category	Risk	Impact	Mitigation	Risk Rating
Network Performance	[redacted]	TasNetworks may not get accurate reporting of faults as well as customers not being informed correctly	Initiative will maintain effective outage management solution	Low
Reputation	[redacted]	TasNetworks may not be able to meet its STPIS customer service obligation.	Initiative will result in TasNetworks meeting its STPIS targets.	Low

6.6 Economic analysis

The net present value calculations below are not inclusive of the potential benefits of the options as there no tangible bottom line direct savings can be derived from the investments, but rather productivity gains provided via process improvements. Unquantifiable benefits of the options below include:

- Time saved.
- Improved output.
- Improved efficiency.
- Achieving the same with less staff.
- Achieving more with the same staff.

Option No.	Option description	NPV	Reason got selection/rejection
0	Do nothing	$0	
1	Upgrade MEMCS	-$1,591,229	
2	Upgrade MEMCS with enhancements	-$2,082,091	

Further details of the NPV Calculations can be found here:

\\projectzone.tnad.tasnetworks.com.au\DavWWWRoot\business-projects\nis-program\DD17SAM\Deliverables\Information Technology\Customer Engagement IT\IT.CST.29 NPV Calculations.xls

6.6.1 Quantitative Risk Analysis

N/A

6.6.2 Benchmarking

N/A

6.6.3 Expert findings

N/A

6.6.4 Assumptions

ITA-117	The upgrade of MEMCS in 2021 will be significant and most likely involve a platform upgrade. This is expected to cost [redacted]
ITA-118	No tangible benefits can be quantified from the MECMS Upgrade initiatives
ITA-131	The alternative option of enhancing the current MECMS application will cost [redacted] more than the preferred option.

Section 2 Approvals (Gated Investment Step 2)

Business Unit Review:	[redacted]	**Date**	17/06/2105
IT Project Initiator:	[redacted]	**Date**	18/05/2015
IT Thread Approved:	[redacted]	**Date**	18/05/2015
Manager (Network projects) or Group/Business Manager (Non-network projects):		**Date**	
[Send this signed and endorsed Summary to the Capital Works Program Coordinator.]			

Project Initiator:		**Date:**	
Project Manager:		**Date:**	

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