



Payment Difficulty Framework

ASSESSMENT OF CUSTOMER IMPACTS

**Report for the Essential Services
Commission of Victoria**

September 2017

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In preparing this report, we have had access to information provided by other consultants engaged by the Essential Service Commission and publicly available information. We have relied upon the truth, accuracy and completeness of any information provided or made available to us in connection with the Services without independently verifying it. The publicly available information used in this report is current as of September 2017. We do not take any responsibility for updating this information if it becomes out of date.

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Contents

Executive Summary	4
1 Introduction	15
2 Identification of customer impacts	21
3 Modelling methodology and assumptions	24
4 Quantification of customer impacts	28
5 Qualitative assessment of other customer impacts	55
Appendix – Reference material	61

Executive Summary

The Essential Service Commission of Victoria (ESC or the Commission) has developed a new regulatory framework of minimum standards of assistance for customers experiencing payment difficulty. This follows an amendment to Victoria’s energy industry legislation to include a new objective for the ESC to promote protections for customers, including in relation to assisting customers who are facing payment difficulties.

The Victorian Government’s decision to include this new objective was in response to the Commission’s inquiry into energy hardship, *Supporting Customers, Avoiding Labels* which was completed in February 2016. This inquiry found that energy company hardship programs are not preventing customers from accumulating large debts, or being disconnected. The inquiry also found that customers are not getting the assistance they need, and many of the current rules cannot be enforced.

To assist in its considerations of the new regulatory framework for payment difficulties, the Commission has engaged KPMG to provide an evaluation of the potential impacts on customers under the final design of the framework. The purpose of this evaluation is to gain an understanding of the extent of any impacts – in terms of changes in either costs or savings – for customers under the new framework and a range of factors and circumstances which will influence the magnitude of those impacts.

Energy is an essential service through which we heat and cool our homes, cook, and connect with our communities via technology. The circumstances under which a customer encounters payment difficulties are likely to be unique to that individual customer, and therefore the costs and stress that they face will differ across customers.

Evaluation of the customer impacts is therefore dependent on a number of assumptions including considering how customers and retailers could change their behaviour and practices under the new framework.

This final report follows on from our preliminary paper which offered stakeholders the opportunity to provide feedback and input in regards to our approach and methodology, including validation of key assumptions. As part of our final report we have documented our approach to examining the potential average impacts, and our methodology, assumptions and estimates for any impacts which are considered to be quantifiable with a reasonable level of confidence taking into consideration stakeholder feedback.

Our approach

The evaluation of the customer impacts under the new Payment Difficulty Framework (PDF) is based on the potential incremental change in customers’ financial and non-financial positions under the introduction of the new framework as compared to continuation of the current arrangements. We have conducted this evaluation based on the final design of the framework presented in the Commission’s Final Decision, having previously reviewed the Commission’s New Draft Decision in preparing our preliminary assessment.

We did not seek to provide a precise estimate of the likely magnitude of customer impacts under the new framework. There are number of reasons for this:

1. Given the personal nature of impacts of customers experiencing financial difficulties and the assistance arrangements, a number of customer impacts cannot be quantified.

2. For those financial impacts which can be quantified, the potential monetary impact will be heavily dependent on a range of assumptions relating to potential retailer and customer behaviour under the new frameworks. Therefore it will be difficult to provide with any level of reasonable certainty a credible single estimate of potential customer impacts.

For that reason we have presented the quantitative financial estimates under a range of three different scenarios – low, base case and high. Importantly these scenarios in no way represent ‘boundaries’ of the potential impacts to customers. Actual customer impacts may fall outside of these ranges based on individual circumstances and responses following introduction of the PDF. Instead the range of scenarios presented herein are to represent the sensitivity of the quantifiable impacts to changes in the assumptions.

3. There is likely to be wide dispersion of impacts across customers. The impacts for a customer experiencing financial stress and energy affordability issues will be dependent on that customers’ own circumstances and preferences. Hence providing a single estimate based on an assumed representative customer may not fully reflect the value of the changes in those impacts experienced under the new framework.

Instead, we have approached this evaluation to provide an independent and credible explanation and assessment of the potential range of customer impacts and to evaluate the potential materiality of such impacts, while identifying the factors which will influence the materiality of each impact.

The Commission has engaged ACIL Allen Consulting (ACIL) to provide an evaluation of the impacts on retailers under the proposed new framework. Our analysis complements ACIL’s evaluation and focuses on the range of impacts to customers who participate under the new framework as well as broader societal impacts which may not be directly applicable to any one specific customer or group of customers.

We have sought to be consistent with ACIL’s assumptions and modelling approach where relevant. In addition, how retailers would pass through the direct financial impact of the new proposed framework onto customers is being considered separately by the Commission, informed by the ACIL analysis. This was not part of our scope.

The Commission requested that we undertake an evaluation of the impacts of the PDF on customers both qualitatively and where appropriate quantitatively. We approached this task through the following steps:

- 1 Identifying and describing the range of potential impacts on customers following the implementation of the PDF;
- 2 Developing a framework and methodology for evaluating those impacts;
- 3 Estimating those impacts which are reasonably able to be quantified;
- 4 Establishing a qualitative assessment of other customer impacts; and
- 5 Evaluating a number of case studies of individual representative customer circumstances to better understand the potential impacts under the PDF.

As noted above, the actual changes to customers under the introduction of the new PDF will depend both on how retailers decide to apply and operate the arrangements, as well as customer behaviour under the new framework relative to current arrangements. Our analysis should not be interpreted as attempting to forecast these factors; instead, the purpose of our evaluation is to improve understanding on what would drive changes for customers under the new framework.

The Payment Difficulty Framework

The purpose of the PDF as presented by the Commission is to:

“...set out the minimum standards of assistance to which residential customers anticipating or facing payment difficulties are entitled, so that disconnection of a residential customer is a measure of last resort.”¹

The Commission has sort to place greater emphasis on customers staying in contact with their retailer during times when they experience payment difficulties. In doing so, a customer may weigh up his or her options having received practical and relevant information in relation to their energy use, billing history and payment options. A customer is provided every possible chance to identify the best course of action for their individual circumstances in order to continue paying for their ongoing energy supply as well as any arrears which may have accrued – thereby ensuring disconnection is a last resort.

Two tiers of assistance – standard and tailored – are to be provided by a retailer to those customers experiencing payment difficulties. These tiers are seen as the minimum standard and do not prevent a retailer from providing additional assistance above each proposed tiers. A customer is expected to move from receiving one form of assistance to another as their individual circumstances improve or as additional support is deemed necessary. Each assistance is to include:

- **Standard Assistance:** requires retailers to make available to customers alternative payment arrangements for paying their energy bills in order to help the customer avoid getting into arrears.² Retailers are also required to make certain basic information available to all customers, including information about lowering energy costs and about types of assistance provided by government and non-government bodies.
- **Tailored Assistance:** requires a retailer to make available flexible and practicable assistance that makes it easier for a customer to repay their arrears and lower their energy costs. This includes, for example: repayment of arrears over a period of up to 2 years (or longer if agreed to by the retailer) by payments at regular intervals of up to one month; specific advice about the likely cost of a customer’s future energy use and how this cost may be lowered; specific and timely advice about any government and non-government assistance (including a Utility Relief Grant) available to help a customer meet their energy costs; and various practical assistance measures.

Influences of customer impacts

Our analysis has identified five main influences which will materially drive the magnitude of the changes experienced by customers under the new framework. These influences are discussed in detail in this paper and are summarised in the table below, including our approach to evaluating these factors.

Table 0-1. Customer impacts and influences

Influence	Description	Evaluation Approach
1. Customer participation time	The time required for customers to search for information, familiarise and understand the options and then make a decision under the new framework.	We have provided estimates on the potential savings based on: <ul style="list-style-type: none"> • value of time of \$39.30 per hour which is the ABS Victorian average earnings; and

¹ Essential Services Commission 2017, Payment difficulty framework: Final decision (forthcoming)

² Specifically, retailers are to make available from a list of five alternative payment arrangements a minimum of three for those customers requiring standard assistance.

Influence	Description	Evaluation Approach
		<ul style="list-style-type: none"> a range of scenarios on different assumptions on the potential changes in time spent under the PDF compared to current arrangements. <p>Our analysis is based on the assumption the percentage of people receiving assistance remains constant at five percent over the modelling period.</p>
<p>2. Number of affected customers accessing new forms of assistance under the framework such as tariff switching and energy efficiency</p>	<p>The new framework seeks to provide better access to alternative forms of assistance, such as energy efficiency measures, and advice to move to a lower retail tariff (for both electricity and gas).</p> <p>The extent to which a number of customers benefit from these forms of assistance under the new framework than would not have done otherwise will influence the potential savings.</p> <p>Any savings for customers under these forms of assistance will be permanent in the sense that if a customer either moves to a lower tariff or implements energy efficiency, then the customer will continue to benefit irrespective of whether the customer continues to be in financial difficulties.</p>	<p>We have provided initial estimates based on scenarios of either 2.5%, 5% or 7.5% of eligible customers entering tailored assistance who would benefit from these measures.</p> <p>We provide separate estimates for either tariff switching or energy efficiency using the same assumptions on customer numbers.</p> <p>The average savings for customers under the tariff switching measures has been estimated to be 60% of the difference between the standing offer and lowest generally available market offer.</p> <p>The average savings for customers under the energy efficiency measures has been based on analysis conducted for a review of the Victorian Energy Efficiency Target (VEET) Scheme.</p>
<p>3. Changes in average arrears under the new framework</p>	<p>The extent to which the new framework results in changes to customer average arrears through potentially providing more effective assistance earlier in the difficulties situation will influence the extent of customer impacts.</p>	<p>Analysis of the impact on customer average arrears levels has been provided by ACIL.</p> <p>KPMG has not modelled this.</p>
<p>4. Average unit cost of being disconnected</p>	<p>If the new framework results in changes to the disconnection numbers caused by financial difficulties, the materiality of this customer impact will be influenced by the unit cost incurred by a customer experiencing disconnection.</p> <p>The unit cost should reflect the loss in value the customer experiences when they are no longer able to use energy. Given the essential nature of energy, considering the appropriate measure of the cost of disconnection should reflect the costs that a customer would have to pay in order to replicate the economic value of having an energy supply (i.e. comfort, convenience, heating, cooking).</p>	<p>We have not attempted to provide an estimate of the costs incurred from being disconnected. Rather, we have identified a number of different metrics which relate to how customers value their energy connection in certain cases, or which are considered to be appropriate compensation when a customer temporarily loses supply. These include:</p> <ol style="list-style-type: none"> The daily wrongful disconnection payment– currently \$500 per day, The value of customer reliability (VCR) measure for Victorian residential customers – approx. \$280 per day (electricity only), The ESC Guaranteed Service Level (GSL) payments – approximately \$144 per day (electricity only), and

Influence	Description	Evaluation Approach
		<p>d) The cost charged by a retailer to a customer for consuming electricity at their premise on a given day. Estimated to be approximately \$4 per day.</p> <p>We have provided some sensitivity analysis on the potential aggregated impact of disconnections based on a broad range for the estimated financial cost per disconnection for payment difficulty of between \$4 per day (average retail tariff) and \$500 per day (wrongful disconnection benchmark).</p>
<p>5. Ombudsman and financial support group costs</p>	<p>Any changes resulting in the costs incurred by either the Ombudsman in dealing with financial difficulties or the financial counsellor sector of providing services relating to energy debts and hardship, including access to concessions and payment plans, will influence the extent of customer impacts under the new framework.</p> <p>Any reduction in costs could result in customer benefits as it would allow these finite resources to be directed towards addressing other societal needs.</p>	<p>We have quantified this impact based on an estimate of the current costs of these organisations and a range of scenarios relating to assumptions on how these costs could change.</p> <p>Our current assumption is that costs could increase in the initial period following introduction of the framework but then decrease later in the modelling period.</p>

These influences are primarily related to the financial aspect of customer experiences during payment difficulties. There are also indirect and unquantifiable costs resulting from financial hardship, such as stress and other health impacts, changes in personal credit ratings and impacts on family and friends who may be assisting a customer in hardship. While these also represent costs to society that are associated with energy affordability, they are impossible to estimate. For the purposes of this report, we have therefore not attempted to quantify indirect or unquantifiable costs.

Five percent of customers are currently receiving some form of assistance (approximately 125,000 customers currently). Consistent with ACIL’s approach, our analysis is based on the assumption the percentage of people receiving assistance remains constant at five percent over the modelling period. Any change in this assumption, for example due to changes in economic conditions, leading to an increase or decrease in the percentage of customers requiring assistance will change the value of customer impacts under the new framework.

Assumptions

KPMG has completed high and low sensitivity analysis relative to our base case assumptions of the potential quantifiable impacts to customers. Our base case assumptions and those supporting each sensitivity are described in Table 0-2 below. As noted above these scenarios in no way represent ‘boundaries’ of the potential impacts to customers and instead represent sensitivities of changing the assumptions. Actual customer impacts could fall outside of this range.

Table 0-2. Assumptions for scenarios used in quantifying customer impacts

Impact	Low	Base Case	High
Customer participation	10% increase in time incurred for all customers participating under PDF compared to the base case assumptions	<p>All forecast standard assistance customers are new in the year. 1/3 of customers on tailored assistance are deemed to be new to that assistance in the year.</p> <p>Assumptions for time incurred under current arrangements: Bill smoothing and delayed payment (25 minutes), Payment Plan (45 minutes), Hardship (213 minutes).</p> <p>Assumptions for time incurred under PDF: Standard Assistance - 13.3 minutes, Tailored Assistance - 85.3 minutes, and Tailored Assistance not engaged with retailer - 0 minutes,</p> <p>Cost of time is \$39.30 per hour (based on ABS average weekly earnings for Victoria)</p>	10% reduction in time for all customers participating under PDF compared to the base case assumptions
Savings in bills due to advice on switching electricity tariffs	<p>2% in YR 1 (approximately 1,700 customers) and 0.125% from YR 2 onwards of forecast tailored assistance customers will benefit from lower tariffs under the PDF.</p> <p>Total customers to benefit from switching tariffs equal to approximately 2,800 customers over the modelling period.</p>	<p>2% in YR 1 (approximately 1,700 customers) and 0.25% from YR 2 onwards of forecast tailored assistance customers will benefit from lower tariffs under the PDF.³</p> <p>Total customers to benefit from switching tariffs equal to approximately 3,800 customers over the modelling period.</p>	<p>2% in YR 1 (approximately 1,700 customers) and 0.375% from YR 2 onwards of forecast tailored assistance customers will benefit from lower tariffs under the PDF.</p> <p>Total customers to benefit from switching tariffs equal to approximately 4,900 customers over the modelling period.</p>

³ To determine 0.25%, KPMG has assumed only 5% of tailored assistance customers may benefit from switching their tariffs from Year 2, and of this 5% only 5% are assumed to actually make the switch and therefore benefit from a reduction in their energy bills.

Impact	Low	Base Case	High
	<p>Average tariff savings estimated to be 40% of the calculated tariff variance.</p> <p>Other assumptions same as base case.</p>	<p>Average tariff savings estimated to be 60% of the calculated tariff variance. Tariff variance equal to difference between standing and market offer measured by the Australian Energy Market Commission (AEMC).</p> <p>Average customer consumption 4,026kWh.</p> <p>Savings are permanent over the modelling period irrespective of whether customer remains under the framework or not.</p>	<p>Average tariff savings estimated to be 80% of the calculated tariff variance.</p> <p>Other assumptions same as base case.</p>
<p>Savings in bills due to advice on switching gas tariffs</p>	<p>75% of customers who may benefit from switching their electricity tariff under the low scenario.</p> <p>Total customers to benefit from switching tariffs equal to approximately 2,100 customers over the modelling period.</p> <p>Average tariff savings estimated to be 40% of the calculated bill variance.</p> <p>Other assumptions same as base case.</p>	<p>75% of customers who may benefit from switching their electricity tariff (approximately 1,300 customers) under the base scenario.</p> <p>Total customers to benefit from switching tariffs equal to approximately 2,900 customers over the modelling period.</p> <p>Average tariff savings estimated to be 60% of the calculated bill variance. Bill variance equal to difference between standing and market offer measured by the Australian Energy Regulator (AEMC).</p> <p>Average customer consumption 24GJ.</p> <p>Savings are permanent over the modelling period irrespective of whether customer remains under the framework or not.</p>	<p>75% of customers who may benefit from switching their electricity tariff under the high scenario.</p> <p>Total customers to benefit from switching tariffs equal to approximately 3,700 customers over the modelling period.</p> <p>Average tariff savings estimated to be 80% of the calculated bill variance.</p> <p>Other assumptions same as base case.</p>

Impact	Low	Base Case	High
Savings in bills due to Energy Efficiency measures	<p>2.5% in YR 1 (approximately 2,100 customers) and 0.125% from YR 2 onwards of forecast tailored assistance customers will benefit from energy efficiency measures under the PDF.</p> <p>Total customers to benefit from energy efficiency measures equal to approximately 3,300 customers over the modelling period.</p> <p>Other assumptions same as base case.</p>	<p>5% in YR 1 (approximately 4,300 customers) and 0.25% from YR 2 onwards of forecast tailored assistance customers will benefit from energy efficiency measures under the PDF.⁴</p> <p>Total customers to benefit from energy efficiency measures equal to approximately 6,700 customers over the modelling period.</p> <p>Average customer saving on energy bills of \$140 per annum (based on VEET CBA).</p> <p>Savings are permanent over the modelling period irrespective of whether customer remains under the framework or not.</p>	<p>7.5% in YR 1 (approximately 6,500 customers) and 0.375% from YR 2 onwards of forecast tailored assistance customers will benefit from energy efficiency measures under the PDF.</p> <p>Total customers to benefit from energy efficiency measures equal to approximately 10,000 customers over the modelling period.</p> <p>Other assumptions same as base case.</p>
Ombudsman/Support Group costs	<p>A constant 5% increase in forecast expenditure each year relative to base case profile expenditure.</p> <p>Other assumptions same as base case.</p>	<p>Changes in expenditure shaped reflective of the increased uptake, greater awareness and improvements associated with the scheme over time.</p> <p>EWOV expenditure based on actuals 2015/16. A proportion of expenditure for financial affordability and disconnections is estimated based on compliant numbers.</p> <p>Financial Support Groups current costs of supporting customers is estimated at \$2.5m per</p>	<p>A constant 5% decrease in forecast expenditure each year relative to base case profile expenditure.</p> <p>Other assumptions same as base case.</p>

⁴ To determine 0.25%, KPMG has assumed only 5% of tailored assistance customers may be eligible for energy efficiency measures from Year 2, and of this 5% only 5% are assumed to actually adopt energy efficiency measures and therefore benefit from a reduction in their energy bills.

Impact	Low	Base Case	High
		annum (based on CALC analysis).	

Initial Quantified Estimates

Table 0-3 below presents our estimate of the NPV (over the modelling horizon with a real 4 percent discount rate⁵) of those impacts which we considered able to be modelled. A positive NPV represents a cost saving for customers and the ombudsman and support groups, while a negative NPV represents a cost increase.

These values do not provide a complete picture of the value of customer impacts under the proposed PDF given the range of impacts which we have not included in the quantitative assessment. Any changes to the average level of arrears and disconnections numbers under the PDF will have an effect on the customer impacts.

Table 0-3. Quantified customer impacts under the Payment Difficulty Framework

Scenario	NPV (\$m)		
	Low	Base	High
Customer participation	\$4.04	\$5.73	\$7.42
Tariff Switch - electricity	\$2.42	\$4.55	\$7.29
Tariff Switch - gas	\$0.45	\$0.85	\$1.35
Energy Efficiency	\$3.10	\$6.20	\$9.30
Ombudsman and Support Group	-\$2.48	-\$0.16	\$2.17

One of the potential impacts for new customers requiring assistance following the introduction of the PDF is a direct saving in the time required to ‘participate’ or interact with their retailer. Relative to the current scheme, customer participation costs are forecast to decrease by an average 25% as a result of the introduction of the PDF. On average, this reduction ranges between \$0.31m (year 1 – partial year) to \$0.76m per annum resulting in a total incremental saving to customers of approximately \$5.73m in NPV terms.

The difference in participation costs is primarily a result of:

- the significant costs to new customers under the current arrangements of participating in the hardship program and the amount of time associated with interacting with their retailers (213 mins); and
- potential savings in customers time incurred to search and understand the PDF prior to engaging with retailer.

Additionally, new customers seeking assistance could benefit from additional savings through switching their retail tariffs and or adopting energy efficiency measures. For an individual customer who chooses to switch their electricity or gas tariffs or adopt new energy efficiency measures, these savings are initially assumed to be on average a reduction in a customer’s energy bill of \$193 per annum, \$68 per annum and \$140 per annum respectively.

The drivers for these potential savings associated with introduction of the PDF are the forecast customers who are eligible and choose to take up these options. As more than 91% of Victorian residential customers are already on market offers, there may be limited options for some of these

⁵ Victorian Department of Treasury and Finance. Regulatory Change Measurement Manual. November 2016.

customers to move to better tariff contracts moving forward. Similarly, not all customers will be in a position to adopt all energy saving measures – for example, purchasing new energy efficient appliances.

Our base case assumes approximately 3,800 customers would benefit from switching their electricity tariff, 2,900 customers benefit from switching their gas tariff and 6,700 customers benefit from energy efficiency over the modelling horizon. While the number of customers estimated to benefit from these forms of assistance are likely to be small, the value of the benefit is expected to be material as the customer will permanently benefit from these types of assistance.

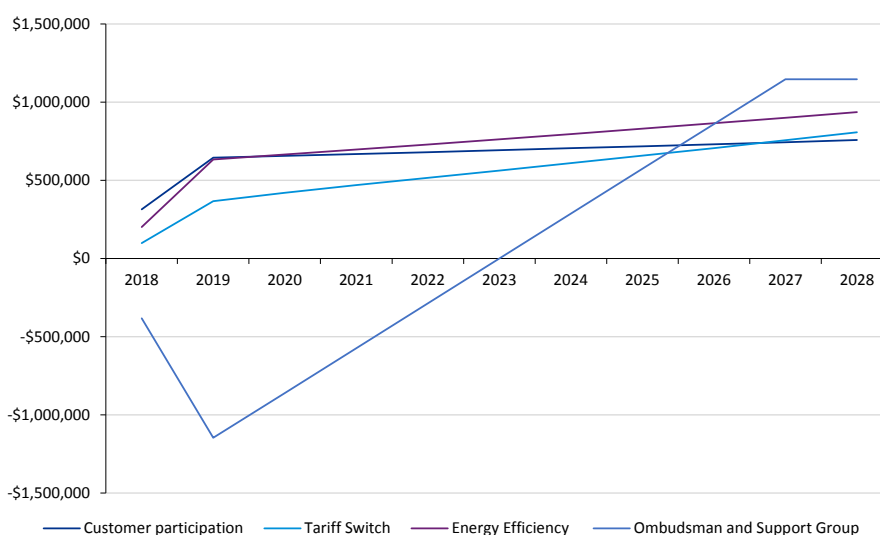
Of the categories quantified only the ombudsman and support groups are estimated to be negatively impacted financially. This is driven primarily by the assumption that these organisations will invest more time learning and considering the application of the new framework to best aid customers participating in the framework in the early years following adoption of the PDF. As a result of this interaction, the ombudsman and support groups are expected to initially increase their expenditure in order to manage these impacts.

Figure 0-1 highlights the annual customer impact across all quantitative categories assessed under KPMG’s base case assumption. Of the impacts the ombudsman and the support groups are initially estimated to incur additional costs as a result of introduction of the PDF. Following the initial jump in expenditure, these extra costs are forecast to be zero in 2023 (Year 6) before leading to a reduction in annual expenditure from year 2024 (Year 7).

Our forecasts of the annual impacts for new customer participation costs, tariff switching and energy efficiency savings are driven primarily by the number of new customers who are receiving assistance in a given year, the form of assistance provided and their eligibility or capacity to enter into a new tariff arrangement or adopt new energy efficiency measures.

Finally, the impacts measured by KPMG do not take into account any reduction in a customer’s arrears with their retailer. This is an obvious benefit which may arise for a customer were they able to adopt measures to pay both their current and historical energy costs. The impacts for customers of reducing their arrears has been modelled by ACIL in their consideration of the financial impacts to retailers.⁶

Figure 0-1. Incremental annual impacts (customer participation, tariff switch, energy efficiency, and ombudsman and support groups)



⁶ ACIL Allen Consulting. New Framework for Customers Facing Payment Difficulties. Preliminary Assessment of the Retailers’ Cost. May 2017 Specifically, ACIL estimate these impacts to \$15.95m under their base case scenario and to range from \$18.13 to \$26.86m assuming average customer debt is reduced by 5% and 25% respectively.

Other impacts

In addition to those quantifiable impacts described above, a customer experiencing payment difficulties may face a multitude of other financial and non-financial impacts. For example, from physical discomfort through not being able to pay their heating bills or being forced to go without food, to other practical day to day impacts such as incurring additional travel costs (e.g. travel to and from a laundromat to wash clothes) or spending on non-perishable items (e.g. food). In addition, the failure to pay a utility bill can have a substantial impact on a customer’s credit rating which could result in the best mortgages, credit cards and loans no longer being available to that customer or made available at a higher cost relative to those customers with a better credit rating.

In addition, customers may also experience broader mental health and relationship impacts, which can extend to their immediate family (including dependents) and friends. While these also represent a cost to a customer, and more broadly society, that are associated with energy affordability, they are difficult to estimate. These impacts also tend to be very dependent on an individual’s own circumstances.

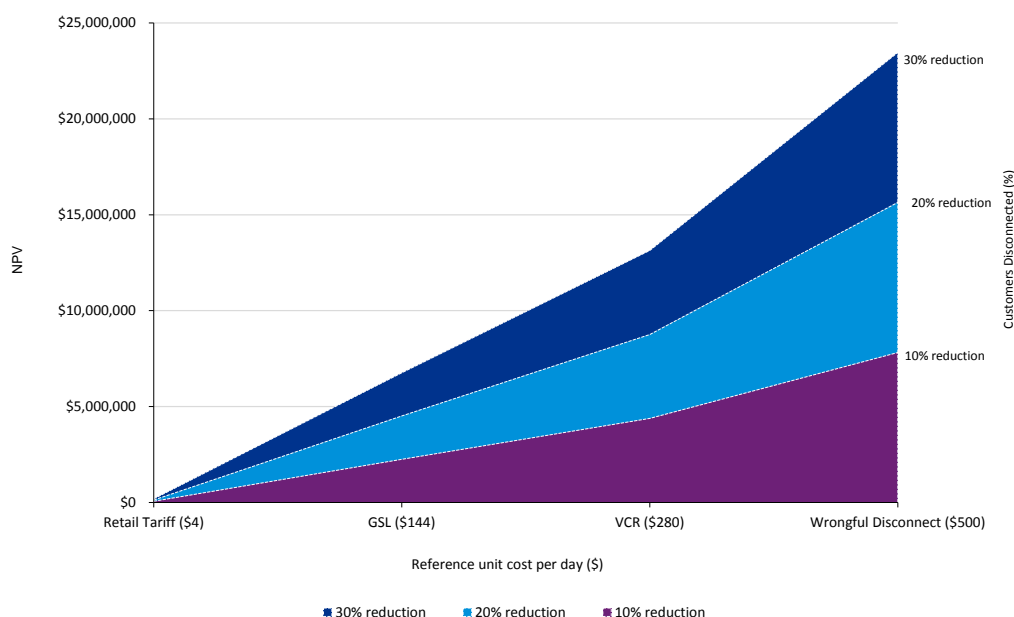
There will be a lot of variation in the materiality of these impacts across affected customers. As a result we have not modelled the potential magnitude of these impacts. This should not be interpreted that such impacts are not as important as the four quantifiable impacts discussed above.

One potential impact to a customer that is difficult to quantify is the loss of electricity supply at their premise. It has been well documented that the costs to a customer of having their electricity supply disconnected by a retailer are both broad and difficult to quantify. Figure 0-2 below highlights the value range (in NPV terms) customers may place on avoiding having their energy supply disconnected by their retailer.

At a high (\$500) unit cost per day, and assuming disconnections fall between 10% and 30% the total value placed by customers is forecast to range in NPV terms between \$7.8m and \$23.4m over the modelling period, while at the lower end of the range (assuming a unit cost of \$4 per day), this value is forecast to be between \$0.06m and \$0.18m in NPV terms.

These forecasts highlight a large discrepancy in the estimated value placed by customers on maintaining their energy supply under each measure and goes to show the risks in attempting to provide a specific estimate of these values.

Figure 0-2. Potential range of total customer impacts from any change in disconnection numbers



1 Introduction

At the beginning of 2016 the Victorian Government made amendments to the Electricity Industry Act 2000 and Gas Industry Act 2001 to include a new objective for the Essential Services Commission of Victoria (ESC or Commission):

“To promote protections for customers, including in relation to assisting customers who are facing payment difficulties.”

Around the same time, the ESC completed its inquiry into energy hardship, releasing a report entitled *“Supporting customers, Avoiding Labels”* in February 2016, which found that the hardship programs of energy retailers operating in the state were not preventing customers as intended from accumulating large debts or from being disconnected. Further, the Commission found customers were not receiving the assistance they required from their energy retailer, with certain elements of the regulatory framework broadly reliant on the discretion of a retailer and therefore seen to be unenforceable.

In response to the findings, the Commission set out to develop a new regulatory framework providing a set of minimum enforceable standards for those customers experiencing payment difficulty – the Payment Difficulty Framework (PDF). The ESC undertook an informal consultation with industry and other stakeholders over several months to establish the design for the PDF. In October 2016, the Commission released the findings from this consultation, building on the work from the hardship program inquiry, in their draft decision titled *“Safety net for Victorian energy consumers facing payment difficulties”*.

The PDF proposal was to be established via⁷:

- revisions to the Victorian Energy Retail Code (Code), that set out the minimum standards of assistance that retailers would be required to provide residential customers experiencing payment difficulty; and
- a Customer Advice Manual that explains the customer entitlements established by the framework and that sets out what customers can expect from their energy company.

In May 2017, following receipt of stakeholder submissions and further feedback received via a stakeholder forum on 31 January 2017, the Commission released a new draft decision on the PDF. This decision was informed in part by KPMG’s preliminary assessment of the customer impacts of the Commission’s proposed new framework.

The release of the new draft decision promoted a further round of stakeholder consultation including receipt of submissions from stakeholders and workshops. In June 2017 KPMG was invited to present its preliminary assessment of the customer impacts with stakeholders. This workshop provided an additional opportunity to gather feedback, as well as address any questions and concerns stakeholders may have in regards to our assessment. We have sought to address stakeholders’ feedback in this final assessment for the Commission.

⁷ Essential Services Commission of Victoria. *Safety net for Victorian energy consumers facing payment difficulties*. Draft Decision. October 2016.

1.1 Our understanding of the task

The Commission engaged KPMG to provide support and analysis in the preparation of a revised decision for the PDF. In particular, we were tasked with providing an evaluation of the potential impacts on customers under the proposed design of the PDF. The purpose of this evaluation was to gain an understanding of the extent of any impacts – in terms of changes in either costs or savings – for customers under the new framework and identify a range of factors and circumstances which will influence the magnitude of those impacts.

Our evaluation was used as an input by the Commission in consideration of the final PDF. In developing the final PDF, the Commission has sought to address several areas of concerns raised by stakeholders as part of the consultation / forum in relation to the initial framework presented by the Commission in October 2016. These concerns were summarised by the Commission to include⁸:

- Continued concerns with the objectives and approach to assisting customers facing payment difficulty, as set out in the final hardship inquiry report “Supporting customers, Avoiding Labels” endorsed by the government; and
- Concerns the Commission still had not found the right balance between principle and prescription.

For this evaluation, KPMG has sought to both identify and quantify, where data permits, the potential impacts associated with introduction of the PDF to energy customers. Our work was completed in parallel to the ongoing assessment completed by the Commission, and other supporting consultants, in devising a final PDF – and specifically the proposed changes to the Code.

KPMG has completed the following tasks:

1. Presented at a stakeholder workshop on 29 March 2017, on the potential approaches and methodologies which may be adopted in evaluating customer impacts;
2. Developed in partnership with the Commission a proposed approach and modelling methodology to analyse the impact of the PDF on customers (including vulnerable customers);
3. Conducted a preliminary assessment of customer impacts under the proposed approach and modelling methodology;
4. Presented at a stakeholder workshop on 27 June 2017, outlining the results from our preliminary assessment;
5. Developed in partnership with the Commission and certain stakeholders case studies interpreting differences between, and impacts of, the PDF relative to the current framework; and
6. Conducted a final assessment incorporating feedback from the Commission and stakeholders on our preliminary assessment of the potential impacts.

Our preliminary paper presented our approach to examining the potential impacts, and our proposed methodology, assumptions and initial estimates for any impacts which are considered to be quantifiable with a reasonable level of credibility.

This, our final report, builds on our preliminary paper and includes further analysis and stakeholder input.

KPMG’s analysis has been informed by the Victorian Department of Treasury and Finance (DTF) Victorian Guide to Regulation, including development of the framework and approach. The DTF guide sets out an overall approach and requirements when completing analysis of this nature.⁹

⁸ Essential Services Commission of Victoria. *New draft decision on Safety net for Victorian energy consumers facing payment difficulties*. Record of Decision. February 2017.

⁹ Victorian Department of Treasury and Finance. Website: Victorian Guide to Regulation. Last accessed. 24 April 2017. <<http://www.dtf.vic.gov.au/publications/victoria-economy-publications/victorian-guide-to-regulation>>

1.2 Payment Difficulty Framework

The purpose of the PDF as presented in the ESC Final decision is to:

“To provide customers facing payment difficulties with an entitlement to a set of minimum standards of assistance, so that disconnection is a measure of last resort.”¹⁰

While the PDF will place new obligations on retailers in their approach to managing those customers experiencing payment difficulties, the PDF aims primarily to empower such customers by encouraging them to take control of their energy use and the management of their energy payments.

In establishing the PDF, the Commission has sought to:

- establish customer entitlements, and pathways, to different forms of assistance;
- outline minimum standards for each pathway;
- promote assistance that is useful for customers trying to avoid or repay arrears;
- introduce clarity about what constitutes ‘last resort’ as it applies to disconnections; and
- improve confidence among customers (and other stakeholders) that disconnection only occurs as a last resort after having followed defined pathways.

As noted previously, the PDF is to be established via revisions to the Code, and supported by customer information material and a guideline.

Figure 1-1 highlights the two tiers of assistance as drafted under the Code to be provided by a retailer to those customers experiencing payment difficulties.¹¹ These tiers are seen as the minimum standard, as the Code does not prevent a retailer from providing additional assistance above each proposed tier. A customer is expected to move from receiving one form of assistance to another as their individual circumstances improve or as additional support is deemed necessary. In addition to these tiers, the PDF provides for additional disconnection safeguards for those customers eligible for tailored assistance who are not engaged with their retailer.

Figure 1-1. Tiers of assistance



An overview of each assistance tier and the additional safeguards is provided below.

- **Standard Assistance:** requires retailers to make available to customers’ alternative payment arrangements for paying their energy bills in order to help the customer avoid getting into arrears. The proposed arrangements, of which a retailer must provide a minimum of three, include:
 - making payments of an equal amount over a specified period;
 - options for making payments at different intervals – once a month or once every fortnight as opposed to every quarter;
 - extending by a specified period the pay-by date for a bill for at least one billing cycle in any 12 month period; and
 - paying for energy use in advance, rather than in arrears.

¹⁰ Essential Services Commission 2017, Payment difficulty framework: Final decision, (forthcoming)

¹¹ Early versions of the draft PDF referred to a third form of assistance – Default Assistance. This category of assistance has since been removed from the final version of the PDF.

In addition, a retailer must make available the following information:

- o standard assistance options that are available, and how to access them;
- o how a customer may lower their energy costs; and
- o government and non-government assistance that may be available to a customer.

The Code will require that information provided by the retailers is clear and unambiguous about the assistance available under the new arrangements and how to access it. Such information must be provided within 21 business days after the pay-by date for a bill that is unpaid.¹²

The aim of standard assistance is to enable a customer anticipating payment difficulty to avoid getting into arrears. Customers should be able to access standard assistance through self-service on-line, without requiring detailed or ongoing engagement with their retailer. However, retailers will also facilitate customer access to standard assistance by phone.

- **Tailored Assistance:** requires a retailer to make available flexible and practicable assistance that makes it easier for customers to repay their arrears within two years, and, if unable to meet the cost of their energy usage, to obtain tailored advice on how to reduce energy costs while repayment of arrears is placed on hold for an initial period of six months. No customer is to be disconnected while meeting the terms of a tailored assistance arrangement.

Any customer with arrears is entitled to propose to their retailer a payment arrangement in which they will pay off arrears over a period up to two years. The payments can be made at intervals of one month or less. In response, the retailer must:

- o accept any such proposal;
- o provide the customer with a written schedule of expected payments;
- o provide specific advice on how the customer might lower their energy costs; and
- o provide specific advice on government and non-government assistance that might be available to the customer.

At any time during the tailored assistance arrangement, a customer may put forward a revised proposal (e.g. shortening or lengthening the period over which arrears is paid off).

Because a customer's circumstances may change, tailored assistance also provides customers to vary their payment arrangement. A customer who has scheduled to repay their arrears in less than two years may reduce the amount that they pay, provided it still results in repayment within two years.

Retailers are also provided with flexibility to respond to changes in the customer's circumstances, including extending repayment periods, and the amount of time a customer has to reduce their energy costs. Therefore under the Code while a retailer must accept proposals for payment within two years, they may accept proposals or revised proposals extending beyond the two years period.

If, in addition, a customer with arrears cannot meet the cost of their ongoing energy usage, the customer is entitled to have their arrears placed on hold for an initial period of six months, in which the retailer must provide practical assistance with the customers' energy tariff, energy use and management of their energy use.

The objective of tailored assistance is to give residential customers an entitlement to minimum standards of flexible and practicable assistance that makes it easier for them to pay for their on-going energy use, repay their arrears and lower their energy costs.

¹² After the pay-by date for a bill that is unpaid by a residential customer and where the amount of the arrears is more than \$50 (exclusive of GST).

- **Additional disconnection safeguards:** are to be established ensuring that customers facing payment difficulties receive every reasonable opportunity to engage in tailored assistance arrangements, including if they are unwilling or unable to engage directly with their retailer to receive assistance.

Specifically, where a customer has missed a bill payment but not contacted their retailer to activate an entitlement to a tailored assistance arrangement a retailer has an obligation to:

- use their best endeavours to, within 21 business days of a missed bill payment, contact the customer to inform them of their entitlements to tailored assistance;
- to allow the customer at least 6 business days to respond to being informed of their entitlements, so that customers have a reasonable period in which to take the matter up with their retailer;
- to, having made contact with the customer, provide them with assistance to which they are entitled under the payment difficulty framework;
- to include information on about the assistance to which the customer is entitled on any reminder notice or disconnection warning notice that is sent to a customer; and
- provide the customer with information about community support services, including the contact details of those services, so the customer has access to help if they are unwilling or unable to engage directly with their retailer to seek assistance

If the customer has still not responded after the retailer has issued a disconnection warning notice, the retailer has a further obligation to use their best endeavours to:

- contact the customer and provide the customer with clear and unambiguous information about the assistance to which the customer is entitled under Part 3 of the Energy Retail Code.

1.3 Approach

The Commission has requested that KPMG undertake an evaluation of the impacts of the PDF on customers both qualitatively and, where possible, quantitatively. KPMG has approached this task through the following steps:

- Identified and described the range of potential impacts on customers following the implementation of the PDF;
- Developed a framework and methodology for evaluating those impacts;
- Estimated those impacts which are considered to be reasonably able to be quantified;
- Established a qualitative assessment of other customer impacts; and
- Evaluated a number of case studies of individual representative customer circumstances to better understand the potential impacts under the PDF.

The Commission has also engaged ACIL Allen Consulting (ACIL) to provide an evaluation of the impacts on retailers under the proposed new framework. Our analysis complements ACIL's evaluation and focuses on the range of impacts to customers who participate under the new framework as well as broader societal impacts which may not be directly applicable to any one specific customer or group of customers.

We have sought to be consistent with ACIL's assumptions and modelling approach where relevant. In addition, how retailers would pass through the direct financial impact of the new proposed framework

onto customers is being considered separately by the Commission as informed by the ACIL analysis and is not part of our scope.

1.4 Structure of the Report

The following details the remaining structure of our report:

- Section 2 – Identification of customer impacts;
- Section 3 – Modelling Methodology and Assumptions;
- Section 4 – Quantification of customer impacts;
- Section 5 – Qualitative assessment of other customer impacts; and
- Appendix – Reference material.

2 Identification of customer impacts

We have identified a list of three broad areas of impact – each with a number of separate impacts to consider:

- a) Changes to financial position of customers;
- b) Changes to the sector costs incurred in providing advice and support/assistance services; and
- c) General community impacts.

This section provides an explanation of each of the identified impacts

2.1 Changes to financial position of customers

Impact	Description
<p>Greater awareness of available government or non-government assistance</p>	<p>Retailers must ensure that general information is readily available to residential customers about government or non-government assistance that may be available to help with meeting energy costs for those customers under either standard or tailored assistance packages.</p> <p>Therefore, there is possibility that an increased number of customers will access available assistance to help pay their energy bills. Compared to current arrangements, this is likely to occur at the start of any payment difficulty situation and hence, if such customers access the assistance sooner, the level of arrears could be lower at the stage when the customer enters into a payment plan.</p>
<p>Changes to participation costs for customers</p>	<p>The impact (assessed on the basis of time spent) of customers gaining awareness of PDF in addition to their interaction with retailers under the auspices of the PDF</p>
<p>Potential changes to which type of tariff customers are on (Tailored Assistance)</p>	<p>Retailers are now required to provide practical assistance to help customers lower their energy costs, including placing them on the most suitable tariff to help minimise energy costs.</p> <p>Retailers discussing alternative retail tariffs with customers to ensure they are on the tariff best suited to their energy needs should reduce the overall percentage of household income used to pay energy bills. A better choice in retail tariffs can therefore lead to an increase in discretionary income for a customer.</p> <p>Previous studies from customer groups suggest that customers in payment difficulties are less likely to be engaged in the market (and with their retailer) and not on the lowest possible tariff for their individual circumstances.</p> <p>The result of the PDF could therefore be for a higher proportion of customers experiencing payment difficulties to be placed on a better tariff which either a) enables them to pay off their arrears faster or b) lessens the future growth of arrears.</p> <p>This impact should provide a permanent benefit as those customers will have better knowledge of their options after exiting the PDF.</p>
<p>Greater awareness of the energy efficiency measures</p>	<p>In addition to identifying more suitable tariff options, a retailer is also required to provide specific advice about the likely cost of a customer’s future energy use and how this cost may be lowered.</p> <p>Placing further mandated requirements on a retailer to help a customer identify ways their energy bill may result in an overall reduction in energy use for those customers experiencing payment difficulties.</p>

Impact	Description
	<p>Assessments of the Victorian Energy Efficiency Target (VEET) scheme have shown residential customers receiving an annual benefit through a reduction in residential customer electricity bill through participation in the scheme.</p> <p>Similar to the changes resulting from switching tariffs, the result of the PDF could therefore be a high proportion of customers benefiting from a reduction in their overall energy use and therefore energy bills moving forward. This impact should provide a permanent benefit as those customers will have better understanding of their overall energy use.</p>
<p>More assistance sooner in any payment difficulty situation</p>	<p>A number of tools will be made available under both the standard assistance and tailored assistance which could result in the customer getting a level of assistance sooner and more aligned to their individual circumstances in any situation. This on average could result in lower levels of arrears.</p> <p>This includes:</p> <ul style="list-style-type: none"> • Ability to extend pay by date for one bill within a 12 month period; • Payment smoothing; and • A more suitable payment plan. <p>The extent of any impact for customers will depend on the how the new framework differs from what retailers provide under current arrangements.</p>
<p>Changes to customer credit ratings</p>	<p>If a customer is accumulating energy debt then they are most likely accumulating other debts too. If a customer is able to avoid accumulating energy debt, they may avoid an adverse impact on their credit history.</p> <p>Impaired credit rating can have a long-term impact on the customer’s financial position and well-being.</p>
<p>Impact on disconnections</p>	<p>The PDF could impact on the number of disconnections occurring.</p> <p>The materiality of this customer impact will be influenced by the unit cost incurred by a customer experiencing disconnection.</p> <p>The unit cost should reflect the loss in value the customer experiences when they are no longer able to use energy. Given the essential nature of energy, considering the appropriate measure of the cost of disconnection should reflect the costs that a customer would have to pay in order to replicate the economic value of having an energy supply (i.e. comfort, convenience, heating, cooking).</p>

2.2 Changes to the sector costs incurred in providing advice and support/assistance services

Impact	Description
<p>Changes in Energy and Water Ombudsman Victoria (EWOV) costs</p>	<p>EWOV costs could be affected in a number of ways under the PDF, including:</p> <ul style="list-style-type: none"> • Initial time and effort to make customers aware of the PDF in the early stages of the PDF. • Potential reduction in the number of complaints handled in relation to debt issues. • Elimination of the cost for EWOV of reviewing assessments of a customer’s capacity to pay. <p>Other impacts depending on EWOV’s role in the PDF (i.e. disconnections).</p>

	The total impact on EWOV costs will likely vary over time.
Changes to the distribution of support services between customers	<p>An effective framework could lead to reduced need for community support, financial counselling and financial aid. This would allow these finite resources to be directed towards addressing other societal needs.</p> <p>At an aggregate level, where fewer customers require support from service providers, this help will go to others who are in more need of such services.</p>

2.3 General Community Impacts

Impact	Description
Changes in customer attitudes to the energy industry (and retailers)	<p>The PDF could lead to improved perceptions about energy market outcomes and increased trust and confidence in retailers.</p> <p>Evidence from overseas markets suggests that improved customer perceptions and media coverage of retailers lead to better customer outcomes under retail competition.</p>
Changes in customer well-being	Customer well-being could improve through accessing a payment plan, without being assessed, evaluated or labelled.

3 Modelling methodology and assumptions

This section provides an overview of the approach adopted for modelling estimates of those customer impacts which we consider could be quantified.

3.1 Assessment of which impacts can be quantified

KPMG determined that of the impacts identified in Section 2 that the following could be quantified:

- The time and effort required for customers to participate in the scheme. This impact will be assessed on the basis of estimated time spent to understand and participate;
- Impacts on changes in average arrears;
- Potential savings due to better tariff choices;
- Potential savings due to lower energy consumption under energy efficiency measures; and
- Expenditure impacts for the ombudsman and financial support groups.

We recognise that there are inter-dependencies between these impacts, notably that the potential savings under lower retail tariffs or energy consumption should inform the potential impact of changes in average arrears under the reforms.

The potential for the framework to help avoid or minimise energy debt is an obvious benefit and could be of substantial value for customers. These benefits can manifest in many ways beyond the financial implications of not having to pay down debt, including, but not limited to, an improved credit rating, less stress and greater flexibility in managing expenses moving forward.

The potential impacts for customers of reducing their arrears has been modelled by ACIL in their consideration of the financial impacts to retailers. Specifically, ACIL estimate these impacts to be \$15.95m in NPV terms under their base case scenario and to a range from \$18.13m to \$26.86m (in NPV terms) assuming average customer debt is reduced by 5% and 25% respectively.¹³

3.2 Victorian Guide to Regulation

As specified in the project scope, the methodology applied is consistent with the requirements of the following Victorian guides and manuals:

1. Department of Treasury and Finance (DTF), Victorian Guide to Regulation, Toolkit 2: Cost-benefit analysis, 2014¹⁴, and
2. Elements of the DTF Victorian Regulatory Change Measurement Manual, November 2016, ed.3¹⁵.

Both documents are readily accessible to all key stakeholders. Therefore, rather than replicating the methodology contained in these documents, the section below highlights key methodology design elements.

¹³ ACIL Allen Consulting. New Framework for Customers Facing Payment Difficulties. Preliminary Assessment of the Retailers' Cost. May 2017

¹⁴ Victorian Department of Treasury and Finance. Website: Victorian Guide to Regulation. Last accessed. 24 April 2017.

¹⁵ Victorian Department of Treasury and Finance. Regulatory Change Measurement Manual. November 2016.

3.3 General Assumptions

KPMG’s approach to evaluating customer impacts is based on the following assumptions:

- Duration of the regulatory change is 10+ years (consistent with the Victorian Regulatory Change Measurement Manual, p.21) accounting for the staggered start for retailers to comply with the additional assistance measures – i.e. Standard assistance to begin 1 April 2018 and Tailored Assistance to begin 1 September 2018, and running through to 2028
- Year 1 is CY 18 – i.e. this is a partial year in which changes are applied following the staggered start to individual tiers of assistance.
- The discount rate applied is four per cent (Victorian Regulatory Change Measurement Manual, p.11).
- Consumer participation costs are costed at an hourly wage rate calculated from ABS Average Weekly Earnings (catalogue number 6302). No overheads or on-costs are applied (Victorian Regulatory Change Measurement Manual, p.28).
- The Code allows the retailer to make other forms of assistance available to residential customers under the standard assistance. Further, the Code does not prevent the retailer from offering assistance in excess of the minimum standards provided under the PDF. We cannot accurately forecast what additional options retailers may offer. Therefore, we have made the conservative assumption that retailers will not make any further forms of assistance available other than what they currently provide.
- There are no additional costs or penalty rates for customers who enter into the PDF and seek assistance.
- The number of energy residential customers and estimated growth in numbers over the modelling period has been drawn from published figures from various ESC comparative performance and compliance reports and agreed with ACIL and ESC.

3.3 Population Segmentation

In assessing the customer impacts following introduction of the PDF, KPMG has sought to align its assumptions with ACIL in proportioning customers already receiving assistance in managing their energy costs across the new categories of assistance under the PDF – standard and tailored.

ACIL in reviewing retailers’ policies, procedures and practices for managing customers facing payment difficulties found approximately five percent of all residential customers will face some form of difficulty in paying their energy bills.

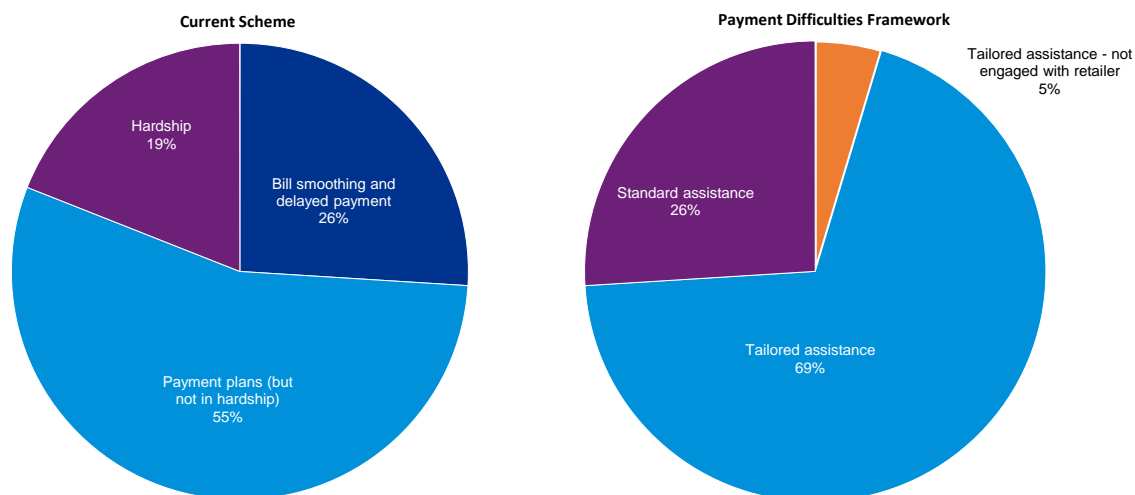
Under the current arrangements this five percent consists of:

- 1.3% of customers who were found to be on some form of bill smoothing or delayed payment arrangement;
- 3.7% of customers identified as being on a payment plan – including 0.95% of customers who were deemed hardship customers eligible for a retailer’s hardship program and therefore on a payment plan.

For the purposes of this assessment KPMG and ACIL have maintained the percentage of customers receiving assistance (5%) as fixed over the modelling horizon. We acknowledge the total customers receiving assistance will fluctuate year to year and month to month. For example customers requiring assistance may increase if prices increase significantly. This estimate is therefore used as an approximation only. Where this assumption does change, the total customer impact from the new framework will change.

In order to map those customers receiving assistance to the new PDF categories, ACIL and KPMG have given consideration to the types of assistance (including minimum requirements) that would be provided both under the new and existing arrangements. Figure 3-1 highlights the breakdown by assistance category under the current scheme and PDF. We have assumed those customers on some form of bill smoothing or delayed payment arrangement are to receive standard assistance (1.3%). Those customers on some form of payment plan will receive tailored assistance (3.468%). Finally, there will be small portion of customers who are entitled to assistance who do not engage with their retailer (0.232%). For customers who do not engage KPMG has assumed these customers will be disconnected from their energy supply over the course of the year.

Figure 3-1. Year 1 - Breakdown by assistance category (current scheme and PDF)



Our estimate of the proportion of customers entitled to assistance remains fixed at 5% over the modelling horizon, while we assume modest growth in the total population of 1.8% per annum.

3.4 Interpretation of modelling estimates

The estimates of quantifiable customer impacts presented in the next section must be interpreted with care.

They are only a partial evaluation of some of the financial impacts for customers of the introduction of the new PDF and therefore do not provide a complete picture of the changes to the aggregated financial impact on all Victorian customers under the proposed PDF. For example, the total quantified impacts measured by KPMG equate to \$17.17m in net savings in NPV terms for customers and the ombudsman and support groups over the modelling horizon. However, these savings do not include benefits to a customer of avoiding disconnection. As a result, we have chosen not to report 'total' savings or costs as part of our assessment.

In addition, we have not attempted to evaluate the potential impact on the overall financial position of customers who receive assistance under the new framework, noting the individualised inter-relationship of energy expenditure to other forms of household expenditure (e.g. rent, groceries, and transportation). KPMG notes that the average debt of customers on entry to hardships programs is currently reported by the ESC, as is the average debt of participants in hardship programs.

A range of additional metrics would need to be applied by the ESC (with a likely associated compliance cost to retailers) to begin to understand the impact of the PDF on the financial position of those affected customers. These metrics would need to be adjusted for inflation to track the relative energy debt of customers.

In addition, the estimates are based on a number of simplifying assumptions, including using the average consumption level and average wage rate for Victorian residential customers. There is likely to be wide dispersion of impacts across customers. The impacts for a customer experiencing financial stress and energy affordability will be dependent on that customer's own circumstances and preferences. Hence, providing a single estimate based on an assumed representative customer may not fully reflect the value of the changes in those impacts experienced under the new framework.

We also have not attempted to quantify the potential value of any changes to customer credit ratings under the new framework. If a customer is accumulating energy debt then they are most likely accumulating other debts as well. The potential for the framework to aid in avoiding or minimising energy debt could help customers avoid an adverse impact on their credit history. If this occurs, this could be of substantial value for those customers.

Finally, in the range of scenarios presented throughout the paper in no way represent 'boundaries' of the potential impacts to customers. Actual customer impacts may fall outside of these ranges. The quantified range are to represent the sensitivity of the quantifiable impacts to changes in the assumptions only.

Stakeholders are encouraged to interpret this paper as seeking to provide an independent and credible explanation and assessment of the potential range of customer impacts and to evaluate the potential materiality of such impacts in addition to identifying the factors which will influence the materiality of each impact.

4 Quantification of customer impacts

This section sets out our detailed methodology, assumptions and initial estimates for each of the customer impacts identified in Section 3.1 as being quantifiable.

4.1 Customer participation under the PDF

In designing the PDF, the Commission sought to place greater emphasis on customers staying in contact with their retailer during times when they are experiencing payment difficulties. In particular, customers are to be empowered under the new PDF to take control and manage their energy use and payments. In doing so, a customer may weigh up his or her options having received practical and relevant information in relation to their energy use, billing history and payment options.

A customer therefore should be provided every possible opportunity to identify the best course of action for their individual circumstances moving forward in order to continue paying for their ongoing energy supply as well as any arrears which may have resulted – thereby ensuring disconnection is taken as a last resort. Depending on the form of assistance provided, the PDF will place limits on a customer's eligibility for assistance as well as their ability to repay amounts owing and the intervals in which a customer may pay their bill.

Through incentivising customers to be engaged with their retailer at times of payment difficulties, the PDF will see a shift in not only the amount of time a customer is engaged with their retailer, but also the frequency or timing in which they contact their retailer.

For example, relative to the current arrangements, a customer experiencing payment difficulties is incentivised to reach out to their retailer earlier under the PDF. By reaching out to the retailer earlier, a customer may have more frequent and/or shorter periods of interaction with their retailer in identifying an appropriate form of assistance and be better positioned to manage their ongoing energy costs while also paying off any arrears. This compares to the current approach, with little or no incentives for a customer to contact their retailer, which may lead to customers only engaging with their retailer when their difficulties have increased, for longer periods of time or not at all, leading to disconnection.

In addition to the incentives, the changes to the Code prohibit a retailer from requiring a customer to provide personal or financial information in relation to their individual circumstance. This information would typically be provided by those customers identified as hardship customers. The information requested by a retailer would then be used to assess the appropriate payment schedule for the customer, or other appropriate course of action. The information to be provided under this part of the Code may be substantial for a given customer. As a result, through prohibiting the collection of such information, the PDF would appear to reduce the costs for a customer associated with participating under the framework relative to the current arrangements.

In aggregate, the proposed amendments to the Code are likely to lead to changes in the total costs to customers of interacting with their retailer and therefore participating under the PDF relative to the current scheme. The cost of participating under the PDF will vary from customer to customer and between the two types of assistance made available under the Code (tailored assistance and standard assistance). Participation timing will likely be higher for those customers receiving tailored assistance where a retailer works with the customer to identify an appropriate way to manage their energy supply costs relative to their individual circumstances, relative to those customers only receiving standard assistance.

Changes in customer participation costs may be determined by assessing the average length of customer interaction to complete/undertake the specified activity/associated activities of a task

compared to the current arrangements. For the purposes of this assessment, KPMG has considered the average aggregate periods of time (and therefore tasks and costs) in which a customer may receive assistance rather than a more granular approach. KPMG considers this approach will provide for similar results to a bottom-up assessment by task given the potential for variances in value (costs) placed by individual customers or customer groups on each task.

4.1.1 Modelling methodology

To quantify the potential impacts (savings or costs) for a customer experiencing payment difficulties of participating in the PDF relative to the current scheme, KPMG completed the following steps:

- Step 1: Estimated the population segment benefiting from current assistance measures – bill smoothing and delayed payment arrangements, payment plans (excluding hardship) and hardship customers;

As part of this process, KPMG has estimated 'new' customers receiving the form of assistance in a given year.

- Step 2: Mapped the population segment benefiting from current assistance measures to new categories of assistance under the PDF – tailored and standard assistance;

Similarly to Step 1, as part of this process, KPMG has estimated 'new' customers receiving the PDF categories of assistance in a given year.

- Step 3: Estimated the aggregate time (minutes) a new assistance customer would be engaged with their retailer directly or in search of information regarding the availability of payment assistance measures under both the current scheme and proposed PDF indirectly;
- Step 4: Identified the time value of money when engaging with their retailer and participating under the current scheme or proposed PDF;
- Step 5: Calculated aggregate and incremental costs for customers of participating under the current and proposed PDF by multiplying the aggregate times and time value of the money for its assistance category; and
- Step 6: Completed additional scenario analysis.

ACIL estimated time periods

KPMG has aligned the assumptions underpinning the quantification of customer participation (interaction) costs with those specified by ACIL for the determination of retailer operating costs. As part of its estimation of a retailers operating costs, ACIL determined an ordinal scale as follows:

- a) Short = 5 minutes;
- b) Medium = 15 minutes;
- c) Long = 30 minutes; and
- d) Extra Long = 60 minutes.

The key aspect when reviewing the assessment of the length of customer interactions detailed in the tables below is not whether an activity for an individual takes 4 minutes 35 seconds or 6 minutes 10 seconds but whether, on average across the entire population grouping, 5 minutes (hence 'short') is a reasonable estimate of the elapsed time. Similarly, when assessing the appropriateness of the specified time intervals across customer interactions, the key question is whether the activity in question would take a similar time to complete as other activities at the same point on the ordinal scale (e.g. the similarity in elapsed time to complete activities classified as 'Medium') or whether it is more aligned to activities on other points of the specified ordinal scale.

KPMG has relied on the ordinal scale developed by ACIL, as well as its own assumptions established in mapping the current assistance measures to the new categories of assistance, to forecast an average aggregate time of participating under each scheme for a customer accounting for the likely changes to the customer’s interaction with the retailer arising from the implementation of the PDF (as detailed in the new draft amendments to the Code).

These time periods have been further broken down by a customer’s direct and indirect (for example through their own independent search of a customer’s website for information on assistance measures) interaction with a retailer as shown in Table 4-1.

Table 4-1. Estimated interaction (mins)

Current Scheme	Interaction level (ACIL Allen Ref)	Indirect (search & familiarisation)	Direct (information provision / decision making)	Total (mins)
No Assistance	Nil	0.0	0.0	0.0
Bill smoothing and delayed payment	Medium	10.0	15.0	25.0
Payment Plans (but not in hardship)	Medium	30.0	15.0	45.0
Hardship	Extra long + Long	30.0	183.0	213.0

PDF	Interaction level (ACIL Allen Ref)	Indirect (search & familiarisation)	Direct (information provision / decision making)	Total (mins)
No Assistance	Nil	0.0	0.0	0.0
Standard Assistance	Short/Medium	5.0	8.3	13.3
Tailored Assistance	Medium/Long	5.0	80.3	85.3
Tailored Assistance - not engaged with retailer	Nil	0.0	0.0	0.0

Cost of customer participation (time value of money)

An individual’s cost of participating under either the PDF or current scheme was costed at an hourly wage rate calculated from ABS Average Weekly Earnings (catalogue number 6302), assuming an average of 38 hours worked per week as shown in Table 4-2.

Table 4-2. Cost of customer participation

Weekly wage rate	\$1,494.5
Hours worked per week	38
Hourly wage rate	\$39.3

Source: ABS

The additional costs or savings afforded to a customer through participating under the PDF were estimated through subtracting the costs to customers of participating under the current scheme from the forecast costs of participating under the PDF.

Scenario analysis

In addition, KPMG has assessed completed additional modelling of the impacts assuming a reduction or increase in the participation time for all categories of assistance under the PDF. More specifically, we have considered the impacts associated with a 10% increase or reduction in assumed average minutes a customer would be interacting (both indirectly and directly) with their retailer.

4.1.2 Assumptions

In order to assess the potential costs to consumers of participating under the PDF, as well as the current scheme, KPMG has been required to make a number of assumptions regarding an individual customer’s time, costs and the forecast benefits associated with the PDF. These assumptions include:

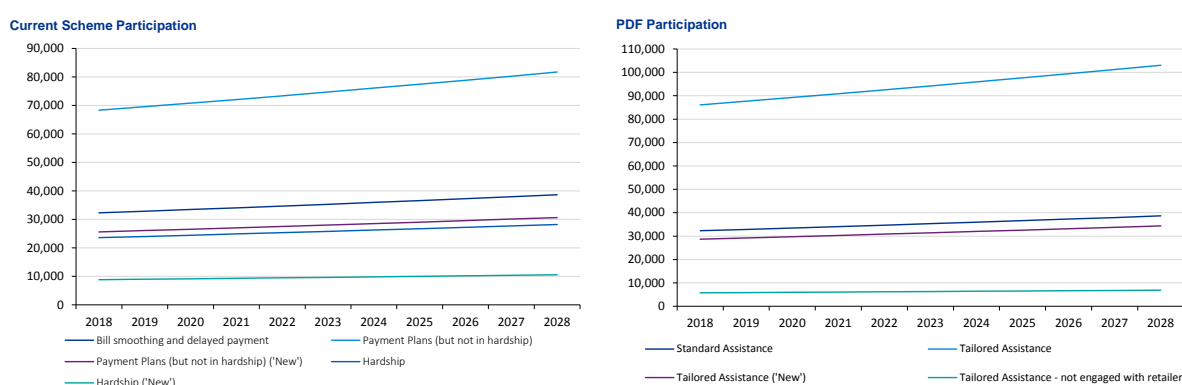
- Population:** A fixed 5% (124,184 in 2018) of all residential customers are assumed to be receiving some form of assistance under the current scheme and the PDF at all times. Under the current scheme this 5% is further broken down into those customers on bill smoothing and delayed payment arrangements (1.3%), payment plans – excluding hardship (2.8%) and hardship customers (0.95%). This breakdown is assumed to be fixed across all years of the forecast horizon.

Similarly, under the PDF, the fixed 5% of customers receiving assistance is broken down further into those receiving tailored assistance (3.468%), standard assistance (1.3%), and those entitled to assistance who do not engage with their retailer (0.223%). KPMG has aligned its assumptions regarding the breakdown of customers by assistance category to that of ACIL.

Further, KPMG has assumed all customers receiving standard assistance to be ‘new’ customers in a given year. Specifically, we assume these customers have shorter term difficulties in paying their energy bill which may be resolved within a year. Of the tailored assistance customers we assume 1/3 to be ‘new’ in a given year. This reflects the fact these customers may be required to repay their debts over a longer period, up to 2 years under the PDF.

Figure 4-1 highlights the forecasts of customer participation under both the current scheme and PDF, including estimates of new tailored assistance customers in a given year.

Figure 4-1. Forecast customer participation



Those customers entitled to standard or tailored assistance not engaged with their retailer are assumed to incur no customer participation costs under the PDF.

- b) **Time value of money:** KPMG notes that not all customers experiencing payment difficulties will be earning an hourly wage of \$39.30 with some customers earning above or below this value. Without sufficient data on the breakdown of customers and their earnings, KPMG has been required to approximate this value for all customers. This approach is consistent with the requirements of the Victorian Regulatory Change Measurement Manual.
- c) **Indirect vs direct interaction:** As part of its requirements under the proposed amendments to the Code, a retailer will be required to make available information in relation to assistance measures to its customers. This information may be provided via the retailer’s website or in print form, or sent via email. As a result, it is possible that a customer may seek information on their own prior to reaching out to their retailer. To account for this, KPMG has broken its assumption regarding aggregate time periods for a customer participating under the current or proposed framework into both indirect and direct impacts. An example of an indirect interaction may be one where a customer searches a retailer’s website for information regarding assistance measures or ways to reduce their energy costs.

This requirement on retailers leads to a reduction in the forecast indirect interaction between a customer and a retailer under the PDF relative to the current scheme.

- d) **Hardship customers:** We have assumed those customers deemed to be experiencing hardship, and therefore experiencing difficulties in paying their energy bill (including any arrears) will require the greatest assistance from their retailer and therefore have the highest total interaction time of all categories (under both the PDF and current scheme). This reflects the fact that these customers will tend to have multiple interactions and will be required to provide detailed financial information

to their retailer under the current scheme in identifying appropriate means for ensuring repayment of their energy bills and any amounts in arrears.

- e) **Electricity vs Gas customers:** Most if not all residential customers in Victoria will have both electricity and gas. In most cases, customers will have engaged with the same retailer for both, for example under a dual fuel contract. A customer who is experiencing payment difficulties and the threat of disconnection in relation to their electricity bill, will more often than not face similar difficulties in paying their gas bills. A retailer’s obligations to an electricity or gas residential customer are similar in nature – and equivalent under the PDF. As a result, KPMG has not established separate estimates of the period of interaction for an electricity customer relative to a gas customer. We have therefore treated the entire population, and the estimates of those customers receiving assistance, as inclusive of both electricity and gas customers.

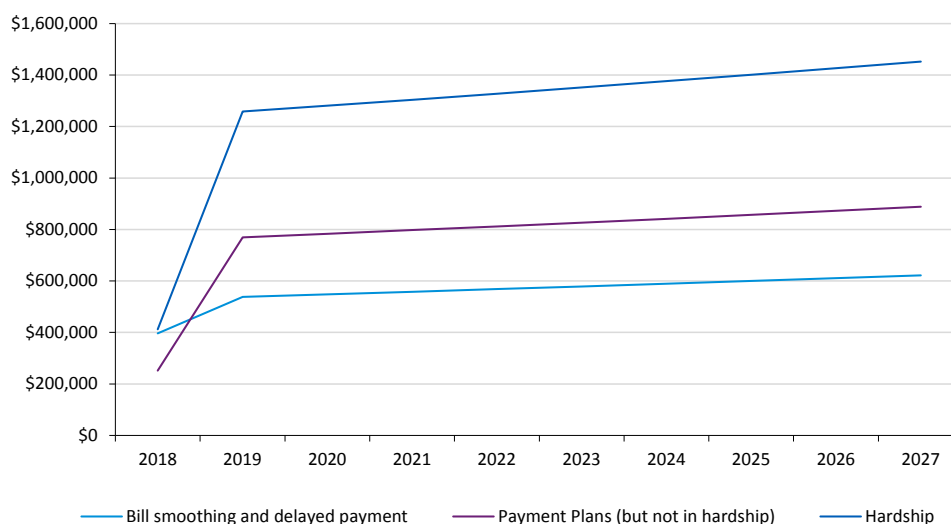
4.1.3 Findings

Current Scheme

Figure 4-2 shows the annual cost of customer participation under the current arrangements for those customers on bill smoothing or delayed payment arrangements, payment plans (excluding hardship), as well as those deemed to be hardship customers over the forecast horizon 2018 to 2028.

New hardship customers represent an average of 13% of the total customers receiving assistance, however, they contribute approximately 49% of the total customer participation costs each year under the current arrangements. Costs for these customers range from \$0.041 (year 1 – partial year) to \$1.48m per annum, or \$11m in NPV terms. This is driven by the significant interaction these customers are forecast to have with their retailer – on average 213 minutes total, and the current requirement for these customers to provide detailed financial information to their retailer.

Figure 4-2. New customer participation costs – Current scheme



Unlike hardship customers, those new customers on bill smoothing or delayed payment arrangements incur very low costs under the current scheme, \$0.4m to \$0.63m per annum or \$4.9m in NPV terms. Often these customers are not experiencing significant payment difficulties, such as those on hardship programs, and instead require short term assistance in meeting their financial obligations. Their average interaction with a retailer is assumed to be 25 minutes or less.

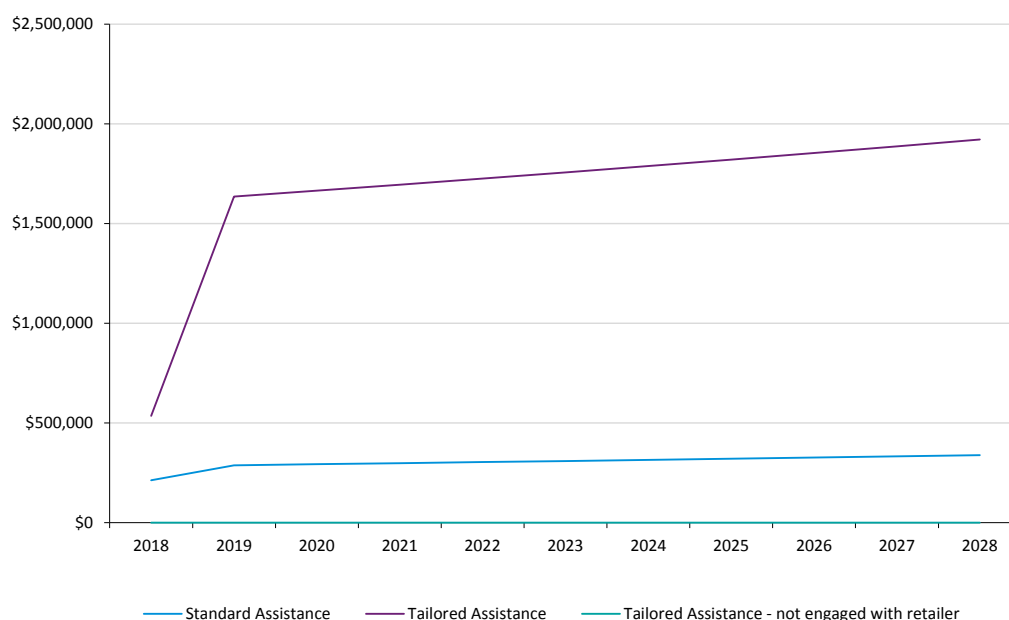
In total, customer participation costs under the current scheme are forecast to range between \$1.1m and \$3.0m per annum or \$22.6m in NPV terms.

Assumed participation time under the proposed PDF

Similar to the current arrangements customer participation costs under the PDF are assumed to be dominated by one category of assistance – tailored assistance. This reflects those customers receiving tailored assistance having the highest level of interaction with their retailer (85.3 minutes) as well as the largest number of the customer’s forecast to require this form of assistance over the modelling horizon. These customers are expected to engage with their retailer in developing an appropriate pathway forward for managing and paying their energy supply costs on time, as well as mechanisms for repayment of any arrears. We anticipate these customers to have longer interactions upfront – akin to those of a hardship customer, before these interactions reduce considerably.

Figure 4-3 highlights the total participation costs for new customers under the PDF. These costs are forecast to range between \$0.75m and \$2.3m per annum, totalling \$16.9m in NPV terms over the modelling period.

Figure 4-3 - New customer participation costs - PDF



On average tailored assisted customers represent more than 69.4% of customers receiving assistance. We estimate the costs for those new customers receiving tailored assistance to range between \$0.54m (year 1 – partial year) and \$1.9m over the forecast period or \$14.3m in NPV terms. Costs for customer’s receiving standard assistance are forecast to range from \$0.21m (year 1 – partial year) to \$0.34m or \$2.6m in NPV terms.

Table 4-3. Total customer participation costs under PDF

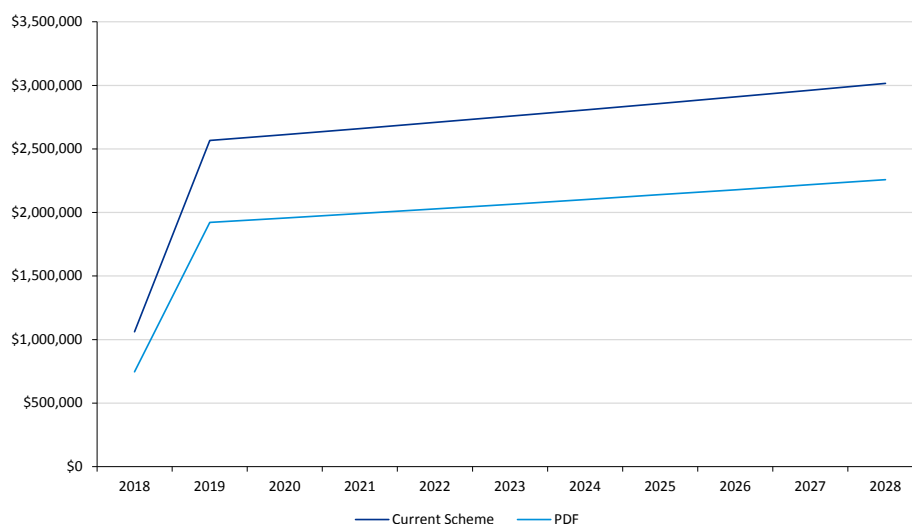
PDF - Form of assistance	NPV (\$m)
Standard assistance	\$2.6
Tailored assistance	\$14.3
Tailored assistance - not engaged with retailer	\$0.00
TOTAL	\$16.9

PDF compared to Current Scheme

Relative to the current scheme, customer participation costs are forecast to decrease by an average 25% as a result of the introduction of the new framework. Figure 4-4 shows the annual cost of customer participation under the current arrangements to those participating under the PDF.

On average, this reduction ranges between \$0.31m and \$0.76m per annum resulting in a total incremental saving to customers of approximately \$5.73m in NPV terms. The large difference in costs is primarily a result of the significant costs to customers of participating in the hardship programs and the volume of time associated with interacting with their retailers.

Figure 4-4. New customer participation costs PDF vs. Current scheme



Scenario analysis

KPMG has also completed additional scenario modelling in relation to a customer’s interaction with their retailer under the new framework. For this, KPMG has modelled both an increase and reduction of 10% in the total time a customer interacts with their individual retailer as shown in Table 4-4.

Figure 4-5 highlights the forecast (incremental) savings for new customers under the PDF relative to the current scheme across all three scenarios. These savings range from \$0.24m and \$0.98m per annum or \$4.04m and \$7.42m in NPV terms across the modelling horizon (as shown in Table 4-5). Similar to the base case scenario, these savings are driven by the considerably shorter period of interaction experienced by those customers who are now entitled to tailored assistance – prior to directly to a hardship program.

Table 4-4. Customer participation – Scenarios (minutes)

Scenario	Low	Base	High
No Assistance	0.0	0.0	0.0
Standard Assistance	14.7	13.3	12.0
Tailored Assistance	93.8	85.3	76.8
Tailored Assistance - not engaged with retailer	0.0	0.0	0.0

Figure 4-5. Scenario analysis – Annual new customer participation savings under the PDF

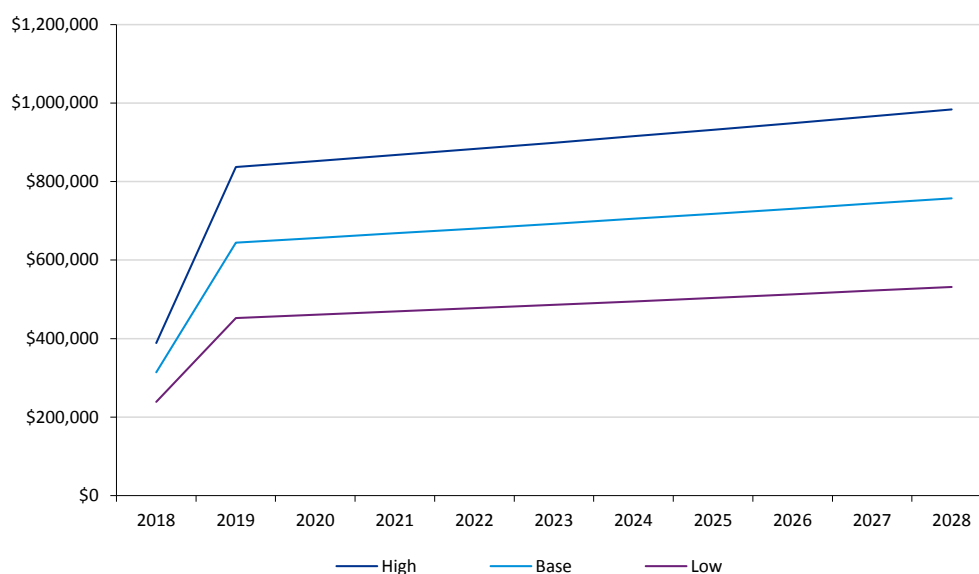


Table 4-5. Scenario analysis – Total customer participation savings under the PDF

Scenario	NPV (\$m)
High - Reduced mins	\$7.42
Base	\$5.73
Low - Increased mins	\$4.04

4.2 Potential savings due to better electricity tariff choices

As noted in Section 1.2, a key pillar of the tailored assistance measures under the Code requires a retailer to provide practical assistance to help a customer lower their energy costs. In providing such assistance, a retailer is required to inform the customer of the electricity tariff most likely to minimise their energy cost – accounting for their pattern of energy use and payment history.

In Victoria, approximately 91% of residential customers are currently on a market offer contract with their retailer.¹⁶ These customers have shown some level of engagement with their retailer in the past to move from a standing offer contract. However, this does not guarantee that those customers are on the most appropriate tariff for their individual circumstances. Similarly, this level of engagement does not preclude these customers from experiencing payment difficulties at some point in the future.

Further, while Victoria continues to stand out among Australian states and territories with the highest total (and percentage) of small customer transfers between retailers – 30% as of March 2017¹⁷ – not all customers experiencing payment difficulties will have sought a better offer from another retailer.

It may therefore be assumed that an element of the population, including in certain cases customers experiencing payment difficulties, are not on the most ‘appropriate’ tariff for their energy consumption. These customers may achieve a saving in their overall energy bill by simply switching tariffs, either with their existing retailer or by moving to a new retailer, thereby reducing the risk of getting into arrears for their energy consumption.

¹⁶ Australian Energy Market Commission. 2016 Residential Electricity Price Trends. December 2016

¹⁷ Australian Energy Market Operator. Monthly Retail Transfer Statistics. March 2017. 1-month Annualized Transfer Rate.

KPMG has estimated the potential magnitude of the saving for those customers experiencing payment difficulties when switching to a better tariff. The magnitude of saving for an individual customer estimated in this section is a representation of the maximum benefit that may be achieved – not all customers will benefit in the same manner, or at all, as this will depend on their current tariff arrangements and alternative options made available to them.

4.2.1 Modelling methodology

To quantify the potential impacts (savings) for a customer experiencing payment difficulties of switching to a better tariff option, KPMG completed the following steps:

- Step 1: Estimated the population segment which may benefit from switching their retail tariffs over the modelling horizon in comparison to their existing arrangements;
- Step 2: Identified the average annual electricity consumption for residential customers as published by the AEMC;

As part of this approach, and consistent with the quantification of other impacts to customers, KPMG has utilised an average residential electricity consumption for Victoria of 4,206 kWh per annum;

- Step 3: Identified the average variance in tariffs between electricity retail offerings for residential customers. In order to be conservative with our estimate, KPMG has made a further adjustment to the average variance in tariff offerings providing for only 60% of the total variance to be passed through to customers; and
- Step 4: Calculated aggregate annual savings for each year over the forecast horizon by multiplying the average tariff dispersion by the average annual residential consumption.

Estimating the average tariff spread between retail offerings

When making an offer to a customer, a retailer will weigh up the personal circumstances for that customer accounting for, among other things: the size of the premise and number of residents; if the premise has solar panels; how the premise is heated or cooled; the existence of a pool, refrigerator or other key appliances; and if a resident is a concession card holder.

Depending on a customer's location, their individual responses to the above questions and importantly which retailer they engage for their electricity supply, a customer may have access to a range of contract options, with varying tariffs and features (including discounts dependent on payment method).

It is inherently difficult to estimate the potential benefits for any one customer across the State without knowing an individual's circumstances. Issues associated with such estimates can be further exacerbated when attempting to determine them across a larger customer segment such as those experiencing payment difficulties.

Recognising these limitations and difficulties, KPMG has therefore relied on the tariff estimates of the AEMC for (non-regulated) standing and market electricity offers as published in their annual Residential Electricity Price Trends report

The AEMC defines standing and market offers to be:

- **Standing offer contracts:** those with terms and conditions that are regulated by law – in Victoria these terms are defined in the National Energy Retail Law; and
- **Market offer contracts:** those which are determined by retailers in a competitive market which contain a regulated set of minimum terms and conditions.

The tariffs reported for both the standing and market offer contracts are used as a proxy for the annual electricity costs for a representative residential customer in Victoria (i.e. one with main gas). Using these estimates will aid in avoiding any potential issues of misrepresentation of a residential customer. To estimate the tariffs under a standing or market offer contract, the AEMC have relied on data sourced through the Victorian Government’s price comparator website – Victorian Energy Compare.

Table 4-6 highlights the current electricity tariff estimates presented by the AEMC in their 2016 Residential Electricity Price Trends report.

Table 4-6. AEMC Standing and Market Offer estimates - Victoria

Offer type	2016-17		2017-18		2018-19	
	c/kWh	\$/yr	c/kWh	\$/yr	c/kWh	\$/yr
Standing offer	35.22	\$1,418	37.73	\$1,519	37.55	\$1,512
Market offer	27.49	\$1,107	29.80	\$1,200	29.42	\$1,185
Difference	7.73	\$311	7.93	\$319	8.13	\$327
Difference passed on (60%)	3.85	\$155	4.64	\$187	4.76	\$191

Source: AEMC and KPMG assumptions

The standing offer and market offer tariffs presented above provide a range for the electricity cost savings which may be gained by a customer when moving from one tariff (contract) type to another. The difference between the standing offer and market offer tariffs highlights the magnitude of savings which may be achieved. Based on the figures reported by the AEMC, a customer may stand to benefit up to on average 22% on their electricity bill when moving from a standing offer to a market offer contract across each of the three years.

As noted above the magnitude of impact will be dependent on the individual circumstances of each customer. Not all customers experiencing payment difficulties will be on a standing offer contract. KPMG has therefore taken a conservative estimate of this impact by:

- Limiting the potential impact to a small percentage of those customers who are forecast to require tailored assistance. This is consistent with the current arrangements whereby 91% of all residential customers are already on market offer contracts; and
- Limiting the actual magnitude of savings attributable to a customer. Consistent with the fact that 91% of customers are already on a market offer contract, the magnitude of savings attributable to a customer are likely to be less than the range presented. Further, a customer may offset these savings by using the “additional” currency to purchase additional appliances or equipment with a reliance on electricity – leading to an increase in their energy use and/or total electricity cost.

KPMG has therefore assumed that only 60% of the variance in tariffs is passed through to the customer.

Estimating average residential consumption

Consistent with other areas of the analysis, KPMG has relied on the AEMC’s estimated electricity consumption for a residential customer in Victoria of 4,026kWh per annum. The AEMC note this forecast is for a representative residential customer in the state consisting of a household of only two persons with a main gas connection and no pool.

4.2.2 Assumptions

Consistent with the quantification of other impacts, KPMG has had to make a number of assumptions in quantifying the impacts associated with a change in tariffs for customers, including:

- **Electricity use:** The annual electricity use of a customer is assumed not to change over the modelling horizon. Specifically, a customer is assumed to maintain their current pattern of energy

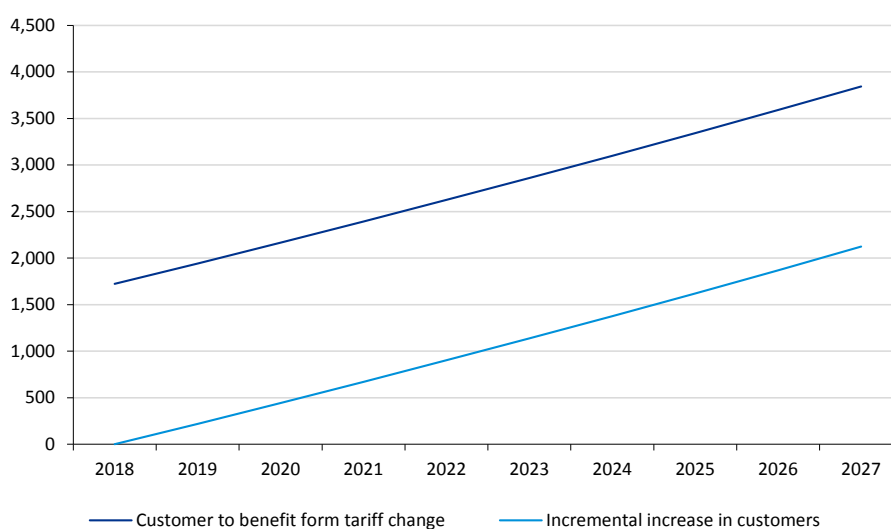
usage and does not act in a manner that counterbalances the reduced cost per energy unit (e.g. increase energy use as the cost per energy unit is reduced).

KPMG recognise a residential customer’s energy use will indeed fluctuate month to month, year to year and is dependent on a wide range of variables – including the number of individuals living at a premise and existence of certain appliances and approaches to heating or cooling a premise.

- **Population:** To measure the associated impact with a change in tariffs, KPMG has relied on a forecast of the total population receiving tailored assistance with managing their energy bills. In defining the population, KPMG has assumed that once a customer is placed on a lower tariff that customer stands to benefit forever (i.e. they will never return to their previously higher tariff). As a result, KPMG assumes that only an incremental portion of customers may benefit each year from changes to their customer bill.

Figure 4-6 highlights the total and incremental increase in total tailored assisted customers benefiting from switching their electricity tariffs

Figure 4-6. Tailored customers benefiting from switching their electricity tariffs



Specifically of the customers receiving tailored assistance in a given year, KPMG has assumed only 2% of these customers may be eligible to switch tariffs in Year 1 and 0.25% of customers from Year 2 onwards.¹⁸ This amounts to approximately 3,845 electricity customers over the modelling horizon. These assumptions are required as the total number of customers receiving tailored assistance will fluctuate across years and within a given year reflecting new customers experiencing payment difficulties seeking assistance, as well as existing customers moving out of this form of assistance.

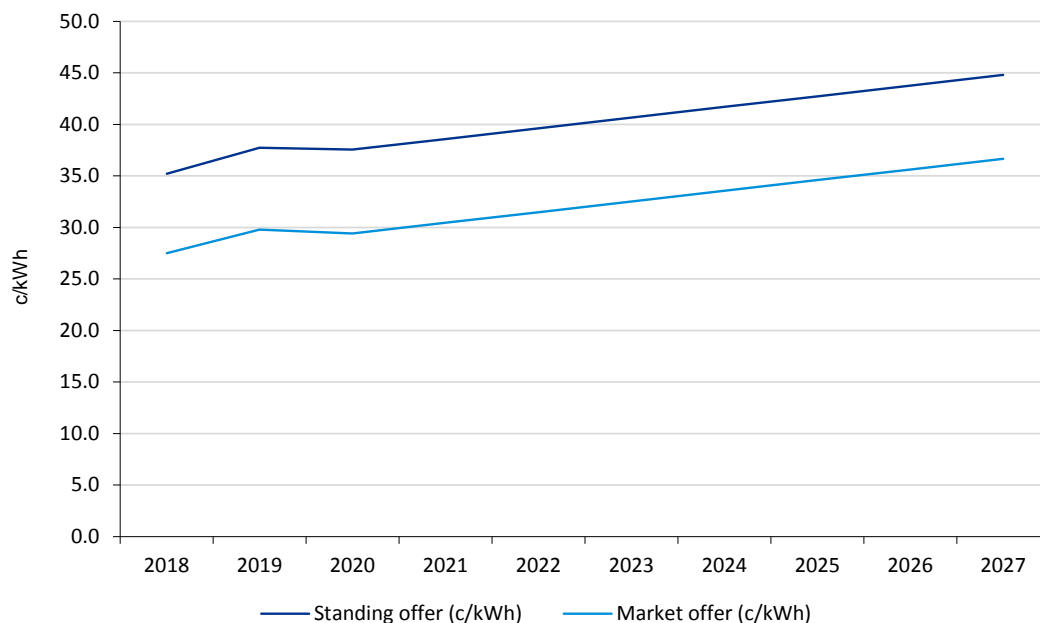
- **Standing and market offer tariffs:** As noted previously a residential customer will have access to a range of retail offers consistent with their individual circumstances and the retailer(s) with whom they choose to engage. The tariffs reported by the AEMC, and used as part of our assessment, represent two potential offers only on this spectrum. It is possible that alternative tariff ranges may be drawn which would alter the findings of our assessment.

¹⁸ To determine 0.25%, KPMG has assumed only 5% of tailored assistance customers may be eligible to switch their tariffs, and of this 5% only 5% are assumed to actually make the switch and therefore benefit from a reduction in their energy bills.

As part of its base case, KPMG has assumed that only 60% of the tariff variance estimated is passed through to consumers.

Forecast standing offer and market offer tariffs account for the average change in offer over the period 2016/17 to 2018/19 as modelled by the AEMC. Figure 4-7 highlights the forecast standing and market offers over the modelling period. These offers are forecast to grow at 3.7% and 2.6% per annum on average over the period.

Figure 4-7. Forecast standing and market electricity offers



- Representative household:** The reported standing offer and market offer are for a representative household only. The AEMC note “In Victoria, the most common type of residential electricity consumer (the representative consumer) is a two-person household with a mains gas connection and no pool.”¹⁹

It is possible that this representative household may not be consistent with those customers experiencing or likely to be experiencing payment difficulties. However, given the various characteristics attributable to those households experiencing payment difficulties, KPMG considers the AEMC representation to be appropriate as a baseline for the purposes of this assessment.

4.2.3 Findings

Customers receiving tailored assistance, consuming 4,026kWh, who seek to switch their electricity supply contract from a standing offer to a market offer will see a reduction in their energy bills of an average of \$193 per annum over the forecast horizon assuming that 60% of difference in tariffs are passed through to the customers.

Where the PDF provides for an increase in the number of customers who look to switch to a more appropriate tariff reflective of their individual circumstances, these customers stand to benefit in the order of \$0.098m (year 1 – partial year) and \$0.81m per annum collectively under KPMG’s base case scenario. This benefit will flow through to customers in the form of reduced electricity bills throughout the modelling horizon and amount to a saving of \$4.55m in NPV terms over the forecast period.

¹⁹ Australian Energy Market Commission. 2016 Residential Electricity Price Trends Report. 14 December 2016.

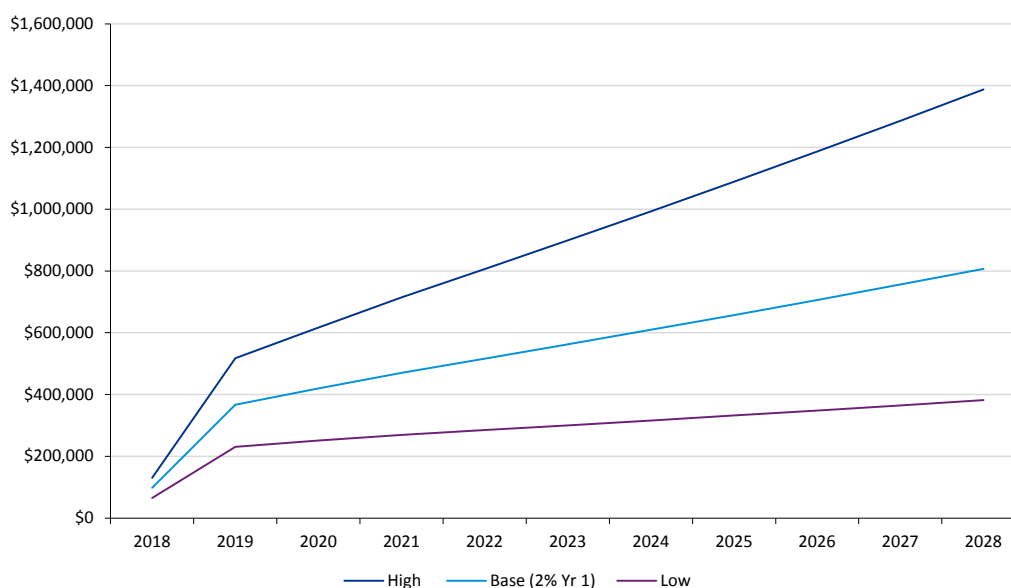
Scenario analysis

In addition to modelling the incremental impacts (savings) to customers associated with moving to an optimal tariff level, KPMG has also modelled additional sensitivities in relation to the total number of customers who choose to switch their tariffs and the level of tariff variance passed through. In particular, we have modelled two additional sensitivities:²⁰

- High: 0.375% of customers (approximately 4,900 customers) choose to switch their tariffs and 80% of difference in tariffs is passed through and
- Low: 0.125% (approximately 2,800 customers) of customers choose to switch their tariffs and 40% of difference in tariffs is passed through.

In NPV terms, the impacts to customers under these two scenarios range from \$2.42m to \$7.29m over the forecast period. This impact represents an annual saving of between \$0.065m and \$1.4m for customers who choose to switch their retail tariff depending on the total number of customers assumed to have switched their tariff. Of the sensitivities modelled, total customer savings increase or decrease proportionally relative to the total number of customers who choose to switch their retail tariffs. Specifically, reduction (or increase) in the number of customers who switch their tariffs to 0.125% (0.375%) will amount to a 50% reduction (or increase) in the total aggregate savings enjoyed by customers in the form of lower energy bills over the forecast horizon assuming the percentage difference in saving remains fixed. Such annual savings are assumed to increase incrementally each year as more and more customers begin take up the option to switch their tariff – customers who have benefited will continue to benefit over the remaining years of the forecast regardless of the period in which they take up the option.

Figure 4-8. Scenario analysis – Annual aggregate customer savings from switching electricity tariffs



In addition to the above scenarios, KPMG has completed additional modelling assuming 5% of customers choose to switch their tariff from Year 1, as opposed to 2%. This equates to approximately 6,400 customers (relative to 3,800) over the modelling period. This change significantly increases the aggregate savings to customer's year on year and therefore the total benefit over the forecast period.

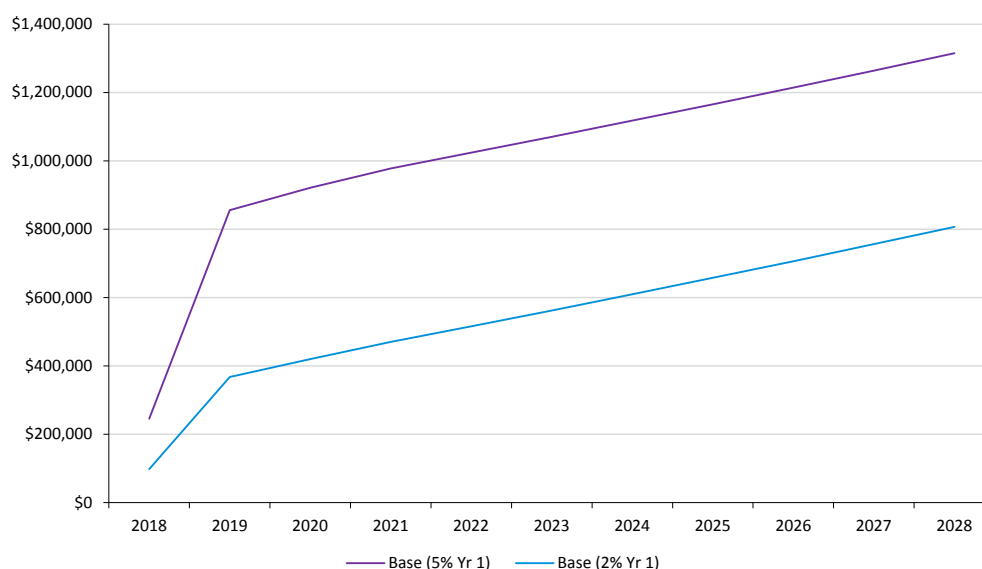
²⁰ To determine 0.125% and 0.375%, KPMG has assumed only 5% of tailored assistance customers may be eligible to switch their tariffs, and of this 5% only 2.5% and 7.5% respectively are assumed to actually make the switch and therefore benefit from a reduction in their energy bills.

More specifically, this change increases the range of annual savings to between \$0.25 (year 1 – partial year) and \$1.31m per annum from \$0.098m and \$0.81m per annum, almost doubling the net savings over the modelling period to \$8.63m (from \$4.55m) in NPV terms.

Table 4-7. Scenario analysis – Total savings from switching electricity tariffs

Scenario	NPV (\$m)
High - 0.375% switch / 80% variance passed through	\$7.29
Base - 2% Yr 1 and 0.125% Yr 2 switch / 60% variance passed through	\$4.55
Low - 0.125% of customers switch tariffs / 40% of tariff variance passed through	\$2.42

Figure 4-9. Scenario analysis – Increase customer switching in year 1



4.3 Potential savings due to better gas tariff choices

As per the assessment presented in Section 4.2, under the Code a retailer must also provide practical assistance to those customers holding a gas retail contract in the same manner in which they provide practical assistance to an electricity customer. Specifically a retailer is required to inform the customer of the gas tariff most likely to minimise their energy costs – accounting for their pattern of gas use and payment history.

In Victoria there are approximately 2.1 million small gas customers, relative to 2.78 million electricity customers.²¹ For the majority of customers in Victoria (approximately 75%), it may therefore be assumed they hold both an electricity and gas retail contract with their retailer. Further for those customers experiencing payment difficulties in relation to their electricity bill it can be reasoned these customers would be experiencing similar difficulties in relation to their gas bills.

KPMG has estimated the potential magnitude of the saving for those customers experiencing payment difficulties when switching to a better gas tariff. As per our assessment of the electricity tariff savings, the magnitude of saving for an individual customer estimated in this section is a representation of the maximum benefit that may be achieved – not all customers will benefit in the same manner, or at all, as this will depend on their current tariff arrangements and alternative options made available to them.

²¹ Australian Energy Market Commission. 2017 AEMC Retail Energy Competition Review. 25 July 2017.

4.3.1 Modelling methodology

To quantify the potential impacts (savings) for a customer experiencing payment difficulties of switching to a better gas tariff option, KPMG completed the following steps:

- Step 1: Estimated the population segment which may benefit from switching their retail gas tariffs over the modelling horizon in comparison to their existing arrangements;
- Step 2: Identified the average annual bill variance for a Victorian residential gas customer supplied under a standing offer, as oppose to market offer.

KPMG has relied on estimates of the average standing and market offers as published in the Australian Energy Regulator’s State of the Energy Market Report for May 2017. Further, as per our estimated in electricity tariff savings, KPMG has made a further adjustment providing for only 60% of the total variance to be passed through to customers; and

- Step 3: Calculated aggregate annual savings for each year over the forecast horizon by multiplying the population segment by average annual bill variance.

Estimating the annual average bill variance between retail offerings

A retailer when making an offer to a customer to supply gas will be required to weigh up the personal circumstances for that customers in a similar manner as when it makes an offer to supply electricity. And like an electricity customer, a gas customer will potentially have access to a range of contract options with varying tariffs and features.

As a result those issues which arise in attempting to estimate the potential benefits for any one customer across the state, let alone a larger population segment, of switching their electricity tariff are equally complicated for gas customers, and potentially more so for those on a dual fuel contract arrangement.

Given these limitations and difficulties, KPMG has therefore relied on the AER’s estimates of the annual average bill for customers on a standing and market offer contract as published in their 2017 State of the Energy Market report. Table 4-8 highlights the AER’s estimates across all three gas distribution networks. The annual bill estimates are used as a proxy for a representative gas customers in Victoria – assumed to consume 24 GJ per annum.

Table 4-8. Annual standing and market gas bill estimates

Gas Provider	Standing Offer	Market Offer	Difference
AusNet	\$733	\$683	\$50
Multinet	\$787	\$710	\$77
AGN	\$802	\$726	\$76
Average	\$774	\$706	\$68

Source: AER

Using these estimates will aid in avoiding any potential issues of misrepresentation of a residential customer. To estimate the tariffs under a standing or market offer contract, the AER have relied on data sourced through the Victorian Government’s price comparator website – Victorian Energy Compare.

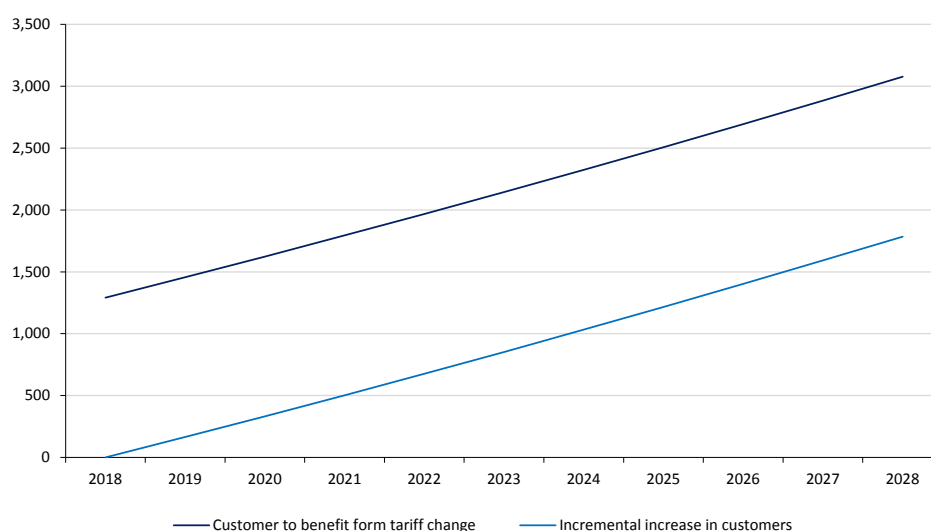
In applying these estimates, KPMG have adopted the average standing and market offer across all three distribution networks.

4.3.2 Assumptions

Consistent with the assessment of potential savings for customers switching their electricity tariffs, KPMG has made similar assumptions in quantifying the impacts associated with a changes in gas tariffs for customers (please refer to Section 4.2.2), including:

- **Gas use:** The annual gas use of a customer is assumed not to change over the modelling horizon and a customer is assumed to maintain their current pattern of energy usage and does not act in a manner that counterbalances the reduced cost per energy unit (e.g. increase energy use as the cost per energy unit is reduced).
- **Population:** Not all customers hold both electricity and gas contracts. We have therefore assumed that only 75% of those tailored assistance customers (approximately 2,900 in total) expected to benefit from switching their electricity tariff, may also benefit from switching their gas tariff as shown in Figure 4-10.

Figure 4-10. Tailored customers benefiting from switching their gas tariffs



- **Standing and market offers:** The annual bill estimates reported by the AER, and used as part of our assessment, represent two potential offers only. It is possible that alternative bill ranges may be drawn which would alter the findings of our assessment. For example, the AEMC in their 2017 review of retail competition identified bill outcomes which range from as high as \$1,041 per annum on the Australian Gas Network area to as low as \$559 per annum on the AusNet Services area.

As part of its base case, KPMG has assumed that only 60% of the bill variance estimated is passed through to consumers. This amount has been kept fixed over the modelling horizon.

- **Representative household:** The reported standing and market bills estimates are for a representative household only. The AER and AEMC have specified average annual gas consumption for a residential customer in Victoria to equal 24 GJ per annum.^{22,23}

²² Australian Energy Regulator. State of the Energy Market. May 2017. Page 150.

²³ Australian Energy Market Commission. 2017 AEMC Retail Energy Competition Review. 25 July 2017.

4.3.3 Findings

Customers receiving tailored assistance, consuming 24 GJ per annum, who seeks to switch their gas supply contract from a standing offer to a market offer will see a reduction in their energy bills on average of \$41 per annum over the forecast horizon assuming that 60% of difference in bill variance is passed through to the customers.

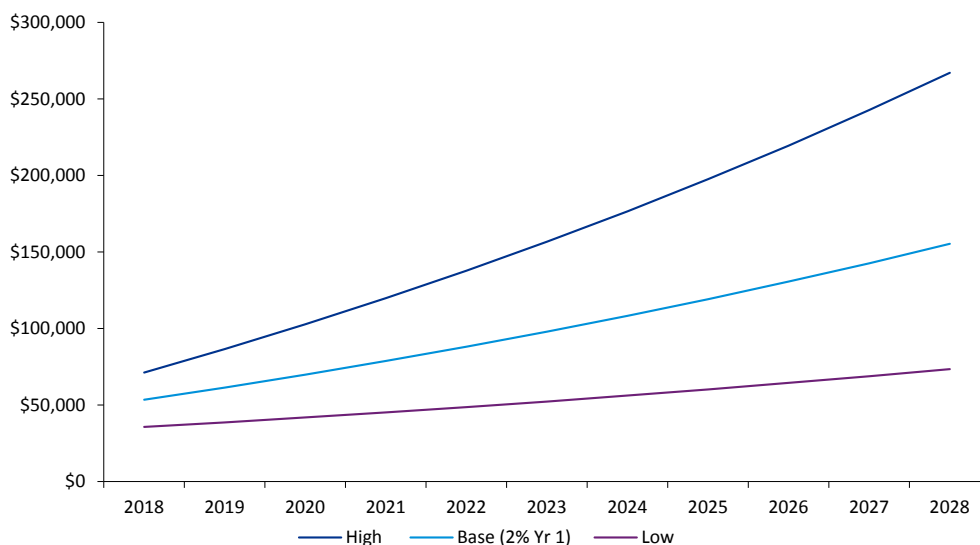
Where the PDF provides for an increase in the number of customers who look to switch to a more appropriate tariff reflective of their individual circumstances, these customers stand to benefit in the order of \$0.054m and \$0.16m per annum collectively under KPMG’s base case scenario. This benefit will flow through to customers in the form of reduced gas bills throughout the modelling horizon and amount to a saving of \$0.85m in NPV terms over the forecast period.

Scenario analysis

Consistent with our scenario analysis in relation to those customers switching their electricity tariffs, KPMG has performed a similar sensitivity testing for those customers who may benefit from switching their gas tariff arrangement with their retailer. Specifically, we have modelled two additional sensitivities:²⁴

- High: 0.375% of customers (approximately 3,700 customers) choose to switch there tariffs and 80% of bill variance is passed through and
- Low: 0.125% (approximately 2,100 customers) of customers choose to switch their tariffs and 40% of the bill variance is passed through.

Figure 4-11. Scenario analysis – Annual aggregate customer savings from switching gas tariffs



In NPV terms, the impacts to customers under these two scenarios range from \$0.45m to \$1.35m over the forecast period. This impact represents an annual saving of between \$0.035m and \$0.27m for customers who choose to switch their retail tariff subject to the total number of customers who switch their tariff and percentage of bill variance passed through. Annual savings are assumed to increase incrementally each year as more and more customers begin take up the option to switch their tariff

²⁴ To determine 0.125% and 0.375%, KPMG has assumed only 5% of tailored assistance customers may be eligible to switch their tariffs, and of this 5% only 2.5% and 7.5% respectively are assumed to actually make the switch and therefore benefit from a reduction in their energy bills.

arrangement – customers having already benefited will continue to benefit over the remaining years of the forecast regardless of the period in which they take up the option.

Table 4-9. Scenario analysis – Total savings from switching gas tariffs

Scenario	NPV (\$m)
High - 0.375% switch / 80% variance passed through	\$1.35
Base - 2% Yr 1 and 0.125% Yr 2 switch / 60% variance passed through	\$0.85
Low - 0.125% of customers switch tariffs / 40% of tariff variance passed through	\$0.45

4.4 Potential savings due to lower energy consumption

In addition to a requirement for retailers to identify potential tariff options, as part of the tailored assistance measures a retailer is also required to provide specific advice about the likely cost of a customer’s future energy use and how this cost may be lowered.

There are many ways in which a residential customer may lower their energy consumption. The Victorian Government highlight 10 immediate steps²⁵:

- Wearing the right clothes;
- Shutting doors and closing curtains;
- Setting the thermostat between 18 and 20 degree in winter and above 26 degrees in summer;
- Turning off heaters and coolers when not required;
- Washing clothes in cold water;
- Running appliances (e.g. refrigerator) efficiency;
- Roof insulations;
- Stopping wastage associated with standby power;
- Cooking more efficiently and making greater use of lower energy use appliances; and
- Installation of energy efficient light globes.

Further to the options identified by the Victorian Government, many of the retailers operating in the state already provide additional information on ways a customer may improve their energy efficiency – reducing their overall energy use.

A residential customer may also choose to have a home assessment (or audit) completed – an assessment, completed by an accredited provider, will provide expert suggestions for improving and minimising a customer’s energy use tailored to their individual circumstances.

Placing further mandated requirements on a retailer as part of the PDF to help a customer identify ways their energy bill may result in an overall reduction in energy use for those customers experiencing payment difficulties – akin to those who implement the findings of a home energy audit. These benefits will accrue in the form of reduced energy bills for a customer moving forward, as well as more widespread environmental benefits for the community.

KPMG has estimated the potential benefits to a customer experiencing payment difficulties by focusing on the associated reduction in their energy consumption and therefore their energy bill. To measure these impacts KPMG has relied on work completed in assessing the impacts of the Victorian Energy Efficiency Target (VEET) scheme (described in further detail below) and specifically the modelling completed in establishing individual three year targets.

In measuring the impact on customers, KPMG recognises the potential ‘rebound effect’ which may result from increased efficiency associated with a customer’s energy use. This rebound effect may

²⁵ Department of Land, Water and Planning. Victorian Energy Saver. Website. Last Accessed 26 April 2017. <<http://www.victorianenergysaver.vic.gov.au/more-ways-to-save/top-10-ways-to-save-energy>>

offset the benefits associated with improvements in a customer's energy use – for example by a customer using the savings associated with energy efficiency measures to replace or buy new appliances which may not otherwise have been used and therefore included in the calculation of overall energy use. While this effect has generally been accepted, KPMG recognises an independent survey completed as part of an overall assessment of the VEET found this assumption may not hold true in practice.²⁶ KPMG has not attempted to quantify a rebound effect as part of its modelling. Our assessment is therefore subject to the existence (or not) of any such effect for a consumer.

4.4.1 Modelling methodology

Our approach to quantifying the potential savings or reductions, will include the following steps:

- Step 1: Estimate the population segment experiencing payment difficulties which may benefit from improvements in their energy use – specifically adopting energy efficiency measures;
- Step 2: Review existing cost benefit analysis and impact assessments of the VEET scheme on residential customers. As part of this review KPMG has identified a range of potential energy bill savings (\$/annum) a customer may achieve under the VEET scheme.
- Step 3: Calculate the aggregated value impact by multiplying the population segment by individual energy savings.

Estimating the individual customer impact

The VEET scheme, also known as the Energy Saver Incentive (ESI), is a market based scheme designed to promote the uptake of energy efficiency improvements in residential and non-residential premises. It operates by setting carbon reduction targets and requiring energy retailers to submit certificates to meet their carbon reduction liabilities. The scheme commenced on 1 January 2009 under the Victorian Energy Efficiency Target Act (2007).

The scheme operates in distinct three year phases, with the scheme's targets reset at the beginning of each new phase. For the first three-year phase of the scheme (2009-11), the scheme target was 2.7 million Victorian Energy Efficiency Certificates (VEECs) per annum. This increased to 5.4 million VEECs per annum from 2012. In 2017, the target is 5.9 million VEECs. This will increase further to 6.1 million in 2018, 6.3 million in 2019, and 6.5 million in 2020.

The performance of the scheme and its associated impacts have been periodically assessed by the Victorian Government. In general, the scheme has benefited those residential customers who have participated through reducing their energy consumption and therefore decreasing their energy bills, while those non-participating households have tended to experience an increase in their energy bills – primarily as a result of increases in network and wholesale energy costs.

A detailed review of the overall costs and benefits associated with the VEET scheme is beyond the scope of work for this engagement. However, KPMG has drawn insight from the assessed reduction in a customer's energy bill associated with participating in the scheme.

In February 2014, as part of its Business Impact Assessment (BIA) of the VEET scheme, the Victorian Department of State Development, Business and Innovation assessed customers participating in the scheme to receive an annual benefit over the period 2015 to 2017 from a reduction in their energy bill. Table 4-10 highlights the results from the BIA – residential customer bills were forecast to reduce annually between \$77.06 and \$162.80 over the period subject to the target adopted.

²⁶ Gerrard Bown. Victorian Energy Efficiency Target Act. Independent Review – Final Report. October 2011.

Table 4-10. February 2014 Modelled reduction in residential customer electricity bill (\$/per annum)

Target	2015	2016	2017
2.0 Mt CO ₂ per annum	\$77.06	\$116.50	\$128.72
2.7 Mt CO ₂ per annum	\$82.56	\$125.17	\$137.85
5.4 Mt CO ₂ per annum	\$83.52	\$141.30	\$162.80

Source: Victorian Department of State Development, Business and Innovation

In April 2015, as part of its consultation on setting future targets for the VEET scheme, the Victorian Department of Economic Development, Jobs, Transport & Resources, modelled the average savings in electricity expenditure for residential customers per annum. The results of this modelling are shown in Table 4-11 below. As per the previous assessment customers total electricity bills were forecast to reduce across the modelling period. This reduction ranged on average between \$140 and \$166 per annum depending on the term and target adopted.

Table 4-11. April 2015 Modelled reduction in residential customer electricity bill (\$/per annum)

Target	Average 2016-20	Average 2021-30	Average 2016-30
3-year, 5.4 Mt CO ₂ per annum	\$132	\$165	\$149
3-year, 5.8 Mt CO ₂ per annum	\$130	\$162	\$146
3-year, 6.2 Mt CO ₂ per annum	\$124	\$155	\$140
5-year, 5.8 Mt CO ₂ per annum	\$124	\$184	\$154
5-year, 6.2 Mt CO ₂ per annum	\$119	\$183	\$166

Source: Victorian Department of Economic Development, Jobs, Transport & Resources

It should be noted that these two assessments have yielded differing results regarding the overall costs and benefits of the scheme. For example, the February 2014 assessment determined the costs to outweigh the potential benefits of the scheme in the future, while the April 2015 assessment found the opposite to be true. This was primarily a result of differences in the cost of VEECs modelled, exclusion of private costs for participants, inclusion of environmental benefits and the overall period of analysis (April 2015 assessed the costs and benefits over a period to 2050, as opposed to 2030 under the February 2014 analysis).

Despite the contradiction in overall findings, the individual assessments of the potential savings a customer may benefit from by participating in the scheme remain true. KPMG has therefore relied on these estimates as part of its assessment of the potential benefits to those customers experiencing payment difficulties. Consistent with the higher targets set for the period 2017 to 2020, KPMG has modelled the benefits to range between \$110 and \$170 per annum for each customer with a base case assumption of an annual saving of \$140 per annum. In modelling this range, KPMG has not indexed the value of the associated benefits.

In practice, it is possible that this range may over (or under) state the benefits to any one customer. For example, a customer may have already been working with a retailer on ways to reduce their energy consumption, including completing a home energy audit. We therefore note that the individual and aggregate benefits will be subject to the individual and group characteristics of those experiencing payment difficulties.

4.4.2 Assumptions

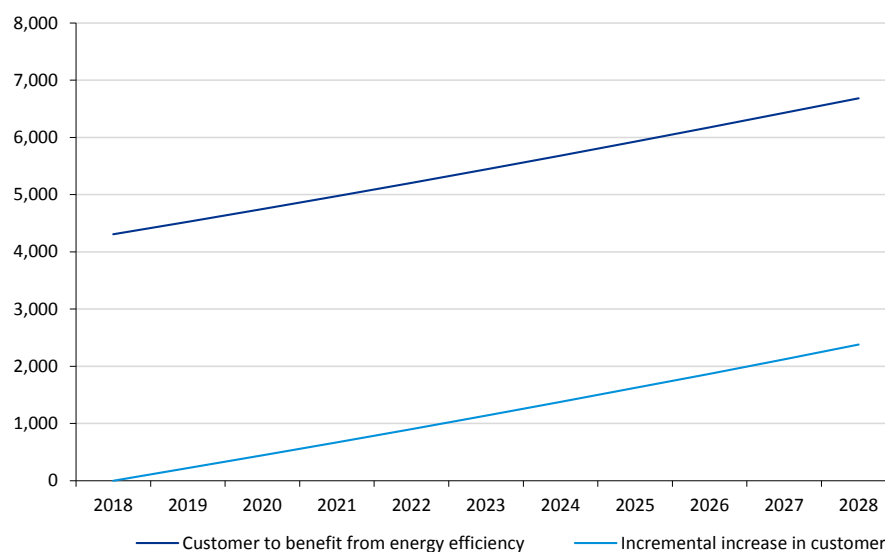
In estimating the impact to customers of a potential change in total energy consumption resulting from the introduction or uptake of energy efficiency measures, KPMG has had to make a number of assumptions. Should any of the assumptions change then the findings contained in this report may no longer be appropriate. These assumptions are summarised below.

- **Population:** To measure the associated impact resulting from a reduction in energy consumption, KPMG has relied on a forecast of the total population receiving tailored assistance with managing their electricity bills. In defining the population, KPMG has assumed that of the total customers

receiving tailored assistance, only 5% of customers (per annum) benefit from uptake of energy efficiency measures in Year 1. While from year 2 onwards we assume .025% of customers receiving tailored assistance actually implement such measures over the forecast horizon and therefore are deemed to benefit from a reduction in their energy bills moving forward (see Figure 4-12). These assumptions are required as the total number of customers receiving tailored assistance will fluctuate across years and within a given year, reflecting new customers experiencing payment difficulties seeking assistance, as well as existing customers moving out of this form of assistance.

Customers who are forecast to take up energy efficiency measures are assumed to maintain these savings over the remaining period of the forecast. This is consistent with our assumption in relation to those customers who will benefit from switching their retail tariffs.

Figure 4-12. Population forecast to benefit from energy efficiency measures



- Reduction in energy bill:** Those customers who are identified as potentially benefiting from energy efficiency measures are forecast to receive a reduction in their energy bills of \$140 per annum in each year of the forecast period. This range is reflective of the estimates of bill savings for residential customers modelled under the April 2015 study for setting targets.

In identifying the potential reduction KPMG has also assumed that a customer does not change their total or pattern of energy use over the modelling horizon other than that built into the forecast saving.

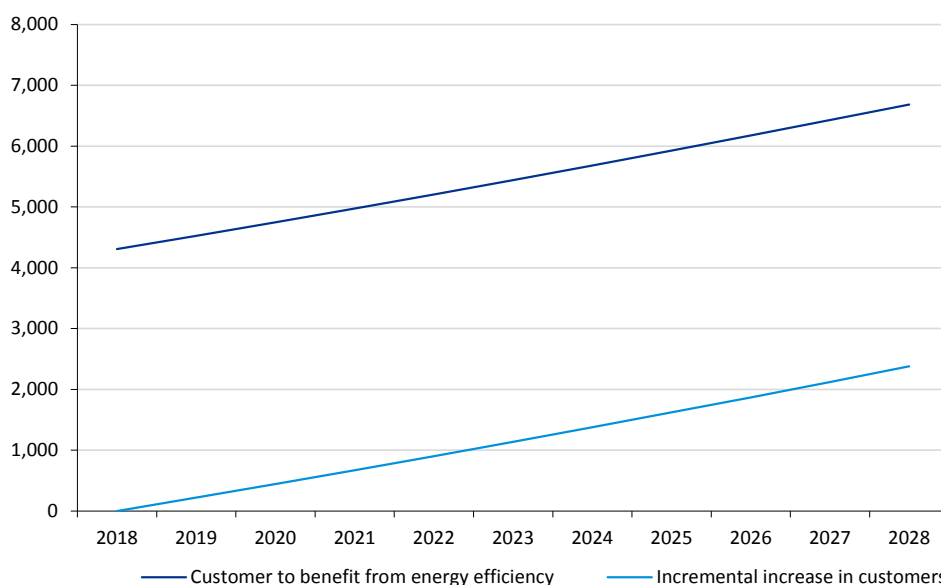
- Rebound effect:** No rebound effect has been modelled providing for an offset of the potential benefits to a residential customer over the modelling horizon.

4.4.3 Findings

Under KPMG’s base case scenario, those customers eligible and who choose to take up energy efficiency measures in managing their energy consumption are forecast to benefit on average between \$0.20m (year 1 - partial year) and \$0.94m per annum over the forecast period as shown in Figure 4-13. In total this represents a saving to customers on their energy bills of \$6.2m in NPV terms.

As per our assessment of the impacts associated with switching tariffs, KPMG note the annual savings for customers increase incrementally as new customers choose to take up energy efficiency measures in managing their electricity supply and costs. Those customers who choose this option are assumed to continue to benefit over the remaining years of the modelling period.

Figure 4-13. Scenario analysis – Annual aggregate customer savings from energy efficiency measures



Scenario analysis

Consistent with our assessment of the impacts to customers who choose to switch their tariffs, KPMG has also modelled additional scenarios in relation to the total customers who choose to take up energy efficiency measures in managing their energy supply. In particular, we have modelled two additional sensitivities where by the following number of tailored assistance customers are assumed to adopt such measures and therefore benefit from a reduction in their energy bills.

- **High:** 7.5% in Year 1 and 0.375% from Year 2 onwards; and
- **Low:** 2.5% in Year 1 and 0.125% from Year 2 onwards.

Under the high scenario, forecast annual savings for customers are to range between \$0.30m (year 1 – partial year) and \$1.4m per annum, with total savings of \$9.3m over the entire forecast period. This represents an increase in the total savings enjoyed by customers of 50% relative to KPMG’s base case. Similarly, under the low scenario, total annual savings reduce by 50% relative to the base case ranging between \$0.1m and \$0.47m per annum, or \$3.1m in NPV terms over the modelling period.

In both cases these scenarios are a direct reflection of the increase or reduction in assumed customer numbers adopting energy efficiency measures. Under the high and low sensitivities customer numbers are forecast to, on average, increase and decrease by 50% respectively.

Across these scenarios, and by the end of the modelling period, these benefits are forecast to range between \$0.38m and \$1.2m, and average between \$0.34m and \$1.0m over all years of the forecast period.

Table 4-12. Scenario analysis – Total savings from energy efficiency measures (customer uptake)

Scenario	NPV (\$m)
High - 7.5% in Yr 1 and 0.375% from Yr 2 onwards adopt energy efficiency measures	\$9.30
Base - 5% in Yr 1 and 0.25% from Yr 2 onwards adopt energy efficiency measures	\$6.20
Low - 2.5% in Yr 1 and 0.125% from Yr 2 onwards adopt energy efficiency measures	\$3.10

In addition to assessing the potential impacts associated with changes in the total customers choosing to adopt energy efficiency measures, KPMG has also assessed the impacts associated with changes in the annual benefit enjoyed by customers in the form of a reduction in their energy bills. Two additional

scenarios were modelled, a lower energy saving of \$110 per annum and higher energy saving of \$170 per annum on a customer’s bill as shown in Table 4-13. We note these sensitivities are still broadly in line with the modelling completed in assessment of the VEET scheme in 2014 and 2015.

Table 4-13. Scenario analysis – Total NPV savings from energy efficiency measures (bill impact)

Scenario	\$110 p.a.	Base (\$140p.a.)	\$170 p.a.
High - 7.5% in Yr 1 and 0.375% from Yr 2 onwards adopt energy efficiency measures	\$7.31	\$9.30	\$11.30
Base - 5% in Yr 1 and 0.25% from Yr 2 onwards adopt energy efficiency measures	\$4.87	\$6.20	\$7.53
Low - 2.5% in Yr 1 and 0.125% from Yr 2 onwards adopt energy efficiency measures	\$2.44	\$3.10	\$3.77

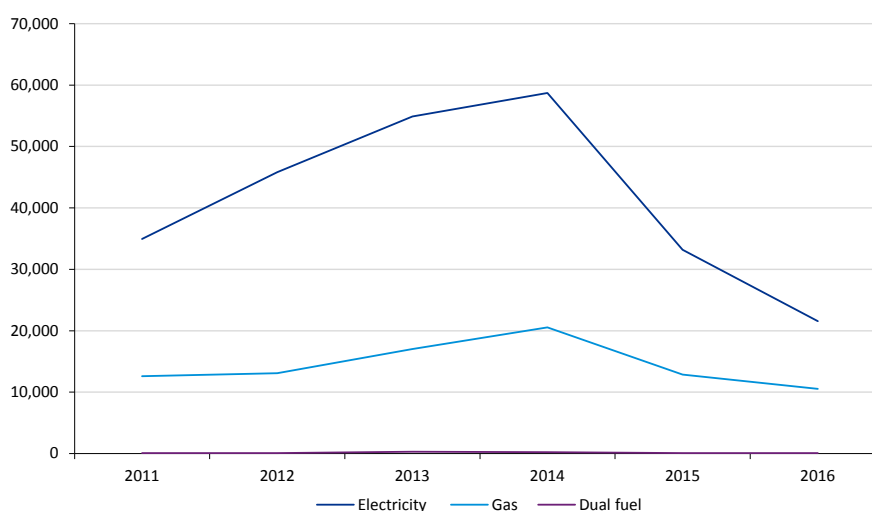
These scenarios increase the range of cost savings customers may enjoy from adopting energy efficiency measures which on average range from \$0.31m per annum under the low savings and low customer uptake scenario to \$1.4m per annum under the high savings and high customer uptake scenario. In total, the forecast reduction and increase in a customer’s bills relative to the base case corresponds to a 21% change (negative and positive respectively) in the total savings in NPV terms over the course of the modelling period regardless of the total uptake by customers of energy efficiency measures.

4.5 Impact on Ombudsman and Support Group costs

The EWOV and other support groups (including financial counsellors, not-for-profit organisations or charities) may help a customer engage with their retailer, both when customers first encounter payment difficulties and later when they may be facing disconnection. The services provided by these organisations include, but are not limited to, acting as an independent arbiter that can help resolve disputes between customers and retailers, to the provision of financial counselling services or payment of monies owing on behalf of a customer to the customer’s retailer.

The expenditure of an ombudsman or support group may be directly aligned to the total number of cases or complaints they manage in a given period. For example, in its 2016 annual report, EWOV states, *“falling case volumes meant necessary but painful decisions on staffing. This made 2015-16 a tough year operationally. We responded with a number of organisational restructures and a greater than 30% reduction in staffing levels.”*²⁷

Figure 4-14. EWOV – Customer complaints - electricity, gas and dual fuel (FY2011 – FY 2016)



²⁷ Energy and Water Ombudsman of Victoria. 2016 Annual Report.

The Commission's proposed changes to the Code incentivise customers to become more engaged in managing their electricity supply costs and the repayment of debts (including arrears) owing to their retailer. It also places an obligation on retailers to make available greater information on the assistance available in times of experiencing payment difficulties, a retailer's hardship policy and practical approaches to reducing a customer's energy costs.

These proposed amendments are likely to have a range of impacts on customers and therefore on EWOV and support groups as customers seek help in interpreting and understanding the assistance measures available to them, what rights or entitlements a customer may have when dealing with their retailer or alternatively what financial options best meet their individual circumstances.

For our evaluation, we assume that EWOV and support groups will have an initial increase in their case load in the initial years following the implementation of the PDF. While total expenditure for these organisations will reduce in later years, customers will become more engaged and therefore more aware of their energy costs and how best to manage or reduce their energy usage and identifying payment options which align to their financial capacity to pay.

While our modelling has assumed no change in the total customers receiving assistance, were the PDF to lead to an increase in the number of customers who are placed on payment plans and other payment support measures by their retailers, this may increase case volume for EWOV or support groups.

The services and level of expenditure of EWOV and other support groups may be directly measured providing that sufficient information is identified, including for example the time and effort required when handling a single customer's case, labour costs and overheads. KPMG has estimated the incremental change in EWOV and support group costs over the modelling period accounting for EWOV's total expenditure and its case load in support of those customers experiencing payment difficulties as well as estimated aggregate costs for support groups in Victoria dealing with customers experiencing payment difficulties.

4.5.1 Modelling methodology

In quantifying the impact on ombudsman and support group costs, KPMG completed the following steps:

- Step 1: Identified the total expenditure for EWOV and support groups in handling customer complaints and enquires in respect of credit related issues (including for example payment difficulties). KPMG has relied on EWOV's latest annual report and its total expenditure measured for the financial year 2015/16 as a base estimate in our assessment.

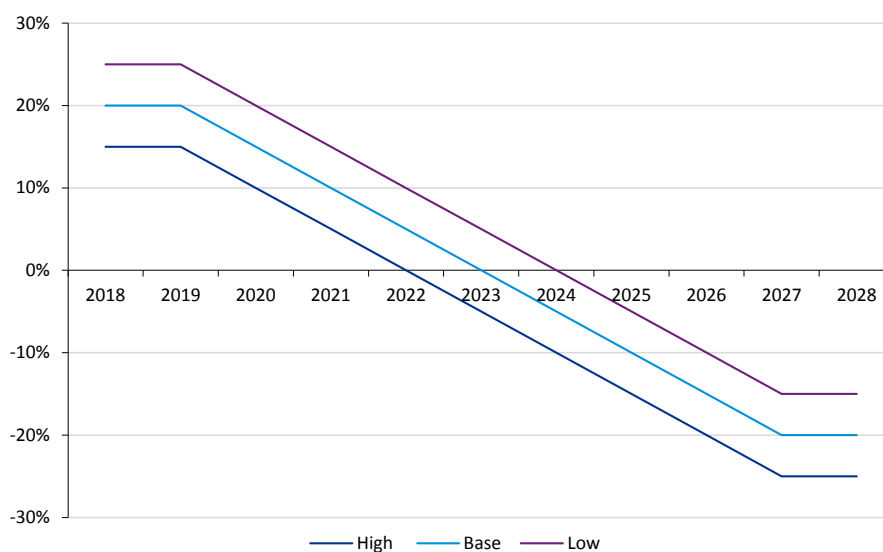
In addition to EWOV's expenditure, KPMG has added an additional estimate of the annual costs incurred by other support groups in Victoria, responsible for assisting customers experiencing payment difficulties. KPMG has reviewed estimates of these costs as reported in the Consumer Action Law Centre (CALC) August 2015 report titled *Heat or Eat*.

- Step 2: Estimated changes in total expenditure for the ombudsman and support groups relative to the base line expenditure. To do so, KPMG has assumed a percentage increase or decrease for each year of the modelling period.

KPMG has also run additional sensitivities identifying alternative, incremental changes in the expenditure from this base case. These additional sensitivities provide a range for the level of impact to an ombudsman or support group following introduction of the PDF.

- Step 3: Calculated the incremental impact on expenditure to EWOV and support groups associated with introduction of the PDF relative to current expenditure amounts.

Figure 4-15. Forecast change in expenditure – ombudsman and support groups



KPMG recognises that these proposed changes in expenditure are highly subjective given there is no way of accurately knowing the actual responses of customers to the PDF following its implementation. Instead these proposed changes are provided as a description of the potential changes in the ombudsman and support group’s expenditure.

4.5.3 Findings

Under the proposed base case scenario outlined above, the ombudsman and support groups are expected to see an increase in their total expenditure (relative to FY2016) by \$2.55m (NPV) over the first five full years of the modelling period. This is driven primarily by customers increasing their interaction with the ombudsman and support groups in the early years following adoption of the PDF. Specifically, in Year 1 the total expenditure of these organisations is forecast to increase by \$0.4m (year 1 – partial year) peaking in the first full year at \$1.2m, before falling to \$0.29m in the fourth full year. From Year 6 onwards, the ombudsman and support groups are forecast to see a reduction in their total costs equal to \$2.7m in NPV terms relative to the base case. Expenditure savings are forecast to reach as high as \$1.15m in the final year of the modelling period for these (see Figure 4-16).

Despite the presence of expenditure savings, the ombudsman and support groups are still forecast to incur a loss (in the form of higher expenditure) over the modelling horizon – equal to approximately \$0.15m.

Figure 4-17 highlights the overall impact to EWOV and support groups associated with changes in their expenditure levels following introduction of the PDF. Only under a high scenario in which the number of customers seeking assistance of any kind are assumed to fall will EWOV and/or support groups see a positive impact in the form of reduced expenditure from introduction of the PDF. This positive impact represents a reduction in the total expenditure in present value terms for these organisations of approximately \$2.2m.

Figure 4-16. Scenario analysis – Annual incremental change in ombudsman and support group expenditure

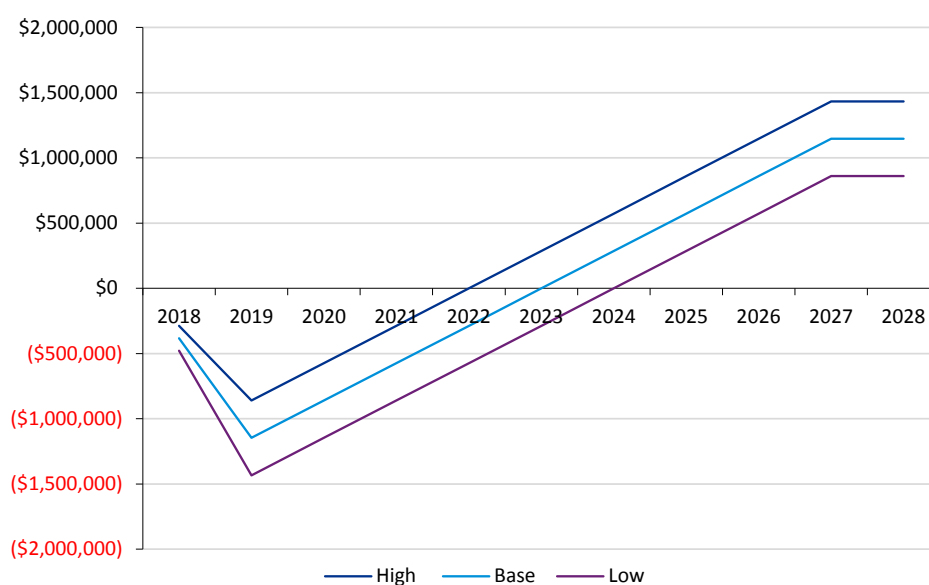


Figure 4-17. Scenario analysis – Total ombudsman and support group expenditure impacts (NPV)

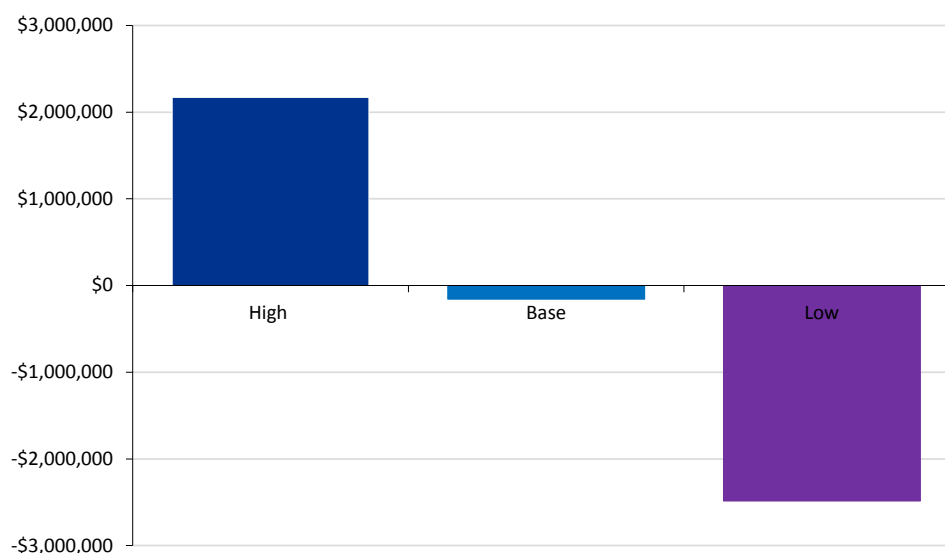


Table 4-14. Scenario analysis – Total ombudsman and support group expenditure impacts (NPV)

Scenario	NPV (\$m)
High	\$2.17
Base	-\$0.16
Low	-\$2.48

Where customers do not engage as expected with their retailer, take longer to familiarise themselves with the opportunities and benefits provided by the PDF, and ultimately require additional assistance from the ombudsman and support groups in understanding the new PDF, it is possible these organisations will not see a reduction in their expenditure until later in the modelling period. To account for this scenario, we have assumed a delay in the timing of expenditure savings until Year 7 of the forecast period under the low scenario. In this case, the ombudsman and support groups will see additional expenditure required over the modelling period of approximately \$3.9m in net present value terms.

5 Qualitative assessment of other customer impacts

This section provides a qualitative evaluation of the customer impacts for which quantitative estimates are not able to be determined.

These customer impacts are no less important than the impacts evaluated in the previous section. Over the long term, the direct financial implications associated with disconnection of a customer's energy supply are likely to exacerbate already existing, non-financial related matters for a customer. These matters are typically present at the time of disconnection and will be a contributing factor to a customer's inability to pay their bill or repay any amounts owing to their retailer.

Disconnections, or more generally difficulties in paying a bill, tend not to occur in a vacuum.²⁸ Often a customer will be experiencing both financial and non-financial pressure on many fronts (work, family and friends, accumulating bills and debts). Some customers have noted the experience to be a snowballing effect in relation to their costs and debt levels in the lead up to being disconnected.²⁹

Financial stress (or economic hardship) will have a multitude of impacts on a customer, from physical discomfort through not being able to pay their heating bills or being forced to go without food to broader mental health and relationship impacts for a customer. While these also represent costs to society that are associated with energy affordability, they tend to be difficult to estimate. For the purposes of this report, we have therefore not attempted to quantify the associated impacts to customers, however we recognise the importance such impacts may have on a customer's wellbeing (physical, mental and financial).

5.1 Impact of changes in disconnection numbers

It has been well documented that the costs to a customer of having their electricity supply disconnected by a retailer are both broad and difficult to quantify. For example, this issue was explored in the CALC report titled "Heat or Eat" (August 2015).

While the primary reason leading to disconnection will be a consumer's inability to pay a bill, often consumers will find themselves in a position where an inability to pay is exacerbated by other non-financial factors including for example, social, economic, health and wellbeing. These non-financial factors will continue to deteriorate where a consumer has his or her energy supply disconnected, further increasing the costs (and therefore impacts) of disconnection. For example this can create additional pressure on a customer to prioritise payments (or balance budgets) in order to have their energy supply reconnected leading to movement of funds away from other bills or necessities such as mortgage or rental payments or food.

Correlations may be drawn between a customer's likelihood of disconnection and their geographic location, size of household, average tenure, ownership or rental status and energy use, however each individual customer is unique. Each individual customer faces their own set of circumstances which may lead to potential disconnection. We also note that under the final decision for the PDF, the ESC will raise the minimum threshold for allowing disconnections from \$120 (excluding GST) for an outstanding bill to \$300 (inclusive of GST) in order to align with the national arrangements.

²⁸ RMIT. Strempel A, Nicholls, L, Strengers, Y. Disconnection Case Studies. April 2015.

²⁹ Ibid.

This combination of factors, both financial and non-financial, and an individual's unique characteristics means estimating the impacts to a customer of being disconnected is inherently difficult.

Developing an estimate of the customer impacts regarding potential changes in disconnections under the new PDF would require:

- Assumptions about the differences in disconnection numbers under the new framework related to financial affordability; and
- Assumptions about the customer cost of being disconnected.

We consider that it is too difficult to credibly provide assumptions for these two variables, and doing so creates a risk of developing an initial estimate of the impacts which could be misleading and misinterpreted.

In seeking to understand the financial cost to customers of being disconnected, it is necessary to understand the value they place upon being connected to energy supply and the losses incurred following disconnection.

There is no existing metric which represents the average value customers place on being connected – which will be unique to each customer's own circumstances and preferences. KPMG has explored a number of proxies which relate to how customers value their energy connection in certain cases, or which are considered to be appropriate compensation when a customer temporarily loses supply. These include:

- The daily wrongful disconnection payment that the Industry Acts require a retailer to pay to a customer who they have wrongfully disconnected – currently \$500 per day;
- The value of customer reliability (VCR) measure that is determined by the Australian Energy Market Operator, primarily to assist with asset planning – \$280 per day (electricity only);³⁰
- The Guaranteed Service Level (GSL) payments that customers are entitled to receive from their distributors in the event of unplanned outages and other service interruptions. GSL payments for unplanned outages are set on the basis of a rate of around \$6 per hour (electricity only) or \$144 per day; and
- The cost charged by a retailer to a customer for consuming electricity at their premise on a given day. To approximate this value, KPMG has relied on estimates by the AEMC of the (non-regulated) standing and market offers and the average consumption for a representative residential customer in Victoria (previously discussed in Section 4.2.1). This is approximately \$4 per day.

Each of these measures (excluding the cost of consuming electricity) has been developed for different purposes, and is therefore not directly applicable to the task of understanding the financial cost of disconnection for affected customers. In the absence of conducting a dedicated study of the average value that customers place on remaining connected to their energy supply, it is considered inappropriate to place a specific value on the average financial cost of energy disconnections.

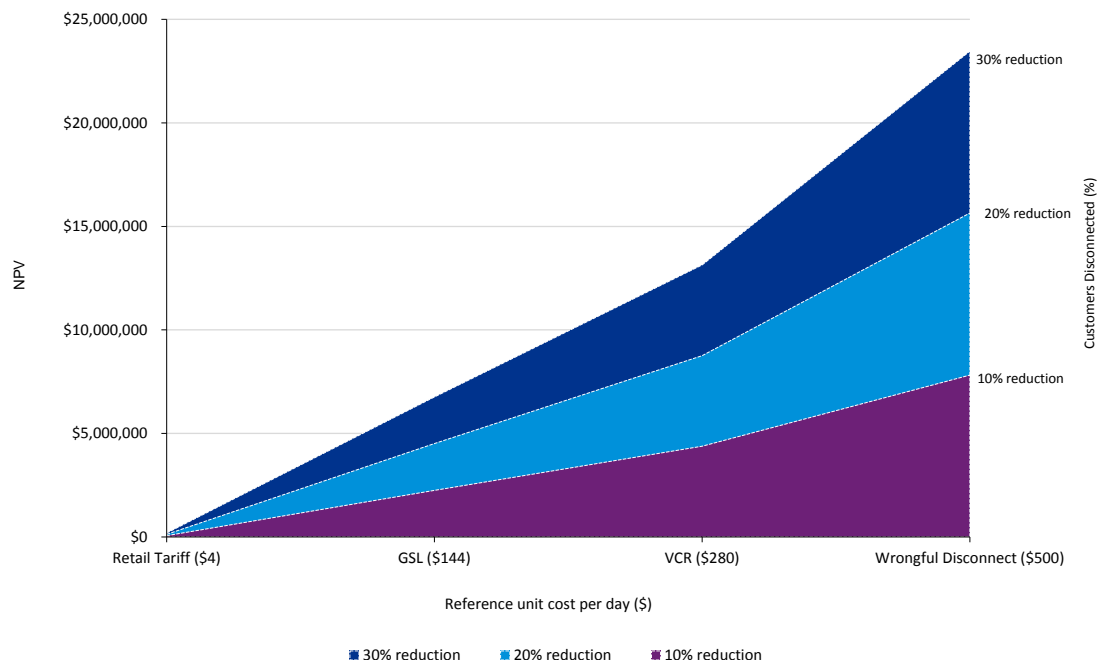
Therefore, KPMG has not presented any quantitative estimates of the customer impacts if disconnection numbers changed under the PDF. Rather, KPMG has provided sensitivity analysis on the potential aggregated impact of disconnections based on a broad range for the estimated financial cost per disconnection per day for payment difficulty of between \$4 and \$500. The purpose of this sensitivity analysis is to illustrate the potential magnitude of the impacts on customers if disconnections changed under the framework.

Figure 5-1 highlights the value range (in NPV terms) customers may place on avoiding having their energy supply disconnected by their retailer. To assess this potential range, KPMG has assumed three

³⁰ The Victorian Residential Customer VCR \$/kWh is estimated by AEMO to be \$25.30. We have calculated an approximately daily rate of \$280 based on an implied average daily consumption of 11 kWh. This is calculated from the annual average residential consumption of 4,026 kWh for representative Victorian residential customer.

different scenarios whereby the number of disconnections fall relative to our base case assumptions by 10%, 20% and 30% per annum over a forecast horizon of the modelling horizon beginning in 2018. Under all scenarios, the estimated duration of disconnection is, on average, three days.

Figure 5-1. Forecast customer savings - reduction in disconnections (2018-2027)



At a high (\$500) unit cost per day, and assuming disconnections fall between 10% and 30% the total value placed by customers is forecast to range in NPV terms between \$7.8m and \$23.4m over the modelling period, while at the lower end of the range (assuming a unit cost of \$4 per day), this value is forecast to be between \$0.06m and \$0.18m in NPV terms. These forecasts highlight a large discrepancy in the estimated value placed by customers on maintaining their energy supply under each measure and goes to show the risks in attempting to provide a specific estimate of these values.

Other potential costs associated with disconnection

In addition to losing access to value derived from being connected, a customer may incur additional fees at the time of disconnection or reconnection. These fees are set by the relevant distributor responsible for the network service area where a customer may be located. In Victoria, unlike other states across Australia, the rollout of smart meters has enabled distributors to perform electricity disconnections and reconnections remotely, vastly reducing the cost of this service.

Not all customers are likely to incur these fees, with retailers having some level of discretion over a customer’s need to pay. KPMG recognises in certain instances, for example where a disconnection was completed at the request of a retailer, the retailer may incur the fee. When a customer is reconnected, it is not clear whether the retailer passes on the cost of disconnection and/or reconnection to the customer, or whether approaches differ between retailers. Given that the treatment of disconnection and reconnection fees and specifically their recovery by a retailer is unclear, KPMG has not included these potential costs in its assessment of the impacts to customers under the PDF.

Further, having been disconnected, the duration before a customer manages to have their supply reconnected will have ramifications for the total costs incurred and therefore the value placed by a customer on avoiding disconnection. The period before reconnection will depend on any one customer’s individual circumstances and may be as short as one day or last several months. This can lead to additional costs, including for example debt service costs associated with any outstanding

payments to a retailer such as interest payments on a loan to pay off a debt or additional travel costs where a consumer is required to travel to the shops to buy (or replace) food, or travel to and use of facilities of a laundromat in order to wash clothes. Further, in order to have their electricity supply reconnected, a customer may look to move funds away from other bills or necessities such as mortgage or rental payments or food. The costs of such decisions are difficult to quantify and have not been included in the estimate.

5.2 Other customer impacts

The threat of disconnection and the value placed by customers on maintaining their energy supply are just one of the additional customer impacts which may eventuate for a customer experiencing payment difficulties. Often other impacts will manifest for a customer such as stress and related health impacts, changes in personal credit ratings and impacts on family and friends who may be assisting (or indirectly impacted by) a customer in hardship.

Such impacts are well documented in the literature discussing hardship, payment difficulties, disconnection, rising energy bills and low income families. We therefore provide below an overview of just some of the potential impacts facing customers experiencing payment difficulties and the threat of disconnection.

Health and wellbeing

Being disconnected, or even the threat of disconnection, will likely lead to high levels of stress and anxiety for a consumer.³¹ In certain cases, it has been reported a feeling of shamefulness, humiliation, hopelessness or loneliness manifests in a customer during this period.³² Often such feelings will exacerbate existing mental health issues or result in new issues for a customer and can lead to customers retracting from society, friends and family.

In addition to these mental health impacts, customers experiencing payment difficulties in meeting their energy bills may experience physical discomfort or other related issues, for example where a customer cannot afford to heat or cool a premise, maintain personal hygiene or is required to go without food or medication. In these circumstances, existing ailments may be intensified or new ailments may develop, e.g. a customer develops pneumonia as a result of having their heating cut off or being forced to conserve their heating costs.

All of these factors (mental and physical) will likely have direct impacts on a customer's long term health and wellbeing – in some instances, significantly increasing any existing health conditions (and therefore costs) already experienced by the customers.

The circumstances under which a customer encounters payment difficulties are likely to be unique to that individual, and therefore the costs and stress that they face will differ – this uniqueness in impacts makes quantifying the costs to a group of customers not possible.

Dependents and relationships

While a customer will likely incur the brunt of any stress and anxiety over not paying a bill, payment difficulties and the threat of disconnection of supply will also have direct and indirect impacts on a customer's broader family members. Issues resulting from customers experiencing times of economic hardship, and specifically difficulties in paying their energy bills, have been found to result in a various

³¹ University of Sydney. The impacts and consequences for low-income Australian households of rising energy prices. October 2013.

³² RMIT. Disconnection Case Studies. April 2015

family problems including, for example additional strain on family members as a result of having to work additional jobs to make ends meet, or having to bear additional stress and anxiety.

Further, for those dependents or family / friends who are also located at a customer's premise having their energy supply cut-off can have additional developmental impacts – for example where a child cannot complete their homework.

As with health and wellbeing impacts, the impacts on a customer's dependents and/or relationships will be very specific in relation to their own personal circumstances. These impacts are not possible to quantify at an aggregate customer group level.

Practical impacts on day to day life

Payment difficulties and threats of, or actual, disconnection of a premise can lead to a number of practical impacts for a customer or household. These impacts will be dependent on a customer's individual circumstances and while extending beyond the emotional or financial implications for a customer, they can indirectly further exacerbate these issues. Such practical impacts for a customer may include, but not limited to:

- inability to bathe or wash clothes. For customers out of work, this may have further implications for their future job prospects;
- inability to appropriately use medical or safety equipment;
- difficulties in caring for children or small infants;
- additional travel costs (e.g. taxi or petrol) for food or other amenities;
- additional spending on (and possibly wastage of) food resulting from an inability to appropriately store food at a customer's premise;
- additional spending on non-perishable items such as blankets and candles to provide heat and light; and
- a requirement to temporarily move out of their existing premise. For customers who rely on their existing premise as their place of work, this may have additional impacts through loss of income potentially leading to a worsening of a customer's financial position. This can result in additional costs where a customer is required to move into and pay for a hotel or additional rent at another location.

Changing spending patterns

For a customer experiencing payment difficulties, a customer's energy bill will consume a large portion of their income along with other, often unavoidable expenses, such as rent or mortgage repayments, telephone, food, transport or school fees.

During times of payment difficulty, a customer will often be required to make changes to their spending patterns including cut backs on specific items. In more extreme circumstances, this can result in a customer having to go without essential items. For example, a customer may be required to miss a number of meals in order to keep up with their rent (or energy bill).

Further, a customer may be required to juggle their payments as bills come in. Often customers in these circumstances are forced to prioritise payment of one bill over another. These decisions are driven by the value a customer places on maintaining access to a good or service and will fluctuate over time. For example, a customer may choose to pay their energy bill one quarter at the expense of paying their monthly telephone, prioritising continued supply of energy.

Such changes will both directly and indirectly contribute to the other impacts described above and will often be a driver in the practical impacts on day to day life. Like the other impacts described within this

section, the impacts associated with changing spending patterns will be specific to the individual customers and their personal circumstances.

5.3 Changes in customer attitudes

The new PDF could lead to improved perceptions about energy market outcomes and increased trust and confidence in retailers.

For many customers and in particular those experiencing payment difficulties understanding their energy bill and making decisions in regards to which energy offer is best aligned to their financial circumstances and pattern of energy use can be a daunting and difficult task. This can be further exacerbated where a customer is faced with multiple offers or where a customer is required to compare offers among retail providers as each retailer will present their offer slightly differently or provide additional competing benefits and discounts which need to be factored into their decisions.

Additional engagement with a retailer will provide a customer with an opportunity to better understand their energy costs and usage, providing a link between the two and therefore a pathway to managing both moving forward.

Further, where this engagement is deemed 'positive', a customer is more likely to respond in a manner that leads to improved outcomes over time. Evidence from overseas markets suggest that improved customer perceptions and media coverage of retailers leads to better customer outcomes under retail competition.

Finally, this could have a wider community benefit, for example where fewer customers require assistance and support from the ombudsman and support groups, or through improving the health and wellbeing of customers in the community reducing the impacts on other services such as health.

Appendix – Reference material

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