



Customer enablement

**PAL BUS 7.02 - Customer enablement - Jan2020 -
Public**

Regulatory proposal 2021–2026

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1 Overview

Business	CitiPower and Powercor
Title	Customer enablement
Project ID	PAL BUS 7.02 - Customer enablement - Jan2020 - Public
Category	IT capital expenditure—recurrent and non-recurrent
Identified need	<p>We have identified an opportunity to enhance customer experience during 2021–2026 by:</p> <ul style="list-style-type: none"> • improving and consolidating the existing customer-facing easy access tools into a unified access point, with one username and password and the same interface • improving the effectiveness of SMS notifications during outages and introducing notifications on the efficiency of customers' rooftop solar output and exports • extending tools to HV customers and embedded generators • providing customers access to more frequent usage data to better inform their energy choices.
Recommended option	Option 2—one-stop-shop with enhanced customer experience and near real-time data
Proposed start date	2021/22
Proposed commission date	2025/26
Supporting documents	<ol style="list-style-type: none"> 1. PAL MOD 7.21 - Customer enablement - Jan2020 - Public 2. PAL MOD 12.02 - Quoted services labour rate - Jan2020 - Public

We currently have a number of tools for customers to access their data and information online. These 'easy access tools' include:

- myEnergy portal for customer energy data from their smart meters, updated every 24 hours
- mySupply portal for application and tracking of jobs that require alterations or extensions to the existing network
- eConnect portal for online lodgement and tracking of connections that do not require alterations and extensions to the existing network
- Outages View tool that provides real-time updates on outages on our network; we also send short message services (**SMS**) to customers if an outage has occurred on their distribution transformer
- online tool for reporting of street light faults.

Since these tools were implemented in 2016, over 130,000 customers have registered to use them, with the number of registrations expected to continue to grow over time. However, not all customers are able to access the tools currently, as the existing version of the tools does not support online request from high voltage (**HV**) customers and embedded generators.

The easy access tools are currently a separate set of web applications, hosted on a Salesforce platform, with their own entrance and authentication mechanism. To access each application, customers need separate usernames and passwords, and need to learn to use each tool differently. This creates customer dissatisfaction and disincentive to access information online—we have received numerous complaints through our contact centre on this issue.

To determine customer preferences and develop the best customer solutions going forward, we have conducted extensive customer research since 2017. We have spoken to more than 5,000 customers, through network-wide surveys, customer forums, deliberative workshops and interviews. Overwhelmingly, residential, commercial and industrial customers support improvement in access to their data and information, and want us to make the necessary changes that improve data access and usability. More than 80% of engaged customers supported investment in easier access to data and sharing of more data that can help them make informed energy choices.

In response to the existing limitations with our easy access tools and our customer feedback, we have identified an opportunity to enhance customer experience during 2021–2026 by:

- improving and consolidating the existing customer-facing easy access tools into a unified access point, with one username and password on the same interface for the tools (via a comparable 'Salesforce' platform)
- extending the tools to HV customers and embedded generators
- improving the effectiveness of SMS notifications during outages and introducing notifications on the efficiency of customers' rooftop solar output and exports
- providing customers access to more frequent usage data on a mobile application to better inform their energy choices.

We considered three options for addressing the identified need, as shown in table 1.

Table 1 Options analysis summary, total capital expenditure during 2021–2026 regulatory period (\$ million, 2021)

Option	IT capital expenditure
0 Do nothing—do not make any changes or improvements to the easy access tools	0
1 One-stop-shop portal and enhanced customer experience—unify the tools on a compatible Salesforce platform, extend the tools to HV customers and embedded generators, and enhance customer experience through improved online capabilities, more effective outage SMS notifications and notifications on the efficiency of customers' rooftop solar output and exports	9.52
2 One-stop-shop with enhanced customer experience and near real-time data—option 1 plus providing customers access to 15-minute interval usage data on a new phone application, as well as 4-hour data updates on the myEnergy portal	11.56

Source: Powercor

We recommend option 2—one-stop-shop with enhanced customer experience and near real-time data. While this is the highest-cost option, it offers customer benefits that outweigh the efficient cost of delivering them.

The estimated net economic benefit of option 2 is set out in table 2. The net economic benefit reflects the difference in the net present value (**NPV**) of costs and benefits over a 10 year period starting 2021/22. We have allocated the costs and benefits to each network based on their customer number share.

Table 2 Recommended option: NPV of costs and benefit for the 2021–2031 period (\$ million, 2021)

	NPV IT capital expenditure	NPV economic benefit	Net economic benefit
CitiPower	4.62	7.89	3.27
Powercor	10.78	18.41	7.63
Total	15.40	26.30	10.90

Source: Powercor

2 Background

Today's energy customers are taking a more active role in their energy choices, including how their electricity is generated, received, priced and used. Their expectations are growing regarding both the speed at which their data is available, and the ease with which they can access, analyse and act on it. Increasing price pressures and a strong sustainability focus are two key drivers for these behaviours and both are likely to remain a dominant force in the coming years.

Victorian customers are uniquely well-placed to explore opportunities available from their smart meter data. As the only state with almost 100% penetration of smart meters across residential and small business customers, Victorian customers can track and monitor their usage at 30-minute intervals today, with a progressive move to 5-minute intervals from December 2022.

Equally important is the move to online tools from the traditional paper-based administrative tasks, such as connection application processing and tracking. As the accessibility of online tools for administrative tasks grows, both our customers and our internal operations benefit from the implementation of those tools. These tools also benefit our customers' suppliers, such as electricians and rooftop solar installers, who carry out applications on the customers' behalf.

2.1 Our existing easy access tools

Since 2016 we have implemented a number of online tools to assist customers in accessing their data and processing applications. These tools support more than 130,000 registered users, with the number of users expected to continue to grow in the future. We estimate around half our existing customers will be registered for the easy access tools by 2026, based on the growth in numbers from 2016 to 2019.

The summary of the existing tools and their capabilities is outlined in table 3.

Table 3 Easy access tools descriptions

Easy access tool	Registered users	Description
myEnergy portal	84,600	<p>myEnergy is an online portal with an energy monitoring dashboard which enables our customers to monitor their usage and download data to compare retail offers. The data is updated every 24-hours, allowing customers to track their data from up to the day before. By tracking their usage customers can identify usage and export trends (for customers with solar exports), and potentially isolate tracking of appliances that create outliers</p> <p>myEnergy is also linked to the Victorian Government's Energy Compare website, allowing customers to link their usage data when comparing offers</p>
mySupply portal	33,000	<p>mySupply is an online portal that allows customers to submit applications for a variety of augmentation works, including:</p> <ul style="list-style-type: none"> • upgrades or extensions to the existing networks, for example for a new estate • relocations of poles, service pits or street lights • upgrades required to connect renewables, such as solar or wind farms <p>Through mySupply, customers, developers, and registered electrical contractors can view and monitor the status of their applications. mySupply also has a Quick Calculator online tool that provides a ball-park estimate for simple new supply and relocation requests</p> <p>Customers also need to request a 'no go zone' assessment through mySupply. A no go zone assessment is used when a customer or their representative is completing work in the vicinity of our assets, whether underground or overhead</p>
eConnect portal	18,200	<p>eConnect is an online portal for customer connections that do not require any alterations to the existing network. This includes new home connections, solar rooftop connections, meter investigations, alterations and abolishment requests</p> <p>A customer or registered electrical contractor can track and monitor the progress of their requests, update and cancel requests and book appointments online</p>
Outage View	Unmetered access	<p>Outage View is an online tool that provides the following information in case of an outage:</p> <ul style="list-style-type: none"> • a map of affected areas, searchable by location or postcode • information on the nature of the outage (cause, and whether planned or unplanned) • an estimate of the time to service restoration • contact details, should the customer require further information or assistance <p>We also send out SMS notifications for outages to customers who have provided their mobile phone numbers to us.</p>
Street light reporting	13,500 reported incidents in 2018	<p>We are responsible for the maintenance of the street lights in our network areas. We have developed an online tool for our customers to report a street light fault they identify. This enables quicker fault restoration times.</p>

Source: Powercor

2.2 Limitations of existing easy access tools

Table 4 highlights the key limitations of the existing easy access tools and how they impact our customers.

Table 4 Limitations of existing easy access tools

Limitation	Description	Customer impact
Separate interfaces, access points and username/password	<p>Customers must access various sections of the website (and/or download multiple phone applications), to access various data and information on their account</p> <p>Each access point and/or application has a different username/password and different user interface (look and feel), with no synergies for the customer</p>	<p>Customers spend unnecessary time and effort navigating multiple sections of the website and phone applications to find information and make requests</p> <p>Customers must get used to various interfaces and usernames/passwords, creating unnecessary frustration and loss of time and efficiency</p>
Limited communication pathways and analytics	<p>Customers can only contact us through email or the contact centre. There are no 'artificial intelligence' (AI) tools, such as an automated online chat tool, to assist customers who require information accessible through AI (e.g. status of application)</p> <p>There are also no analytics of communication between our customers and the contact centre, or online, such as analysis of on-going customer issues and opportunities to develop solutions to proactively mitigate issues</p> <p>There are no AI tools to assist customers use our website</p>	<p>Customers are not able to use communication pathways other than email or phone contact to communicate with our staff, resulting in time wasted and potential frustration if information not accessed immediately</p> <p>We are unable to assess common or on-going customer issues quickly and effectively, for example if a number of customers call in about the same issue at the same location, limiting us from proactively developing common solutions that save customers time and effort and deliver better outcomes</p>
No automated status checking	<p>Customers can only in limited circumstance check the status of their application or request online. In most cases the existing tools do not provide application or request status online</p>	<p>To check and track the status of their application or request customers must either email us or call us through the contact centre</p> <p>This can result in significant waste of time for customers, particularly important for commercial customers and developers</p> <p>It can also lead to customers' delays in project planning without the easy access to status updates</p>
Manual connections processing for HV customers and embedded generators	<p>Connections processes for HV customers and embedded generators are paper-based, due to their complexity. Neither mySupply or eConnect portals currently support these complex connection applications</p>	<p>Time is paramount to commercial customers and the manual connections processing can result in significant waste of time with regard to application lodgement, as well as tracking and approval</p> <p>Any delays in the connection due to application processing can have significant commercial impacts</p>
SMS notifications on outages	<p>All customers connected to a distribution substation get notification of an outage that affects some customers at that distribution substation (an SMS when an outage starts and another when it ends), rather than just the customers experiencing an outage</p>	<p>Customers who receive an SMS but do not have an outage may be confused and unsure if there is an outage somewhere at their property</p> <p>Some customers would call the contact centre to confirm an outage which is a waste of their time</p>

Source: Powercor

2.3 Our customers' preferences for data and information access

Throughout our customer research since 2017, we have tested customer preferences for use of their smart meter data and preferences for ease of access of various information on their account that we can provide. We spoke to more than 5,000 customers about these preferences, including surveyed residential and business customers, select customer groups in deliberative forums, and interviews with commercial and industrial (C&I) customers and industry groups.

The overall feedback indicates customers are interested in getting easier and faster access to their data, and would prefer closer to real-time data to help them make informed decisions. Around 80% of engaged customers saw benefit in better access to their data and increasing data frequency.

2.3.1 Feedback from the deliberative forum

In 2018 we held a deliberative customer forum with around 80 customers for each network. When asked about preferences on data usage, CitiPower participants liked the idea of having access to real time data. They envisioned being able to see easy-to-understand data that displayed information about their power usage of separate appliances within the home plus time-of-day statistics and pricing. This in turn could potentially lead to lifestyle changes. Those in larger households were more likely to use the data, and it was also noted that this data could be very useful for 'share households'. Keypad voting showed that interest in using real time energy use was high, with 73% indicating they were 'very' or 'quite' likely to do so.

However, there were mixed opinions as not everyone felt they would be able to change behaviours based on real time data. A quote from one customer summarises the overall feedback received:

Only if it's easy to use... it needs to be effective!

Powercor customers welcomed the idea of having access to real time data. Keypad voting showed that 55% of forum attendees were 'very' likely to use real time data and another 24% were 'quite' likely to do so. Being able to identify the largest consuming appliances was thought to be the primary use of this data in the short term. Over the long term, participants felt that any usage data would have to provide very clear advice on options to better manage demand at the level of the individual household or business premise.

2.3.2 Feedback from the Investment Options forum

Later in 2018 we held an Investment Options forum with a group of more targeted customers who attended the deliberative forum. The forum was to test different options on improving customer access to data. We tested the following options in the forum, including the estimate of bill impact of each option:

- option 1—no change to customer portals or service
- option 2—invest in a 'one-stop-shop' for all customer energy information and enhance customer experience
- option 3—option 2 as well as the ability to access real time usage data.

Table 5 shows the level of support for each option.

Table 5 Voting results at the Investment Options forum for options on making it easier for customers to use their energy data to make informed choices'

Option	CitiPower	Powercor
Option 1—no change to customer portals or service	3	13
Option 2—invest in a 'one-stop-shop' for all customer energy information and enhance customer experience	13	16
Option 3—option 2 as well as the ability to access real time usage data	15	8

Source: Powercor

We tested the same options with our C&I customers and industry groups. The majority liked the idea of a 'one stop shop' energy portal. Some favoured option 2 with its capacity to give customers 'next day insights to usage data' and save some of the capital investment that would be needed to deliver option 3. However, others saw option 3 potentially delivering business insights and value beyond a single asset or site:

If it could show our whole site portfolio with aggregate usage across sites, give large customers the ability to gather information about outages, put through an electrical works request to do a site modification and/or abolish a site through the portal, then it would make sense.

Hospital and health facilities also saw value in option 3 if it gave them the opportunity to disaggregate energy usage data:

By looking at real time data, I'd hope that we could look at various metered buildings in more depth to get a better understanding of the lines that use the most power and whether we could do anything more internally to manage our consumption.

Summary comments by business/industry bodies on the options and value of real time data access underlined the growing expectation of greater transparency and information sharing with customers.

2.3.3 Feedback from residential and small and medium enterprise (SME) network-wide surveys

We conducted two network-wide surveys to residential customers and two surveys to SMEs during 2018 and 2019. The surveys reached around 1,500 customers, with whom we tested customers' appetite for real-time data. Around 63% of residential customers were interested in accessing real-time data, while that share was lower with SMEs, at 45%. Residential customers were interested in real time data to monitor usage and adjust behaviour (around 54% of those interested in the data), and to see what appliances are using the most electricity (44% of those interested). SMEs were also interested in measuring differences in usage to the same time the years prior.

We have based our options analysis on the collected feedback from various sources and customer bases. The feedback was clear that customers want easier access to their data and support consolidation of existing data sources into one accessible portal. While there were mixed opinions about the usability of real-time data, we felt our customers' expectations are growing over time and providing 'next day' time would not satisfy customer appetites for data in the future as data accessibility improves. However, customers may be satisfied with near real time data, rather than real time data that is prohibitively costly to deliver.

3 Identified need

In response to the existing limitations with our easy access tools and our customer feedback, we have identified an opportunity to enhance customer experience during 2021–2026 by:

- improving and consolidating the existing customer-facing easy access tools into a unified access point, with one username and password on the same interface for the tools (via a comparable 'Salesforce' platform)
- extending the tools to HV customers and embedded generators
- improving the effectiveness of SMS notifications during outages and introducing notifications on the efficiency of customers' rooftop solar output and exports
- providing customers access to more frequent usage data on a mobile application to better inform their energy choices.

3.1 We are best placed to address the identified need

As we are the smart meter data providers in Victoria, and our customers have direct contact with us for their connections, extensions, alterations and other work on the network, we are best placed to offer these benefits for our customers. We are the independent source of truth with regard to our customers' usage data and how it may impact their retail bill—we do not have incentives to package this data into retail products. Our objective is to provide customers with information that will help them make informed decisions, including switching retailers.

Additionally, as we have access to all meter data across our network, we have economies of scale in providing our customers with their usage data. We can also provide insightful analytics and comparisons to customers with similar usage patterns, which is only doable by having visibility of the full customer base.

4 Options analysis

Table 6 provides a summary of the total capital expenditure and net economic benefit over the 2021–2031 period for each of the identified options.

Table 6 Options analysis summary, CitiPower and Powercor, costs and benefits during 2021–2031 (\$ million, 2021)

Option	NPV capital expenditure	NPV economic benefit	Net NPV economic benefit
0 Do nothing—do not make any changes or improvements to the easy access tools	0	0	0
1 One-stop-shop portal and enhanced customer experience—unify the tools on a compatible Salesforce platform, extend the tools to HV customers and embedded generators, and enhance customer experience through improved online capabilities, more effective outage SMS notifications and notifications on the efficiency of customers' rooftop solar output and exports	12.74	16.08	3.34
2 One-stop-shop with enhanced customer experience and near real-time data —option 1 plus providing customers access to 15-minute interval usage data on a new phone application, as well as 4-hour data updates on the myEnergy portal	15.40	26.30	10.90

Source: Powercor

4.1 Option 0—do nothing

This option involves maintaining the existing easy access tools, with the current limited capabilities. The advantages and disadvantages of this option are set out in table 7.

Table 7 Advantages and disadvantages of option 0

Option	Advantages	Disadvantages
No common interface and access point	Low cost to customers	<p>Customers spend unnecessary time and effort navigating multiple sections of the website and phone applications to find information and make requests</p> <p>Customers must get used to various interfaces and usernames/passwords, creating unnecessary frustration and loss of time and efficiency</p>
No AI tools	Low cost to customers	<p>Customers are not able to use communication pathways other than email or phone contact to communicate with our staff, resulting in time wasted and potential frustration if information is not readily accessible</p> <p>We are unable to assess common or on-going customer issues quickly and effectively, for example if a number of customers call in about the same issue at the same location, limiting us from proactively developing common solutions that save customers time and effort and deliver better outcomes</p>
No automated status checking	Low cost to customers	<p>To check and track the status of their application or request customers must either email us or call us through the contact centre</p> <p>This can result in significant waste of time for customers, particularly important for commercial customers and developers. or can only have limited or no ability to visually track the progress of their requests</p> <p>It can also lead to customers' delays in project planning without the easy access to status updates</p>
Manual connections processing for HV customers and embedded generators	Low cost to customers	<p>Time is paramount to commercial customers and the manual connections processing can result in significant waste of time with regard to application lodgement, as well as tracking and approval</p> <p>Any delays in the connection due to application processing can have significant commercial impacts</p>
No change in SMS outage notifications	Low cost to customers	<p>Customers continue to receive SMS notifications unnecessarily if there is no outage at their property, causing potential confusion and time wasted investigating the situation</p>
No change in frequency of usage data provided to customers	Low cost to customers	<p>Customers must wait 24 hours to access their usage data, which prevents them from making on-the-spot decisions about altering their usage. This can result in higher costs in the long-term</p> <p>Third parties are not able to provide meaningful products to customers based on analysis of 24-hour old data</p>
No mobile application for usage data	Low cost to customers	<p>Customers must have access to the online portal, rather than an easily accessible mobile phone application. This can stifle the use of the data and disincentives customers from getting engaged in monitoring their usage</p>

Source: Powercor

4.2 Option 1—one-stop-shop portal and enhanced customer experience

Under this option, the easy access tools would be standardised, consolidated and enhanced to improve customer experience and extended to HV customers and embedded generators. There would be a new AI capability to online chat with customers and the existing tools would be enhanced to provide more information

online. We would also improve SMS notifications on outages and introduce notifications on the effectiveness of customers' rooftop solar output and exports. The following are the initiatives of option 1:

- a single interface for all customer online interaction, with the same look and feel for any requests and a single access point for all easy access tools. This one-stop-shop would include customer-specific planned and unplanned outage information, communication and notification preferences, and request status, milestones, dependencies, delays and target dates for any in-progress requests
- enhanced myEnergy portal to provide data analytics, summarised data results and push notifications for specified usage patterns. This includes notifications on whether the solar rooftop panels are performing as expected or if there are unusual trends in hot water control load indicating a potential leak
- new tool for supply and connection request for HV customers and embedded generators. The new tool would support a case-by-case review of applications and assessment to ensure compliance with technical standards and management of required network changes
- AI-based speech analytics tool, website tool and virtual/online chat tool. Speech analytics would allow capture of contact centre calls to recognise patterns and common themes quickly and effectively, allowing us to develop proactive solutions before some customers have to contact us about it. The online chat bot would provide customers with automated responses where appropriate and preferred, collecting information on all customer interaction through the chat for easy access to contact centre staff if required. The AI website tool would assist customers in finding the information they are searching for on the website in first instance
- new SMS validation tool that can identify customers without supply at a distribution substation during an outage, by pinging each customer's meter at that substation and sending out notifications only to customers who's meters could not be successfully pinged (indicating the customer is off supply)
- new tool that will perform a 'health check' on the customer's rooftop solar system, including assessing exports to recognise trends that indicate a degradation of the system (e.g. dirty panels) and when tripping has occurred.

The advantages and disadvantages of this option are set out in table 8.

Table 8 Advantages and disadvantages of option 1

Category	Advantages	Disadvantages
Single interface and access point	<p>Enabling customers ease of access to all their data would improve their engagement and understanding in the sector, leading to more informed choices</p> <p>Ease of access and convenience would lead to saved time and effort</p> <p>A single interface would also enhance customer experience by allowing them to select the level of communications, notification and information they want and need</p>	Upfront capital cost with ongoing maintenance costs
Data analytics and push notification in myEnergy	<p>Providing data analytics and insights would strengthen customer understanding of their usage trends, allowing them to manage usage and make more informed choices</p> <p>Ease of presentation of key metrics will save customers time and effort in deducing the same information for themselves, or paying third parties to provide the analysis</p> <p>Access to more useful information that can be shared with the Victorian Energy Compare website is likely to increase the usability and readability of the website, resulting in more customers comparing offers and potentially switching retailers</p>	Upfront capital cost with ongoing maintenance costs
Automated status checking and AI tools	<p>Reduction in time and effort customers spend speaking to contact centre staff, and an overall reduction in calls to the contact centre</p> <p>Faster proactive development of solutions for customers with similar queries, based on similar queries detected and analysed from contact centre calls</p> <p>Majority of requests on mySupply or eConnect are from commercial entities, whether property developers or electricians on behalf of customers. A time saving for commercial entities would ultimately be passed onto customers through lower prices for their service</p> <p>Automated status updates would also lead to improvement in job planning by customers and commercial entities</p>	Upfront capital cost with ongoing maintenance costs
Online tool for HV customers and embedded generators	<p>Significant improvement to HV customers' and embedded generators' experience in time and effort saved from not having to fill out manual applications</p> <p>Efficiencies in our operations from automating a manual task</p> <p>Improvement in safety outcomes as all safety requirements are automated and less subject to human error</p>	Upfront capital cost with ongoing maintenance costs
Targeted SMS outage notifications	<p>More targeted SMS outage notifications would reduce customer confusion when receiving notifications of an outage without an outage, and save customers time and effort in investigating the situation</p> <p>Efficiencies in our operations from reduced calls to the contact centre</p>	Upfront capital cost with ongoing maintenance costs

Notifications on the 'health' of the customers' rooftop solar system	Customers would be able to make more informed decisions about their rooftop solar systems, including when the systems should be cleaned, serviced or upgraded	Upfront capital cost with ongoing maintenance costs
No change in frequency of usage data provided to customers	Low cost to customers	Customers must wait 24 hours to access their usage data, which prevents them from making on-the-spot decisions about altering their usage. This can result in higher costs in the long-term Third parties are not able to provide meaningful products to customers based on analysis of 24-hour old data
No mobile application for usage data	Low cost to customers	Customers must have access to the online portal, rather than an easily accessible mobile phone application. This can stifle the use of the data and disincentives customers from getting engaged in monitoring their usage

Source: Powercor

4.2.1 Quantification of benefits of option 1

Customers benefit from saved time and effort in accessing their information and receiving more targeted notifications about outages and their solar rooftop systems. Our estimate of the time saving for the average customer under option 1 is based on the avoided calls to the contact centre, avoided multiple website searches and multiple log-ins, and avoided time in investigating incorrect SMSs. We have also estimated the value of time of the average customer, to calculate the total value of saved time to customers (for details on our customer benefit analysis refer to supported documents).

There will also be modest operating efficiencies from this investment. The savings will come from fewer calls to the contact centre and fewer administration staff responding to customer queries and complaints (for details on our operational benefit analysis refer to supported documents).

The total net economic benefit from option 1 is shown in table 9. This includes the customer benefits from time savings and the operating efficiencies that will result in lower cost and network prices in the future. The net economic benefit reflects the difference in the NPV of costs and benefits over the 10 year period starting 2021/22. We have allocated the costs and benefits to each network based on their customer number share.

Table 9 Net economic benefits from option 1 for the 2021–2031 period (\$ million, 2021)

	Net economic benefit
CitiPower	1.00
Powercor	2.34
Total net economic benefit from option 1	3.34

Source: Powercor

4.3 Option 2—one-stop-shop with enhanced customer experience and near real-time data

This option includes the initiatives in option 1 as well as:

- development of a bare-bones user friendly mobile phone application that can easily be accessed and used by our customers, retailers or third parties
- 4-hourly usage data updates on the myEnergy portal (increasing the frequency from every 24 hours)
- 15-minute data updates on the mobile phone application.

This option will deliver all customer benefits of option 1, as well as provide our customers, retailers and third parties an opportunity to use more frequent usage data to make more informed decisions, develop products for the customer, or assist the customer in making informed decisions. Any use of the more frequent usage data by retailers or third parties would only be with the permission of the customer.

Option 2 allows for development of a bare-bones mobile phone application with a sole purpose of providing updates on usage data. We understand customers may wish this data to be in a more sophisticated application that perhaps links usage data to prices. That is why we propose to develop a bare-bones only application that retailers can easily link to their applications to provide a more comprehensive product that is linked to the customer's bill. Also, if customers give permission to third parties to develop products for them, third parties would also be able to easily access and link our application to their products. While the proposed application would be bare-bones, it would still be user friendly and easy to access by our customers.

We consider near real-time data a suitable compromise between: 1) providing usage data in real time directly from the meter and 2) only providing data every 24 hours once validated and transformed to data insights.

Meter data is transported from the meter to our IT systems before it is shared with customers. Each time data is transported there are six times as many pieces of information in each data transport compared to usage data (i.e. identification metrics such as meter number, location, etc.). To reduce the unnecessary communications network bandwidth to repetitively transport these identification metrics, we currently only transport the meter data every 4-hours today (with a progressive move to 15-minute updates by 2024/25). Transporting usage reads in real-time would require grossly disproportionate bandwidth of mesh communications.

To strike a reasonable balance between the cost of delivering option 2 and delivering customer benefits, we have selected the following intervals for frequency of data updates:

- 4-hours for the myEnergy portal from 2023/24
- 15-minutes for the mobile phone application from 2024/25.

We consider the 15-minute intervals on the mobile phone application will give customers reasonable confidence in understanding their usage patterns as they occur, while the myEnergy portal will be a tool for data analytics and data insights which are not necessary in real-time. A summary of the advantages and disadvantages of this option, as incremental to Option 1, is provided in table 10.

Table 10 Advantages and disadvantages of option 2 (incremental to Option 1)

Category	Advantages	Disadvantages
Near real-time data provided to customers	<p>Customers can monitor their usage in near real-time and make on-the-spot decisions about altering their usage. This can result in lower costs in the long term as customers become more energy efficient and aware of their usage</p> <p>Third parties or retailers would be able to use the mobile application to provide meaningful products to customers based on near real-time terms, such as demand response or demand management initiatives</p> <p>Customers who do not wish to monitor their usage data in near real-time terms can access their data and insights on our myEnergy portal, providing them useful and insightful summaries every 4 hours</p>	Upfront capital cost with ongoing maintenance costs
Development of bare-bones mobile phone application	<p>Customers are likely to become more engaged and incentivised to monitor their usage data on an easily accessible and user-friendly mobile phone application. This in turn is expected to lead to better usage management and opportunities to lower energy costs in the future</p> <p>By making the mobile phone application bare-bones, retailers and third parties (with customers' permission) can easily link and integrate the application into their applications and products, reducing their costs of developing the application and reducing long-term costs to consumers</p>	Upfront capital cost with ongoing maintenance costs

Source: Powercor

4.3.1 Quantification of benefits of option 2

The operational efficiencies would be the same under option 1 as providing near real time data would not result in any further savings in our operations.

However, customer are expected to save even more time and effort with access to near real-time data on a mobile application, by not having to access and log into the online portal to get the updates. Our estimate of the time saving for the average customer under option 2 is explained in PAL MOD 7.21 - Customer enablement - Jan2020 - Public. We consider this to be a conservative estimate and that the actual benefits are likely to be higher, as we have not estimated savings from customers changing behaviour through having access to near real time data monitoring.

The total net economic benefit from option 2 is shown in table 11. This includes the customer benefits from time savings and the operating efficiencies that will result in lower cost and network prices in the future. The net economic benefit reflects the difference in the NPV of costs and benefits over the 10 year period starting 2021/22. We have allocated the costs and benefits to each network based on their customer number share.

Table 11 Net economic benefits from option 2 for the 2021–2031 period (\$ million, 2021)

	Net economic benefit
CitiPower	3.27
Powercor	7.63
Total net economic benefit from option 2	10.90

Source: Powercor

5 Recommendation

We recommend option 2—one-stop-shop with enhanced customer experience and near real-time data. While this is the highest-cost option, it offers the highest customer benefits that outweigh the efficient cost of delivering them.

Option 0—do nothing, is not recommended as it is not in the long-term interest of consumers and it does not deliver any customer benefits.

Option 1—one-stop-shop and enhanced customer experience, is not recommended as it does not maximise on the opportunity to improve customer outcomes and increase customer long-term benefits.

Table 12 summarises the expenditure proposal for our recommended option 2. We have allocated the costs to each network based on their customer number share.

Table 12 Recommended option: IT capital expenditure for 2021–2026 regulatory period (\$ million, 2021)

IT capital expenditure	2021/22	2022/23	2023/24	2024/25	2025/26	2021–2026
CitiPower	0.63	0.46	1.47	0.76	0.15	3.46
Powercor	1.46	1.08	3.44	1.77	0.34	8.09
Total IT capital expenditure	2.09	1.54	4.91	2.53	0.49	11.56

Source: Powercor