

Investment Evaluation Summary (IES)

Project Details:

Project Name:			Connec	tion ap	plicatio	ns man	agement	t system	upgrade	
Project Id:			IT.CST.14							
Thread:			Information Technology							
CAPEX / OPEX:			CAPEX	CAPEX						
Scope Type:			с							
Service Classification:			Standa	rd Cont	rol					
Work Category Code			ITC		•					
Work Category Description:			IT & Communications							
Record Point ID:			R00001	.50787						
Preferred Option Description:			The pre Applica Manage interface process	eferred tions N ement' ce) so th	option lanager module hat it m	is to rep ment Sy e (part c anages	place the estem by of TasNet the full e	e existing extendin tworks N end to en	Connectio g the 'Serv EM marke d 'Works I	ns ⁄ice Order t system ⁻ ulfilment'
	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27
Estimate (\$)										
Total (\$)										

Governance:

	IES Secti	on 1	IES Secti	on 2
Business Unit Review:		17/06/2015		17/06/2015
Thread Endorsed:		18/05/2015		18/05/2015
Project Approver:				

Document Details:

Version Number:	1.0

Section 1 (Gated Investment Step 1)

1. Background

The connection applications management system (currently referred to as MaCCS) is a TasNetworks in-house developed tool for managing new customer supply applications.

The current MaCCS functionality is limited to the 'Application Assessment and Approval' sub process of the much wider end to end process of 'Works Fulfilment'.

For the purposes of this document, 'Works fulfilment' is the full end to end process of the 'TasNetworks application process' (includes TasNetworks assessment and approval) through to the 'Metering connection process' (including energisation), as shown in the following diagram.



For the purposes of this initiative, works applications includes:

- Basic connection.
- Negotiated connection.
- Embedded generation connection.
- Public lighting.
- Requests for abolishment by retailers, contractors and customers.

Currently the 'works fulfilment' process is a collection of independent processes that is managed in part in several systems including MaCCS, EWR portal (in-house system), (TasNetworks NEM market system interface), and (TasNetworks Meter Data Management System). There are various hand-off points to other parties and systems making the case management that 'Customer Connection Services' group performs quite difficult. Individual parts of the process involve laborious look-ups into preceding stages.

This initiative will provide integration of sub processes into a single system allowing the efficient management of those processes. This will enable improved customer service by improving communication between retailers, contractors, customers and the distribution business. This integration will also improve the customer, contractor and retailer experience when dealing with TasNetworks.

It should be noted that there is another initiative titled 'Customer Portal' (IT.CST.13) that will allow customers to be able to easily and securely enter and then track their applications via a portal. Customers would be able to access their 'Works Fulfillment' progress status from this portal.

1.1 Investment Need

The investment need regards improving the efficiency and effectiveness of TasNetworks staff in the delivery and completion of works orders to provide a better and faster service for TasNetworks customers.

The current end to end process of 'Works Fulfilment' is not efficient. This process is currently being managed in several different systems that are not interconnected, resulting in unnecessary data entry duplication and making it difficult to ascertain at a point in time, what the current status is.

There are also improvements to be made with respect to:

- Improved communications the process relies on many stakeholders (e.g. customer, retailer, contractor) closely liaising to complete their tasks in an efficient manner.
 There is a need for a system to facilitate and record these communications.
- Improved workflow process participants (e.g. contractors, retailers, work place standards) need to see a portfolio view of all works on their radar.
- Improved recording of meter details.

1.2 Customer Needs or Impact

It is difficult at a point in time to resolve what the current status is of a works order, as this information needs to be manually interpreted from potentially several different sources. This is costly from a TasNetworks staff time perspective, and can lead to TasNetworks customer frustration.

Enabling customers to be able to communicate efficiently and effectively with TasNetworks Staff on various topics including EWR's, applications for connection to supply, certificates of electrical compliance, workplace standards, unmetered supply, meter orders and metering notices, and abolishment of supply is a core driver for this initiative.

1.3 Regulatory Considerations

There are various SLA delivery dates that need to be achieved with regard to the end to end process of 'Works Fulfilment'. Failure to meet these dates results in monetary penalties being paid.

2. Project Objectives

The project objective is to deliver a consolidated and comprehensive system/view for managing the end to end process of 'Works Fulfilment'.

3. Strategic Alignment

3.1 Business Objectives

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

Strategic Goal	How this initiative furthers the strategic goal
"we understand our customers by making them central to all we do"	 Predictable pricing - TasNetworks business applications and IT infrastructure are designed to maximise efficiency whilst delivering sustainable predictable pricing.
	 Improved communication – there are many steps and many stakeholders involved in the energisation process. Effective and timely communication with the customer when required is integral to keeping the customer informed and being able to elicit customer information in a timely manner when required.
"we enable our people to deliver value"	• Efficiency improvements - Processes that require the same data to be entered, stored and accessed in multiple places will be streamlined. This includes better traceability of Applications or EWRs.
	• Improved workflow - Work could be brought to the attention of stakeholders on a personalised 'dashboard' in the system.
	• Better lifecycle management - Current TasNetworks systems used for managing Applications, EWRs and associated documentation do not have any automated lifecycle management. Users are therefore unable to tell where an Application or EWR is at in its lifecycle.
	Better communication – Better messaging would allow TasNetworks to send timely messages to individuals or to groups of users improving the efficiency of operations.
	Better contractor Interaction - Electronic handling of

	EWRs would result in less interaction between TasNetworks and contractors by phone and email being required.
	• Better retailer Interaction - The current system with its many manual processes continues to operate at its current level of efficiency whilst TasNetworks is the sole Tasmanian electricity retailer. When new retailers enter the Tasmanian market, each is likely to have their own processes and systems for managing accounts and connections.
	 Better alignment with Workplace Standards - Workplace Standards need to work closely with the distribution business and contractors to better manage safety certification and contractor licensing.
"we care for our assets, delivering safe and reliable network services while transforming our business"	• Guaranteed Service Dates – An improved system will help the business to follow up on EWRs at risk of not being met, to meet connection timeframes, and thus avoid associated penalties.

3.2 Business Initiative Alignment

By improving TasNetworks ability to deliver the end to end process of 'Works Fulfilment', this initiative aligns with the goals of:

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

In improving staff efficiency this initiative supports the aims of lowest sustainable pricing.

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, Environment, Financial, Regulatory, Legal and Compliance, Customers, Assets, Reputation and People).

This initiative addresses Financial risks, of which TasNetworks has

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Not proceeding with this initiative will result in
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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 Risk Impact Likelihood Consequence Risk

#	Category				Rating
IT- 008	Financial	Lack of business efficiency and potential for manual data handling errors.	Almost Certain	Negligible	Medium
IT- 079	Financial	Guaranteed Service Delivery dates are not met resulting in GSD payments.	Almost Certain	Minor	Medium
IT- 080	Financial	Increase in unnecessary phone calls and manual updates will require an increase in the FTE count of the Market Support team.	Almost Certain	Negligible	Medium

Section 1 Approvals (Gated Investment Step 1)

Business Unit Review:	Date	17/06/2015
IT Project Initiator:	Date	18/05/2015
IT Thread Approved:	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 replace MaCCS by extending the Service Order Management (SOM) module (currently part of TasNetworks NEM market system interface) so that it manages the full end to end 'Works Fulfilment' process.

This option has been selected because it best matches 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 alignment¹.
- Minimising the project complexity.
- Minimising the risk to the organisation.

5.1 Scope

The scope of this initiative is to extend the SOM module with the functions necessary to manage the full end to end process of 'Works Fulfilment'.

The current functions that are needed to support the 'Works Fulfilment' process need to be included.

In addition other principles/enhancements should be built in to:

- 1. Ensure that progress status (EDR, service order, metering connection, and energisation) would be made available back to the customer portal (initiative IT.CST.13) for the customer to view.
- 2. Enable applications to be automatically linked to EWR forms, instead of being manually reconciled.
- 3. Enable EWR forms to be automatically linked to Service Orders, instead of being manually reconciled.

- Solutions are maintainable and supported.
- Solutions are 'fit for purpose'.
- Alignment with current IT infrastructure.
- Alignment with other IT roadmap initiatives.

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.

It is assumed that Connection and EWR processes will need to change to accommodate the possibility of a 'Metering Coordinator' being other than TasNetworks. This will lead to new flows in metering data. It will also redefine the retailer relationship in the energisation process.

High level implementation activities

High level activities identified to implement this initiative include:

- Identification of existing processes that will need to be changed and redrafting the 'To Be' process.
- Elicitation of the full set of requirements sufficient for a vendor build.
- Review and sign-off on vendor supplied functional specifications for implementation.
- Deployment and testing of vendor supplied components in TasNetworks' environments. Testing will include system integration testing (ensuring all vendor components work with each other), and user acceptance testing (ensuring the business are happy with the new functions delivered).
- Deployment to the TasNetworks Production environment.
- Training of staff in the new functionality and new 'To Be' 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'	Tangible benefits	
perspective	Benefit	Benefit
	Efficiency - Current processes require the same data to be entered, stored and accessed in multiple places. The output of this initiative would increase staff efficiency by providing all information relating to an Application or EWR in one place, by providing a clear workflow, and by clearly showing the workflow state of any Application or EWR (current pain points of reconciling B2B to EWR and reconciling B2B to Applications would be gone).	
	Efficiency - Contractors and retailers would be able to log in to the system and see the status of every EWR with which they are associated, removing the need for contractors and retailers to contact TasNetworks directly ('Do Nothing' risk IT-008 mitigated).	



	• Contractor Interaction - The output of this initiative would provide contractors with a consistent process for submitting paperwork to different retailers. Contractors would not have to contact different retailers with different processes and using different fax numbers and email addresses.
	There would be clear incentives for contractors to use the system. Contractor accounts would store each contractor's business and accreditation details, so using the system would save them from having to re-enter information every time they submit a form. The system would also provide contractors with a single view of the status of all their current EWRs, assisting them in keeping track of their EWR work.
	• Retailer Interaction - By providing a single uniform system for all retailers, which would require all retailers to receive EWRs in the same format, the overhead for TasNetworks in handling EWR Service Orders from different retailers would be reduced.
	 Workplace Standards - Workplace Standards would be able to work more closely with the distribution business and contractors to better manage safety certification and contractor licensing.
	• Reports – An enhanced application is an opportunity to capture additional data relating to Applications and EWRs. This data could be used to fulfil future reporting needs. Potentially useful reports could show things such as number of EWRs created by each contractor, number of Applications associated with each retailer, how TasNetworks is performing for each retailer (useful for assisting any liaison meetings) and so on.
	• As part of this initiative it is also the intention to target the following issues identified from the TasNetworks application health check conducted in early 2015 ² :
	 [BHA64] – EWR Portal issues.
	 [BHA65] – EWR Portal opportunities.
	 [BHA27] – MaCCS opportunities for improvement.
	 [BHA28] – MaCCS integration with the Zone.
Customer and retailers perspective	• Improved Communication – there are many steps and many stakeholders involved in the energisation process. Effective and timely communication with the customer when required is integral to keeping the customer informed and being able to elicit information when required.
	• Customer Interaction - Customers would be able to easily and securely access their information via the portal (IT.CST.13). This would reduce

² As sourced from 'Distribution Determination 17 - Issue Register.XSLX'.

the need for customers to contact TasNetworks by phone or email.
customers would be able to access up to date information at any time
which would improve their customer experience and reduce the need
for them to call TasNetworks.

5.3 Regulatory Test

N/A

6. Options Analysis

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

- Option 0 Do Nothing. MaCCS and SOM continue to operate as independent applications with no communication between either.
- Option 1 Replace MaCCS system by extending SOM across the applications process and EWR's so that it manages the full end to end 'Works Fulfilment' process (preferred option). The functions of MaCCS is completely replaced and included into SOM.
- Option 2 Upgrade MaCCS system to monitor the full end to end 'Works Fulfilment' process. It should be noted that SOM will still be required to manage the B2B and metering connection parts of the process. MaCCS will continue to operate as the primary application for managing works applications, however an interface will be developed between MaCCS and SOM that will allow MaCCS to monitor those works processes controlled and managed through SOM. MaCCS would also be enhanced to improve the application assessment and approval process. This development would be delivered by a vendor.

To help explain the options presented the following diagram highlights what systems can control what parts of the process for each of the options.

Option 0	MACCS		SOM	
Option 1		sor	vi	
Option 2			som	Monitor Monitor
	Application	EWR	B2B	Metering connection
Works fulfilment sub-processes		Optional Augmen	ntation	

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.

There is a cost and negative business impact as current inefficiencies in work processes will continue.

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!	The current inefficiencies will continue. There is a cost to these inefficiencies with regard to the additional effort required.
Business impact		The current inefficiencies result in overly complex processing of applications.
Business strategic alignment		The business objective 'we understand our customers by making them central to all we do' will not be fulfilled due to continuation of inefficiency which ultimately impacts on price.
		The business objective, 'enable our people to deliver value' will

		not be fulfilled due to continuation of inefficiency.
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	N/A	N/A
Time – ability to implement within a deadline	N/A	N/A

Option 1 – *Replace* **MaCCS** *by extending SOM module* As this is the preferred option, the scope has already been covered in detail in the previous chapter.

Criteria	Advantages	Disadvantages
Solution effectiveness	This option will meet the project requirements.	
Cost	This option is assessed as having a lower cost compared with option 1. Option 1 requires a single vendor build. Option 2 will require potentially 2 vendor builds which is going to add complexity and additional vendor management costs.	
Business impact	The solution will be designed to support TasNetworks processes and will therefore be designed for streamlining the current in- efficient end to end works fulfilment process.	
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 conform to the TasNetworks IT strategic principles, specifically:	
	 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. 	
	 Will align with other IT roadmap initiatives. 	
	In addition it will be an opportunity to rationalise the number of applications and interfaces.	
Project complexity	This option has been assessed as less complex compared with option 2. The solution offers the opportunity to rationalize the number of systems and interfaces required.	
Risk Profile		
Compliance	Components will be built to conform with regulatory and industry standards.	
Time – ability to implement within a deadline	This option is assessed as being easier to implement with a timeframe as it has less complexity compared with option 2.	

Option 2 – Upgrade MaCCS to monitor the full end to end 'Works Fulfilment' process.

It should be noted that SOM will still be required to manage the B2B and metering connection

parts of the process. This topic must conform to national procedures and protocols used by the eastern sea board states of Australia (i.e. not WA or NT).

The implementation activities will be different compared with option 1. It is expected that the MaCCS upgrade will be delivered by a vendor build.

High level activities identified to implement this initiative include:

- Identification of existing processes that will need to be changed and redrafting the 'To Be' process. The process is going to be far more complex than that of option 1. Although the full lifecycle can be monitored by the MaCCS, some tasks will still be performed in MaCCS and some in SOM.
- Elicitation of the full set of requirements sufficient for a vendor build. These requirements will need to be separated into those for MaCCS and those for SOM. The MaCCS to SOM interface will also add complexity and time to the requirements gathering process.
- Review and sign-off on vendor supplied functional specifications for implementation.
- Deployment and testing of vendor supplied components in TasNetworks' environments. Testing will include SIT (ensuring all vendor components work with each other), and UAT (ensuring the business are happy with the new functions delivered). Deployment and testing will be more complex due to the MaCCS to SOM interface.
- Deployment to the TasNetworks Production environment.
- Training of staff in the new functionality and new 'To Be' 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.

Criteria	Advantages	Disadvantages
Solution effectiveness		Whilst this option will meet the project requirements it won't be as effective solution as option 1. Two systems will have to be used to manage the end to end 'works fulfilment' process.
Cost		The cost is expected to be higher compared with option 1. This option requires a MaCCS to SOM interface which is going to add significant complexity and therefore cost to the project.
Business impact		With regard to implementation the requirements and testing effort is expected to be greater than that of

		option 1 due to the added complexity of the solution.
		With regard to the solution effectiveness, users will still have to perform actions in two systems which are not efficient.
Business strategic alignment	It will fulfil the business objectives of 'we understand our customers by making them central to all we do' and, '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 will not fulfil the business objective of 'enable <i>our people to deliver</i> <i>value'</i> as staff will still need to perform actions in two systems.
IT strategic alignment	 It will conform to the TasNetworks IT strategic principles, specifically: 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. Will align with other IT roadmap initiatives. 	It will not conform with TasNetworks IT strategic principles, specifically it is a missed opportunity to reduce the architectural landscape complexity by keeping an additional system.
Project complexity		This option has been assessed as being more complex as it will require a MaCCS to SOM interface unlike option 1.
Risk profile		
Compliance	Vendor components will be built to conform with regulatory and	

industry standards.	
Time – ability to D implement within of a deadline b ti of	Due to the additional complexity of this option, it is assessed as being harder to implement with a timeframe as compared with option 1



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	N/A		
Time - ability to implement within a deadline	N/A		

Кеу							
Solution effectiveness	Good	Does not address all business requirements	Bad				
Cost	Relatively low	Neither high, nor low	Relatively high				
Business Impact	Relatively low	Has some negative business impact	Relatively high				
Business strategic alignment	Good	Partial alignment	Bad				
IT strategic alignment	Good	Partial alignment	Bad				
Project complexity	Relatively Low	Some complexity	Relatively High				
Risk profile	Relatively Low	Some risk	Relatively High				
Ability to achieve compliance	Easy	Some doubt	Hard				
Time - ability to implement within a deadline	Easy	Some doubt	Hard				

6.3 Summary of Costs



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 (\$)										
Total (\$)										

6.5 Summary of Risk

The preferred option addresses Safety & People and Financial risks, as analysed utilising the corporate risk matrix, as outlined in TasNetworks Risk Management Framework.

Risk Category	Risk	Impact	Mitigation	Risk Rating
Financial		Continue current levels of efficiency, process issues, complaints etc. Unable to achieve customer strategy.	Initiative will build process visibility, end to end for case management staff, and application processing, which will achieve efficiencies.	Low
Financial		Guaranteed Service Delivery dates are not met resulting in GSD payments.	Initiative will result in better awareness of Guaranteed Service Delivery Dates for all relevant stakeholders.	Low
Financial		Increase in unnecessary phone calls and manual updates will require an increase in the FTE count of the Market Support team.	Initiative will facilitate better communication for a retailer agnostic role in the process.	Low

6.6 Economic analysis

Option No.	Option description	NPV	Reason got selection/rejection
0	Do Nothing	\$0	Lowest strategic alignment
1	Replace MaCCS by enhancing the SOM module	\$-1,642,601	Greatest potential benefits and strategic alignment
2	Enhance MaCCS	-\$1,732,272	Lower potential quantifiable benefits

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-073	The alternative option of enhancing MaCCS will cost less than the preferred option.
ITA-074	The current time for manual handling of EWRs currently is: - 10 mins per EWR for matching - 5 mins per EWR for sending SMS - 5 mins per EWR for email comms with the retailer - 5 mins per EWR updating the status on the portal - 4 hours per week for following up EWRs with no applications It is assumed that these will all be benefits of the MaCCS upgrade initiative
ITA-075	There is a potential ecrease in GSD Payments with the implementation of this initiative. This is due to higher scrutiny by more parties of the EWR lifecycle.
ITA-087	The alternative option for the MaCCS upgrade initiative would be to enhance the current MaCCS application. This however would not reduce the manual intervention of service orders in the NEM market system interface, hence not realising the potential benefits of the preferred option.

Section 2 Approvals (Gated Investment Step 2)

Business Unit Review:			Date	17/06/2015
IT Project Initiator:			Date	18/05/2015
IT Thread Approved:			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:			