Technology program

Customer Information Services

PUBLIC

Program Brief

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1   Document Background

1.1   Purpose of this document

The purpose of this document is to outline a business case for a proposed program of work that will form part of AusNet Services' Technology EDPR submission.

1.2   References

Document	Version	Author
AusNet Services FY19-FY23 Technology Plan	V1.00	AusNet Services

1.3   Document history

Date	Version	Comment	Person
14/1/2020	V4.2	Incorporated feedback	Samantha Scanlon

1.4   Approvals

Position	Date
Technology Leadership Team	

2 Executive summary

The table below provides a summary of the program discussed in this brief. Additional information is provided following the table and throughout the brief.

Table 2-1 Summary table

Key objective(s) of the program	To improve the interactions between AusNet Services and our customers, to visualise their energy use behaviour, and consumption profile, and to remain compliant with increasingly sophisticated regulatory rule changes around the collection, storage and distribution of customer information.					
Key benefits	- Improved customer interaction by focussing on individual 'connection points' rather than overall sites - Improved ability to more cost effectively meet increasingly sophisticated regulatory driven data collection requirements - Expands the range of options and channels for customers to engage with AusNet Services - Improved customer categorisation and segmentation allows AusNet Services to offer tailored network solutions to a broader range of customers. - More informed investment decisions around asset and network management for the benefit of changing customer needs - Lower risks and costs associated with notifications and customer outages.					
Cost allocation	Electricity Distribution	75%	Electricity Transmission		0%	
	Gas Distribution	25%				
Program type	**Recurrent**			☐		
	Non-Recurrent			☒		
	Client Devices			☐		
Program timings	Program duration:		5 years			
Expenditure forecast	($m)	**FY2022**	**FY2023**	**FY2024**	**FY2025**	**FY2026**	**Total**
	CAPEX	$0.92	$1.22	$1.83	$1.22	$0.92	$6.11
	OPEX	$0.24	$0.32	$0.49	$0.32	$0.24	$1.62
	Electricity Distribution Cost	**$1.16**	**$1.55**	**$2.32**	**$1.55**	**$1.16**	**$7.73**
	Total program cost	$1.55	$2.06	$3.09	$2.06	$1.55	$10.31
Estimated life of system	The CRM component of the solution is a subscription service and is perpetual. However, the integration is an AusNet Services specific solution and has an expected life of 5 years consistent with similar implementations.					

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Customer Engagement	As the first DNSP in Australia to trial the New Reg process, we held deep dive workshops with stakeholders, including the Customer Panel, on ICT. In that engagement we described the importance and need for ICT expenditure to meet our customers' evolving needs and to support compliance with regulatory and legal obligations. Material associated with all our deep-dives is available on AusNet Services' website. A key theme of our engagement with the Customer Forum was the need for us to provide clarity on what we were proposing and what the expected customer benefits were. We acknowledge this feedback and have taken it into consideration when proposing the most appropriate option for this business case.

2.1   Program summary

AusNet Services is operating in an environment where the role of, and interactions with, our customers is rapidly evolving away from the simple transactional relationship that was typical for distribution networks. In the current regulatory period, 2016-20, customers are exercising more choices about their energy supply, with affordable solutions for distributed generation and storage emerging. This trend in distributed energy resources (DER) will continue through the next regulatory period (2022-26) and beyond, with customers adopting smart home and energy solutions and products where they are cheaper. This is changing the relationship between AusNet Services and its customers, as customers can become part suppliers and trade energy among themselves, and the network is increasingly used for two-way energy flows.

AusNet Services welcomes customers taking an active role in their electricity supply, and to ensure that customers continue to be able to exercise their choices around DER, the importance of understanding AusNet Services' customer base and their energy needs has grown (and is growing). Typically, retailers have needed to understand their different types of customers and their needs, while distribution businesses have typically focussed on providing stable supply throughout the network.

However, with the changing trends in DER across the network, AusNet Services needs to significantly invest in additional infrastructure, to ensure we meet the changing consumption needs of consumers and continue to manage the risks associated with supply failures.

This program brief recommends investment to enhance AusNet Services' focus on customer information management to enable more targeted and relevant communication with our different customer segments. For example, this program of work includes investment enabling more accurate notifications during outages, so that AusNet Services can keep our customers informed and updated.

Previous investments in the management of customer information have been more focused towards meeting immediate needs (including both customer needs and regulatory requirements) rather than taking a holistic view of customers' customer journey or the overarching policy environment.

AusNet Services proposed to implement a Customer Relationship Management (CRM) system for the 2016-20 regulatory period, which was approved by the AER. This CRM system would have been a tool for AusNet Services to collect, store and manage the information and interaction it has with its customers. AusNet Services elected to not proceed with this investment as we required more clarity on our role in managing customer interactions and shifting requirements for this solution could mean wasted investment. With a strong response from customers and regulatory bodies forming over the last several years on the role of distribution businesses in engaging with customers, and the importance of targeted and meaningful communication, AusNet Services has framed a clear strategic view of how we can more meaningfully add value in this space. As such, we feel it is now the right time to invest in a solution to cost effectively enable this.
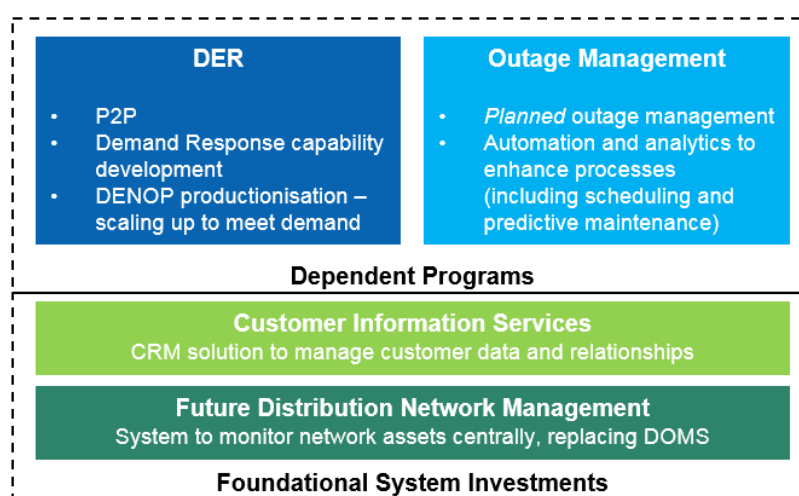
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Additionally, regulatory change has focused on improving engagement and interaction with targeted customer groups, including life support and hardship customers, 3rd parties looking to access customer data, customers exploring DER, and customers wishing to access or improve their own services including conducting self-meter reads.

As such, we believe establishing a platform that enables meaningful, targeted and timely communications to customers around the basics, the energy choices, their energy future, and the safety of the network is critical.

AusNet Services is proposing to establish a Customer Information Management (CIM) platform to support required services. The information management platform will allow AusNet Services to manage customer data to better understand their customers and their context to improve customer outcomes. The establishment of the platform will be formed by a combination of the following priority investments:
- Implementation of an on-demand subscription-based CRM for required services;
- Improving third-party access to customer data, in line with an AEMC rule change that may be implemented in the upcoming regulatory period 2022-26
- Ensure relevant CRM capabilities are in place to support DER related initiatives (Peer to peer trading and Demand Response).

The investments outlined in this brief are foundational and will ensure network and customer data are captured accurately and consistently across the business. This data will underpin advanced analytics and automation tools, resulting in improved operational efficiency, decision making, and customer relationships. As such, the investments in several other programs of work are dependent upon the proposed customer information system. This is outlined in the following figure.

Customer information services focusses on three of the customer priorities, as it aims to:

- Ensure that AusNet Services is able to meet expected regulatory rule changes around customer information management (deliver on the basics) (be ready for the future);
- Improve on AusNet Services' interactions and communication with customers, to enhance their satisfaction (keep me posted); and
- Ensure that AusNet Services is able to meet future customer information requirements associated with DER and other distributed energy initiatives (be ready for the future).

It also supports the business driver of "driving efficiency and effectiveness throughout the portfolio", as it includes initiatives that bring disaggregated sources of customer data into an enterprise-wide integrated system, which allows AusNet Services to more efficiently and effectively engage with customers throughout the portfolio. It will also enable AusNet Services to participate in the ongoing

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energy transformation, as many new products and services require direct customer communication. It will also help us to generate trust and respect with our customers, through better communication.

Alignment with AER ICT expenditure assessment framework

In accordance with the framework outlined in the AER's Consultation paper – ICT Expenditure Assessment of May 2019, we have categorised this program as non-recurrent expenditure, on the basis that it relates to ongoing refresh of AusNet Services' customer communications infrastructure.
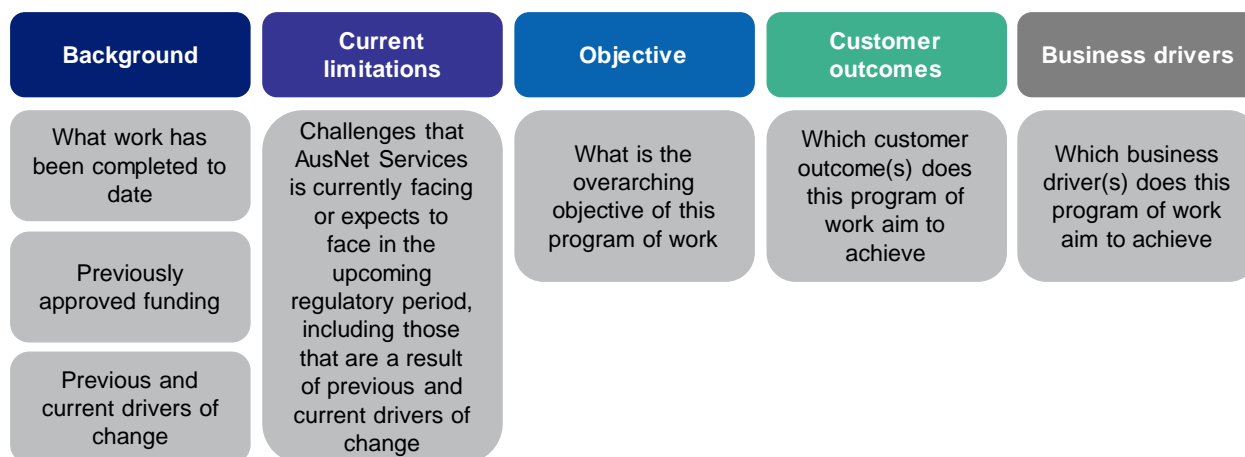
We have also undertaken NPV analysis in support of the project, as well as developed a detailed business case in support of the chosen option.

3 Context

This chapter provides an overview of the program of work and the key areas to be discussed.

Figure 3-1 Key areas of the context to be discussed

Background	Current limitations	Objective	Customer outcomes	Business drivers
What work has been completed to date	Challenges that AusNet Services is currently facing or expects to face in the upcoming regulatory period, including those that are a result of previous and current drivers of change	What is the overarching objective of this program of work	Which customer outcome(s) does this program of work aim to achieve	Which business driver(s) does this program of work aim to achieve
Previously approved funding				
Previous and current drivers of change				

3.1 Background

During this current regulatory period, the focus of AusNet Services' capital investments is to modernise business tools while controlling IT costs. This has also been coupled with a strategic decision to take an iterative or incremental approach to delivery, in preference to delivery via large-scale projects.

Although AusNet Services proposed a business case to develop a customer services capability, which included implementation of an enterprise-wide Customer Relationship Management (CRM) system, this did not proceed. This enterprise-wide CRM system was projected to cost [C-I-C], with an allocation of [C-I-C] to distribution.

Using this allocation, in this current regulatory period, AusNet Services has focussed on:

- Undertaking studies to develop both customer and digital strategies, which broadly recommended the use of digital channels to improve customer experience;
- Documenting and analysing existing business processes in the contact centre;
- Utilising an agile delivery approach to develop additional customer functionality for the new corporate internet site; and
- Assessing operational 'pain points' to identify tactical solutions to improve both internal and external capabilities in relation to customer experience and internal processes, through leveraging current systems. These solutions include integrating mobility solutions with core enterprise applications and enabling more functionality on the customer web portal.

These incremental, iterative changes have been driven by upcoming regulatory changes which require AusNet Services to invest in more sophisticated data management (including customer information). They do not constitute a new CRM.

As an example of this shift, is the regulatory rule change in relation to protections for customers requiring life support equipment. This rule change requires AusNet Services to securely collect, store and manage more private and sensitive information in relation to not only the account holder, but also the carer and medical practitioner of the individual requiring life support equipment.

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Through the implementation of these upcoming obligations, AusNet Services has identified some limitations in our current applications that will make the secure collection, storage and management of this information challenging over time.

Furthermore, AusNet Services is currently engaging a diverse range of people across the business to provide insight into a number of customer centric forums to:

- Determine AusNet Services' short to medium-term vision in relation to customers through customer centric forums. This vision is to embed customers in the centre of AusNet Services' thinking;
- Determine which technologies will support the achievement of this vision;
- Map the operating model implications of the technology changes and the vision; and
- Map the customer journey to understand the value of different customer segments.

However, AusNet Services is facing additional challenges in the upcoming regulatory period. These challenges require the continued evolution of AusNet Services' customer information management. The two main challenges that AusNet Services expects to face are:

- **Requirements to continue adapting to upcoming rule changes** – As in the current regulatory period and in previous regulatory periods, AusNet Services will continue to be faced with rule changes that require it to collect and make available an increasing amount of customer data, to an increasing number of approved agents. Without an integrated Customer Information Management (CIM) system, navigating between different information systems will become more complicated and expensive, with a continued build-up of tech debt (i.e. the implied cost of additional rework caused by choosing an easy solution now instead of using a better approach that would take longer).
- **Customers are engaging with the market differently** – In the current regulatory period, customers are increasingly gaining additional choice, with affordable solutions for distributed generation and storage emerging. AusNet Services forecasts that this trend will continue through the 2022-26 regulatory period and beyond, with customers adopting smart home and energy solutions and products where they are cheaper. This is changing the relationship between AusNet Services and its customers, as customers can become part suppliers. As a result, the daily load and direction of power flows on the network are changing. Changes in the load or direction of power flows results in voltage variation, where voltage is increasing with net generation and falling with net demand. If voltage is not appropriately managed, there are risks to both customers and businesses including:
  - Loss of PV generation from inverter tripping;
  - Equipment damage from over-voltage;
  - Voltage levels exceed distribution code; and
  - Thermal overload of assets such as conductors and transformers.

We note that there are a number of initiatives associated with addressing the impacts of increasing DER connection as part of AusNet Services' Technology EDPR submission. In particular, the DER Program further outlines the real and potential risks associated with DER, while focussing on initiatives that mitigate the impacts and position AusNet Services to readily adapt to changes in customer priorities and/or regulatory requirements.

This CIS brief supports the DER initiatives, as with more developed customer information management systems, this can inform both customer decisions around DER investment as well as AusNet Services' decisions around supporting infrastructure, to mitigate asset failure risks and associated costs. Specifically, CIM will allow customer notification for both:

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- Peer to Peer trading, rewarding customers selling excess solar and battery capacity, and;
- Demand response which provide customers price signals and rebates encouraging them to use power or manage their DER exports.

In addition, the Outage Management program aims to improve the customer experience around planned outages, which interacts with the CIM processes described in this brief.

This program brief proposes three different options to customer information management and recommends the option which best addresses these challenges given the associated costs, benefits, risks, and impacts on customer outcomes and business drivers. This analysis is discussed in sections 4 and 5.

3.2   Current limitations

Despite a focus on tactical solutions implemented over the current period, over the previous and current regulatory periods, the current customer information system (CIS), has the following limitations:

- **Manual processes** – AusNet Services currently utilises multiple systems to manage customer data, customer interactions, customer issue resolution and financial services. This means manual processing steps, which are typically slower than integrated or automated data, and the potential for inconsistencies and errors.
- **Limited tracking of end-customer information** – AusNet Services receives end-customer information via retailers however is not always complete or updated sufficiently. Therefore, AusNet Services is unable to tailor messages or information to customers, to offer specific services geared towards different types of customers.
- **Limited ability to view customer consumption data** – Customer expectations and needs from AusNet Services are changing, as customers are increasingly exercising choices around DER and how they interact with AusNet Services. If AusNet Services is unable to gain visibility around changing customer consumption patterns and their resultant network requirements, it will be unable to appropriately plan supply costs and services responses.
- **Customer engagement throughout the customer journey** – Customers want to be able to get access to information via multiple channels, including via phone, via the internet or a mobile app. An integrated CRM will facilitate AusNet Services' ability to deliver these interactions, and allow AusNet Services to better manage customer interactions, from issue management to resolution. An upgraded web portal for customers will also aim to improve the user experience of AusNet Services' customers.
- **Customer information is not integrated with asset information** – The CIS system captures customer endpoint information, whereas the Enterprise Resource Planning (ERP) system captures asset management together with the Geographical Information System (GIS). As this information is disparate, it is difficult to utilise customer information to inform decisions around the optimisation of maintenance and delivery of asset works in line with customer priorities. Vice versa, it is difficult to use asset information to inform decisions around customers, such as how much distributed energy a customer can connect to the existing network.

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3.3 Objective

As noted above, AusNet Services' vision with customer information management is to embed customers in the centre of our thinking. Specifically, for the 2022-2026 regulatory period, AusNet Services is aiming to better understand the evolving interactions between AusNet Services and our customers, as customers with generation capability can become part suppliers, and even trade energy among themselves. The network is increasingly being used for two-way energy flows, although it was not initially built with this in mind. Without appropriate demand management, this could place pressure on the network and result in lost or constrained generation from customers, as well as unexpected variation to voltage levels or potential thermal overload of assets resulting in outages to customers.

If AusNet Services is able to implement an effective CIM, it can better understand the consumption profiles of customers in different segments. It can therefore provide appropriate advice to both assist customers in maximising their generation (if they are connected with DER), while ensuring that the existing network is protected and the risk of outage is lower, or alternatively invested in an upgraded network if necessary.

Another objective of improving customer information management is to ensure that the business is well placed to meet expected upcoming regulatory rule changes, which require increasingly sophisticated data management. Examples of upcoming rule changes are the third-party access to data and related changes around DER.

- Third-party access – following reforms in recent years around customers' access to their own data, there is expected to be a rule change requiring AusNet Services to be able to provide approved agents with third-party access to customer connection point data.

3.4 Customer outcomes

Through customer research carried out by AusNet Services, a succinct list of key customer outcomes and priorities were identified. These customer outcomes are:

- Delivering basic services – "deliver on the basics";
- Keeping customers informed – "keep me posted";
- Affordable services – "affordable for me";
- Adaptability – "be ready for the future"; and
- Safety – "always safe".

This research has been further validated through the ICT deep drive presented to the customer forum. Additional information on each of these customer outcomes is provided in the overarching Technology EDPR submission FY2022-2026.

All expenditure programs identified and proposed by AusNet Services will have regard to the customer outcomes and can be directly linked to at least one of these five outcomes.

We consider that this program of work will be most relevant to "**deliver on the basics**", "**keep me posted**" and "**be ready for the future**", as it:

- Ensures that AusNet Services is able to meet the expected regulatory rule changes around third-party access to customer data and related changes around DER ("deliver on the basics");
- Assists with improving the collation, and resultant provision of information and education to customers ("keep me posted"); and

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- Positions AusNet Services for the future in terms of customer information and data requirements, as not only are there increasingly sophisticated requirements from the regulator, but also customers expect AusNet Services to be able to seamlessly engage with them via multiple technological channels ("be ready for the future").

We will further explore this in the discussions of each of the options.

3.5   Business drivers

In the face of significant industry disruption resulting in a period of substantial uncertainty and increasing complexity across the industry, AusNet Services has selected three key business drivers which set the direction for the business.

These business drivers are:

- Lead energy transformation, embracing change;
- Drive efficiency and effectiveness throughout the portfolio; and
- Generate trust and respect with customers and partners.

All expenditure programs identified and proposed by AusNet Services will have regard to the business drivers and can be directly linked to at least one of these initiatives.

We consider that this program of work will be most relevant to "**drive efficiency and effectiveness throughout the portfolio**", as it includes initiatives that bring disaggregated sources of customer data into an enterprise-wide integrated system, which allows AusNet Services to more efficiently and effectively engage with customers throughout the portfolio. We will further explore this in the discussions of each of the options.

4 Options

4.1 Overview

This section provides an overview of the options that may alleviate the current limitations.

Table 4-1 Brief overview of the options

Brief overview of each of the options	
Option 1	Business as usual Continue managing customer information through current systems, strategically making incremental improvements where efficient. Key initiatives include: • Improving third-party access to customer data in line with the AEMO rule change to be implemented in the upcoming regulatory period.
Option 2 (Recommended)	Integration of Customer Information Management (CIM) for key required services A CIM solution which includes implementation of a subscription-based CRM system which integrates key customer information in a central repository to improve the efficiency of AusNet Services' internal actions, as well as AusNet Services' ability to interact externally with customers through the proactive centralised and outbound customer communications for outages and energy usage This option provides the ability to provide: • Collection and validation of information about the end consumer via a central customer relationship management solution • A single view of the customer • Responsive digital tools to allow employees to track and manage customer feedback • Proactive, centralised, outbound customer communications for outages and energy usage • Digital self-service presentation of usage information to customers • Campaign management to influence energy demand and supply, and improve AusNet Services' demand response Key initiatives include: • Implementation of an on-demand subscription-based CRM for required services. • Initiatives included in Option 1.
Option 3	Fully integrated CIM solution

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		Implementation of an enterprise-wide CRM solution with the benefits outlined in option 2 where customer reference and transactional data, where relevant to business decisions, is stored in a central CRM system. Key initiatives include: • Implementation of an enterprise-wide CRM solution. • Upgrade of the customer web portal for AusNet Services to engage with customers in a modern manner. • Transition from a multi-channel focus to an omni-channel focus with customers. • Initiatives included in Option 1 and Option 2.

4.2   Option #1 Business as usual

This option involves continuing AusNet Services' current tactical solutions strategy, which involves:

- investing in AusNet Services' current systems used to manage customer information; and
- upgrading specific functions of the CIS where necessary to meet regulatory requirements or where the return on investment is immediately demonstrable (e.g. implementation of an online form to replace paper based communication, increasing both the efficiency of AusNet Services' processes as well as customers' efficiency).

It allows AusNet Services to continue improving our customer information management systems to meet any changes in regulatory requirements (for example, the DER related initiatives, third-party access to customer information)as well as allowing AusNet Services to make improvements to individual functions of its customer information systems where there is a clear customer requirement and benefit.

This option does not involve significant improvements to AusNet Services' customer data management, both in terms of the diversity and quantity of data collected, as well as in terms of the integration of data.

Alignment to objectives

We do not consider that this option achieves all of the intended objectives of this program of work, as shown in the table below.

Table 4-2 Objectives analysis of option 1

Objective		Comments
To improve the interactions between AusNet Services and their customers	✔	As AusNet Services is continuing to adapt to regulatory requirements and make tactical improvements to both internal processes as well as customer related interactions, AusNet Services will be able to improve its interactions with customers, albeit in a minor way.
To visualise customers' consumption profile to improve demand management	✘	Without a central repository of customer data or a single customer information management system, it will be difficult for AusNet Services to integrate information about different customer segments together, to gain a view different customer segments. This limits the ability of AusNet Services' demand

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		management, and ability to understand which areas of the network may need additional support.
AusNet Services will be well placed to meet increasingly sophisticated regulatory rule changes around the collection and distribution of customer information	✖	Without a central repository of customer data or a single customer information management system, it will be difficult for AusNet Services to meet regulatory rule changes which require more sophisticated collection or distribution of customer information, as this may require transformation of multiple existing systems (or implementation of a new system, which is not part of this option).

Costs

This option includes capex required to meet the requirements around third-party access to customer data, and DER related initiatives. Under Option 1, all costs are allocated to Electricity Distribution because the tactical solutions are designed to address specific electricity distribution customer requirements.

Table 4-3 Costs of option 1

($m)	FY2022	FY2023	FY2024	FY2025	FY2026	Total
Capex	$2.25	$2.25	0	0	0	$4.50
Opex	0	0	0	0	0	0
Electricity distribution cost	**$2.25**	**$2.25**	**0**	**0**	**0**	**$4.50**
Total program cost	$2.25	$2.25	0	0	0	$4.50

Benefits

The continuous improvement in customer data management, under a tactical approach, ensures that there is some easing of pressure on AusNet Services' customer interactions, both in terms of employee productivity and customer efficiency.

However, the benefits are limited due to a number of constraints, such as:

- There is no integration or centralisation of existing or new data. As a result, it will continue to be difficult for AusNet Services to gain a complete understanding of our interactions with customers, and furthermore, even more difficult for AusNet Services to target and visualise different types of customer segments and their consumption profiles.
- There is no advanced collection of information, prior to regulatory requirements. As a result, AusNet Services retains a reactive approach to customer information management rather than being well placed to adapt to any rule changes or government policy decisions around information collection or data access.

Risks

There are a number of risks associated with this particular option, as highlighted in the table below. Based on the consequence and likelihood of each risk, we have rated each of the individual risks blue, green, yellow, orange or red (order of severity). See Attachment 1 – Risk level matrix for additional information on this rating system.

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Table 4-4 Risks of option 1

	Risks	Consequence	Likelihood	Risk rating
R1.1	AusNet Service is unable to holistically map customer journeys and understand their interactions with the network.	Level 3. Continued customer dissatisfaction.	Almost certain	B
R1.2	Unable to plan for increasing DER connections resulting in increased risk of supply interruptions	Level 3. Increased risk of supply interruptions, as AusNet Services is unable to plan for the risk of exceeding network capacity in particular areas of the network.	Almost certain	B
R1.3	AusNet Services is unable to meet future, unknown, higher complexity, regulatory requirements in relation to data aggregation or access, as its current data management is not sophisticated and meets current basic requirements.	Level 4. Unable to meet regulatory requirements.	Possible	B

We consider that overall this option is rated high.

Customer related drivers of expenditure

As discussed in Section 3.4, five key customer outcomes have been identified through discussions with customers. The table below highlights the how this option will achieve these outcomes. Where we consider that a customer outcome is not directly achievable by the option or irrelevant, 'N/A' is applied.

Table 4-5 Customer drivers of option 1

Customer outcome	How this program achieves this
Deliver on the basics	This option delivers on the basics by ensuring that AusNet Services is able to meet upcoming regulatory rule changes.
Keep me posted	N/A
Affordable for me	N/A
Be ready for the future	N/A
Always safe	N/A

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Business related drivers of expenditure

As discussed in Section 3.5, there are three business drivers that AusNet Services has identified, and is focussing on over the next regulatory period. The table below highlights how this option will input into the initiatives where relevant. Where we consider that a business driver is not directly relevant to the option, 'N/A' is applied.

Table 4-6 Business drivers of option 1

Business drivers	How this program achieves this
Lead energy transformation, embracing change	N/A
Drive efficiency and effectiveness throughout the portfolio	This program drives efficiency and effectiveness throughout the portfolio as AusNet Services will identify and implement tactical improvements to its customer information management processes that are cost efficient or required by regulatory change.
Generate trust and respect with customers and partners	N/A

4.3   Option #2 Integration of Customer IM for key required services (RECOMMENDED)

This option involves implementing a subscription-based CRM system, which integrates key customer information, such as service management (e.g. safety or outage notifications), case management, engagement management and other customer communications. This central repository of information can be used for AusNet Services' multi-channel engagement with customers, to improve the businesses' ability to interact with customers across different applications and to generate an integrated view of customer information.

This centralised database can be used to inform AusNet Services' decisions not only around customer management, but also asset and infrastructure investment decisions related to risks of outages or DER connection rates.

A subscription-based and on-demand solution means that only the services required by AusNet Services will be included in the CRM solution, addressing AusNet Services' specific needs in the short to medium term. As this option targets AusNet Services' needs, it is more flexible and less costly than implementing an enterprise-wide CRM solution. Furthermore, a subscription-based CRM system can be implemented in a shorter period. However, this option is also scalable, and its capacity can be easily expanded where required by AusNet Services.

This option also ensures that AusNet Services is able to respond to data access requirements from upcoming regulatory changes and scale up its systems where necessary. Specifically, CIM will allow customer notification for both:

- P2P trading, rewarding customers selling excess solar and battery capacity, and
- Demand response which provide customers price signals and rebates encouraging them to use power or manage their DER exports.

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Research conducted by Gartner in 2017 reflects the growing demand of cloud-based CRM systems to support customer engagement. Gartner place an emphasis on "Scalable cloud-based systems" as the first of the overall set of technical and design considerations[1], as CRM solutions trend to the cloud. It is therefore prudent for AusNet Services to consider utilising a cloud-based solution for CRM even though we will continue to sweat the investment made in other on-premise solutions which already exist. AusNet Services has considered four potential CRM solutions as part of this process and have chosen a Gartner leader.[2]

Alignment to objectives

The table below shows the relation of the objectives to the program of work.

Table 4-7 Objectives analysis of option 2

Objective		Comments
To improve the interactions between AusNet Services and their customers	✔	As AusNet Services is centralising some of its customer information management and integrating some of its customer data as part of this option, this will assist AusNet Services in improving its interactions with customers based on understanding their needs and requirements.
To visualise customers' consumption profile to improve demand management	✘	As AusNet Services is implementing an on-demand subscription-based CRM system with only required services as part of this option, AusNet Services will be limited in its ability to visualise customer consumption as it is limited in its understanding surrounding an integrated view of customer segments. For example, this option does not integrate the CRM with workforce management, dispatch management or outage management and planning. As AusNet Services has a limited view of customer segments, it may also be difficult to AusNet Services to apply this to asset management and mitigating associated risks and costs.
AusNet Services will be well placed to meet increasingly sophisticated regulatory rule changes around the collection and distribution of customer information	✔	As AusNet Services is implementing a subscription-based CRM system as part of this option, it will be able to flexibly scale up to meet any customer information requirements as required by regulatory rule changes should this be necessary.

Costs

The cost of option 2 includes subscription to a CRM and costs associated with meeting third-party access related regulatory rule changes and support DER related initiatives.

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[1] Market Definition/Description, Magic Quadrant for the CRM Customer Engagement Centre, Gartner, pg 2
[2] Magic Quadrant, Magic Quadrant for CRM Customer Engagement, Gartner, pg 4

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Sixty percent of the cost of the subscription-based CRM has been allocated to electricity distribution. This is proportionate with the balance between AusNet Services' connected electricity and gas customers. However, all other initiatives within this option are clearly fully attributable to electricity distribution, so overall, electricity distribution has proposed a cost allocation of 75% for this program of work. Table 4-8 provides a breakdown of the expected costs of option 2.

Table 4-8 Costs of option 2

($m)	FY2022	FY2023	FY2024	FY2025	FY2026	Total
Capex	$0.92	$1.22	$1.83	$1.22	$0.92	$6.11
Opex	$0.24	$0.32	$0.49	$0.32	$0.24	$1.62
Electricity distribution cost	**$1.16**	**$1.55**	**$2.32**	**$1.55**	**$1.16**	**$7.73**
Total program cost	$1.55	$2.06	$3.09	$2.06	$1.55	$10.31

We expect there to be an associated ongoing opex step change for the subscription-based CRM system of approximately $450,000 per annum.

Benefits

The benefits of this option are primarily resulting from the implementation of the subscription-based CRM system, and resultant centralisation of some customer data, to reduce costs through higher productivity and customer efficiency (and satisfaction).

- Productivity increase for employees as implementation of subscription-based CRM solution and tactical solutions reduces that amount of time spent on manual processes
- Subscription-based CRM solution and tactical solutions improve the efficiency of customer interactions with AusNet Services, increasing customer satisfaction.

However, the benefits are limited as the CRM system proposed as part of this option provides some integration, but not full integration of customer information management. As a result, the full benefits of an enterprise-wide, fully integrated CRM system will not be realised.

Risks

There are risks associated with this option, as highlighted in the table below. Based on the consequence and likelihood of each risk, we have rated each of the individual risks blue, green, yellow, orange or red (order of severity). See Attachment 1 – Risk level matrix for additional information on this rating system.

Table 4-9 Risks of option 2

	Risks	Consequence	Likelihood	Risk rating
R2.1	AusNet Service is unable to holistically map customer journeys and understand their interactions with the network.	Level 3. Continued customer dissatisfaction.	Possible	C

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R2.2	Unable to plan for increasing DER connections resulting in increased risk of supply interruptions	Level 3. Increased risk of supply interruptions, as AusNet Services is unable to plan for the risk of exceeding network capacity in particular areas of the network.	Possible	C
R2.3	AusNet Services is unable to meet future, unknown, higher complexity, regulatory requirements in relation to data aggregation or access, as its current data management is not sophisticated and meets current basic requirements.	Level 4. Unable to meet regulatory requirements.	Unlikely	C

We consider that overall this option is rated medium risk.

Alignment to customer related drivers of expenditure

As discussed in Section 3.4, five key customer outcomes have been identified through discussions with customers. The table below highlights the how this option will achieve these outcomes. Where we consider that a customer outcome is not directly achievable by the option or irrelevant, 'N/A' is applied.

Table 4-10 Customer drivers of option 2

Customer outcome	How this program achieves this
Deliver on the basics	This option delivers on the basics by ensuring that AusNet Services meets all known upcoming regulatory rule changes around customer information management.
Keep me posted	This option enhances AusNet Services' ability to share information with customers, as one of the regulatory rule changes proposed to be met is about improving customer access to data. The precise scope of this information is to be determined however is expected to include metering and usage information, as well as information around DER connections. Implementing this option will provide customers with features such as customized notifications based on customer information.
Affordable for me	N/A
Be ready for the future	The cloud application can be scaled up, should AusNet Services need to manage additional customer information, including around customer uptake of DER. This allows AusNet Services to be ready for future regulatory or customer requirements relating to data management as well as DER. This would mean less disruption when upgrading or migrating data as these capabilities are already innately with cloud solutions.

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Always safe	N/A

Alignment to business related drivers of expenditure

As discussed in Section 3.5, there are three business drivers that AusNet Services has identified, and is focussing on over the next regulatory period. The table below highlights how this option will input into the initiatives where relevant. Where we consider that a business driver is not directly relevant to the option, 'N/A' is applied.

Table 4-11 Business drivers of option 2

Business drivers	How this program achieves this
Lead energy transformation, embracing change	The investments described in this option will enable AusNet Services to participate in the ongoing energy transformation, as many new products and services require direct customer communication.
Drive efficiency and effectiveness throughout the portfolio	This program drives efficiency and effectiveness throughout the portfolio as AusNet Services will be able to store its customer information and transaction data centrally, expanding on the CRM systems where necessary.
Generate trust and respect with customers and partners	Better management of our customer information will help us to generate trust and respect with our customers, through better communication.

4.4   Option #3 Dedicated CIM solution integrated with application ecosystem

This option involves transitioning to a dedicated CIM solution for AusNet Services, which includes implementation of an enterprise-wide CRM system. This system will allow customer management, works management and data management to better service the customer, the infrastructure and the wider market participants.

This is part of AusNet Services' transition to an omni-channel focus with customers, which can only be successfully implemented if a broad range of customer information is managed centrally.

Customers want more choice in how they interact with AusNet Services. The key to delivering this choice is providing omni-channel services to customers – i.e. a consistent, proactive and seamless service experience across all interactions, with some diverse service and communication channel preferences for different customer types. With this omni-channel approach, customers will be able to access more relevant information more efficiently, and therefore make more informed and better decisions. This gathered customer information will drive improved levels of service delivery, resulting in increased customer satisfaction.

Further to this, AusNet Services will not only be able to educate customers in making better decisions around optimising their energy usage, but also may potentially be able to visualise customers' consumption to mitigate outage risks or other asset management risks. For example, by understanding more about the needs and consumption profile of different customers, AusNet Services can provide tailored advice on an efficient level of DER to connect, and when it may be mutually beneficial to charge or discharge customers' batteries, thereby better controlling the two-way flow of energy.

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The CRM system in this option will not only include service management, case management, engagement management and customer communications (included as part of option 2), but will also include workforce management, dispatch management, outage management and planning, phone services (IVR) and internet connections for self-service.

Further to AusNet Services' vision to embed customers in the centre of AusNet Services' thinking, AusNet Services intends to refresh its web-based, self-service customer web portal, with features such as:

- Web-based charts detailing near real time usage
- Social media conversations directly with the business and a web presence enabled with online chat functionality
- Mobile access to Estimated Time of Repair (ETR) for works planned on a customer's property
- The customer will be able to personalise their view of the platform to suit their own requirements
- Support for multiple languages
- The customer can establish alerts for identified meter issues or key usage criteria

This upgraded web portal will also support AusNet Services' intentions to focus on omni-channel communication with customers.

Alignment to objectives

We consider that this option achieves all of the intended objectives of this program of work, as shown in the table below.

Table 4-12 Objectives analysis of option 3

Objective		Comments
To improve the interactions between AusNet Services and their customers	✔	As AusNet Services is centralising its customer information management and fully integrating its customer data as part of this option, this will assist AusNet Services in improving its interactions with customers based on understanding their needs and requirements. For example, AusNet Services may be able to identify its customers that are schools, and appropriately schedule outages to occur outside of school hours. Alternatively, AusNet Services may be able to identify customers with dog on premise, ensuring that field employees can take appropriate precautions during visits.
To visualise customers' consumption profile to improve demand management	✔	As AusNet Services is implementing a full CRM system as part of this option, AusNet Services will be able to gain an integrated view of different customer segments and utilise this information to visualise customers' consumption profile, improving demand management.
AusNet Services will be well placed to meet increasingly sophisticated regulatory rule changes around the collection and distribution of customer information	✔	As AusNet Services is implementing a fully integrated CRM system as part of this option, it will be able to incorporate any customer information requirements as required by regulatory rule changes should this be necessary.

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Costs

The cost of option 3 associated with electricity distribution is $27.65 million, with key costs including a fully integrated CRM, and costs associated with creating an omni-channel experience with customers and meeting third-party access related regulatory rule changes and DER related initiatives.

Sixty percent of the cost of the CRM and costs associated with omni-channel have been allocated to electricity distribution. This is proportionate with the balance between AusNet Services' connected electricity and gas customers. However, all other initiatives within this option are clearly fully attributable to electricity distribution, so overall; electricity distribution has proposed a cost allocation of 70% for this program of work. Table 4-13 provides a breakdown of the expected costs of option 3.

Table 4-13 Costs of option 3

($m)	FY2022	FY2023	FY2024	FY2025	FY2026	Total
Capex	$4.15	$5.53	$8.30	$5.53	$4.15	$27.65
Opex	-	-	-	-	-	-
Electricity distribution cost	**$4.15**	**$5.53**	**$8.30**	**$5.53**	**$4.15**	**$27.65**
Total program cost	$5.93	$7.90	$11.85	$7.90	$5.93	$39.50

Benefits

The implementation of a fully integrated CRM system allows AusNet Services to gain a better understanding of its customers and different customer segments. This centralised and integrated information can be used to improve not only interactions with customers but also improve other services managed by AusNet Services such as outage management and asset management.

- Cost reductions for employees as implementation enterprise-wide CRM system reduces that amount of time spent on manual processes and/or existing separate information management systems
- Customers can obtain additional information from AusNet Services (or resolve issues) via the web portal, rather than over the phone or via the mail. This decreases AusNet Services' call centre costs.
- As AusNet Services has an increasingly integrated view of customers and visibility of key customer information, this can assist in reducing the number of safety incidents e.g. around violent customers or dog on premises.
- Customers can obtain additional information from AusNet Services (or resolve issues) via the web portal, rather than over the phone or via mail. This reduces the customers' time required to obtain information from AusNet Services or the time required for resolution of issues.
- AusNet Services is well placed to meet increasingly sophisticated, regulatory driven data requirements. AusNet Services has a central repository of information that it can utilise in engagements with customers to enhance customers' satisfaction, including historic customer satisfaction information.
- Customers can seamlessly engage with AusNet Services through multiple channels with an omni-channel experience, increasing their satisfaction.

Risks

There are a number of risks associated with this particular option, as highlighted in the table below. Based on the consequence and likelihood of each risk, we have rated each of the individual risks blue,

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green, yellow, orange or red (order of severity). See Attachment 1 – Risk level matrix for additional information on this rating system.

Table 4-14 Risks of option 3

	Risks	Consequence	Likelihood	Risk rating
R3.1	AusNet Service is unable to holistically map customer journeys and understand their interactions with the network.	Level 3. Continued customer dissatisfaction.	Unlikely	D
R3.2	Unable to plan for increasing DER connections resulting in increased risk of supply interruptions	Level 3. Increased risk of supply interruptions, as AusNet Services is unable to plan for the risk of exceeding network capacity in particular areas of the network.	Unlikely	D
R3.3	AusNet Services is unable to meet future, unknown, higher complexity, regulatory requirements in relation to data aggregation or access, as its current data management is not sophisticated and meets current basic requirements.	Level 4. Unable to meet regulatory requirements.	Unlikely	C

Although we have identified two low risks we have identified one medium risk therefore we consider that overall, this option is rated medium risk.

Customer related drivers of expenditure

As discussed in Section 3.4, five key customer outcomes have been identified through discussions with customers. The table below highlights the how this option will achieve these outcomes. Where we consider that a customer outcome is not directly achievable by the option or irrelevant, 'N/A' is applied.

Table 4-15 Customer drivers of option 3

Customer outcome	How this program achieves this
Deliver on the basics	This option delivers on the basics by ensuring that AusNet Services is able to meet all known upcoming regulatory rule changes
Keep me posted	This option achieves keep me posted as one of the regulatory rule changes is about improving customer access to data. The precise scope of this information is to be determined however is expected to include metering and usage information, as well as information around DER connections.

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Affordable for me	N/A
Be ready for the future	The cloud application is able to be scaled up, should AusNet Services need to manage additional customer information. This allows AusNet Services to be ready for future regulatory or customer requirements relating to data management.
Always safe	N/A

Business related drivers of expenditure

As discussed in Section 3.5, there are three business drivers that AusNet Services has identified, and is focussing on over the next regulatory period. The table below highlights how this option will input into the initiatives where relevant. Where we consider that a business driver is not directly relevant to the option, 'N/A' is applied.

Table 4-16 Business drivers of option 3

Business drivers	How this program achieves this
Lead energy transformation, embracing change	The investments described in this option will enable AusNet Services to participate in the ongoing energy transformation, as many new products and services require direct customer communication.
Drive efficiency and effectiveness throughout the portfolio	This program drives efficiency and effectiveness throughout the portfolio as AusNet Services will be able to store its customer information and transaction data centrally, expanding on the CRM systems where necessary.
Generate trust and respect with customers and partners	Better management of our customer information will help us to generate trust and respect with our customers, through better communication.

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5 Assessment and recommended option

5.1 Assessment of the options

To identify a recommended option for this program of work, we have selected a number of criteria to assess each of the options. We consider that these criteria represent a comprehensive view of each option, in achieving AusNet Services' business and customer objectives as well as requirements of the AER in ensuring that any expenditure is both prudent and efficient.

The table below summarises our assessment of each of the options against the criteria.

Table 5-1 Assessment of the options

	Option 1	**Option 2**	**Option 3**
Alignment to objective	Aligned to one program objective	Aligned to most program objectives	Aligned to all program objectives
Costs	$4.50M	$3.61M	$26.60M
Overall risk rating	High	Medium	Medium
Alignment to customer related drivers of expenditure	Low alignment (1/5)	Medium alignment (3/5)	Medium alignment (3/5)
Alignment to business related drivers of expenditure	Low alignment (1/3)	High alignment (3/3)	High alignment (3/3)

Based on this assessment, Option 2 is the recommended option. This is because:

- Option 1 only meets 1 of the 3 objectives of this program of work. It is also high risk, and despite its relatively lower cost, it also has relatively lower benefits.
- Option 3 requires significant investment (more than seven times the cost of option 2). Given that customer demand response and DER options are rapidly evolving, the optimal means for facilitating demand management which option 3 offers will evolve over the regulatory period. AusNet Services considers that it would be prudent to defer realising this benefit until the way in which these resources will be used becomes clearer, likely in EDPR FY2027-31.
- Option 2 is the lowest risk of the three options, lower cost than option 3 and aligns to 3 of the customer drivers and 3 business drivers. Because it's an evolutionary approach it allows us to tailor solutions towards customer needs as they become clearer and thus better meet the requirements that we have learned through the customer forum process. However, we would expect to evolve towards the outcome that option 3 describes in future regulatory periods.

NPV analysis

As defined in the AER Consultation Paper – ICT Assessment Approach, the AER is refining its approach to ICT assessment, requiring a disaggregation of ICT expenditure into recurrent and non-recurrent ICT expenditure.

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As this program includes 100% non-recurrent expenditure, **Table 5-2 NPV analysis ($FY21m)** below shows the NPV analysis for this program, further demonstrating the cost effectiveness of Option 2, the recommended option.

Table 5-2 NPV analysis ($FY21m)

	Costs (NPV)	Benefit (NPV)	Net benefit (NPV)
Option 1	$4.18	$0	-$4.18
Option 2	$2.77	$10.37	$7.61
Option 3	$20.02	$10.74	-$9.28

We have captured three primary benefits for this program:

- Improved employee productivity through reduced time required on customer interactions
- Reduction of customer time required on customer interactions
- Reduction of customer time and monies spent processing cheques

[C-I-C]

Based on our NPV analysis, Option 2 is the only option with a positive NPV and therefore is our recommended option.

5.2   Recommended option

Option 2, integration of CIM for required services, is the recommended option for AusNet Services for the customer information management program of work. Table 5-3 below confirms what is in scope and out of scope for this program of work, as well as the other programs of work on which the successful delivery of this program is dependent on.

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Table 5-3 Confirmation of scope of recommended option

In scope	Out of scope	Dependencies
Subscription-based CRM	Change management	
Service management	Training for staff	
Case management	Outage management and planning	
Engagement management	DER initiatives	
Customer communications	Integration of billing systems	
	Customer satisfaction measurement	
	Workforce management	
	Dispatch management	
	Phone services (IBR)	
	Internet connections for self-service	

Below in Table 5-4, we have identified techniques or actions to mitigate the risks identified for this option

Table 5-4 Option 2 risks and mitigation actions

	Risk	Consequence	Likelihood	Rating	Mitigation
R2.1	AusNet Service is unable to holistically map customer journeys and understand their interactions with the network.	Level 3	Possible	C	Continuous engagement with the customer to ensure that requirements are adequately captured and reflected in the solutions.
R2.2	Unable to plan for increasing DER connections resulting in increased risk of supply interruptions.	Level 3	Possible	C	Manual controls between siloed technology tools for DER integration and in time automating them.
R2.3	AusNet Services is unable to meet future, unknown, higher complexity, regulatory	Level 4	Unlikely	C	Early engagement across the industry with understanding of

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	requirements in relation to data aggregation or access, as its current data management is not sophisticated and meets current basic requirements.				solution capability.

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6 Attachment 1 – Risk level matrix

The figure below shows the risk level matrix to which we have assessed each of risks within the options. Risks of highest concern are rated red, whereas those of lowest concern are rated blue.

Figure 6-1

		Consequence				
		1	**2**	**3**	**4**	**5**
Likelihood	**Almost Certain**	C	C	B	A	A
	Likely	D	C	B	B	A
	Possible	E	D	C	B	A
	Unlikely	E	D	D	C	B
	Rare	E	E	D	C	C

Consequence Rating	
5	Catastrophic
4	Major
3	Moderate
2	Minor
1	Insignificant

Overall Risk Rating	
A	Extreme
B	High
C	Medium
D	Low
E	Very Low